



## The Future of ERP

A Study on the Challenges and Opportunities of ERP Systems by 2030



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# Foreword

**Dear reader,**

Recognized as the cornerstone of modern businesses, enterprise resource planning (ERP) systems have transformed into highly unified and efficient platforms that handle business data and processes in real time. The quality and efficiency of these systems significantly impact company success.

The immense speed of technological advances in recent years and their subsequent incorporation into the business world opens the door to endless discussion and exploration for businesses today. Disruptive technologies such as artificial intelligence (AI), cloud computing, and many more are shaping the ERP systems of tomorrow, making an examination of the future of ERP more relevant than ever.

The emergence of these technologies puts us at the brink of a technological revolution set to redefine the boundaries and rules of ERP systems. By broadening our understanding of these potential developments, we provide clients with the knowledge and tools to take the wheel and steer their business toward a competitive edge, innovation, and superb efficiency.

This study looks into equipping business with the foresight to capitalize on future ERP development. From enhancing decision-making processes to improving

operational efficiency and promoting integration, businesses of all kinds stand to gain insight into the evolving landscape of ERP systems. Studying the future implications of ERP is not just necessary in today's dynamic business environment, it presents opportunity for businesses to harness their full potential.

As disruptive technologies change the world, business must keep pace with crucial technological infrastructure and anticipate the ERP system of the future.

We are delighted to present the study "The Future of ERP" by Deloitte and researchers at TUM. We would like to thank everyone who participated, and hope you enjoy reading the study. We look forward to your feedback and suggestions.



*Andreas Trinkl*

**Andreas Trinkl**  
Partner  
Deloitte



*Gunther Friedl*

**Prof. Dr. Gunther Friedl**  
Dean  
TUM School of Management

# Introduction

Enterprise resource planning (ERP) systems have become highly optimized software applications that manage various company resources, operations, and data to improve productivity and efficiency. They seamlessly integrate functional areas into a cohesive platform to enable accurate, real-time data flow across functional areas. Disruptive technologies have us on the verge of a technological revolution as the landscape of enterprise resource management continues to evolve. Advances in artificial intelligence (AI), cloud computing, and data security are redefining the rules and parameters of ERP systems.

Deloitte has previously conducted a study on the Future of the Intelligent Enterprise to 2035, with hypotheses and strategic options considered universal across various future scenarios<sup>1</sup>. One of the study's main hypotheses on potential game changers for businesses concerns intelligent enterprise platforms which will enable companies to integrate and orchestrate data, processes, and resources across multiple systems. Moreover, agility, adaptability, and data-driven decision making are essential for responding to changing market conditions. Innovative partnerships, open ecosystems for collaboration, and a focus on cybersecurity should be top priorities to ensure security in this changing environment.

These findings are broken down into specific ERP contexts. This study also considers a time frame up to 2030 for near-future developments.

We explore the trajectory of ERP systems by 2030 and discern the implications for modern businesses by drawing upon a three-tiered research methodology.

We started by dissecting a broad spectrum of existing scientific literature to gain thorough insight into our principal research question. Focusing on our mission objectives, we crafted a comprehensive survey aimed at a diverse audience of stakeholders. More than 200 participants, composed of decision-makers, users, consultants, and students, shed light on the future of ERP systems up to 2030. Their perspectives provide valuable insight into new opportunities and challenges that hint at a promising future. This allowed us to probe the current ERP landscape and predict its future contours through the diverse lens of the stakeholders.

Finally, we conducted in-depth interviews with subject matter experts (C-level and academics) from various industries to deepen our understanding. AI's quality and informative value has improved greatly, so we have included the "opinions" of 3 AI chat bots (ChatGPT, Gemini, Luminous) in this study. In summary, our study explores the flux within the traditional ERP landscape in the face of rapid technological advances. It aims to guide businesses on the promising yet ambiguous road ahead. As we venture deeper into this unprecedented era of digital reformation, our study's insights become ever more indispensable.



# Methodology

This study combines existing scientific literature, a comprehensive quantitative survey, and qualitative expert interviews to predict the future of ERP systems.

We examine current literature to derive hypotheses on future developments in ERP systems. In expert rounds from Deloitte and TUM, we identify and prioritize the most important hypotheses on future ERP systems, validating them via a survey and expert interviews. These hypotheses include:

- AI-driven ERP will support decision making.
- The new generation of ERP systems will be cloud-only.
- ERP systems will be interconnected between organizations.

By evaluating different ERP stakeholder groups, we provide insight into the expected impact of emerging technologies and their ERP scenarios. Our findings are discussed and enhanced by interviews from a research perspective with C-level experts from the industry and renowned academics. We conduct the same interviews with three different AIs (ChatGPT, Gemini, Luminous) and compare the results with each other.

Starting with a scientific literature review, we identify the 250 most important papers on the future development and prospects of ERP systems. We allocate these 250 papers to eight research clusters and compare these research clusters to insights from ERP vendors, ensuring full consideration of all relevant ERP topics. The next step involves several expert rounds in which we rank the importance of the research clusters and derive 50 hypotheses from the underlying papers. In a final expert round, we transform the 50 hypotheses into 18 survey questions. For instance, the hypothesis “AI will enhance enterprise processes by integrating unstructured data” is turned into the survey question: “To what extent will enterprise processes be enhanced by AI integrating unstructured data (image, video, audio, other files) into the ERP system?”.

To gain a deeper understanding of future perspectives on ERP systems, we identify two user groups – direct and indirect (future) users. We further divide the direct users into business users and decision-makers to take hierarchical structures into account. From the indirect users we collect student opinions to incorporate insights from future users and survey

results from consultants, since they contribute up-to-date business insights. Respondent demographic profile varied in terms of participant age, years of ERP experience, ERP solutions in usage and, if applicable, the number of employees. This information helps to evaluate and understand our observations of the survey. In total, 241 people responded to the survey.

**Fig. 1 – Study Future of ERP – Methodology**  
From literature review to survey questions

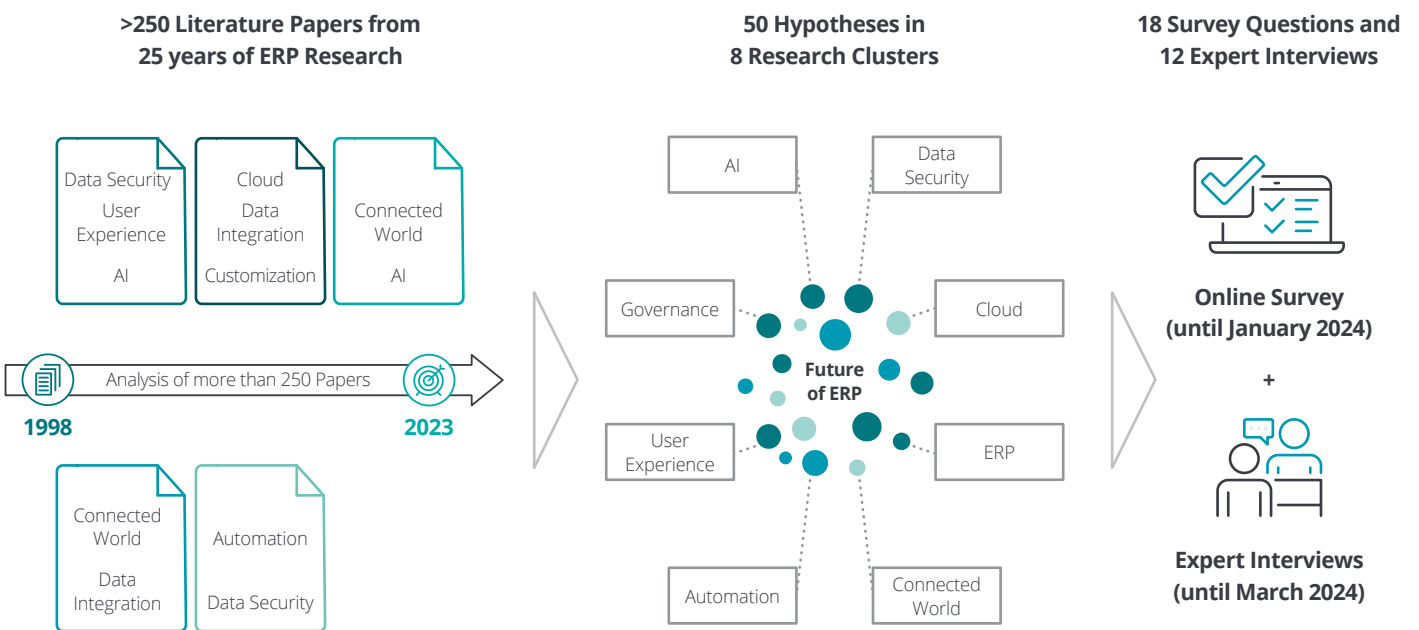
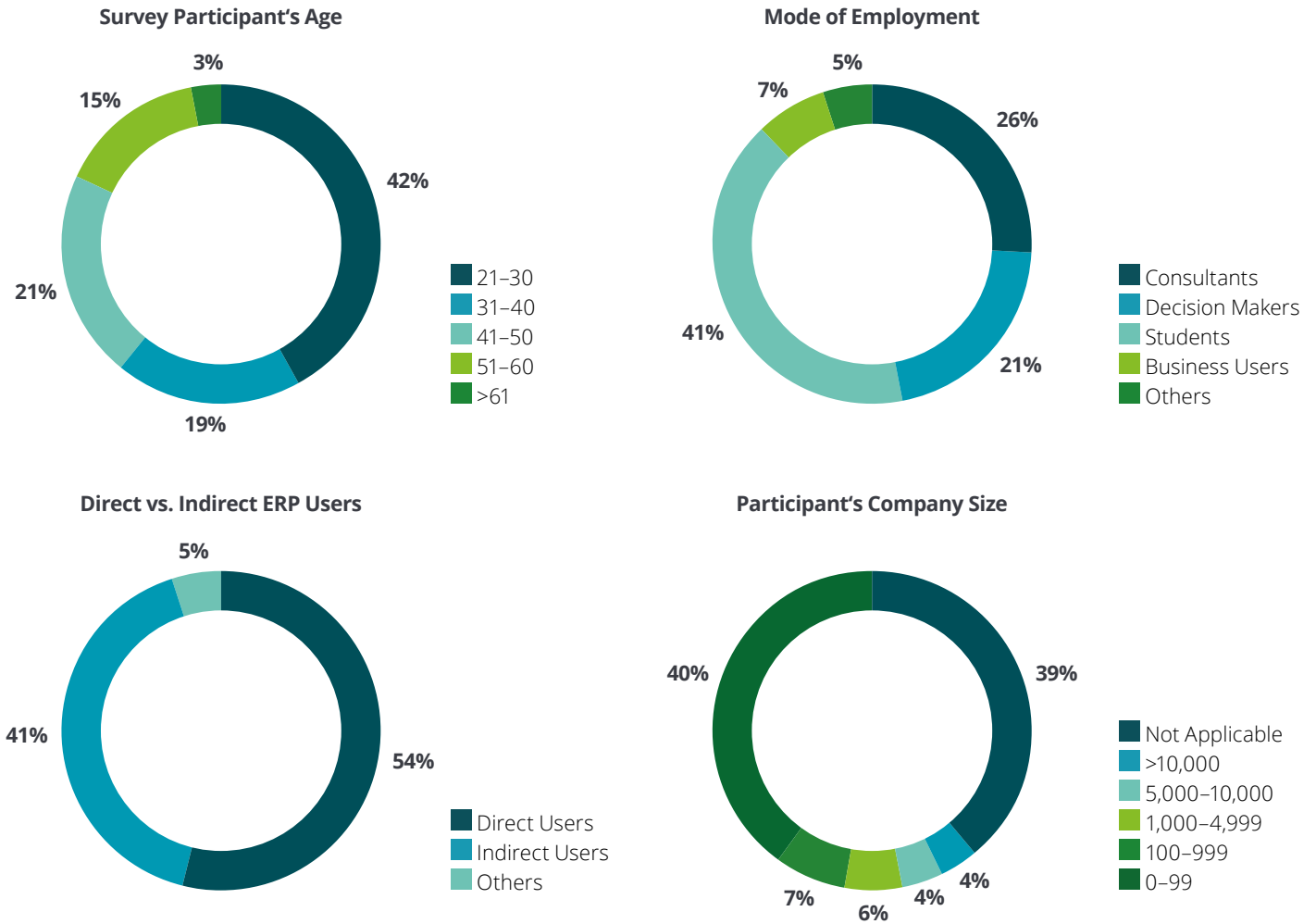




Fig. 2 – Survey Demographics



To strengthen and enrich our survey results with qualitative knowledge, we interviewed 12 experts from research and practice. Interviewees from the latter group are at the top level of management. The interview questions are derived from the survey and adjusted to the respective

expert domain. In addition to human interviewees, our data collection is enriched by interviews with selected generative AI chatbots in order to incorporate the technology itself into the discussion of its emerging capabilities within ERP.

# Main Insights

## Forecasting the Future of ERP 2030 2030 is a critical landmark for the future of ERP

Organizations today face significant and very fast change. The year 2030 is already anticipated to be a critical landmark.

Software vendors such as SAP and Oracle are shifting towards a new standard of ERP systems in the cloud. At the same time, emerging technologies such as AI are transforming ERP. Hyperscalers such as AWS and Google also offer cloud-based solutions for ERP systems. Enterprises must take all this into consideration to make informed decisions for their digital strategy.

We can assert with certainty that ERP systems will still exist by 2030, and they will transform the world of work and interaction among businesses. Several elements will be key to this evolution, including technology, regulations, and the education of future leaders. The following 12 chapters explore each in detail.

“By 2030, modern ERP systems will be an essential competitive advantage. They will radically change the business world as we know it today.”

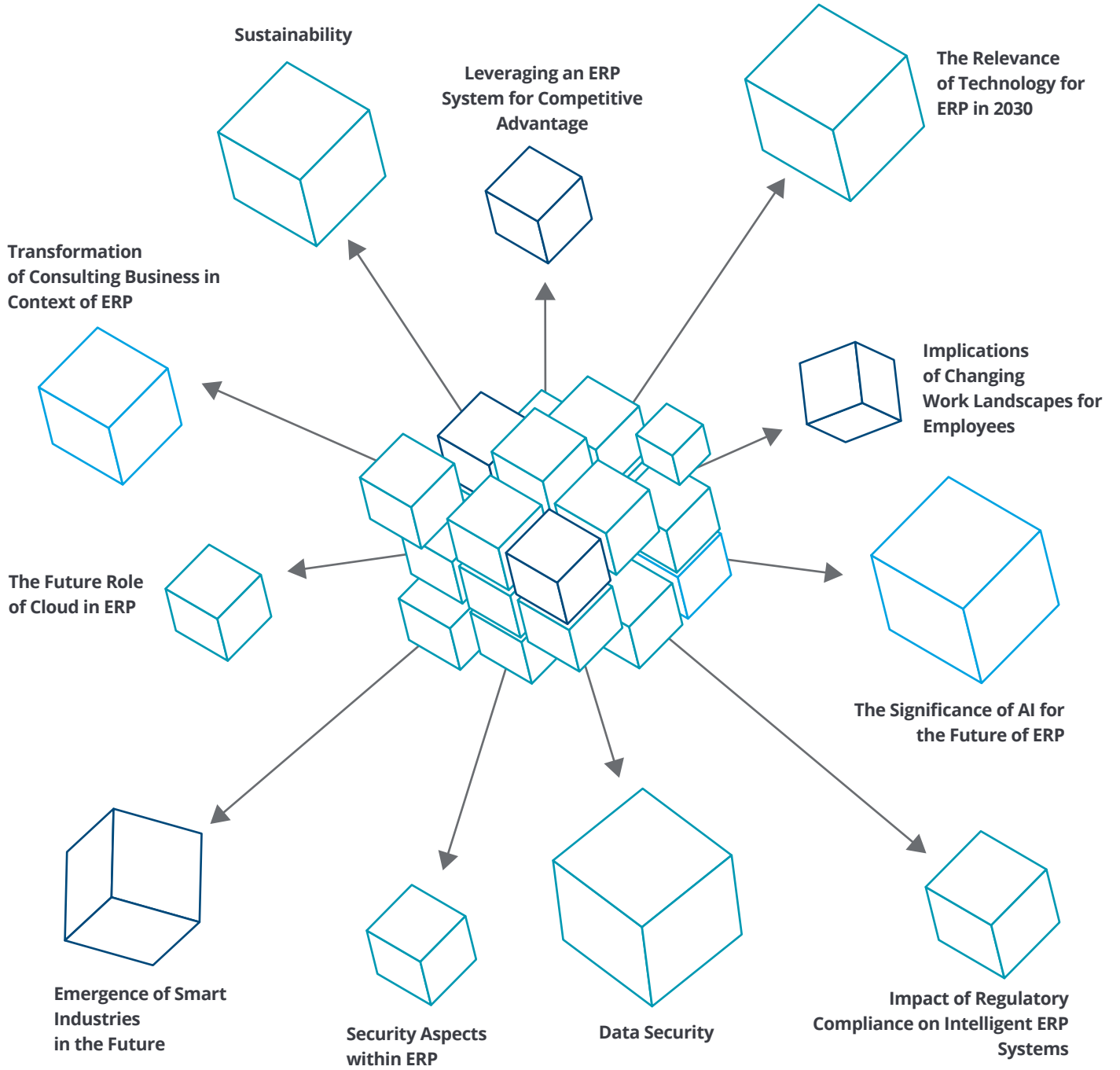


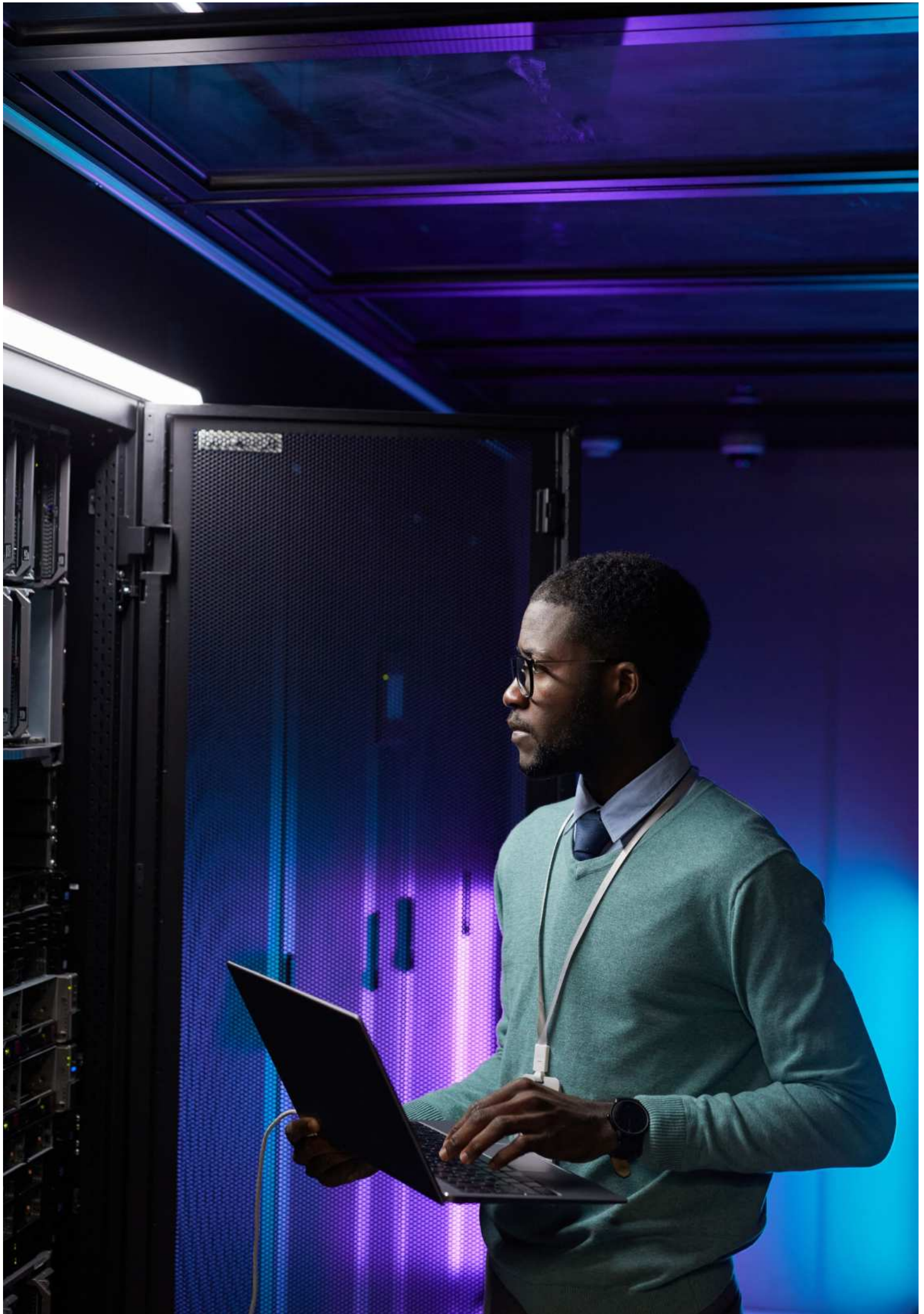
**Nicolai Andersen**

Managing Partner Consulting  
Deloitte



Fig. 3 – Factors in the Future of ERP





**Leveraging an ERP System for Competitive Advantage**

**ERP systems are not just a necessity; they are becoming a competitive advantage**

Our research findings and insights from expert interviews suggest a paradigm shift in the perception of ERP systems within business operations. No longer just mandatory infrastructure to manage business processes, they are increasingly recognized as a source of competitive advantage. Organizations deploying effective ERP systems can use new forms of data, streamlined processes, and emerging technologies to stay ahead. The ability to leverage such systems could soon differentiate the market leaders from the rest, emphasizing the strategic value of investing in robust and innovative ERP solutions.

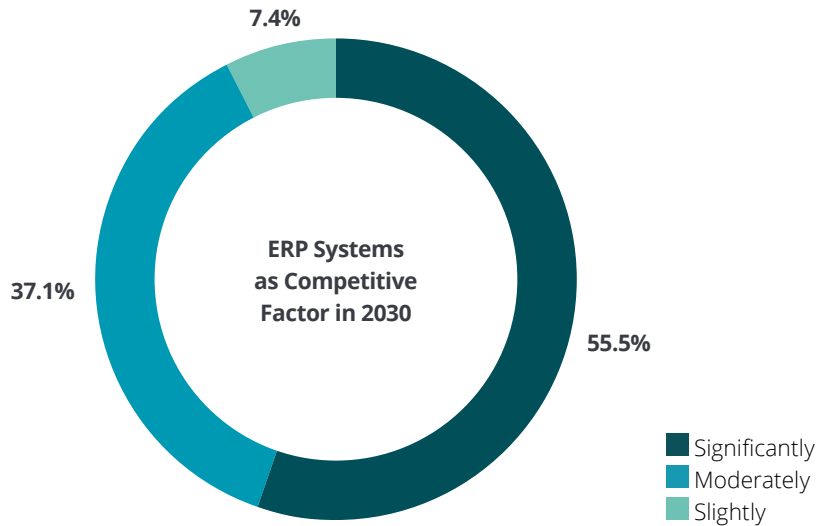
It's important to note, however, that while an ERP system can provide competitive advantage, simply having an ERP system isn't enough. The difference lies in how well it is implemented and used. Companies benefit most from their ERP systems by integrating them thoroughly into their operations and updating and refining them on an ongoing basis.

“ERP is changing from a system of record to an interactive, intelligent platform that is flexible and enables companies to react quickly to a constantly changing market and to competitive conditions and regulations, giving them a leg up.”



**Jan Gilg**  
 President and Chief Product  
 Officer Cloud ERP  
 SAP SE

**Fig. 4 - To what degree will intelligent ERP systems be a decisive competitive factor by 2030?**

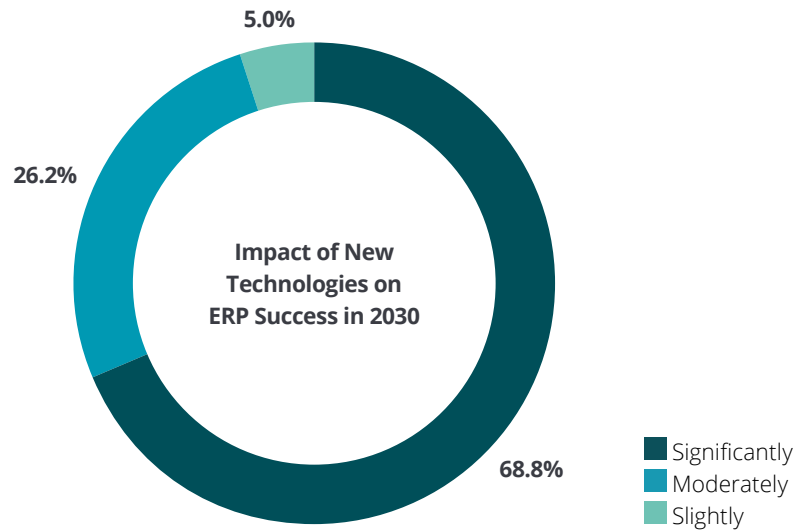


**The Relevance of Technology to ERP**  
**ERP systems must adapt to future technologies**

Every modern enterprise uses technology or is at least highly influenced by technology. Rapid technological advancement continues to impact various areas of business operations, not least of which the ERP system. It is crucial to understand which emerging technologies are perceived as relevant to today's users and business leaders, and what they expect the future to bring.

Our study affirms broad consensus on enhancing ERP systems with cutting-edge technologies such as AI, cloud computing, and strengthened data security, all expected to dominate by 2030. Survey responses and expert insights converge on the criticality of intelligent ERP systems for future competitive advantage, highlighting the significance of robotic process automation, data integration, and sustainability. But there is less agreement on the relevance of blockchain, IoT, and mobile ERP. Notably, seasoned ERP users prioritize governance, while the younger demographic considers intercompany data integration imperative to meeting user expectations.

**Fig. 5 - How relevant is the transformation of ERP systems from new technologies (Cloud, AI, RPA) for company success by 2030?**

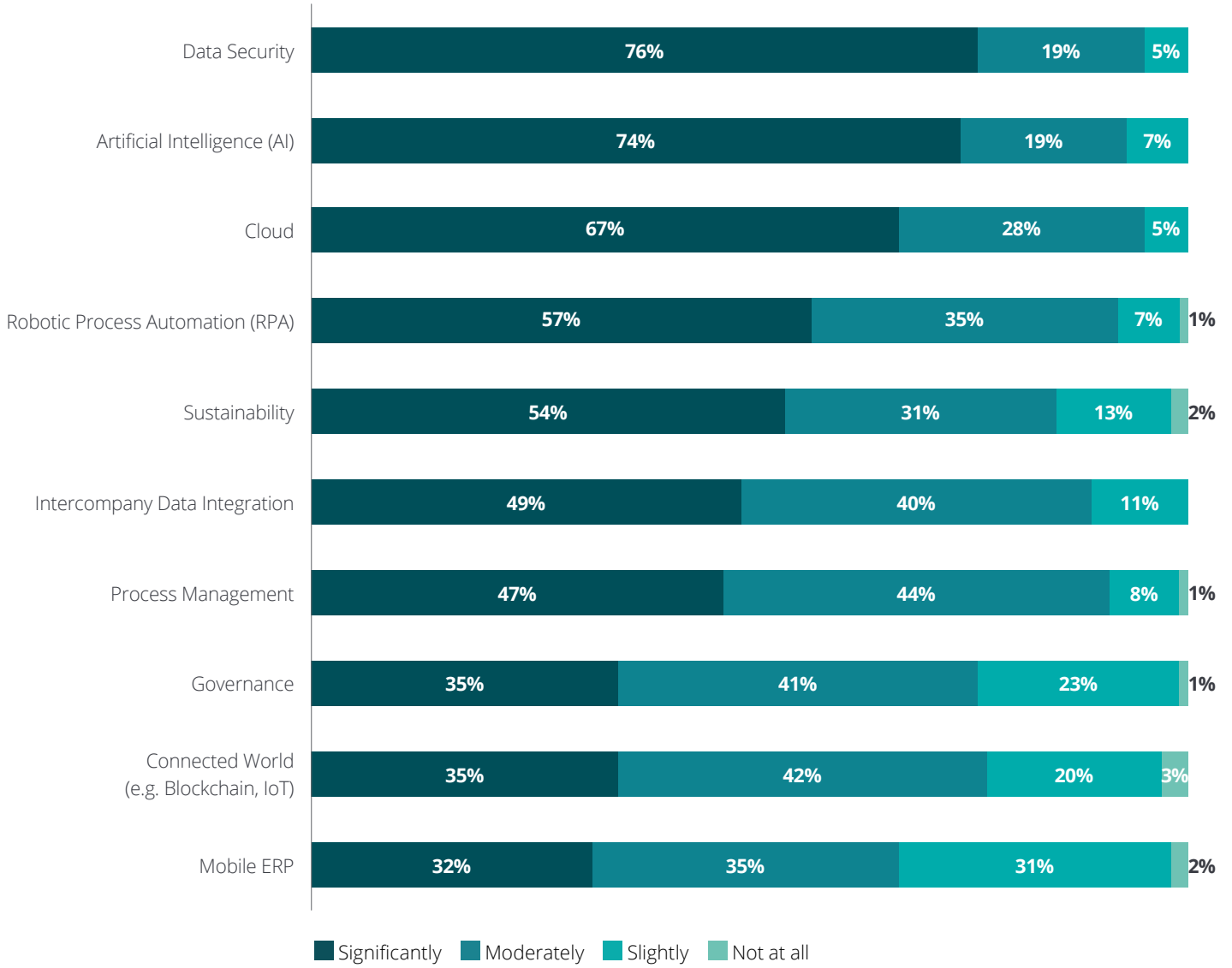


“Customers are using AWS AI/ML services and RISE with SAP to transform their business processes and customer experiences. Over the next 5 years, this impact will ramp up, but make no mistake – AI is already impacting every part of the value chain.”



**Matthew Schwartz**  
Global Head of AWS SAP Alliance and  
Partner Network  
Amazon Web Services, Inc.

**Fig. 6 – How relevant will each of the following become for ERP systems by 2030?**



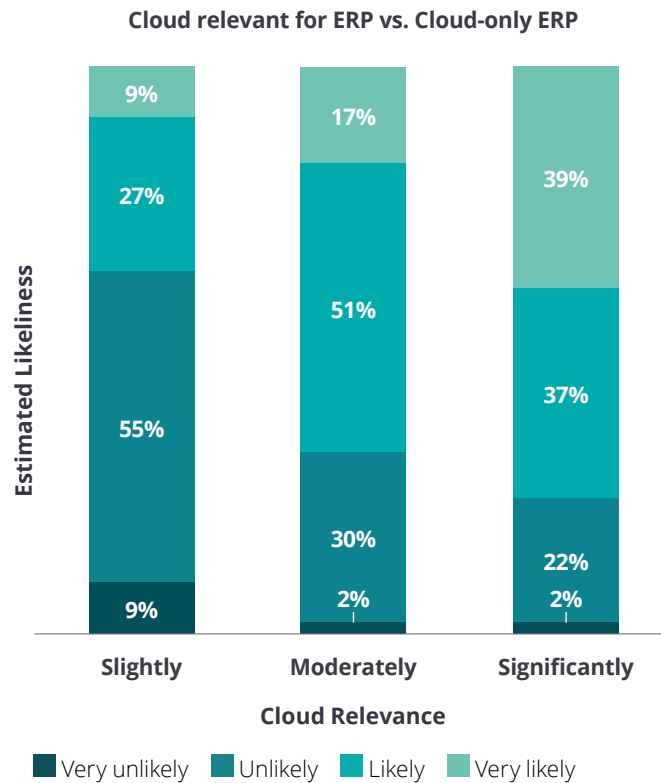
**The Future Role of the Cloud in ERP**  
**Cloud-only solutions ahead**

Cloud technology has revolutionized various sectors of the business world, and ERP systems are no exception. The move towards cloud-based solutions is hailed for its potential benefits, including scalability, cost-efficiency, and easy access. ERP systems are instrumental in streamlining business processes, and their transition to the cloud is perceived as a significant step forward.

Most survey participants believe that ERP systems will be cloud-only by 2030, with almost half considering it very likely. When compared to participant ERP experience, those with greater ERP experience tend to believe more strongly in cloud-only solutions. At the same time, there is a minority that sees cloud-only as unlikely; yet this minority still thinks that the cloud, in general, is highly relevant to ERP systems. These findings suggest that all participants agree on the importance of the cloud.

Participants who use cloud technologies on the job predict a higher probability of cloud-only solutions in the future. Younger participants tend to be less optimistic about the impact of future technology than experienced users, and must not be disregarded since these are the opinions of future business leaders.

**Fig. 7 – How relevant will the cloud become for ERP systems by 2030 and how likely is it that the next generation of ERP systems will be cloud only by then?**



“Although latency times are getting shorter, they remain important for our ERP business model. In the cloud, we as GEMA can scale better and are more flexible. This means we can better control our systems and therefore also our costs.”



**Dr. Markus Grimm**

CIO  
 Gesellschaft für musikalische Aufführungs-  
 und mechanische Vervielfältigungsrechte  
 (GEMA)



“No cloud, no progress.”

**Nicolai Andersen, Managing Partner Consulting,  
Deloitte**

“I am convinced that on-premise  
technology will only play a niche role  
by 2030.”

**Jan Gilg, President and Chief Product Officer  
Cloud ERP, SAP SE**

“If you don't go to the cloud,  
you don't get innovation”



**Katie Tyler**  
Offering Leader SAP Global  
Deloitte



### The Significance of AI to the Future of ERP

#### AI is expected to uncover business opportunities, simplify ERP implementation, and may even make artificial decisions.

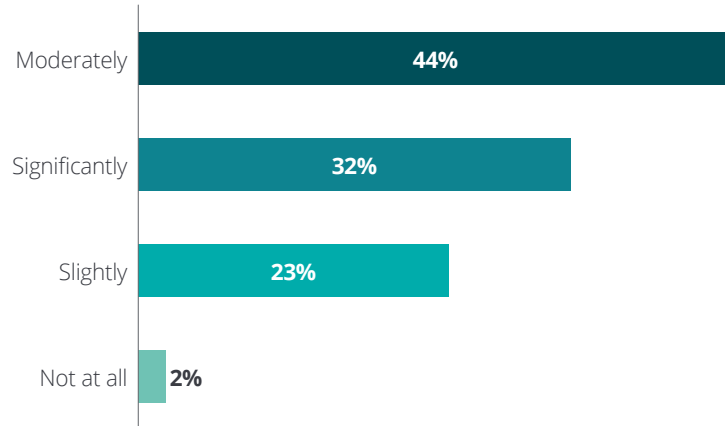
The integration of AI into ERP systems is expected to bring about significant transformation. AI's potential capabilities, from identifying business opportunities to acting as an autonomous decision-maker, could redefine ERP system implementation, functioning, and impact.

We have derived interesting insights from the opinions of different participant groups in our survey on the future of ERP. Although participants agree that AI will be highly relevant to the future of ERP, they are uncertain how and where it will enhance ERP systems. Almost all participants expect AI systems to automate implementation activities for ERP systems by 2030 to some degree (configuration, development). Business users are the most confident group, and students the least confident.

In addition to the implementation process, we asked participants about the decision-making capabilities of future ERP systems. Business users are the most optimistic group; others have only slight or moderate confidence in AI's decision-making quality/capability. Possible explanations for the divergence in AI decision making could be hands-on experience with ERP systems, theoretical and practical knowledge of AI capabilities, and ethical questions behind its usage.

Fig. 8 - To what degree will AI systems automate implementation activities (such as configuration, development, etc.) for ERP systems by 2030?

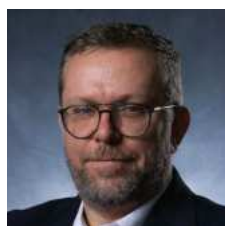
#### AI-Support of ERP Implementation Activities





Inexperienced users may fear issues of responsibility associated with decisions made by AI, while experienced users may have already defined responsibilities for automated decision making. Indeed, participants who say they use AI on the job are more confident of AI's decision making. This supports the hypothesis that use may increase confidence.

“The creation of machine learning models for various solutions will also be bolstered by AI capabilities. The advent of self-healing processes through machine learning is on the horizon, though not fully realized yet. (...) In essence, AI is destined to become omnipresent.”



**Mihai Faur**  
CIO  
UiPath, Inc.

Even when participants have only slight or moderate confidence in AI-based decisions within ERP, most see AI as a highly relevant topic for future ERP systems.

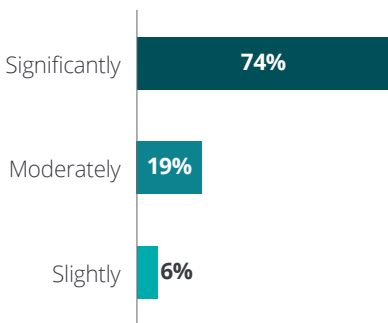
**Fig. 9 – How relevant will AI become for ERP systems by 2030 and how much confidence would you have in decisions generated by AI?**

**AI decision making**

AI is considered to be a relevant topic for the future of ERP. However, this topic is controversial among different participant groups. Students are not confident in the decision making of AI. However, business users are more confident in AI's decision making.

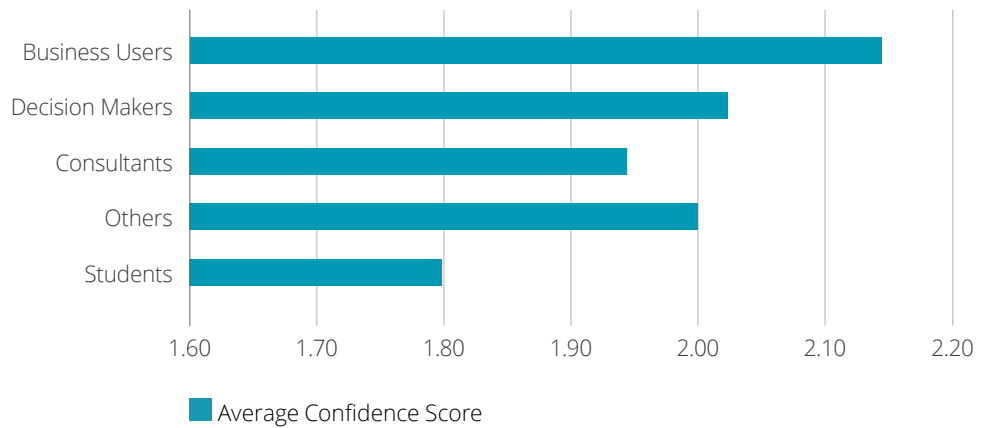
**General Relevance of AI in ERP**

All Participants



**Confidence in AI based decision making**

Weighted Average Scores per Group<sup>1</sup>



“I feel there is openness towards using AI for decision making, but there are still ethical questions that need to be answered. Who is responsible for decisions generated by AI?”



**Prof. Dr. Burkhard Pedell**  
Holder of the Chair of Management Accounting and Control  
University of Stuttgart

“I think what holds AI back are potential mistakes in combination with lack of experience. We need practice to build trust.”

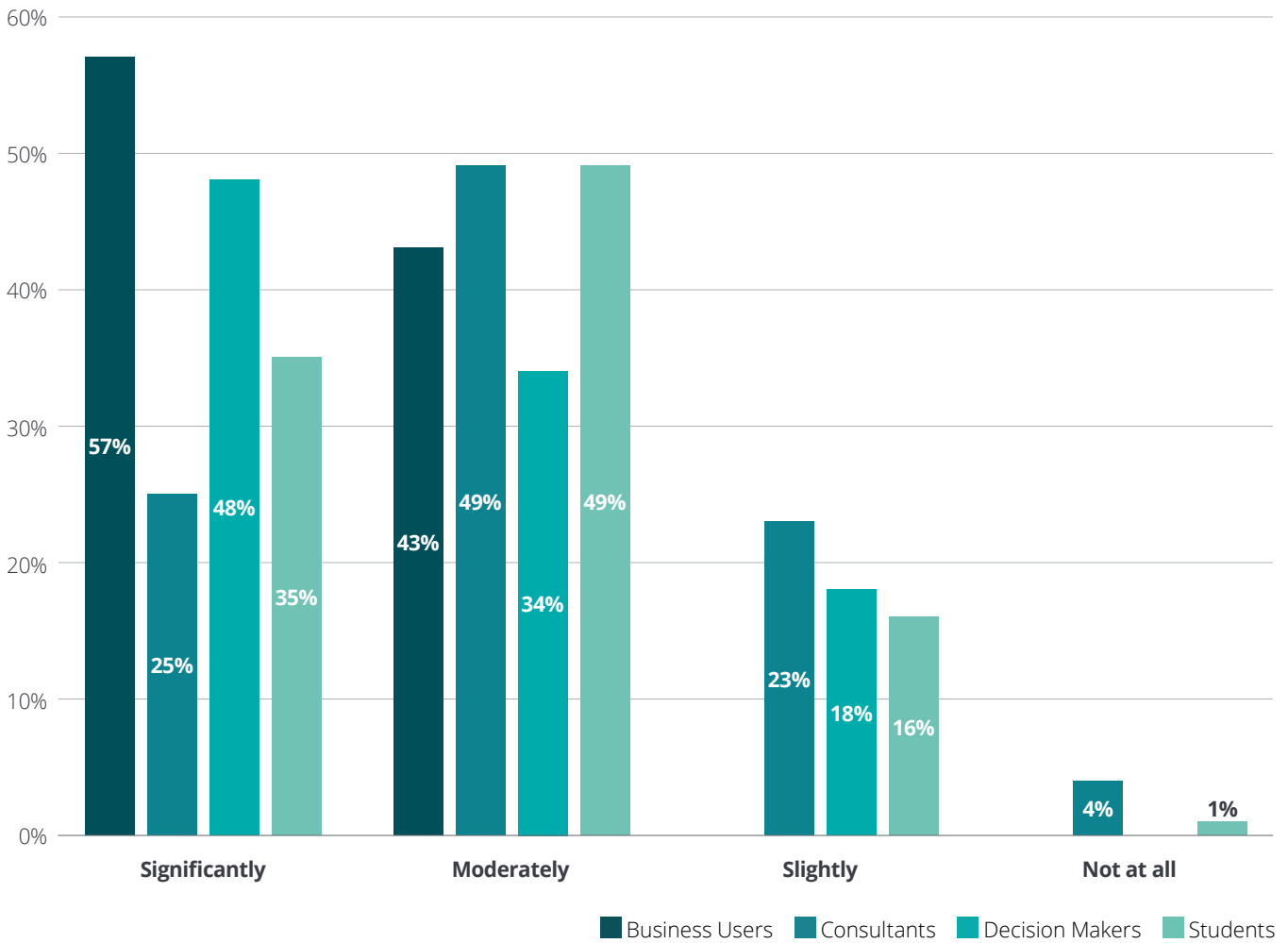


**Lorenzo Colombini**  
CFO  
Gesellschaft für musikalische Aufführungs- und mechanische Vervielfältigungsrechte (GEMA)

<sup>1</sup> Scores are calculated by category (significantly: 3, moderately: 2, slightly: 1, not at all: 0) and averaged on size of participant group. As part of the study, we asked over 200 participants, including decision-makers, business users, consultants and students, about the future of ERP up to the year 2030.

**Fig. 10 – To what extent will predictive AI capabilities woven into ERP systems help uncover business opportunities?**

When it comes to uncovering business opportunities, most participants, and in particular business users and decision-makers, believe that predictive AI capabilities woven into ERP systems will help uncover business opportunities.



While confident about the implementation process, decision making, and uncovering business opportunities, business users also believe in AI's capability to integrate unstructured data (image, video, audio, and other files) into ERP systems. Nearly 80% of the participants agree, at least moderately, that enterprise processes will be enhanced by AI integrating unstructured data.

Our overall results suggest that participants expect AI to be established in ERP systems, especially to enhance and shorten the implementation process. Moreover, users expect AI's capability to uncover business opportunities to be added to the ERP system toolbox.

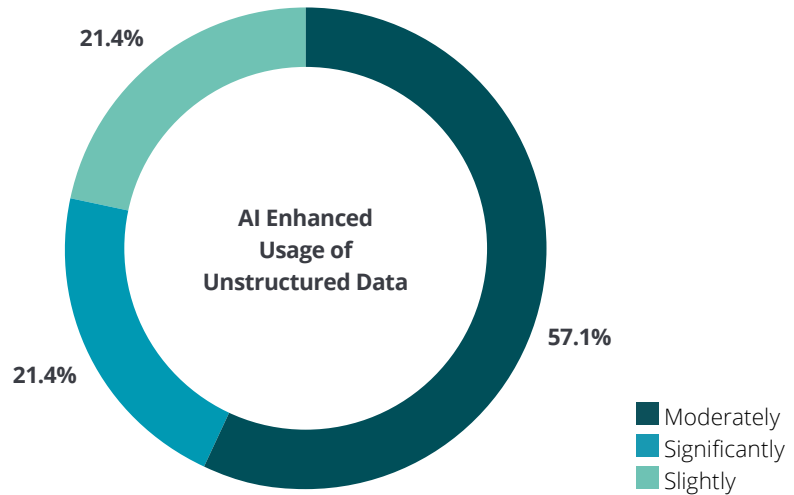
In conclusion, we find that direct ERP users generally have higher expectations for the potential of AI in ERP systems than other groups. Regardless of the future capabilities of such systems, there will be a need for a human-in-the-loop approach, as Dr. Gunther Friedl, Dean of the TUM School of Management, explains:

“Greater experience with ERP systems helps evaluate and confirm the data produced by AI. There should always be a human interface to decrease possible bias.”



**Prof. Dr. Gunther Friedl**  
Dean  
TUM School of Management

**Fig. 11 – To what extent will enterprise processes be enhanced by AI integrating unstructured data (image, video, audio, other files) into the ERP system? Filtered by business users**



It is vital for enterprises to adopt AI into their processes and build know-how, i.e., train their employees on using this technology, build trust, and clarify the ethical issues associated with the automation and artificial decision making of an ERP system.

“The vision is to build solutions tailored for the offices of the CFO and CIO. The future landscape may witness the emergence of platforms allowing business users to design automations, bridging the gap between business and IT. In this envisioned future, IT professionals will become well-versed in business operations, and collaborative entities, such as the Center of Excellence, will play a pivotal role.”

**Mihai Faur, CIO, UiPath, Inc.**



### Data Security Aspects of ERP

#### Data security is the basis of trust in future ERP systems

Data security refers to the measures and protocols implemented to safeguard sensitive business information in ERP systems. ERP systems manage and integrate various business processes and contain a wealth of information, including transaction data and the personal details of customers and employees. Ensuring the security of this information is paramount, not just for legal compliance but for business integrity and customer trust. Effective data security in ERP systems safeguards against unauthorized access, data breaches and loss, and

ensures that information remains confidential, integral, and available when needed. This aspect of ERP management is becoming more important as businesses incorporate more advanced technology and digital practices into their operations.

Data security is seen as relevant to cloud-based solutions. When directly asked about cloud-based solutions, about half of participants expected data security benefits. A minority expects only small benefits. Current users (business users and decision-makers) rate data security less important than consultants and students.

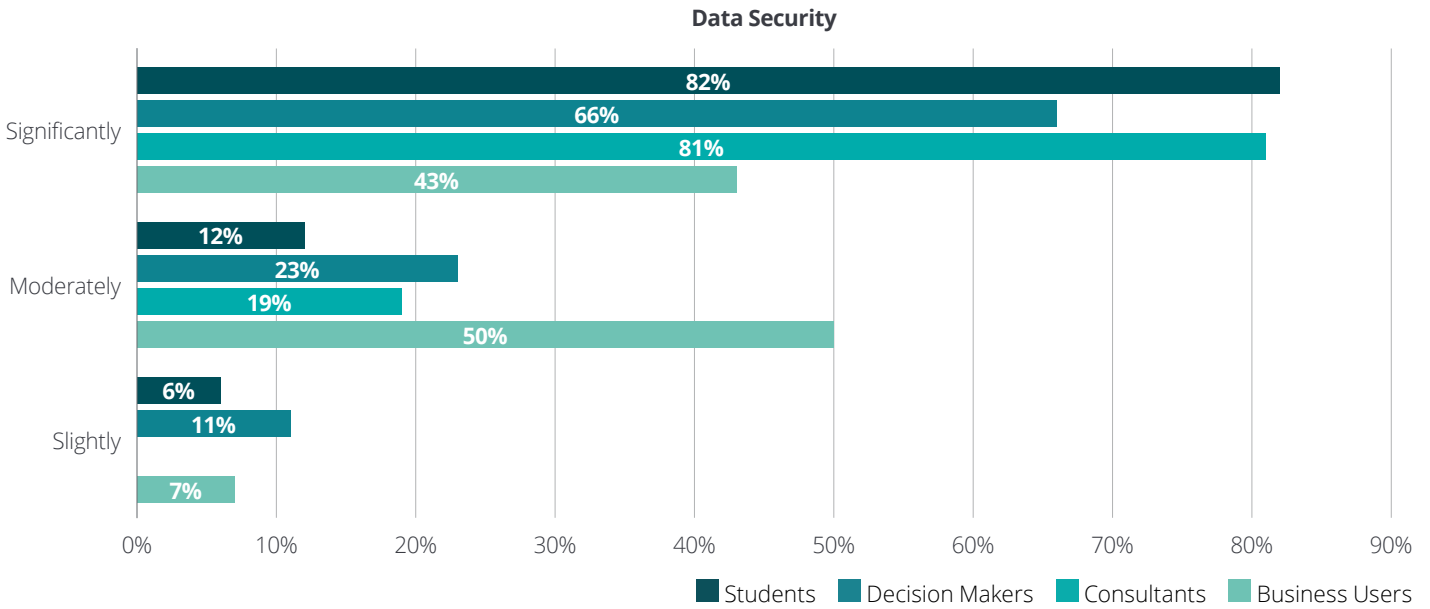
“The question for the future of data security is how to simplify it. How do you minimize impact on business processes while providing a high frequency of automated security patches, without jeopardizing business processes?”



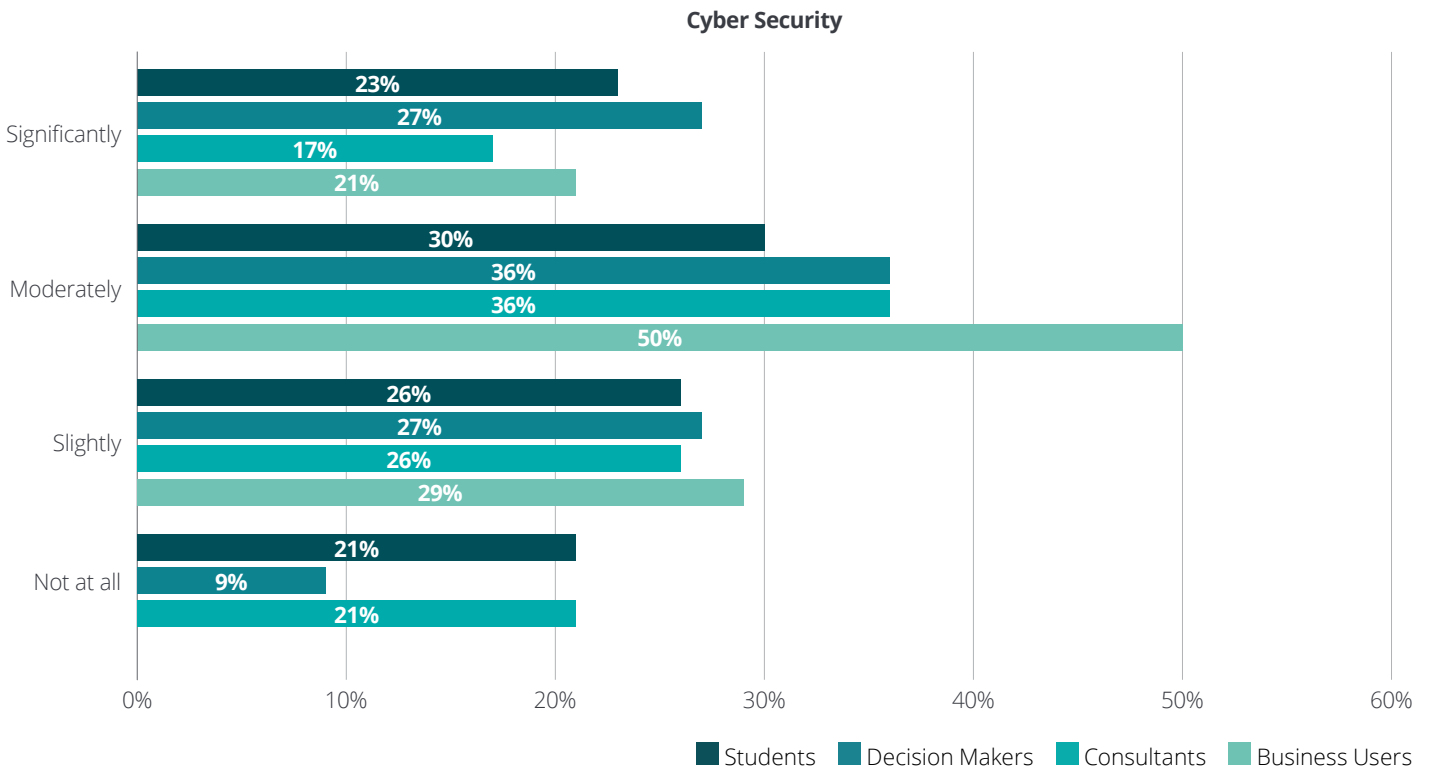
**Marc Herzig**  
CIO  
K+S AG



**Fig. 12 - How relevant will data security become for ERP systems by 2030?**



**Fig. 13 - Compared with on-premise ERP systems, cloud-based ERP systems provide data security advantages.**



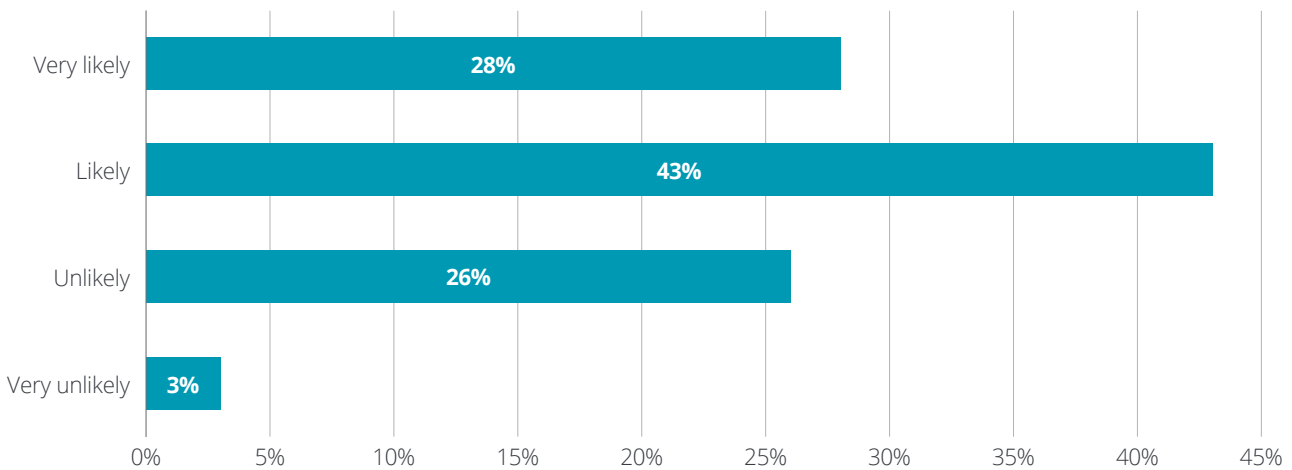
**The Emergence of Smart Industries**  
**Interconnected ERP systems are the basis for smart industries**

In the ever-evolving industry landscape, smart technologies are revolutionizing traditional manufacturing and production processes. Smart industries, characterized by the integration of advanced technology, are paving the way for increased efficiency, productivity, and competitiveness. At the heart of this transformation lie ERP systems, which play a crucial role in orchestrating the various components of smart industries. ERP systems act as a central hub, integrating data from different facets and even from companies, and providing

real-time insights for informed decision making. As smart industries continue to evolve, the role of ERP systems will only become more relevant, driving innovation, agility, and sustainable growth in the years to come.

Almost three out of four survey participants believe that ERP systems will be interconnected across companies, allowing for “intelligent industries”. Especially in business users’ opinion, cross-company ERP systems will be able to communicate with each other to exchange information and increase efficiency.

**Fig. 14 – How likely is it that ERP systems will be interconnected across companies by 2030 (Intelligent Industries)?**



“I think smart industries will only succeed if we agree on standards and commit to using them.”

**Marc Herzig, CIO, K+S AG**

Intelligent ERP systems are crucial to the smart industries of the future because they help companies overcome the challenges of modern industry and take advantage of opportunities for growth and innovation. By integrating technologies, optimizing processes, providing flexibility and scalability, and promoting data-driven decisions, intelligent ERP systems contribute significantly to the success of smart industries.

“ERP Systems have to cope with the dilemma of ‘Glocalization’: on the one hand support global standardized end-to-end business processes on the other hand provide country und customer specific individual solutions.”



**Stephan Bode**

Offering Leader SAP Germany  
Deloitte

“I personally believe in networks and ecosystems. I don’t think that companies can operate anywhere on their own anymore, only as part of an ecosystem of suppliers, 3rd party logistics providers, banks and such.”

**Jan Gilg, President and Chief Product Officer Cloud ERP, SAP SE**



### The Impact of Governance and Regulatory Compliance on Intelligent ERP Systems

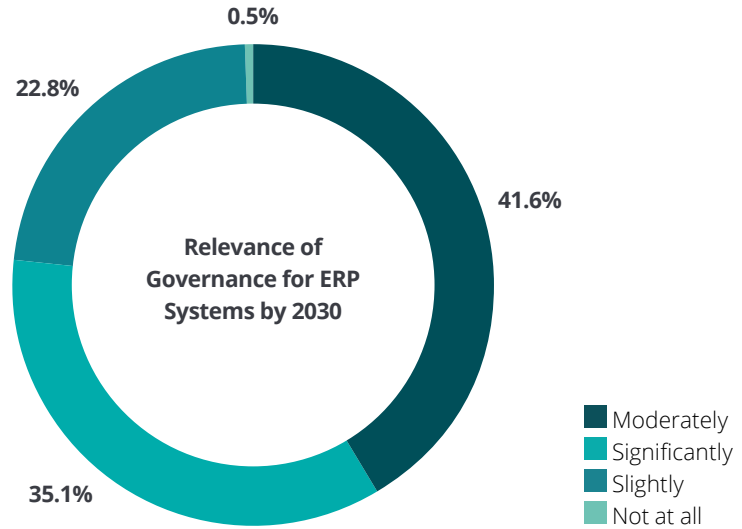
#### Regulatory compliance and governance profoundly impact ERP systems, influencing their design, implementation, and operation

Regulatory compliance frameworks such as GDPR (General Data Protection Regulation) and CCPA (California Consumer Privacy Act) impose strict requirements on the handling and protection of sensitive data. Intelligent ERP systems must ensure robust data security measures, including encryption, access control, and data masking, to comply with these regulations. Failure to comply can result in severe penalties and damage to reputation.

Organizations must adhere to the specific regulatory requirements and standards of different industries. Intelligent ERP systems should offer industry-specific compliance features and functions to help organizations meet these standards efficiently. For example, healthcare organizations may need ERP systems that comply with HIPAA (Health Insurance Portability and Accountability Act) regulations, while financial institutions may require compliance with SOX (Sarbanes-Oxley Act) or Basel III standards.

As regulatory requirements evolve, organizations need ERP systems that are scalable and flexible enough to adapt to new regulations quickly. Intelligent ERP systems should allow organizations to easily configure compliance rules and workflows, facilitating the implementation of changes and compliance with evolving regulatory landscapes. Our empirical findings underscore the importance of governance for future ERP systems. Almost three of four survey participants believe that governance will be at least moderately relevant.

Fig. 15 – How relevant will governance become for ERP systems by 2030?



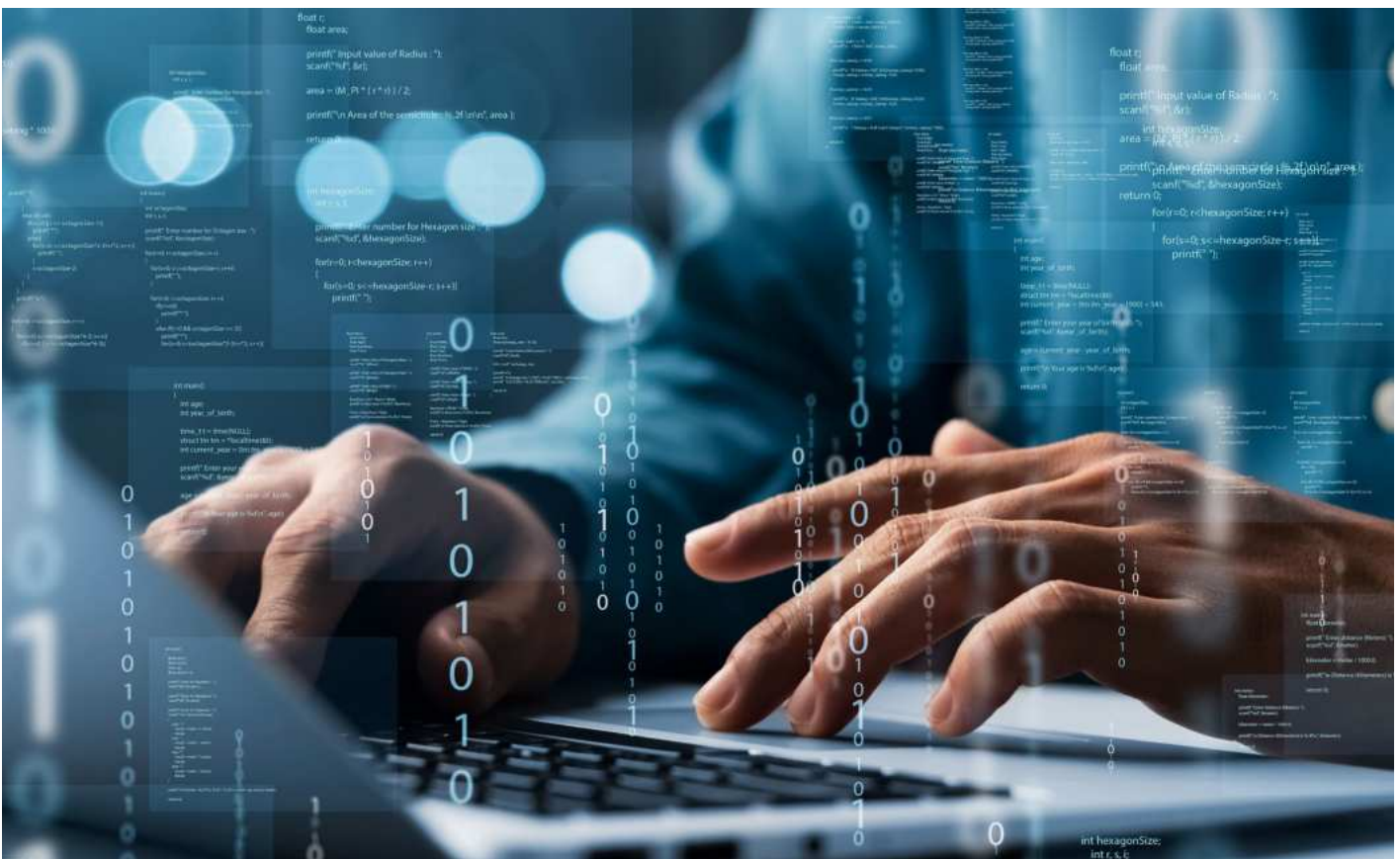
Regulatory compliance significantly impacts intelligent ERP systems, shaping their design, functionality, and deployment strategies. By integrating robust security measures, enabling comprehensive reporting capabilities, adhering to industry standards, automating compliance monitoring, and providing scalability and flexibility, intelligent ERP systems help organizations effectively navigate complex regulatory environments while minimizing compliance risks.

“There are ethical issues behind how far we are prepared to work with the black box, especially with issues such as automated decision-making and who ultimately has responsibility for these decisions.”

**Prof. Dr. Burkhard Pedell, Holder of the Chair of Management Accounting and Control, University of Stuttgart**

“Regulations and laws will and must come, regardless of how much we need them or not. From a societal perspective, it is particularly important to address the regulation of AI and data.”

**Prof. Dr. Gunther Friedl, Dean, TUM School of Management**



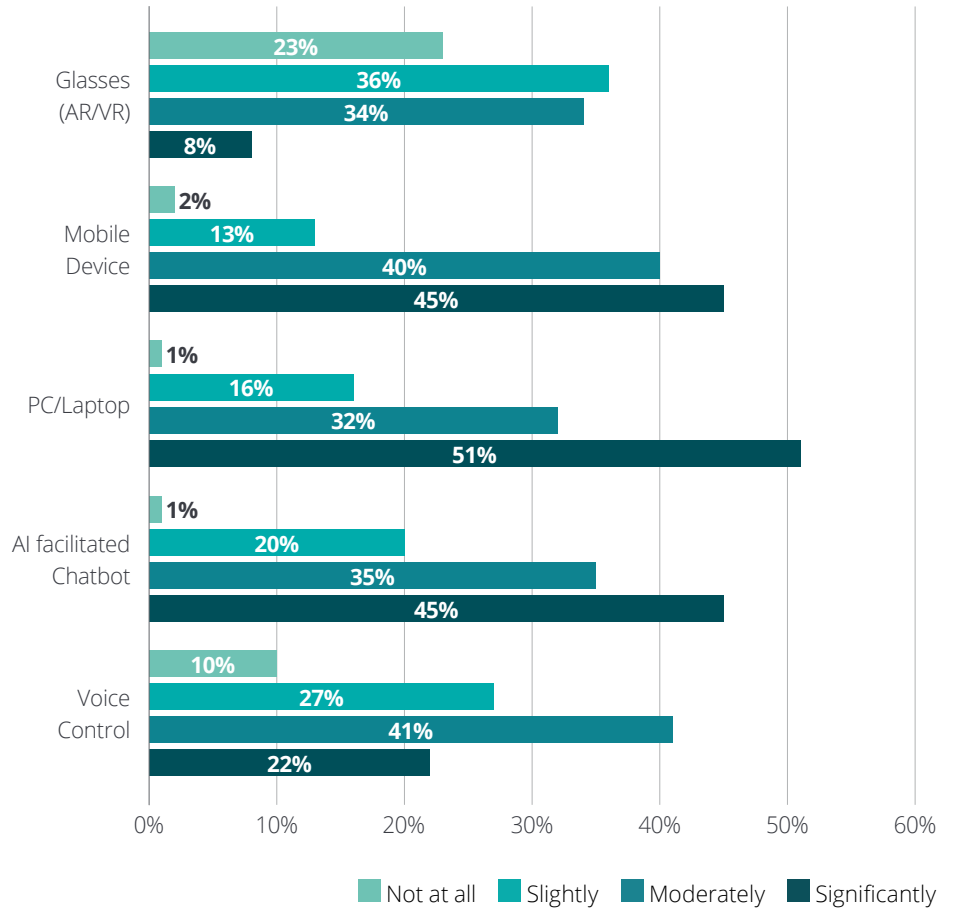
### Implications of Changing Work Landscapes for Employees

#### The future work landscape will demand new skills, processes, and thinking

From remote work to the rise of automation powered by AI, today's leaders ask how the work landscape must change to keep up with technological transformation. What will the ERP user experience of the future look like? What new skills will be required, and what old skills will be enhanced by technology and in which way?

Since ERP systems do not yet offer a state-of-the-art user experience, we asked survey participants how they will interact with their ERP systems by 2030. Most expect laptops and mobile devices to still be the most likely way to interact with the systems. However, some participants imagine AI-facilitated chatbots for communicating and interacting with future ERP systems. Interestingly, current developments in other technical areas such as augmented/virtual reality (AR/VR) and voice control, do not seem to play a major role in the expected future of ERP systems.

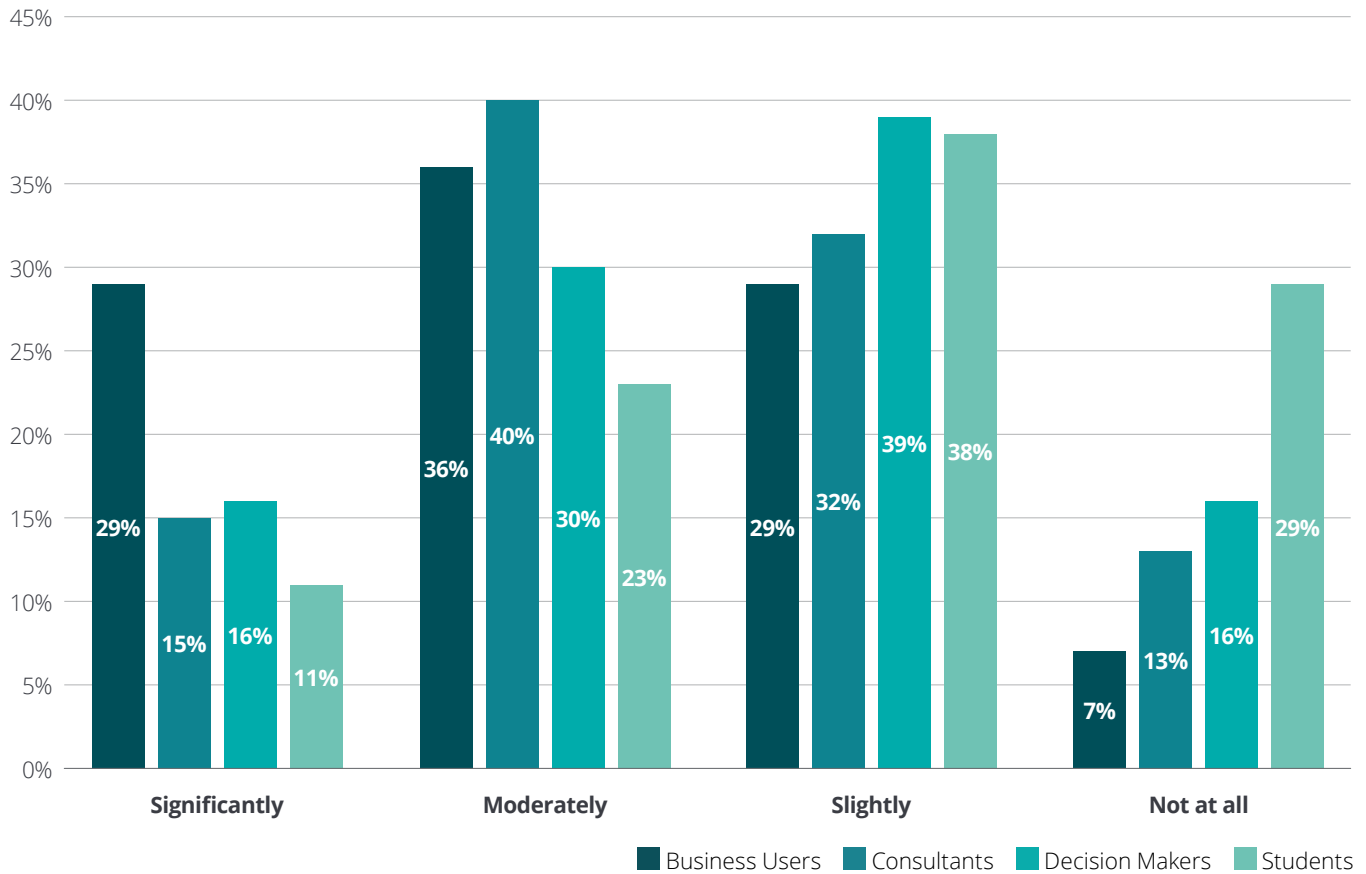
**Fig. 16 – How relevant will each of the following user-interaction options with ERP systems become by 2030?**



To gain a deeper understanding of AR/VR, we asked participants if these technologies can, in general, increase user efficiency. Only a minority, most of them business users, believes this will be the case. Students are the most pessimistic about this technology. The older the participant, the more they believe AR/VR will increase future efficiency.

According to our participants, the most likely additional option that will find its way into the future of ERP systems will be AI-facilitated chatbots.

**Fig. 17 - User Experience: To what extent will augmented reality (AR), virtual reality (VR), and metaverse-like interfaces enhance interaction with ERP data so as to increase user efficiency?**







The skill set of today's ERP-using employees must be complemented with skills such as prompt engineering, low-code or even no-code development, and effective human-machine interaction. On the one hand, this will enable business-oriented employees as tools become easier to use for the less savvy. It is important to incentivize the use of new technology for employees trained on old systems and tools. On the other hand, there is an increasing demand for talent with technical skills to build, maintain, and optimize these tools. Enterprises should take that into account and begin building a strong talent base today.

“We definitely need incentives, and must always minimize the hurdles to entry for people. [...] We must enable the user by making the entry barrier as low as possible; only then will the technology be productively used.”

**Marc Herzig, CIO, K+S AG**

“Employees end up doing more demanding things that provide greater support for the business, ultimately unleashing new revenue potential.”

**Prof. Dr. Gunther Friedl, Dean, TUM School of Management**

“Constructing and training AI modules endow ERPs with heightened capabilities, as information is swiftly assimilated without human intervention. This shift implies that individuals in business roles will increasingly engage with IT responsibilities, and vice versa.”

**Mihai Faur, CIO, UiPath, Inc.**

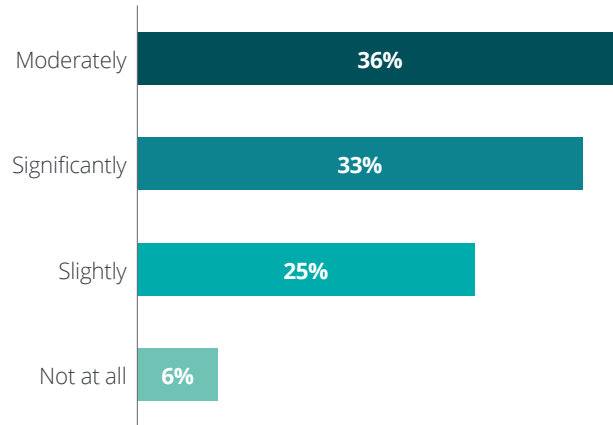
### Transforming Consulting within ERP The consulting business of the future will do things differently

Consulting in ERP will likely see major transformation in the future. Standards, clean-core approaches, and emerging technologies such as AI will dramatically reduce the lifecycle of ERP systems from years to just a few months. ERP lifecycles will likely have to accelerate due to economic imperatives and business demands, with technologies such as AI serving as a crucial enabler in this process.

Furthermore, implementation of ERP systems will accelerate, allowing for increased productivity in less time. Although elements of the consultancy role may be automated, the expertise of the consultant will remain essential. Training and deploying AI-supported ERP systems requires skills that are not easily replaced. At companies such as Deloitte, the focus will be on two main directions of change. One is about doing things differently and using advanced technology to transform existing business processes, enhancing efficiency and productivity. The aim is to automate tasks for system implementers and redesign workflows to create room for more innovation. The other will make it crucial to do different things, explore new business models, identify new market trends, and use innovative products for different customer service. New technology will open doors for companies to enter new markets and provide new value propositions.

**Fig. 18 – Compared with on-premise ERP systems, cloud-based ERP systems provide implementation cost advantages.**

#### Advantages of Cloud-Based ERP Systems – Costs (Implementation)

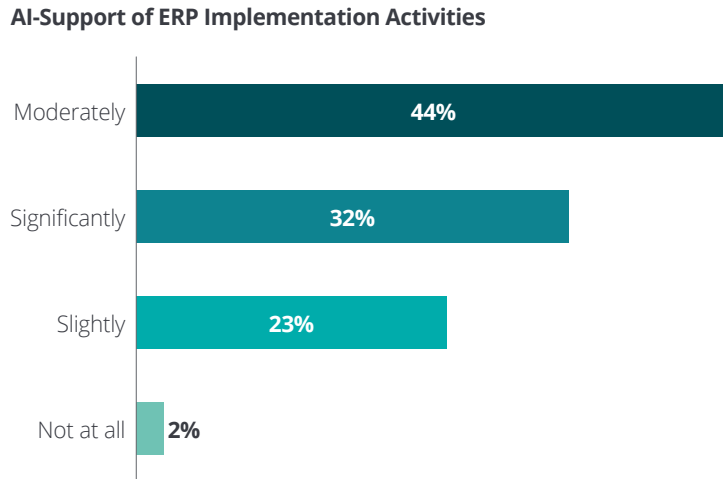


“Increasing standardization in the ERP system, such as clean-core approaches in combination with AI, will fundamentally change the implementation and use of ERP systems and shorten the life cycle of an ERP system. AI will not replace ERP systems, but will make them faster and more efficient, a ‘system of record’ will still be needed in 2030.”

**Stephan Bode, Offering Leader SAP Germany, Deloitte**

AI will also play a significant role in automating certain aspects of ERP implementation. It will help analyze requirements, recommend best practices, and automatically configure the system, reducing the time and effort required for manual configuration. AI can automate the development of tasks by generating code based on predefined patterns and rules, drastically improving productivity and reducing risk. However, human expertise will still need to define requirements and make strategic decisions. AI algorithms can make the process efficient and less error-prone, but do not eliminate the need for humans.

**Fig. 19 – To what degree will AI systems automate implementation activities (such as configuration, development, etc.) for ERP systems by 2030?**



“GenAI and automation at Deloitte consists of two streams: doing things differently and doing different things.”

**Katie Tyler, Offering Leader SAP Global, Deloitte**



Moreover, Back-to-Standard and clean-core approaches, in which customers do not directly extend the software but build and integrate it using clear interfaces, will significantly impact the role of consultants and system integrators. No ERP that perfectly fits customer needs will be taken off the shelf. Consultants will need to help clients understand the difference between useful custom inventions and efficient standardized best practice offerings.

Consultant profiles will evolve to focus more on process consulting and technology, especially in AI and cloud technologies. Extensive knowledge of transactional coding may not be as important as it once was, since the focus will shift to process understanding, AI capability, and cloud technology. The consulting landscape in the context of ERP systems is set for fundamental transformation in the coming years.

“Approaches such as Back-to-Standard and clean-core will undoubtedly change the role of consultants and especially system integrators. Off-the-shelf ERP will never 100% suffice; extensibility is a competitive advantage for processes where companies differentiate. Consultants will increasingly focus on process consulting, AI and cloud technologies instead of traditional development in ABAP.”

**Jan Gilg, President and Chief Product Officer Cloud ERP, SAP SE**

“In essence, consultants are poised to serve two main functions: optimizing implementations and fostering an automation-oriented mindset. This dynamic presents significant potential for growth and influence in the evolving landscape.”

**Mihai Faur, CIO, UiPath, Inc.**

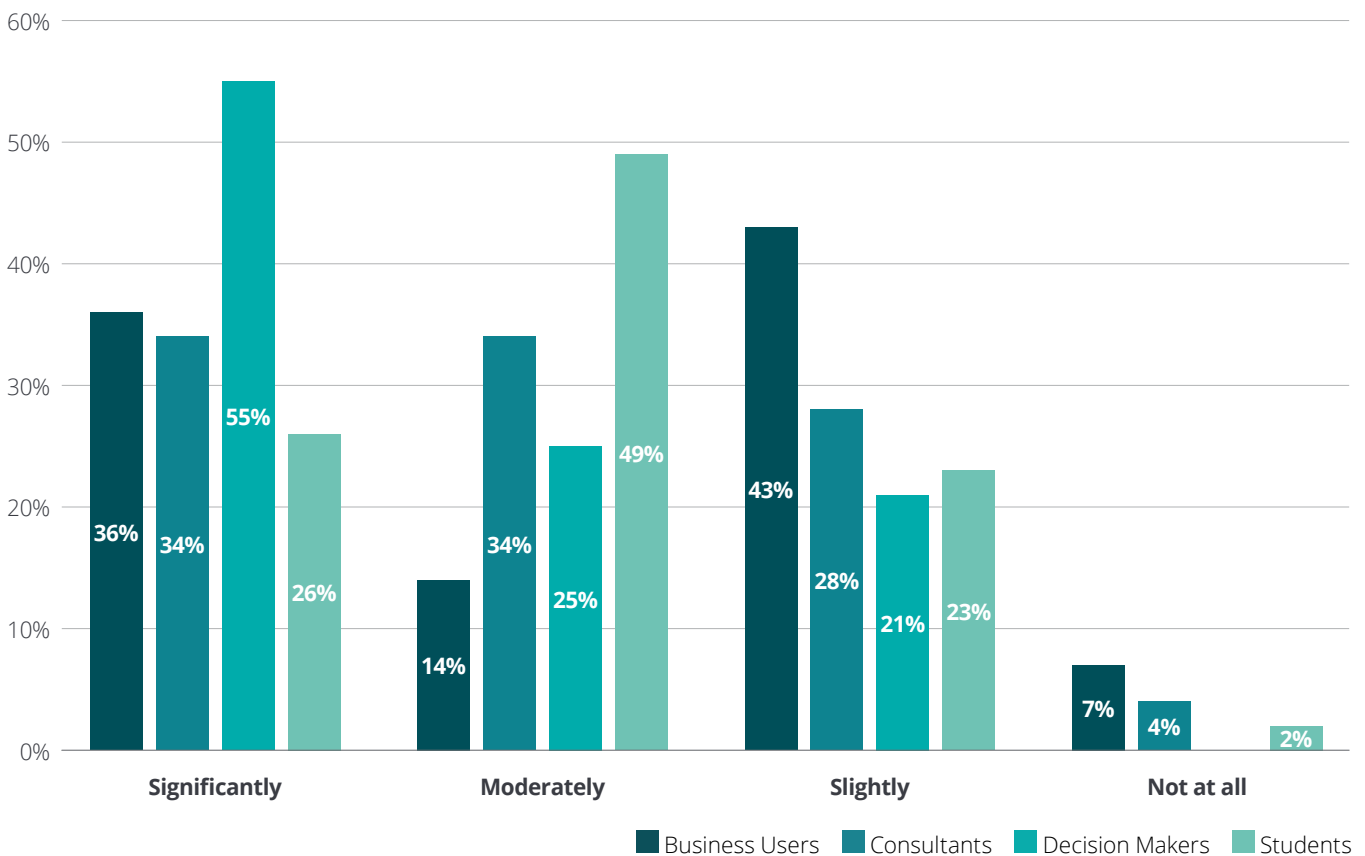
## Sustainability

### Divergence in sustainability goals

Sustainability in the context of ERP involves integrating environmentally-friendly practices and longevity-focused strategies into system operation. An ERP system that prioritizes sustainability is designed to support company environmental, economic, and social objectives. Through efficient resource management and process optimization, sustainable ERP systems assist businesses in reducing their environmental footprint, improving resource efficiency, and ensuring long-term viability. For example, ERP systems are predestined for the implementation of carbon accounting because they can map the entire company value chain, but this requires extensive adjustment to the data models.

Due to the growing importance of sustainability, we asked participants if ERP systems will be a decisive factor in reaching sustainability goals by 2030, and received mixed empirical results. A large number of decision-makers believe that ERP systems will improve the chances of reaching sustainability goals. Other groups, notably business users, seem less confident, suggesting that businesses may need to raise user awareness.

**Fig. 20 – Sustainability: To what degree will (intelligent) ERP systems be a factor in reaching sustainability goals by 2030?**





“Real-time data makes it possible to manage a company in the dimension of sustainability. This is now clearly becoming a competitive advantage because sustainability may well turn out to be the leading factor in future decision making.”

**Jan Gilg, President and Chief Product Officer Cloud ERP, SAP SE**

“The pressure for sustainability means it will be standard practice by 2030 for all professional and international players to be fully aware of their product carbon footprints.”



**Dr. Christoph Wegner**  
President Digitalization & Information  
Services and Chief Digital Officer (CDO),  
BASF SE

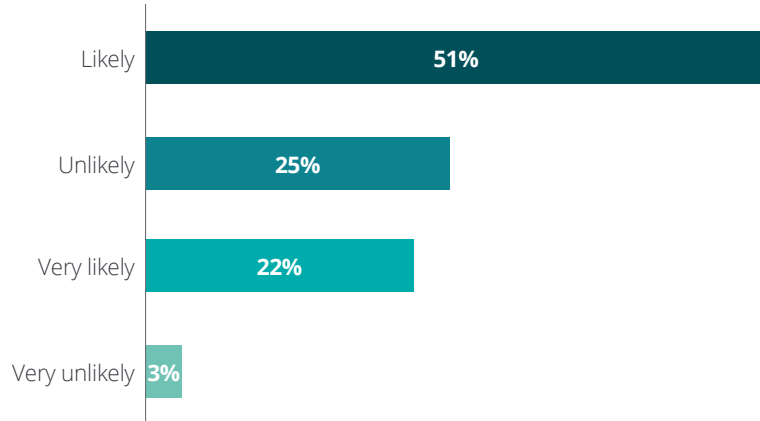
### The ERP Market by 2030

#### Old players vs. new competitors and proven systems vs. emerging technology

As to ERP by 2030, our interviewees gave very different and interesting statements ranging from new players entering the ERP market, to the established ERP providers continuing as relevant players by 2030. Some expect hyperscalers such as AWS and Google to enter the ERP market and offer parts of ERP processes. It is striking that backend processes and auditing are seen as very relevant.

**Fig. 21 – How likely is it that hyperscalers will offer ERP(-like) solutions and compete with traditional ERP providers?**

**Hyperscalers as ERP Competitors by 2030**



“I think hyperscalers entering into direct competition with ERP is rather unlikely because it is a business that simply doesn't fit the hyperscale business model. (...) What makes SAP so strong is that there is an entire ecosystem around it in terms of support and reliability, so customers know it is 100% compliant.”

**Jan Gilg, President and Chief Product Officer Cloud ERP, SAP SE**



Regional differences in regulatory requirements and laws by 2030 are expected to have an impact on players in the ERP market, producing regional specialized ERP providers vs. global players. Companies that are globally or regionally active should take this into account when selecting an ERP provider. Smart industries will also have an impact on the ERP market and its providers in the future.

“I believe that, when looking ahead to 2030, SAP and the other established major ERP software companies will continue to play an important role in the market. But it's important to stay tuned for geopolitical and sociopolitical trends.”

**Stephan Bode, Offering Leader SAP Germany, Deloitte**

“Hyperscalers indirectly penetrate the market by carving out peripheral chunks that don't necessarily belong at the core of an ERP system.”

**Dr. Christoph Wegner, President Digitalization & Information Services and Chief Digital Officer (CDO), BASF SE**

“Given the trajectory of companies such as Amazon and their trend of expanding into diverse sectors, it's entirely plausible that they could compete with traditional ERP providers in the future.”

**ChatGPT, OpenAI, Inc.**

# AI Interviews

This study prominently features emerging technologies and their impact on the future of ERP. Businesses find themselves in a technological shift, with new breakthroughs in AI nearly every day. One field that stands out among many is generative AI. We have interviewed several experts from industry, software providers, academia and consultancy, so it is of interest to include the technology itself in the discussion.

We have also conducted three interviews with AI chatbots, asking them the same questions as the human experts. We did this to contrast the responses with the study's findings and to get an overview of how an AI chatbot would answer the interview questions and predict the future of ERP systems by 2030. The large language model-based chatbots ChatGPT (OpenAI), Gemini (Google), and Luminous (Aleph Alpha) were asked to answer the same interview questions about the future of ERP.

The chatbots all agreed that intelligent ERP systems will be a critical competitive advantage in the future.

It was also emphasized that the next generation of ERP systems will likely be cloud-based and that AI will be used to automate and improve business processes.

**“The integration of intelligent ERP systems is considered a key competitive advantage for companies.”**

**Luminous, Aleph Alpha GmbH**



“The next-generation ERP system will be cloud-based and highly integrated into other systems and data sources.”

**Gemini, Google LLC**

AI supports the findings of both the survey and the interviews. This is evident in the vision of networking companies, forming an “intelligent industry”.

“I believe it is quite likely that the networking of ERP systems across companies will evolve into a ‘smart industry’ or ‘Industry 4.0.’ Several trends and technologies point in this direction, and the benefits of such connectedness are obvious.”

**ChatGPT, OpenAI, Inc.**

The chatbot answers differ in detail and in their perspectives. But there is much agreement with the study results in terms of content. The chatbots make clear that ERP systems are transitioning from simply necessary infrastructure to a competitive edge, optimizing business operations and enabling a leg up in the market.



# Vision ERP 2030

## From Intelligent ERP to Autonomous ERP

This comprehensive study examines the technological, economic, and societal trends affecting the future of ERP systems, including technological advancement, enterprises becoming intelligent, governance and regulatory developments, and changing work environments.

There is huge potential for innovative technologies such as AI, cloud computing, and data security to transform ERP systems. The study emphasizes the important role these technologies will play by 2030 and the opportunities they provide.

At the same time, regulatory frameworks will influence the development and deployment of ERP systems. Companies must adhere to data protection regulations, compliance requirements, and tax regulations, significantly shaping the design and implementation of their ERP solutions.

The consensus among respondents is that these advances are crucial to the evolution of ERP systems. The study also reveals a strong belief in the power of AI to automate implementation activities, support decision-making, and uncover new business opportunities. It furthermore highlights the relevance and anticipated dominance of cloud-based ERP solutions by 2030, and exposes data security as a topic of considerable debate.

Despite agreement on the importance of these disruptive technologies, opinions diverge on their influence, indicating a need

for businesses to remain open, adaptable, and informed as they navigate the future landscape of ERP systems. The challenge lies in the effective integration and use of these systems. The difference in competitive advantage will not come from merely having an ERP system, but from how well it is implemented and used and how open/flexible it is to new technology and requirements.

Looking ahead, there are two approaches to innovation in the context of ERP. Firstly, there is doing different things, meaning adapting new technologies into systems and processes, making them more intelligent and automated, and leveraging speed and cost savings. The next trend here will be an autonomous ERP system. Secondly, there is doing things differently. That begins with transforming the ERP to cutting-edge standards. This is a process that will change itself with increased inbuilt automation and intelligence. Moreover, future systems are going to be used by future users. Incentive systems will play a crucial role in promoting the acceptance and usage of ERP systems by employees and partner companies. Smart incentive mechanisms can ensure that company ERP systems are effectively used and create value for all stakeholders.

The education of future leaders will be critical to ensuring successful deployment of ERP systems. Leaders must develop a deep understanding of how ERP systems operate and be able to fully leverage the potential of emerging technologies to achieve strategic goals and gain competitive advantage.

Overall, ERP systems will continue to shape the workplace and interaction between businesses by 2030. By skillfully integrating technology, considering regulatory requirements, designing effective incentive systems, and providing targeted leadership training, organizations can seize the opportunities that these systems offer and successfully navigate an increasingly digitalized world.

It is not just about predicting the future of ERP, but preparing business for this future. Now is the time for companies to leverage these insights and develop strategies that align with these developments. We encourage enterprises to capitalize on these insights by staying ahead of the curve and harnessing the full potential of their ERP systems.

# Contacts



**Andreas Trinkl**  
Deloitte Partner  
atrinkl@deloitte.de



**Prof. Dr. Gunther Friedl**  
Dean of TUM School of Management  
gunther.friedl@tum.de



**Benedikt Betzwieser**  
Deloitte Senior Consultant  
bbetzwieser@deloitte.de



**Dr. Maximilian Blaschke**  
Postdoctoral Researcher TUM  
maximilian.blaschke@tum.de



**Johannes Pauly**  
Deloitte Senior Consultant  
jpauly@deloitte.de

**Further authors:**  
Max Ansorge, Markus Frank, Isabella Stimmer



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