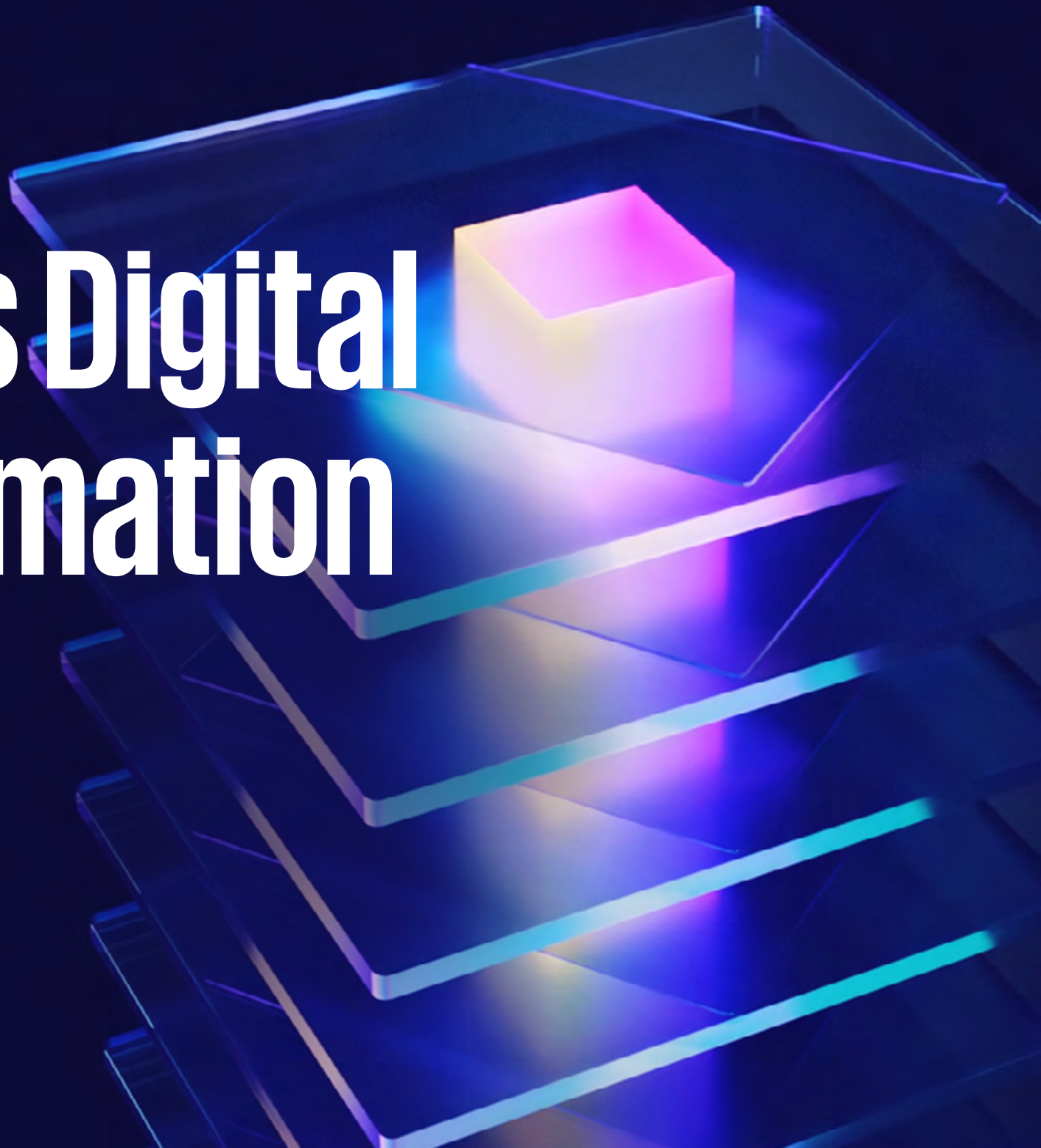


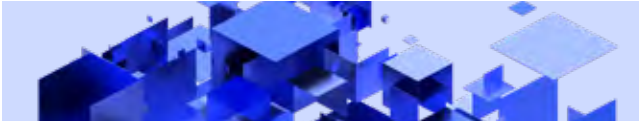


# Business Digital Transformation Monitor

Edition 2023



# Contents



# Introduction

Last year we launched the publication *Business Digital Transformation Monitor* with high hopes. Although Poland's position in the European Commission's Digital Economy and Society Index (DESI) and the *Business Digital Transformation Monitor* prepared by KPMG did not inspire optimism, this year's ranking doused our overheated imaginations with cold water.

Poland did not improve its position in the DESI ranking, but remained fourth from the bottom, ahead of Romania, Bulgaria and Greece. Meanwhile, KPMG's business digital transformation index dipped from 4.8 in 2022 to 4.4 in 2023. And that's on a scale of 1 to 10.

It's also hard to count on improvement in the next year. Last year only 21% of companies in Poland declared that they were increasing spending on digital transformation. This year that percentage dropped to 14%. The weight firms ascribe to development of digital technology in the areas of customer service, internal operations, sales, marketing, and manufacturing also fell significantly. Against this background, the life sciences sector, which assigns twice as much weight to these areas, stood out in a positive way.

Strikingly, small and medium-sized enterprises (employing 50–249 people) performed better this year than big enterprises (employment of 250+). Smaller firms place greater importance on the strategy of digitalization, realize its potential better, and more effectively implement digital technologies. This result gives pause, and belies the oft-repeated claim that only the biggest companies can afford digital transformation. Evidently, at the current time SMEs are more aware

of the importance of digital technologies and are prepared to take more decisive measures, despite the discouraging macroeconomic environment and geopolitical turbulence.

Broken down by sectors, finance, TMT (technology, media & communications) and life sciences stand out in a positive sense. These were the only industries receiving scores above 5 on a scale of 1 to 10. The weakest-performing industries were automotive, transport, and consumer goods. The weaker results of these three industries may be attributed to the lack of a digitalization strategy as well as weakness in cybersecurity. This is worrying, as without a rational strategy, it is hard to expect improvement in subsequent editions of the *Monitor*, and failing to give due weight to cybersecurity risks can lead to painful losses and endanger the company's business continuity.

Cyber threats are a real challenge in organizations. We can observe in the KPMG Cybersecurity Barometer, published for the last five years, that the number of firms experiencing cybersecurity incidents remains steady within the range of 60–70%. But this doesn't mean at all that the other 30–40% of firms are not experiencing such incidents. Accordingly to widely reported studies, on average it takes a company six or seven months to realize that it has been attacked, and another two to three months to take measures to neutralize the incident. In practice this means it is entirely reasonable for managers to assume, with great likelihood, that their own company is on the radar of cyber criminals – the company just doesn't know it yet.

The biggest challenge in addressing cyber threats is access to specialized staff with broad and deep competencies. It is much easier to build dedicated cybersecurity divisions in big companies, usually located in larger cities and with the critical mass to retain highly qualified specialists. SMEs face much more of an uphill climb, because even if they have adequate budgets, it can be fiendishly difficult to attract and retain top specialists. In this situation, the most reasonable solution appears to be to use the services of specialized firms managing this area in the cyber-as-a-service model. The service is not only cheaper than building out the company's own division, but does not have the drawbacks associated with employee attrition, because the provider ensures service continuity.

Year on year, we observed an increase in adoption of cloud solutions. The percentage of firms using them rose from 63% to 68%. Firms most often (56%) use the cloud in the Infrastructure as a Service (IaaS) model, where an external supplier provides the infrastructure. An equally popular model (55%) is Software as a Service (SaaS), where services are provided in the form of software applications. Over two-thirds of companies are concerned about the safety of information stored in the cloud. This is surprising, as a year ago the events beyond Poland's eastern border strikingly showed that local services are an incomparably less safe form of storing data than a public cloud. Consequently, in March and April 2022, the biggest private Ukrainian

bank executed a migration of its data from local servers to the cloud in less than 6 weeks.

Artificial intelligence is rapidly growing in importance and popularity among Polish companies. AI technologies are used most often in marketing (50% of companies), manufacturing (46%), and supply chain planning (42%). Only 23% of companies use AI to manage prices and sales promotions. This is surprising, because the return on investment in AI in the latter area is the biggest and fastest.

This report was prepared with the support of a global leader in digital solutions. On behalf of KPMG in Poland, I would like to express my deep thanks to our knowledge partner in drawing up this report, Microsoft. Our thanks as well to all the representatives of companies who agreed to share their invaluable observations and experiences in digitalization.

We hope you enjoy reading our report.



**Grzegorz  
W. Cimochocki, PhD**

Partner, Head of Business  
Advisory, KPMG in Poland

# Key conclusions



Most companies in Poland intend to stick with an unchanged level of expenditures (78%) and number of employees (92%) to carry out tasks associated with the digitalization process

**Over three-fourths of organizations (78%)**

have no formal document concerning their digital transformation strategy



**50% of respondents**

from the finance sector confirmed that they have introduced such a formal strategy document



Among businesses that already have a formal digitalization strategy document, **82%** said that the document includes defined aims and methods for carrying out their digital transformation

**73% of enterprises**

are using mobile solutions, and

**23% of the rest**

plan to implement them within the next year

The IT systems most often implemented in firms are

**CRM and ERP**

**68% of companies surveyed**

say that they use cloud solutions



**Over two-thirds of firms**

are concerned about the safety of information stored in the cloud

Formal cybersecurity policies and procedures have been created and implemented in

**more than half the surveyed organizations (60%)**



**55% of companies**

do not have a system for monitoring the software they use



**Cyber attacks**

are the most commonly mentioned threats impacting the success of digital transformation

**29% of firms do not earmark expenditures**

for digital transformation,

and **71%** do not delegate staff to tasks related to digital transformation



**A little over one-fourth of companies**

have a separate division handling cybersecurity

**Half of firms do not plan**

to increase spending on cybersecurity in the next year, or plan only a slight increase

# The digital economy in numbers

In recent years we have witnessed dynamic growth in digitalization across every area of life. Digitalization of society was greatly accelerated by the pandemic and the resulting lockdowns, and the appearance and general acceptance of remote work. Public administration and private companies had to meet societal demands while providing employees the tools they need to work in new conditions. Unfortunately, the sudden need for changes in work and life did not lift Poland's digital standing in the international arena. Rankings show that in an overwhelming number of categories, Poland places below the EU average. A few positive accents can be found, however, for example in the banking sector. The range of widely available payment solutions rank Poland among the most developed countries in Europe in terms of cashless transactions. But this is still too little, and companies and state administrative bodies have a lot of ground to make up.

# The state of digitalization of the Polish economy

The European Commission publishes the annual Digital Economy and Society Index (DESI), summing up a number of factors involving the digitalization of EU countries. The index covers 33 indicators grouped into four larger categories: human capital, connectivity, integration of digital technology, and digital public services. Poland doesn't perform optimistically under most of the indicators, placing below the EU average, typically near the end of the list. Poland's low rank largely results from poorly developed integration of digital technology, ensuring

the fewest points for the end result. The category in which Poland performs the best is digital public services. In recent years there has also been constant improvement in the number of broadband internet users. In the number of households with access to a connection of 100 Mb/s or faster, Poland exceeds the EU average. The development of the 5G network in the country is also notable. In this subcategory, the result tripled compared to the previous year. And for years Poland has held its place near the top of the ranking in open data policy.

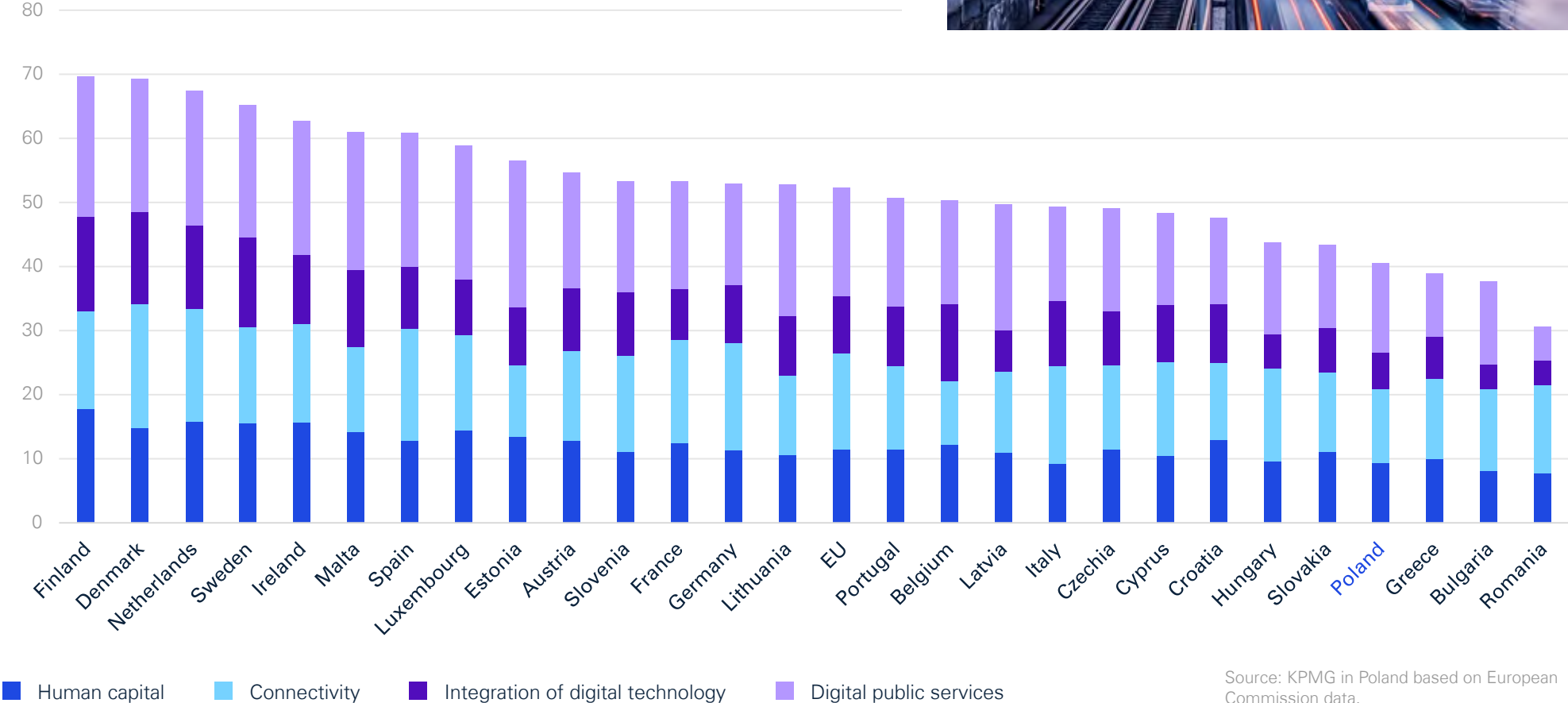


# Poland compared to other countries

In 2022, Poland once again ranked 24th in DESI. Only Greece, Bulgaria and Romania did worse. Poland has held one of the last places since the launch of the index, and never has managed to improve its position.



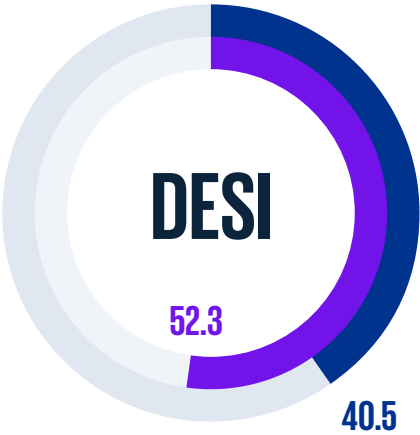
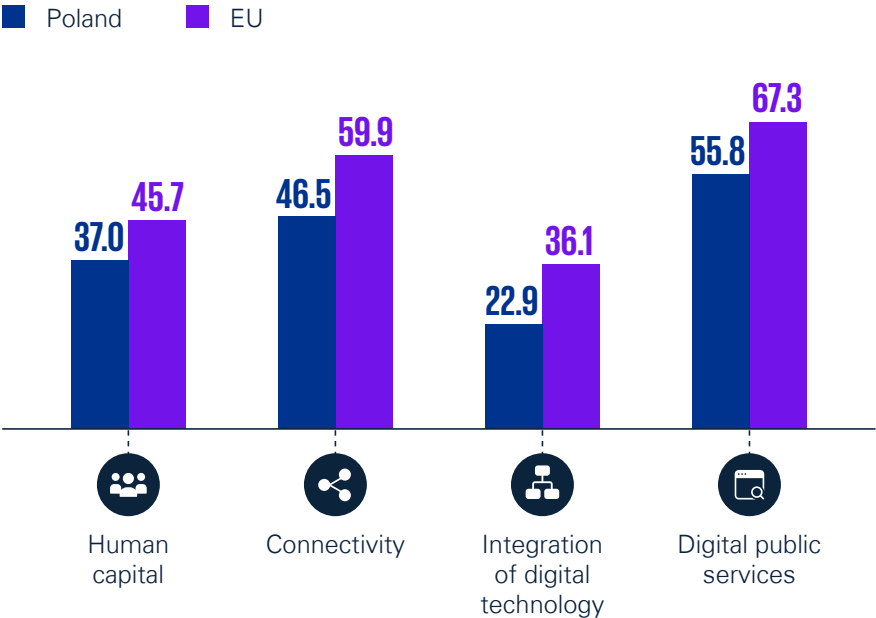
## Digital Economy and Society Index (DESI) 2022



Source: KPMG in Poland based on European Commission data.



**Results in DESI 2022 categories for Poland and EU average**



Source: KPMG in Poland based on European Commission data.

The level of digitalization in Poland is steadily rising, but not as fast as generally around the world. This means that Poland is still losing out against other highly developed economies. The result of 40.5 points this year, as against 52.3 for the EU as a whole, represents less than 77% of the EU average. It may be concluded from a closer analysis of the specific factors that Poland does best in the categories of digital public services and human capital, reaching 83% and 81% of the EU average respectively. It does much worse in the categories of connectivity and integration of digital technology, however (78% and 63% of the EU average respectively). It should be pointed out that since 2020, connectivity has been the fastest-rising category across the EU (by 71%), and also in Poland (up 43%).

A field in which Poland performs well against other countries is cybersecurity. In the latest National Cyber Security Index (NCSI), Poland ranked 11th in the world in readiness to counter cyber threats and manage cyber incidents. In turn, the MIT Technology Review publishes the Cyber

Defense Index, which defines the level of cybersecurity of the world’s 20 largest economies. In the 2022/2023 edition, Poland ranked 6th, and was praised for its cooperation with Ukraine to defend against Russian cyber attacks.

According to the cited figures, Poland faces big challenges in digitalization. The public authorities also recognize the need for further growth in this direction. Digital transformation is one of the key issues in strategic documents adopted by the European Commission as guidance for the National Reconstruction Plan, and 21.3% of the programme budget will be devoted to this end. Further funds, of about EUR 2 billion, will flow from the programme for the upcoming years “European Funds for Digital Development 2021–2027.”

# The approach to digital transformation



Much has already been written about how vital the digital transformation of enterprises is, often while alluding to the histories of firms that fell victim to rapidly growing technology swallowing bigger and bigger areas of operation not only of business, but of the whole society. Much less attention is devoted to analysing how firms, including those operating in traditional industries seemingly unrelated to technology, have gained new sources of competitive advantage thanks to an effective digital transformation strategy, and have thus grown and increased their revenue, as well as creating a new value proposition for employees.

The last year has shown that constant change in business, mainly caused by booming technologies but also by constantly facing unprecedented difficulties and challenges, is something that can perversely be considered the status quo. Companies can use a properly conducted digital transformation to increase the scale of their operations, diversify their business, and find ways to reduce their ever-growing operating costs. It would be advisable for such a transformation not to take the form of chasing after the competition, but of being a leader in digitalization and setting trends with an innovative approach to doing business. But whether digital transformation will be successful depends on several important elements. KPMG and Microsoft decided to take these factors into account and examine how the digital transformation of business looks in Poland. To capture the issue comprehensively,

an indicator was created for the purposes of the study reflecting the attitude of companies operating in Poland toward the digitalization process and their preparedness to pursue it.

The first edition of the *Business Digital Transformation Monitor* was carried out at the beginning of 2022 and launched an annual cycle of surveying Polish companies in four areas: digitalization strategy, technology implementation, cybersecurity and risk, and transformation potential. The cumulative results reflect the general picture of the maturity and attitude towards digital transformation of Polish enterprises. In the last issue of the *Business Digital Transformation Monitor*, KPMG experts stressed their concerns about the approach to digitalization of organizations operating in Poland. The current edition, which was created based on a survey conducted a year later, does not inspire optimism. Polish companies did not use this time to change their approach to the issue of digital transformation or the growth of digitalization. It can still be hoped that 2023 will be different, and the KPMG report will inspire Polish enterprises to take action in the vital area of digital transformation.

# Digitalization strategy

According to the survey conducted by KPMG in February 2023, companies present on the market in Poland still face many challenges in their digitalization strategy. The score for digitalization strategy in this year's *Business Digital Transformation Monitor* is 3.5 points out of a possible 10. Last year it was 3.8, which on one hand shows a worsening situation and raises many questions, but on the other hand reveals huge potential for work in this area. Over three-fourths of companies still lack a formal written strategy for digital transformation, and few companies plan to adopt one. The difficult economy also causes greater stagnation on the issue of spending and hiring new staff than we observed a year before.

 **3.5 / 10**



# Visible regress

Successful digital transformation must be grounded on a properly selected and carefully considered digitalization strategy, which in turn consists in making the right investment choices with the aim of maximizing the firm’s competitive advantage, increasing profit and the value of the company, and finally, effective and consistent implementation of the strategy.

Unfortunately, among Polish companies surveyed by KPMG in the *Business Digital Transformation Monitor*, the percentage of respondents declaring an increase in expenses on implementation of their digitalization strategy has decreased. Last year, 21% of companies declared such an increase, but this year it is only 14%, among whom only 5% of respondents plan to implement this intention to a large or very large extent. More than three-quarters (78%) plan to maintain

their current spending in this area. This is likely attributable to the economic slowdown affecting all sectors, as a result of which managers decide not to invest in areas not directly tied to operations.

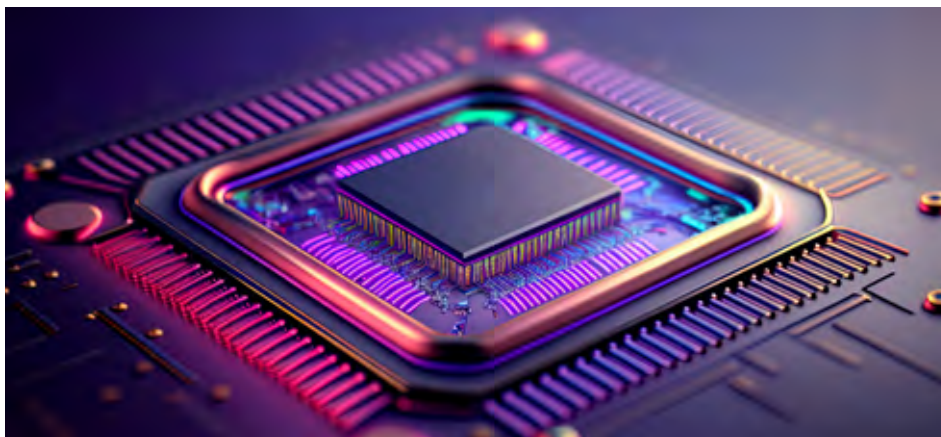
Even greater stagnation can be observed in the area of hiring related to execution of the digitalization process. Some 92% of companies taking part in the KPMG study intend to keep the level of staff assigned to digital transformation

unchanged over the upcoming year. It is encouraging at least that like last year, in this year’s study only 1% of companies plan to cut staff in this area.

## Firms’ plans for spending and hiring to implement digital transformation in the next 12 months (compared to current level)



**Only 14% of Polish companies plan to increase their spending within the next year on executing the digital transformation**



## Digital strategy – fields of action on the Polish market

Dynamic tech changes, supercharged by the challenges of recent years, mean that companies wishing to stay on the market should plan for several digitalization development scenarios, to help set a long-term strategy.

One of the problems with the area of digital strategy is that there is no uniform definition of such strategy, and it is often not understood the same way by different entities, which may lack knowledge of its importance, stages, or elements. The fact is that every company has different needs, but certain elements are certainly shared by every such strategy regardless

of the nature of the organization for which it is prepared. To be effectively implemented in the organization, every strategy needs the appropriate “entourage.” A key element is preparation of a document setting out the key aims and assumptions of the strategy and the methods and processes needed to achieve them. Unfortunately, it seems that companies in Poland do not recognize the importance of having a formal document embodying their digital transformation strategy. The question remains how long this approach can be maintained, and when it will start generating negative consequences for each organization.



*The Polsat Plus Group operates in the fast-growing markets of media and telecommunications. We use new technologies and innovations in our activities. Our B2C and B2B customers can also exploit the latest digital solutions and services. The Plus network is a leader in 5G technology. Thanks to the development of our TV platforms and internet portals, our multimedia content can be viewed on any device, anywhere, and Netia offers advanced cloud ICT and cybersecurity solutions. Digital transformation, process automation and robotics are an integral part of our reality. A huge test for our organization in this respect was the pandemic, when we decided overnight to assign several thousand of our employees to remote work. We passed the test with flying colours, largely because digitalization is a continuous process for us. Moreover, we handled the increased traffic of several million customers within our telecommunications network without any interruptions. Today, digital transformation is not a matter of fashion or choice, but a necessity for the effectiveness, efficiency and continued growth of the organization. Our group provides over 20 million pay TV, telephone and internet access services, so to ensure the best service quality and customer support, we rely on many digital solutions. We use cloud services, we have digitized HR, business and accounting processes, and we use robots for customer service. In 2021, in cooperation with Asseco, we introduced a paperless solution at our points of sale – the possibility to enter into a contract using digital signatures. This service is primarily about the speed and convenience of customer service and saving our customers' time. There are also environmental benefits, and the solution is completely secure from the perspective of personal data protection. Digital processes greatly support the development of our organization, which has grown rapidly in recent years, both organically and through acquisitions. Digitalization meets the challenges of a dynamically changing world and the needs of our customers.*



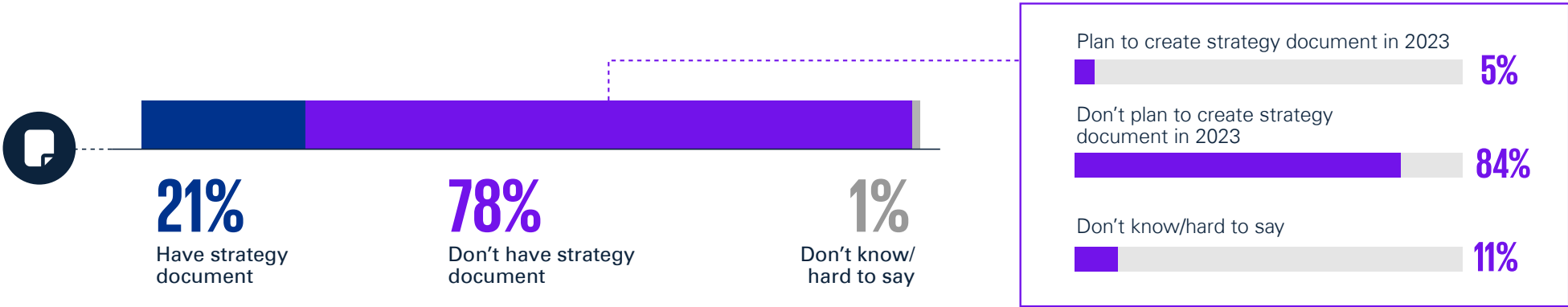
**Katarzyna Ostap-Tomann**  
CFO, Cyfrowy Polsat  
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Polsat Plus Group

Of the 21% of respondents claiming to have a formal digital transformation strategy, the great majority are big companies, employing over 250 or more people (in last year's edition, the largest group answering "yes" to this question were mid-sized companies, employing 50–249 people). Analysing the results by industry, the sector with the most positive responses was finance, with 50% of respondents having a formal

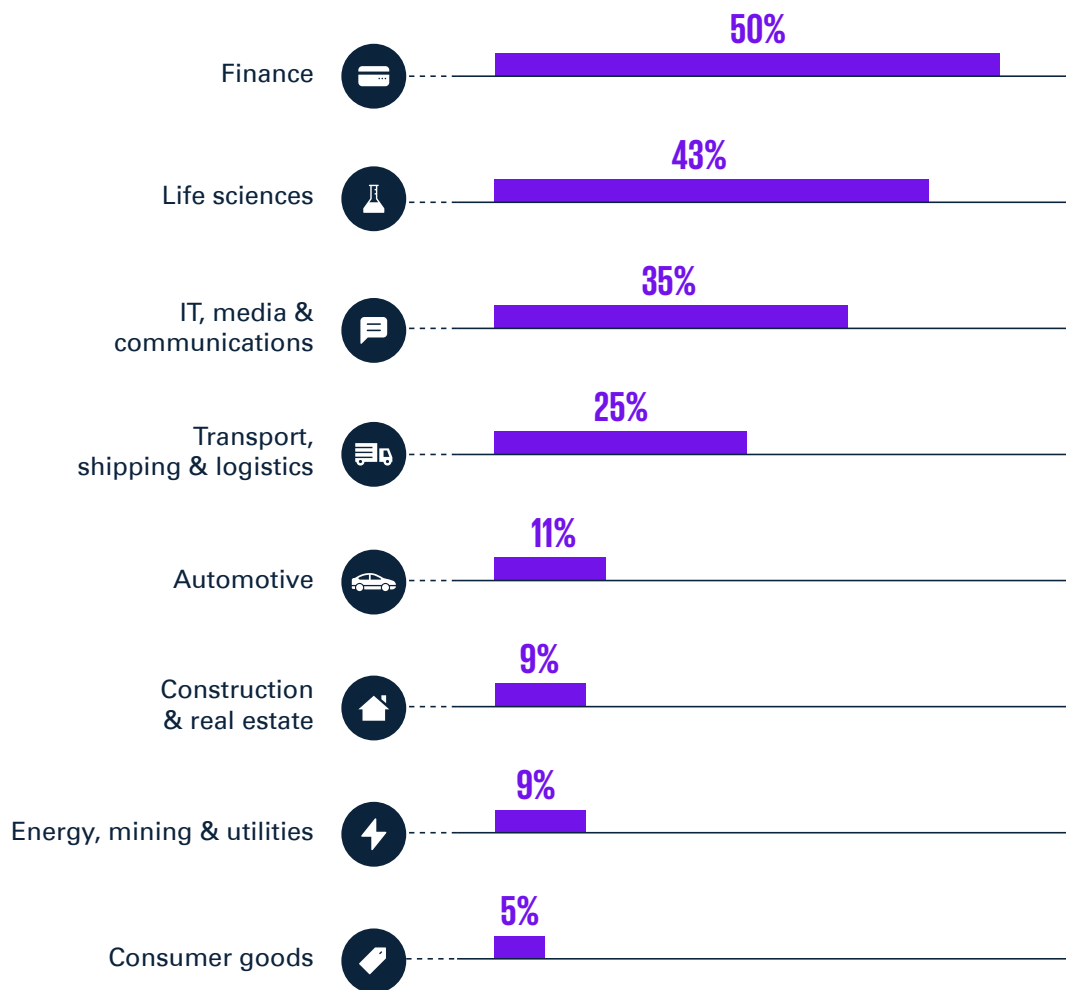
strategy document. The fewest firms with a formal digital strategy were in the sector of consumer goods (5%), a particularly surprising result considering that this is a sector that particularly prizes the "customer experience."

**78% of companies taking in this year's edition of the Business Digital Transformation Monitor admitted that they do not have a formal digital transformation strategy, and only 5% of them plan to adopt such a strategy within the next year**

**Existence of formal digital transformation strategy in firms**



**Existence of formal digital transformation strategy in firms, by sector**



” Companies often treat the decision on a digital transformation strategy selectively and fragmentarily. Thus, for example, when analysing their path to the cloud, they may not take into account all the essential elements for choosing a cloud strategy, but focus on the functioning of a single element (such as the ERP system). They do not look at aspects of integration with other systems, comparison of the operating costs of the solution, or the directions in which the manufacturer plans to develop the system. This results in sub-optimal decisions, which in the future may increase costs or limit the possibilities for further expansion of systems.

This traditional approach to implementations no longer works, as today it is essential to conduct a thorough and searching pre-implementation analysis to define the transition strategy, not limited to just a functional analysis. In this context, we must also answer the question of whether we want to carry out an implementation or a business transformation, which requires a different approach and a focus on the business perspective, not just the technical one. When deciding to carry out a transformation, the entity agrees to review its business from the perspective of available technologies, which should lead to the use of solutions that best ensure achievement of the organization’s strategy. Here it is necessary to understand how modern technological solutions work and try to make the best use of the standard to serve the business. It also requires a different approach to execution, using elements of agile methodologies to ensure quicker achievement of the effects of the transformation.



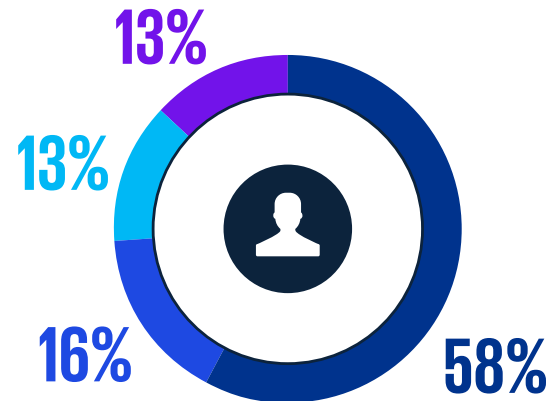
**Bartosz Zawisza**  
 Partner Associate,  
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## Strategic thinking - something to think about

However, this strategy has been communicated to employees in only 63% of these companies. Last year, 20% more companies claimed that the staff in their organization had been informed of the aims of the digital transformation strategy. In over half of these companies, responsibility for coordination of the strategy was vested in the IT department or the CIO.

### Person/division responsible for digital transformation



- IT/CIO
- CEO
- Fragmented responsibility
- No responsibility assigned in this area



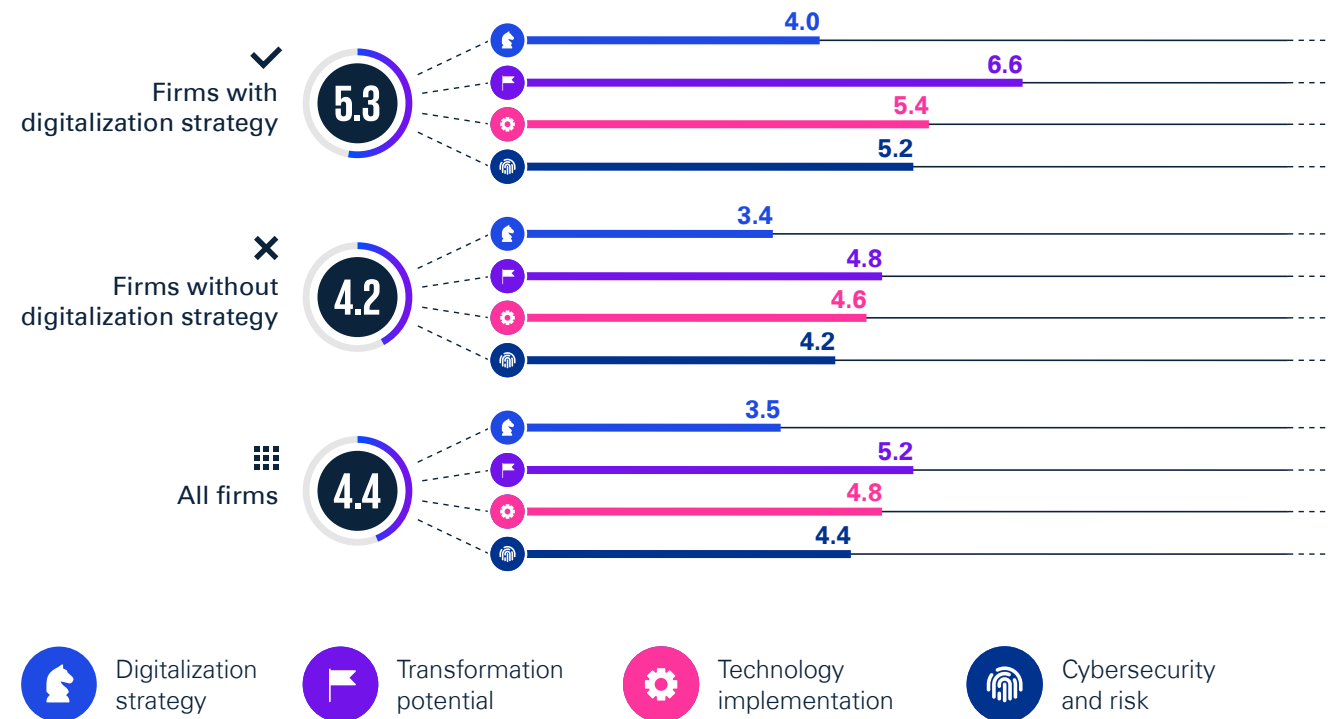
**82% of companies with a formal digital transformation strategy say that their strategy identifies specific goals and methods for achieving them**



Similar to last year, enterprises with a digitalization strategy received a higher total score in the *Monitor* than organizations without such a document. We can clearly state that in every area studied in the *Business Digital Transformation Monitor*, companies with a digitalization strategy perform significantly better than those that have

not created such a formal document. But unfortunately, this was still a much worse result than last year. In terms of attitude and investment plans, they received 4.0 points (vs. 5.1 in 2022), which was 0.6 points higher than firms without such a strategy.

### Scores in Business Digital Transformation Monitor by possession of digitalization strategy

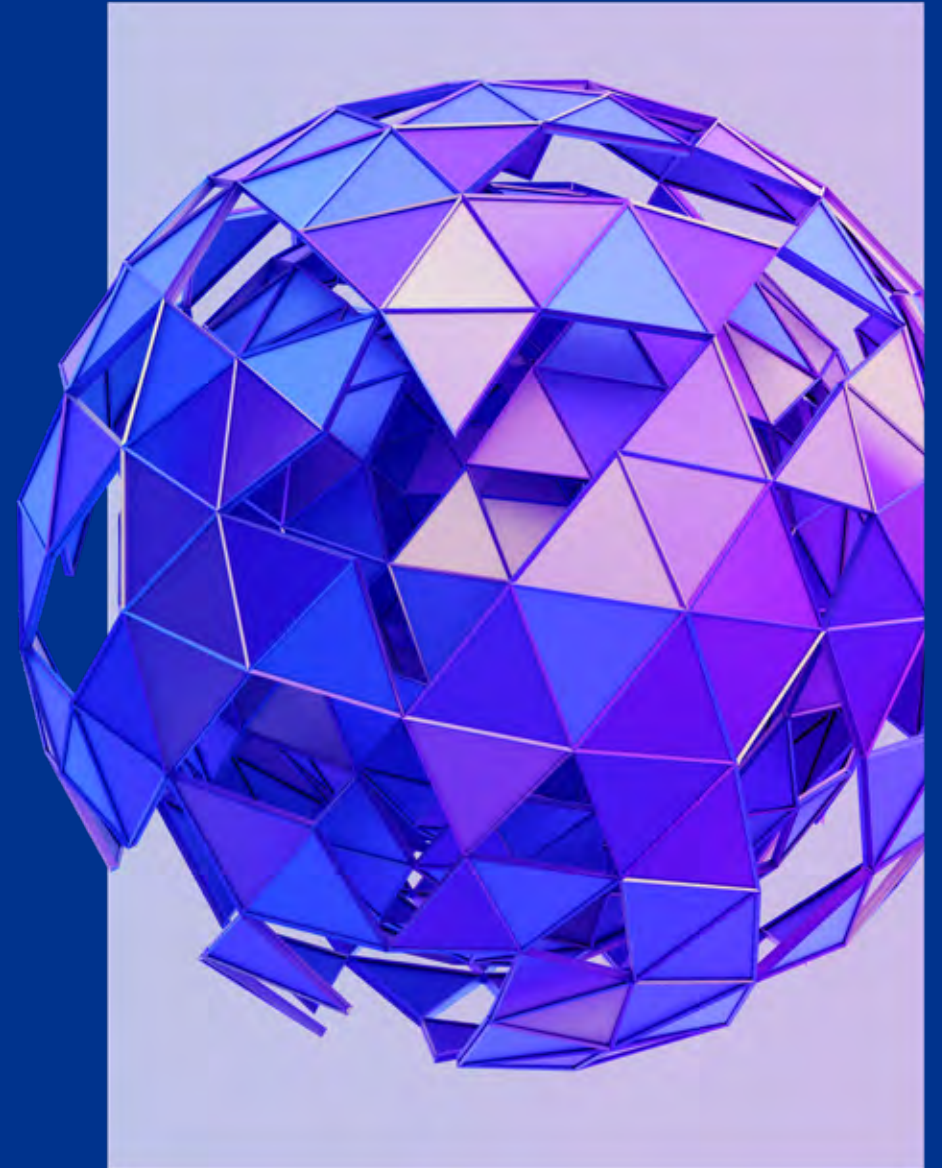


# Implementation of technology

What counts in the process of digital transformation is concrete actions exploiting new tools. In Polish enterprises, based on the results of this year's study, technologies can be divided into top technologies and undervalued technologies – there is no middle ground. Mobile solutions and computer-assisted decision-making are conquering the market, but the metaverse and blockchain are clearly being overlooked. Firms pin great hopes to cloud services, but notwithstanding security systems, the safety of data storage still causes concern. It should be stressed that Polish enterprises place the customer first. This is confirmed by the fact that the most often used IT system is customer relationship management. The level of implementation of CRM systems in Polish firms, as was the case with nearly all other systems, rose in comparison with the previous edition of the study.



4.8 / 10



## All or nothing

Creation of a digitalization strategy is the first step toward technological development of firms, and along with it, business growth. But for the transformation to be effective and generate a competitive advantage, concrete measures must be taken based on the tools available on the market. The study points to the level and plans for implementation of 11 selected technologies in specific enterprises. It turns out that in their everyday work, Polish firms most often use mobile solutions – they were already

implemented in 73% of surveyed companies, and among companies not yet using such tools, 23% said that they will implement them within the next 12 months. The second most popular technology is computer-assisted decision-making, used by 70% of firms. But this is the tool with clearly the greatest potential, as 35% of firms say that they plan to implement it within the next year. Top technologies on the Polish market also include automation and robotics solutions (implemented in 58% of firms and planned in 14% of the rest) and machine-to-machine communication (implemented in 39% and planned in 17% of the rest).



## KPMG COMMENT

“ From year to year we observe increasing adoption of digital technologies, and the cloud has become routine for larger enterprises. It is notable that new technologies such as blockchain and the metaverse are omnipresent in media coverage, but have yet to be adopted on a wide scale in companies (11% and 7% respectively).

The upcoming year promises to be intriguing when it comes to the use of artificial intelligence, particularly ChatGPT. We all hear about what a revolution this will bring to businesses, impacting nearly every aspect of their operations. It also remains to be seen whether this technology significantly raises the results for AI and Big Data, which were not particularly high this year (15% and 18% respectively).

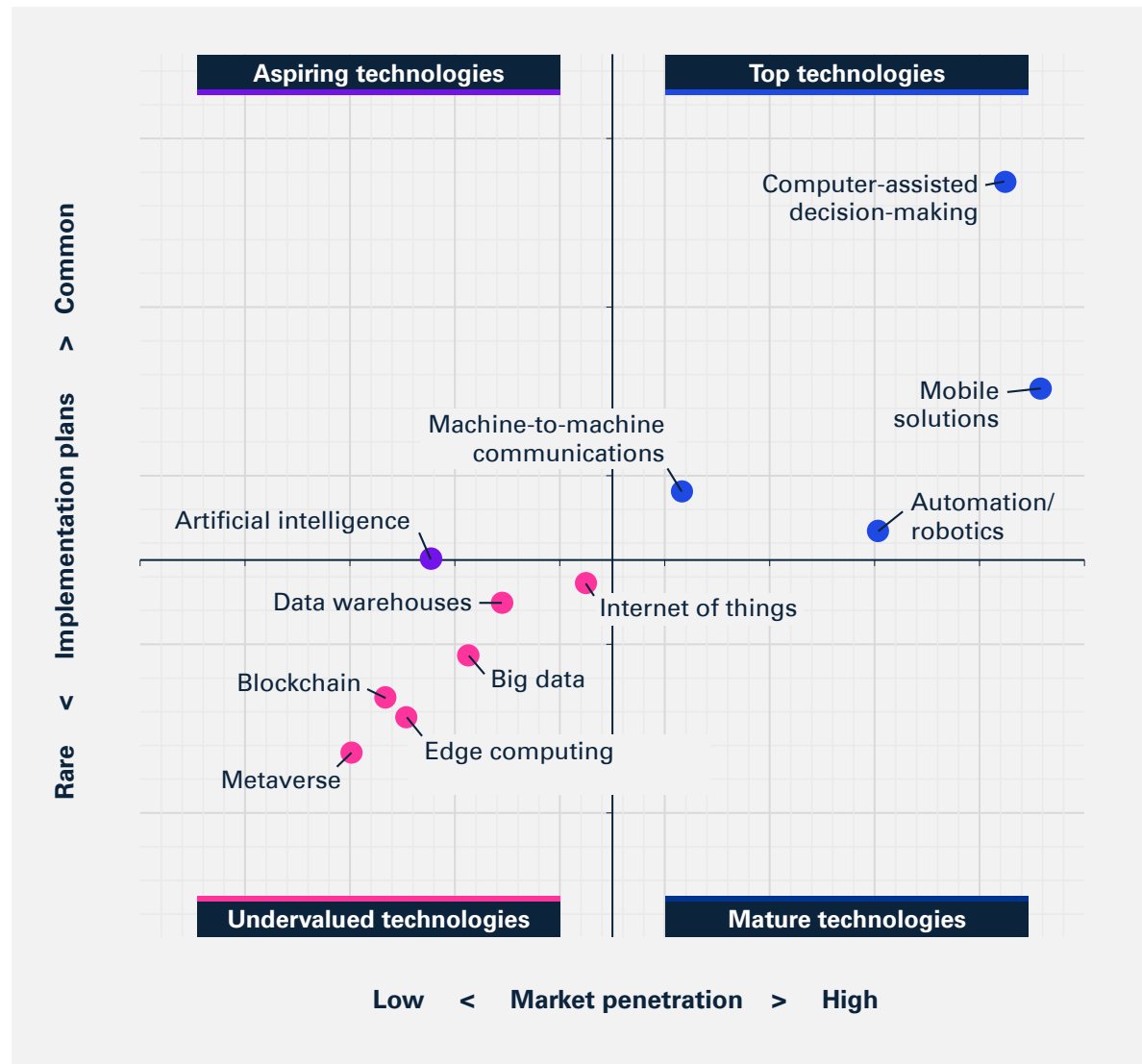
At the opposite pole, consider the strong position of mobile technologies, with a result of 73%, which should come as no surprise given the multiplicity of apps on our telephones, which we use every day to communicate with banks or e-commerce sites. The battle for employees is driving the stronger and stronger position of tools automating business processes. Robotics practically dominates processes in the financial sector (79% adoption rate), which is characterized by great repetitiveness of operations. It is slowly gaining popularity in sectors where displacement of human labour is not yet so straightforward, and also requires permission for autonomous vehicles (construction and transport both stand at 45%).



**Radosław Kowalski**

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## Matrix of tech implementations in enterprises operating in Poland



The tough economic situation is taking a toll on corporate budgets. The economic crisis has undoubtedly caused many enterprises to revisit their priorities, and may have caused companies to trim back their plans to implement new tools in 2023. Only AI may be poised to become within some time a mature, commonly used technology – it is currently used by 15% of firms, and 13% of the remaining firms have plans to implement it. The metaverse, edge computing and blockchain are relatively new technologies and still unfamiliar to companies. Their operation and contribution to growing competitiveness on the market are not yet well understood by businesses, and undoubtedly such recognition will take time. In February 2023 the technology least often used by respondent companies was the metaverse, implemented at 7% of companies and planned to be rolled out by only 1% of other companies in the next 12 months. Edge computing and blockchain have been implemented by 13% and 11% of respondents, and 3% and 5% of other firms, respectively, plan to begin using them in the next year.

Companies from the ICT sector remain the clear leaders in the use of mobile solutions, with nine in ten enterprises in this sector using smartphone and tablet applications every day. Computer-assisted decision-making is the domain of the transport sector (where 84% of firms use this type of technology). The finance sector is unmatched in robotics and process automation, as well as machine-to-machine communications. Interestingly, 22% of firms in this sector say that they use the rarest technology, the metaverse.

## Percentage of firms with implemented digital technologies

	Economy overall	Finance	Energy, mining & utilities	Construction & real estate	Consumer goods	Life sciences	Automotive	IT, media & communications	Transport, shipping & logistics
Mobile solutions	73%	85%	82%	68%	59%	57%	67%	90%	74%
Computer-assisted decision-making	70%	79%	68%	73%	45%	57%	67%	75%	84%
Automation/robotics	58%	79%	68%	45%	59%	71%	61%	65%	45%
Machine-to-machine communications	39%	63%	45%	15%	18%	57%	50%	45%	33%
Internet of things	30%	53%	32%	27%	10%	21%	35%	45%	21%
Data warehouses	22%	39%	5%	18%	32%	21%	0%	40%	16%
Big data	18%	17%	14%	18%	18%	15%	0%	35%	21%
Artificial intelligence	15%	17%	14%	14%	5%	21%	19%	25%	10%
Edge computing	13%	11%	19%	5%	10%	0%	6%	16%	17%
Blockchain	11%	5%	11%	5%	10%	14%	6%	21%	5%
Metaverse	7%	22%	6%	0%	0%	7%	0%	11%	5%

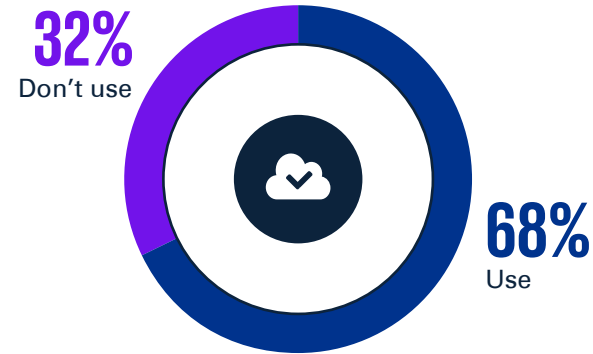


## Polish firms with their head in the clouds

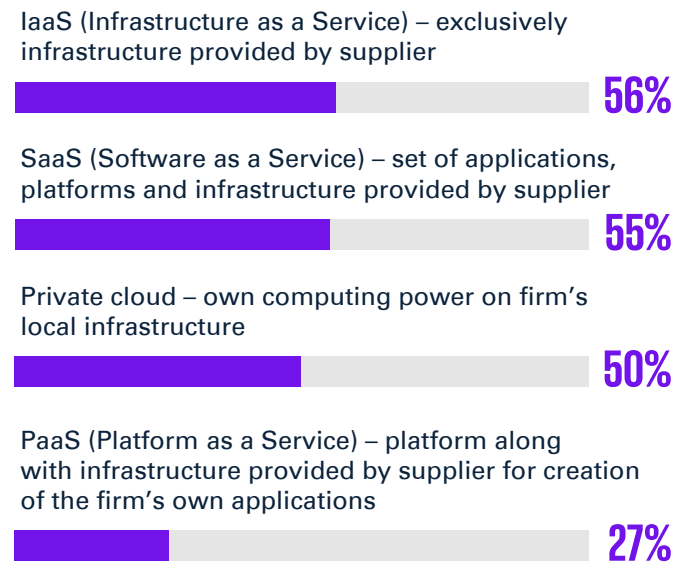
Based on the results of last year's study, the leading technology in Polish firms was cloud solutions, adopted then by 63% of respondents. In the new edition, we decided to examine this technology more closely. That proved to be a good decision, as the percentage of firms using cloud solutions rose 5 pp, to 68%. The industries most often using cloud solutions were automotive (88% of firms) and ICT (85%). The model most commonly used in enterprises is IaaS (Infrastructure as a Service), in which an external supplier provides only infrastructure. Use of IaaS was reported by 56% of respondents from firms that had implemented cloud solutions. Slightly fewer, 55% of respondents, said that they used SaaS (Software as a Service), in which in addition to infrastructure, a set of applications and platforms is also delivered, while 50% of firms also use a private cloud with their own computing power on local infrastructure. Among cloud solutions, the fewest respondents used PaaS (Platform as a Service), where the platform and infrastructure are supplied for the client to create its own applications.

## 68% of respondents say they use cloud solutions

### Percentage of firms implementing cloud services



### Implemented models of cloud services



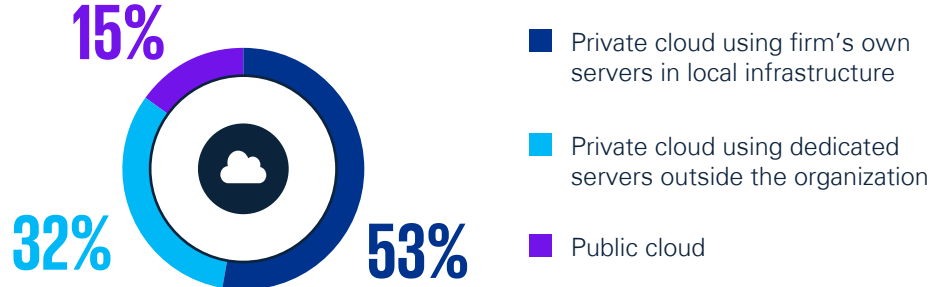
Cloud solutions are growing at a dizzying pace, and undoubtedly will only gain in importance in the upcoming years. The convenience of using them use encourages companies to implement solutions of this type. The ease of access to data at any time and from any location facilitates dynamic business growth and increased competitiveness. It is heartening that this is also noticed by managers at Polish firms, and the percentage of businesses implementing such services grew over the previous year. Respondents were also asked about their companies' plans for processing data in the cloud over the next three years. Fully 85% of persons responsible for digital transformation at their companies indicated a private cloud as the dominant model. Among them, 53% will rely on the use of their own servers on local infrastructure, while 32% wish to use external servers. And 15% of respondents said that they will largely process data on a public cloud within the next three years.

Unfortunately, storing data in the cloud is still often associated with greater danger than storing data on local servers. Only 6% of respondents perceived no threats in using cloud services. The threat most often indicated by businesspeople is concern for the security of their information, mentioned by over two-thirds

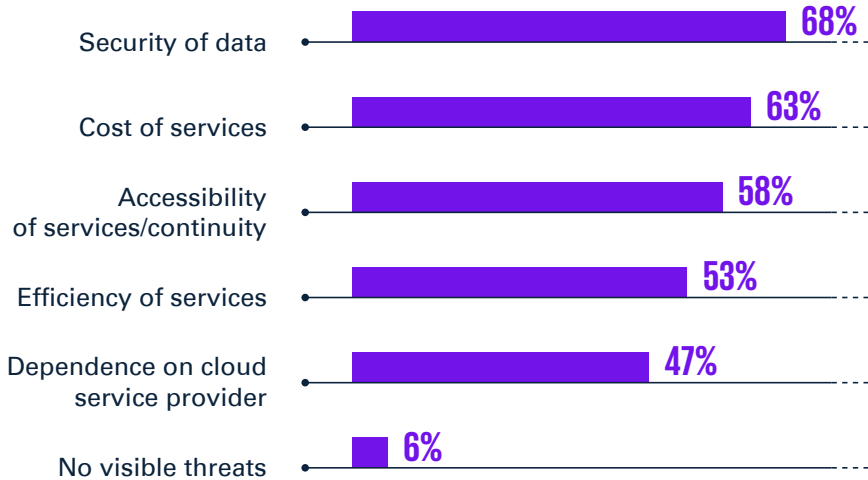
of respondents. It also seems that cloud solutions remain too expensive for Polish firms, 63% of whom complain about the cost of cloud services. The top three threats were closed out by concern for accessibility and continuity of services, mentioned by 58% of respondents. Although it is clear that Polish enterprises mistrust cloud computing, it should be borne in mind that providers of cloud services are aware of the threats associated with using them. Thus they offer a range of security measures to protect data against leaks or hacks. In many instances, centralized data security and easy controls may prove a much more effective protection than storing data offline.

## Over two-thirds of companies are worried about the safety of information stored in the cloud

### Plans for data processing model using cloud services over the next 3 years



### Threats associated with use of cloud services for digital transformation







*Business is aware of the role digitalization plays in the growth, stability and competitiveness of the organization. This was confirmed in recent years, when technology was recognized for the opportunity it offers to meet mounting challenges. But now, during the ongoing economic slowdown and uncertain market conditions, companies find it harder to commit to further investments in digital solutions.*

*This is also evident in the KPMG report, finding that over three-fourths of organizations have no formal, documented digital transformation strategy, and only 5% expect to develop one in the next 12 months. Moreover, 29% of firms don't earmark any expenditures for digital transformation, and last year only 11% of respondents did. This means that firms are limiting their investments in digitalization.*

*Interestingly, over the same period, the use of cloud services in enterprises rose to 68% (from 63% in 2022). This is an encouraging statistic, as today the cloud is the driving force of business growth and economic development, and a guarantor of security helping companies maintain financial effectiveness at a time of economic slowdown.*

*That is why Microsoft, to facilitate tech-based digitalization of companies in Poland, decided to include our country in Microsoft Azure, the largest trusted global cloud infrastructure. This will bring particular benefits to enterprises from regulated industries, such as energy, finance and the public sector, which, thanks to the siting of data centres in Poland, will be able to meet the strict requirements for where their data are processed.*



**Tomasz Dreslerski**  
Enterprise Commercial Lead,  
Microsoft Poland

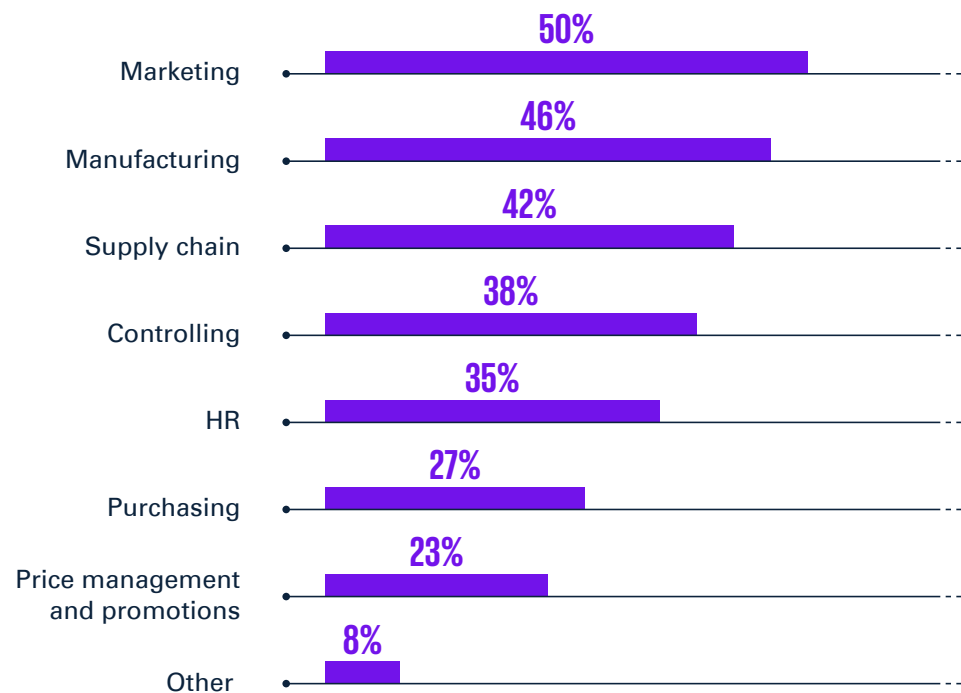


## Unpopular but effective

As the matrix of implementations presented above shows, AI is the only technology from this year's list with a chance to become a popular and commonly used technology in the months to come. In light of the dynamic growth in recent months of AI-based tools, we asked in the survey which companies

had already implemented AI and the purposes for which they used it. Most often, in 50% of organizations, this technology supports marketing activity. Interestingly, 46% of enterprises claim that they use AI in manufacturing, and 42% in monitoring their supply chain, which has been a problematic area in recent years. Unsurprisingly, AI-based tools are most often used in the ICT sector.

### Areas in which AI is used



Investing in artificial intelligence brings both financial and ecological benefits to enterprises. AI helps increase work efficiency and raise the quality of goods and services. By automating business processes and data analysis, companies achieve better financial results and higher competitiveness. In addition, AI helps companies achieve sustainability goals by reducing consumption of energy and materials, cutting greenhouse gas emissions, and making more efficient use of natural resources.

Unfortunately, the Polish market is well below global levels in its use of AI. Only 15% of the surveyed organizations said they had invested in AI, vs. a global average of about 35–37%, revealing the scale of untapped potential. But we are not alone in failing to appreciate the benefits of AI, as 62% of organizations in Poland admitted they lacked tools for measuring the effectiveness of the solutions they had implemented (vs. 68% global average). This is currently the biggest challenge in AI adoption around the world.

Developing a mechanism for assessing business efficiency through the lens of hard metrics is crucial to guarantee the successful use of algorithms in business. It allows companies to rule out ideas doomed to failure in advance.

Currently, the leading business areas in AI adoption are marketing and manufacturing. Nevertheless, in the coming years we can expect a marked acceleration of adoption in the areas of customer service and employee service. This is tied to the huge spread of multitasking language models (e.g. ChatGPT). Their versatility and ease of use open up new possibilities, where until recently poor quality and difficult implementation posed major barriers.



**Łukasz Dylewski**  
Head of Data Science,  
AI Leader, KPMG in Poland

## COMPANY COMMENT

” Thanks to AI, leaders can take more informed decisions and automate time-consuming processes, unleashing employees’ potential. But studies show that the level of adoption of artificial intelligence in Poland remains low. Only the most innovative firms are investing in this area.

AI investments generate short-term financial benefits: increased revenue and higher productivity. And in the long term they translate into an increase in value, through greater organizational flexibility, more innovation, and synergies with other digital solutions. Research shows that 38% of companies using AI can measure the effectiveness of its use and achieve the anticipated results.

There may be various reasons for the low level of adoption of AI in enterprises. Many companies may not be aware of the capabilities offered by this technology. The higher level of use of AI in fields like marketing, manufacturing and logistics is due

to years of standardization of solutions based on AI in forecasting, segmentation and optimization. Further barriers include concerns over high implementation costs or the risk of failure of individual projects. Moreover, firms must first build high-quality data sets and achieve a certain minimum level of digital transformation. Management may also worry about the lack of experience and competence in implementing, running and maintaining AI solutions.

The last year has generated an increase in interest in AI thanks to the popularity of solutions based on large language models (such as ChatGPT). The awareness of leaders of Polish organizations on use of artificial intelligence in everyday business processes is growing as a result of the public debate on this topic. This trend should contribute to a rise in the level of AI adoption and help maintain Polish businesses’ competitiveness on the global market.

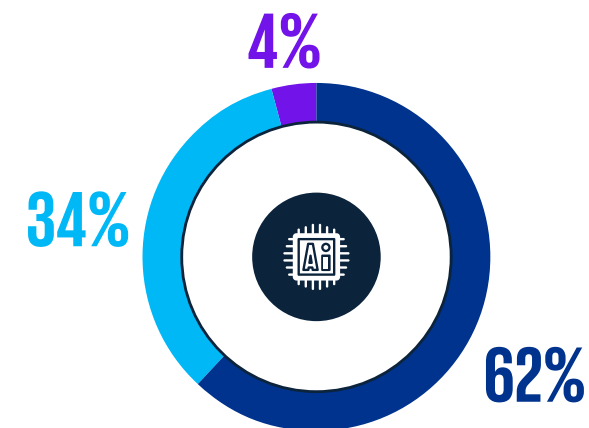


**Karim Sylla**

Director of Analytics and Data Science, Zabka Group

It is hard to determine the usefulness of specific technologies in growing the business if companies have no concrete indicators defining the effectiveness of the improvements they introduce. Thus it is worrying that 62% of enterprises using AI do not measure the effectiveness of implementing it. Encouragingly, among organizations that do maintain such indicators, all claim that their AI measures are effective.

### Measure of effectiveness of implemented AI



- We don't measure it
- We measure it – so far we find it moderately effective
- We measure it – so far we find it highly effective

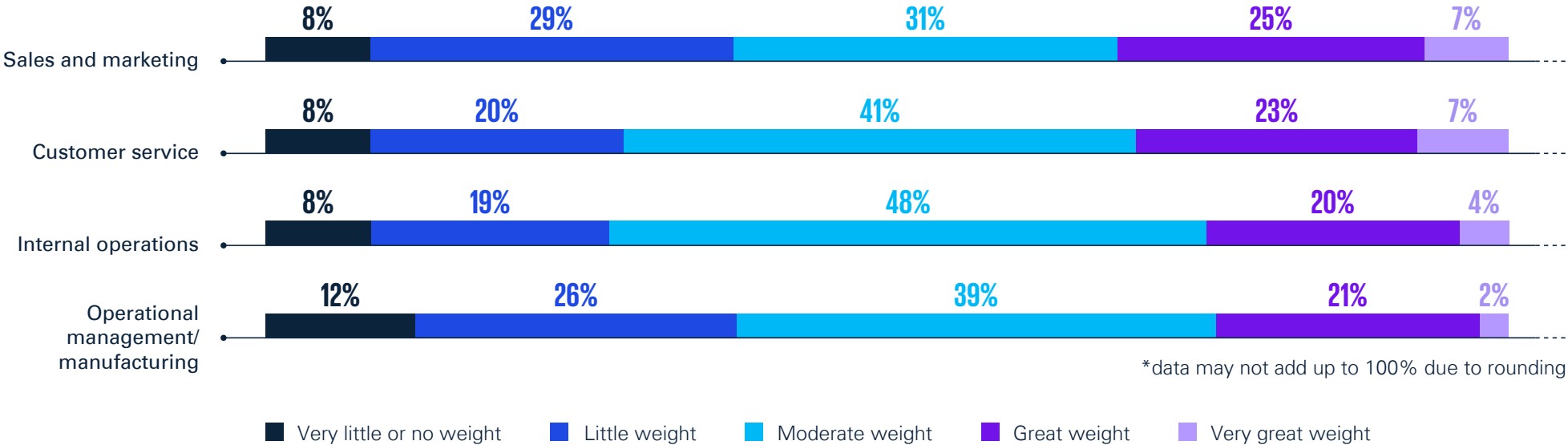
## The customer comes first

In addition to the importance of which technologies companies use, the areas in which they support digital transformation are also vital. For purposes of the report, we have distinguished four groups of processes occurring in all enterprises, regardless of the sector. The largest percentage of companies (32%) indicate that in the coming months

they will place great or very great weight on technological development of sales and marketing. Compared to the previous edition of the survey, this is a decrease of 8 pp. Digitalization of customer service will be equally important for 30% of respondents (down 16 pp), internal operations for 24% (down 16 pp), and operational management (including manufacturing) for 23% (down 12 pp).



### Weight assigned by firms to development of digital technologies in specific areas in the next 12 months







Digital transformation in the area of customer service, and sales and marketing, will be particularly important for the financial and life sciences sectors over the next year. In these industries, 50% of companies declare that they will place great or very great weight on digitalization of processes related

to customer service, while 45% and 43% of companies, respectively, will focus on sales and marketing. Companies from the life sciences sector also lead in their plans to digitalize internal operations (46%) and operational management (43%), leaving other sectors far behind. Transport, shipping & logistics was

by far the weakest in the ranking. Last year, in three of the four discussed areas, the result of TSL was well above the average for the entire economy. But in the latest edition, in each category, less than one-fifth of companies said they attach high or very high importance to digitalization. The transport industry

is going through a very difficult time right now. Staff shortages and volatile fuel prices are hurting the condition of many companies and probably causing them to postpone investing in digital transformation.

### Percentage of firms planning to place great or very great weight on growth of digital technologies in specific areas

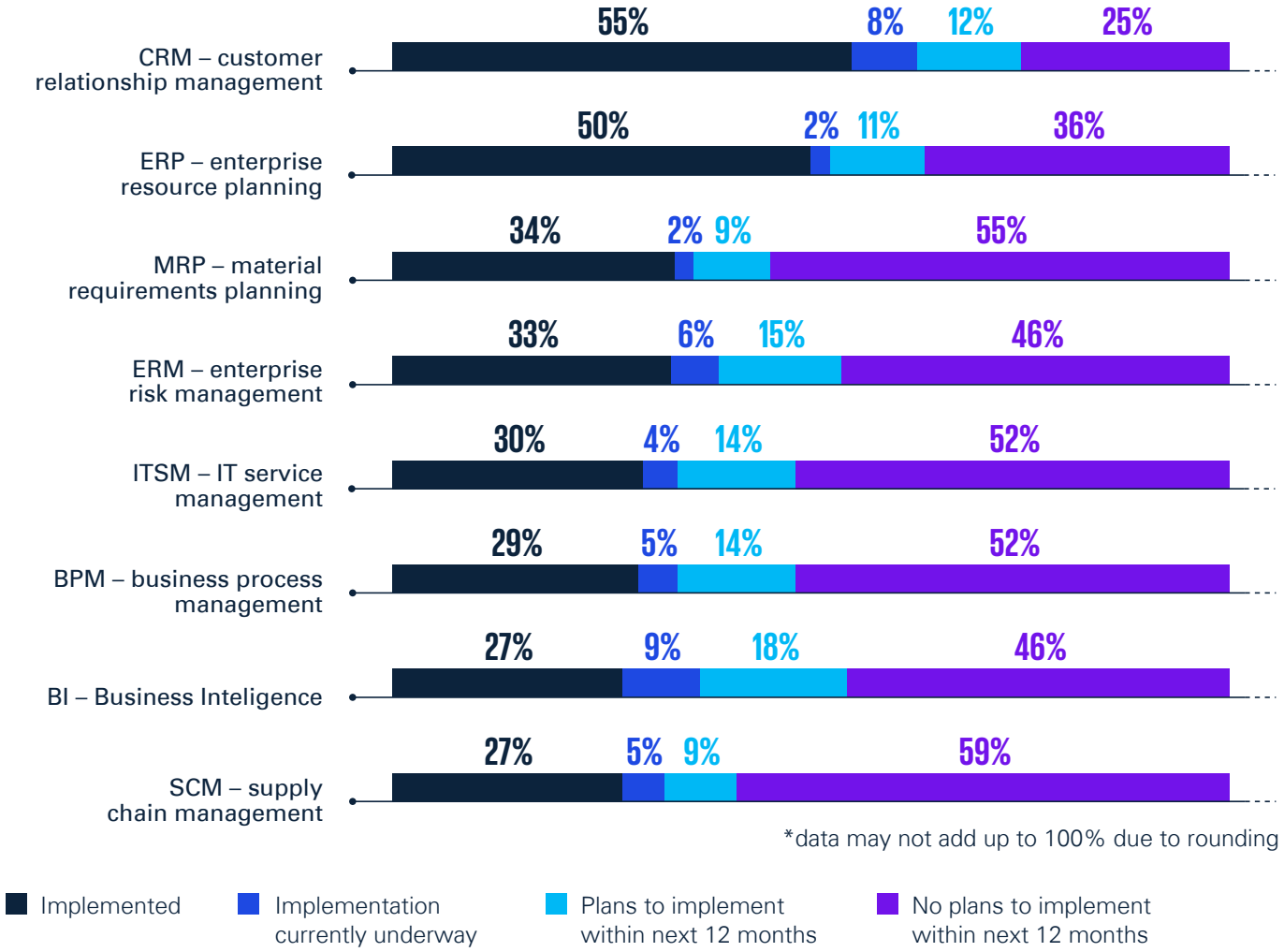
	Economy overall	Finance	Energy, mining & utilities	Construction & real estate	Consumer goods	Life sciences	Automotive	IT, media & communications	Transport, shipping & logistics
 Sales and marketing	32%	45%	18%	36%	32%	43%	39%	35%	20%
 Customer service	30%	50%	32%	27%	23%	50%	17%	20%	11%
 Internal operations	24%	25%	32%	14%	18%	46%	11%	30%	16%
 Operational management/manufacturing	23%	11%	23%	23%	33%	43%	22%	20%	11%

We also asked businesses about their use of eight types of IT systems. The leader in this edition of the survey was CRM, used by 55% of companies, up 14 pp from last year. Another 8% of companies are currently implementing CRM, and 12% of respondents said they will implement it within the next year. Last year's winner, ERP, came in second this year. It has been implemented by 50% of organizations, up 4 pp from last year. The third most popular system in Polish companies is MRP, implemented already by 34%, 13 pp more than last year. The results are cause for optimism, as the percentage of firms using seven out of eight types of systems increased. The only worse result was for business intelligence systems, falling from 46% to 27% of respondents, although implementation is underway at 9% and 18% plan to implement BI analysis systems in the next 12 months.



## CRM and ERP are the IT systems most often implemented in companies

State of implementation of specific types of systems in enterprises operating in Poland



The systems used obviously depend in large part on the type of activity, and thus the sector in which the company operates. Once again, life sciences stood out, as the leader in use of five of eight

types of systems: CRM, ERP, MRP, BPM and SCM. The finance industry led in the other three systems – ERM, ITSM and BI. In a positive surprise, this year’s survey did not find any sector

in which any of these systems was not used at all (several such instances were found last year).

### Percentage of firms with currently implemented types of IT systems

	Economy overall	Finance	Energy, mining & utilities	Construction & real estate	Consumer goods	Life sciences	Automotive	IT, media & communications	Transport, shipping & logistics
CRM – customer relationship management	55%	65%	50%	55%	52%	75%	44%	55%	60%
ERP – enterprise resource planning	50%	45%	55%	57%	43%	64%	61%	55%	44%
MRP – material requirements planning	34%	11%	24%	33%	32%	77%	53%	20%	30%
ERM – enterprise risk management	33%	55%	36%	10%	32%	43%	35%	50%	26%
ITSM – IT service management	30%	70%	23%	14%	10%	31%	20%	35%	44%
BPM – business process management	29%	32%	27%	18%	29%	62%	21%	42%	21%
BI – Business Intelligence	27%	55%	14%	35%	10%	23%	19%	35%	17%
SCM – supply chain management	27%	6%	14%	40%	18%	50%	50%	20%	25%



# Cybersecurity and risk

The risk associated with online security rises along with progressive digitalization of processes of the overall organization. Introduction of modern technologies and innovations requires additional protection, and not all companies are equally prepared. Concern about the safety of transactions using digital services can be minimized by implementing the right security measures and raising the awareness of threats among all employees.

In the survey sample, formal policies and procedures for internet security were created and implemented in more than half of organizations (60%), but this was a slight decline from last year. Moreover, a dedicated cybersecurity division was created in only slightly over a fourth of companies. Over half of the respondents expressed confidence in the effectiveness of the existing security measures at their organization, and consequently the number of enterprises planning to increase their spending on cybersecurity declined. This year's survey also showed that knowledge of procedures for employees to respond to cyber incidents is now lower than it was a year ago.

 **4.4 / 10**





## Managing in the digital reality

Cyber threats are a real challenge in organizations, and thus the method of handling them is vital. Introduction of security measures and procedures for detecting breaches and restoring the continuity of system operations is key, and is practised by most organizations. In Poland, 60% of companies have formal cybersecurity policies such as monitoring, raising awareness, and vulnerability testing.

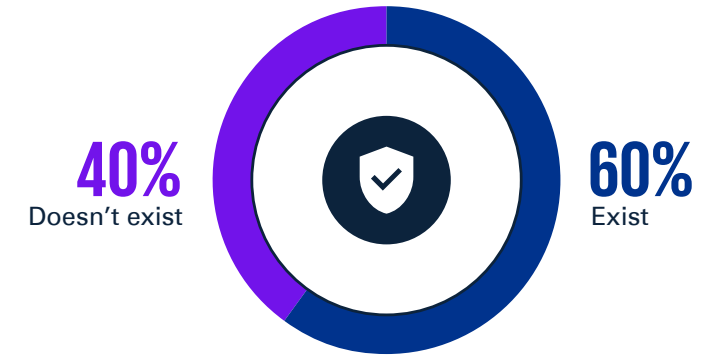
Only one in four firms said they have a special, dedicated cybersecurity division or team. This percentage was higher in medium-sized and large companies (50+ employees) and in such industries as life sciences (57%) and finance (50%). Construction and consumer goods

performed the worst, with only one in ten companies having a separate unit to combat cybercrime.

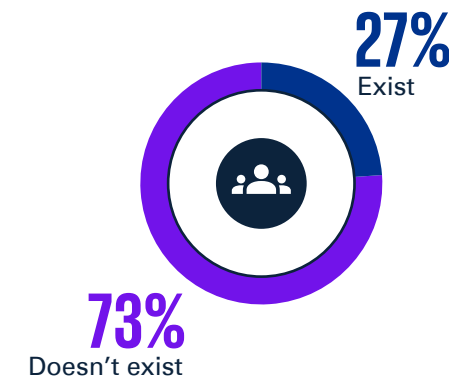
The system for monitoring the safety of software used by a company is also crucial. Unsecured infrastructure on the part of suppliers may lead to an uncontrolled data breach. Unfortunately, in the last year the percentage of companies with systems monitoring threats of this type in their supply chain (40%) decreased. But when we examine companies from the finance sector, as well as IT, media and communications, these figures improve significantly (to 70% and 60% respectively).

## 60% of companies surveyed have formal cybersecurity procedures

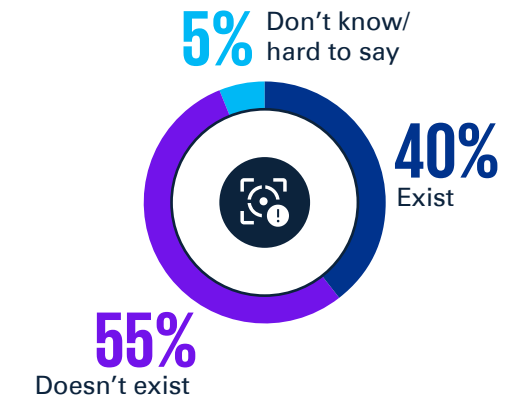
### Formal management of cybersecurity in firms (cybersecurity policies and procedures created and implemented)



### Existence of dedicated cybersecurity division or team in firms



### Existence of system monitoring cyber threats in software used in supply chain





## KPMG COMMENT

” In the face of the cyber war now underway, Polish firms must prepare for an increase in the scale and sophistication of cyber attacks. Highly specialized and well-organized groups of cyber criminals, backed by foreign governments, have advanced techniques at their disposal enabling them to quickly penetrate basic security measures. Given such threats as attacks on supply chains, Polish companies must not only protect their own infrastructure, but also implement effective solutions for monitoring and controlling the security of the infrastructure of their business partners and suppliers. Managing cybersecurity in such a complex ecosystem is a big challenge. Today, companies must ask themselves not “whether” they will fall victim to a cyber attack, but “when.”

For this reason, when designing security systems, Polish firms should not rely only on preventive measures. To properly prepare for early detection and rejection of inevitable cyber attacks, it is also necessary now to invest in processes for monitoring security and responding to cyber attacks. But these measures are hindered by the difficulty in attracting and retaining cybersecurity specialists, of whom there is a global shortage. With the spread of remote work, it is even easier for Polish experts to find jobs in Western Europe. For this reason, local Polish companies increasingly decide on outsourcing of security processes.



**Michał Kurek**

Partner, Business Advisory,  
Head of Cybersecurity in Poland  
and CEE, KPMG in Poland

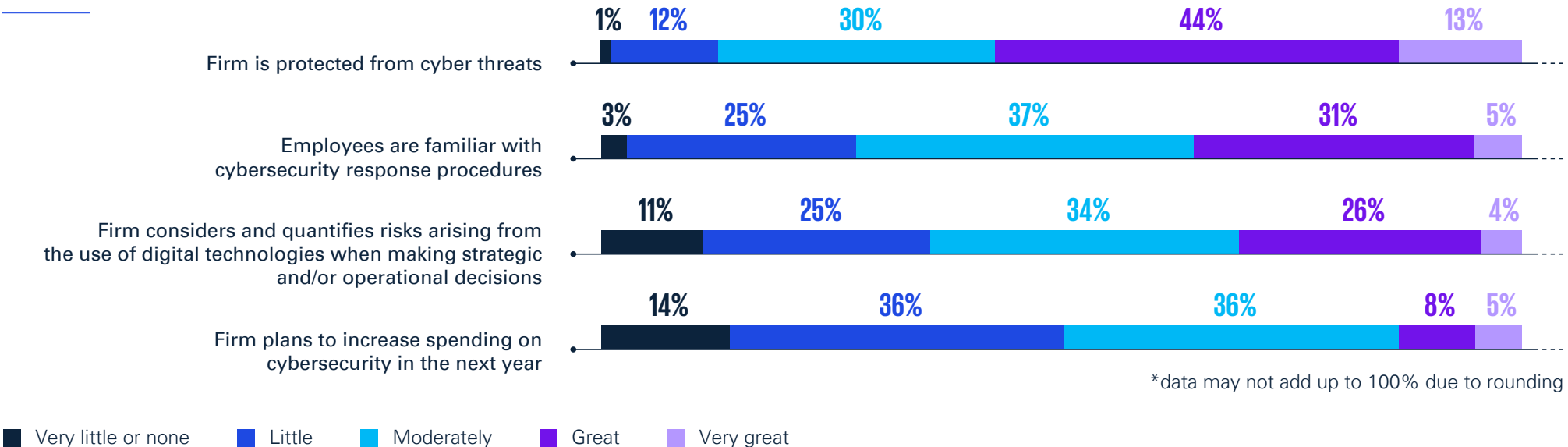
Firms' confidence in their protection against cyber threats did not change significantly since last year. 44% of companies believe that they are protected to a high degree against attacks in cyberspace. Another 13% believe the protections in place in their organizations are even more effective. Only 1% of the respondents feel they are protected little or not at all against digital threats, and 12% and 30% respectively to a low or moderate degree. Comparing sectors, companies in the life sciences feel the most protected against cyber attacks, with 79% saying that they are confident of their protection to a high

or very high degree. The finance sector (75%) and IT (70%) also performed well. Meanwhile, 37% of companies in the consumer goods sector believe that they are protected little or not at all. The risk in taking strategic and operational decisions is significant when we are discussing digital technologies. But not all companies take this into account in their actions. Compared to last year, assessments of risk are less optimistic. More than a third of firms (36%) believe that management does not quantify these threats at all, or only to a very small extent. Employees' familiarity

with procedures for responding to cybersecurity incidents also declined. Companies generally do not plan to increase spending on cybersecurity in the next year. Half of those surveyed said they do not intend to increase their budget for this purpose, and if so, only to a small extent. That is 8 pp more than last year. Only 13% gave an affirmative response, which is 2 pp less than last year. This percentage rose in ICT and the energy sector, and fell in consumer goods and TSL.

**44% of respondents believe their companies are strongly protected against cyber threats**

**Opinions on cybersecurity in firms within the next 12 months**



## COMPANY COMMENT



*The digital transformation is proceeding in the context of many groundbreaking events that have turned our thinking about security upside down. The last year has revealed to us the truth of how complex the supply chain is today and how strong the interdependencies between seemingly unrelated sectors are. This teaches us a new way of thinking about business continuity, where severing one thread can trigger unknown, cascading consequences. Their common denominator is the threat to our security.*

*Only digital technology makes it possible to understand these interdependencies and strengthen our resistance, to be prepared for the worst. But this requires us to include reliable, resilient cloud technology at every stage of change, across all areas of the company's operations. This is clearly illustrated by the zero trust strategy, a crowning principle of modern security, which says that the most important thing today is not to seal the door of the organization against intruders, but to prevent them from making malicious moves once inside.*

*Polish business has a lot of work ahead. Although most organizations follow security policies and procedures, only one in four has a department of specialists dealing with them on a daily basis. This may indicate still insufficient awareness of the scale of threats. Similarly, more than half of companies do not monitor the software they use, or admit that have no planned spending on cybersecurity. In an age of relentless digital attacks, this is a recipe for disaster.*

*We need a whole new approach to security because the modus operandi of attackers has changed. They are often sponsored by hostile states and trained in sophisticated methods for spying on companies and plundering their resources for months undetected. We are dealing with threats on an unprecedented scale, and we must constantly adapt our defence models to counter them.*



**Krzysztof Maleša**

Director of Security Strategy,  
Microsoft Poland

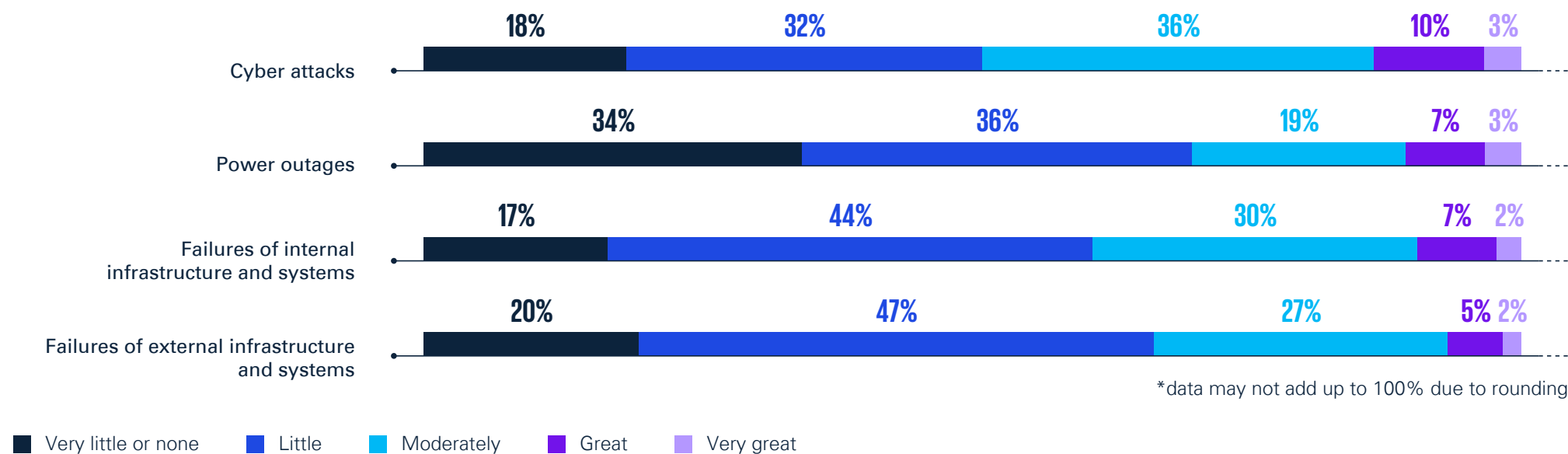
## Digitalization – what holds it back

Depending on the industry and the size of the company, the current threats that may affect the success of digital transformation are perceived quite differently. Cyber attacks were mentioned as having a large or very large impact on this transformation. The increase of 3 pp y/y, to 13%, is not large, but it conveys a sense of greater

uncertainty caused by the current situation in Ukraine. Power outages have become less important, or not important at all, in the context of other threats to industries such as life sciences, automotive and finance, but they remain significant for the energy sector and consumer goods. Other threats, such as failures of internal or external infrastructure and systems, remain, to a lesser extent, but also declined in significance over the last year.



### Assessment of seriousness of threats to success of digital transformation in firms within the next 12 months



# Potential for transformation

Polish companies have reduced their financial and human resources devoted to digitalization. 29% of enterprises do not invest in digital transformation, while 71% do not assign employees mainly to tasks in this area of development. The results of the *Business Digital Transformation Monitor* show how misplaced this approach is, as higher scores in all four assessed categories were won by companies investing a relatively large percentage of their revenues and the time of a significant part of their staff in digitalization. Fewer resources also mean that Polish companies do not look for new solutions as actively as they claimed a year ago, and employers express concern about the readiness of their employees for digital transformation, and about the quality of their training.



 5.2/10



## Resources are the foundation of digitalization

While digital transformation remains an unexplored topic for many Polish companies, it is worth considering how to develop their potential. It seems obvious that changes will not take place without appropriate financial outlays. But according to the survey, 29% of companies do not allocate any funds to digital transformation. This is all the more worrying, as the percentage of such companies increased by 18 pp since the previous edition of the study. More than half of respondents (57%) declare that expenses related to digital transformation consume a maximum

of 5% of annual revenues, while only one in ten companies surveyed allocate more funds for this purpose. Once again, the importance of having a formal digital transformation strategy emerges: among companies that have created such a document, 89% regularly allocate a certain portion of their revenue to digitalization measures, 18 pp higher than for companies overall. The largest number of enterprises allocating a portion of their revenues to digital transformation are in the IT, media & communications sector, where 88% declare that they invest in digitalization, but only 31% of them invest more than 6% of their revenue in this area. The TSL sector is an interesting case – 83% of the companies in that industry declared that they invest in digitalization, but none allocate more than 5% of revenue for this purpose.



### COMPANY COMMENT



*In recent years, we have observed constant changes in the infrastructure environment of Polish companies, as owners have recognized the need to invest financial and organizational resources in digital transformation, but this rarely translates directly into visible and significant improvement in cybersecurity. The increase in labour costs, the erroneous belief that threats have stabilized, the failure to acknowledge the need for continuous upgrading of security, and the shortage of cybersecurity specialists on the market, require a lot of effort and commitment by employers to maintain their own IT security teams. Regardless of the industry, business needs drive constant changes in the functionalities of the products they use, and maintaining their security at the proper maximum level requires them to migrate to new technologies supported by manufacturers.*



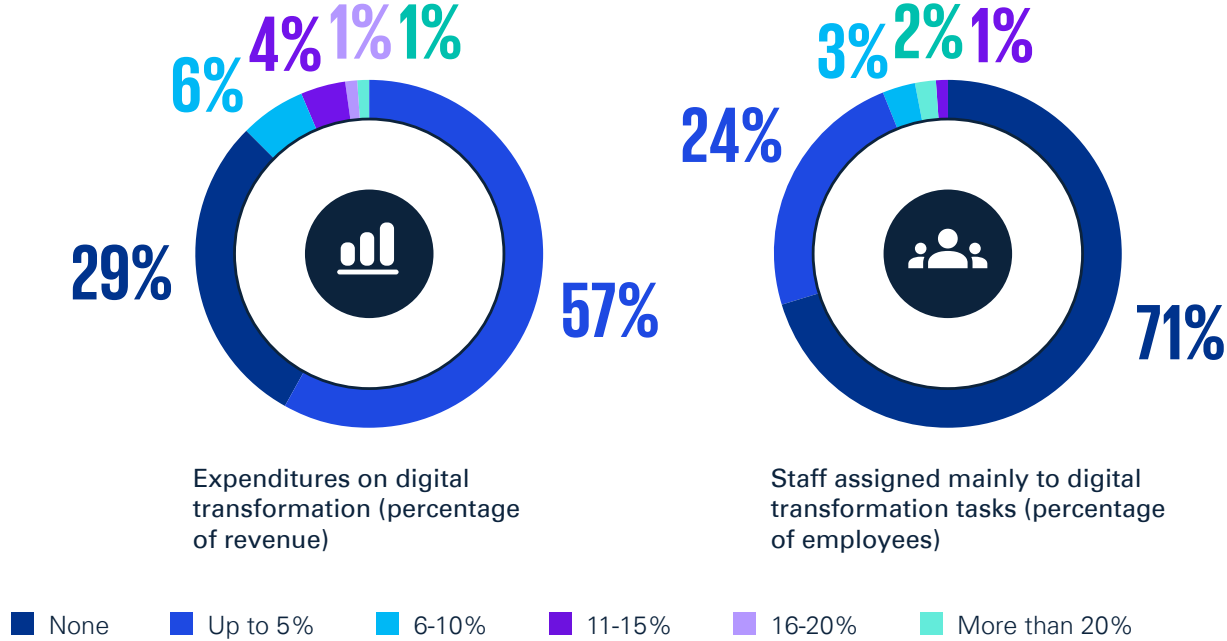
**Adam Piotrowski**

COPI Managing Director,  
KGHM Polska Miedź S.A.



Apart from financial outlays, human resources play a huge role in digital transformation. Without properly trained staff, it is hard to effect change in the functioning of the company. But it turned out that 71% of the surveyed enterprises do not delegate a single employee to perform tasks related to digital transformation. The percentage of such companies rose 17 pp from last year's result. A quarter of respondents declare that tasks in this area are performed by fewer than 5% of all employees, and companies with a higher percentage of employees devoted to digital transformation constitute only 6% of respondents. Again, as in the case of financial outlays, the sector that leads the way in employing people tasked with digitalization processes is ICT, with 47% of companies in this industry assigning some employees mainly to digital transformation and 21% of companies assigning over 6% of all employees to such tasks.

**Current percentage of staff and expenditures on digital transformation in firms**



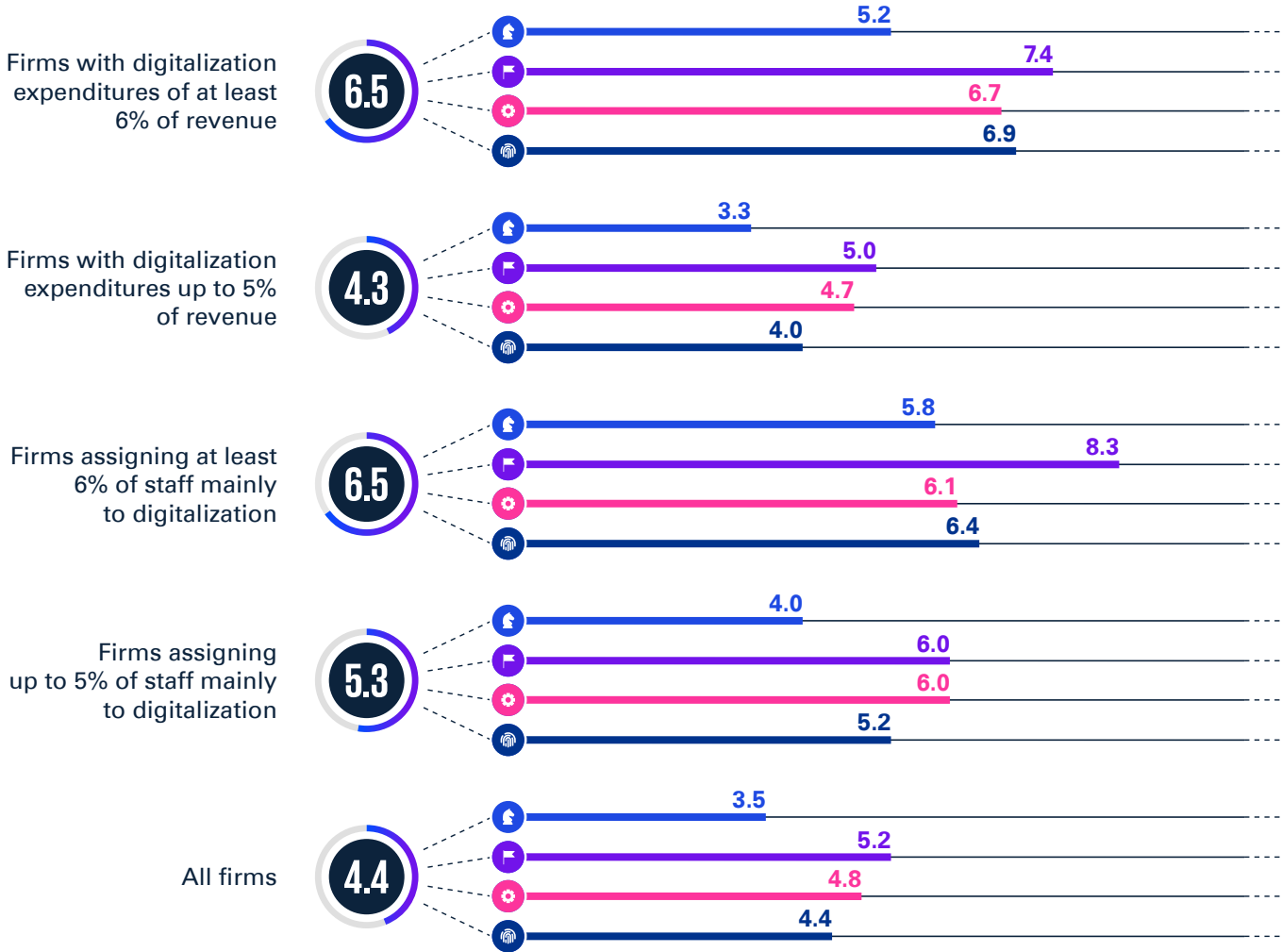
\*data may not add up to 100% due to rounding

**29% of companies do not allocate funds to digital transformation, and 71% assign no employees to tasks in this area**





### Scores in Business Digital Transformation Monitor by current allocation of digital transformation resources



In the *Monitor* results, there are clear differences between firms earmarking up to 5% of their revenue to digital transformation, and those investing more than 6% of their revenue in this area, as well as between enterprises assigning up to 5% of staff mainly to digitalization and those assigning over 6% of staff to this area. Companies investing a lower percentage of capital in this area received an average score of 4.3, and those spending more on digital transformation earned an average of 6.5. Notably, the average in the latter group rose from 5.8 last year. Enterprises employing fewer people directly in digitalization processes received an average score this year of 5.3, while those devoting more human resources to this area noted a significant increase to 6.5. Firms assigning more than 6% of all staff to digital transformation tasks earned a particularly high score (8.3) in the category of transformation potential. We could not fail to point out that it was in this category that all of the groups received the highest marks. Thus it is worth striving toward transformation, because the study shows that there is great potential inherent in companies.



## Fear of transformation is the biggest hurdle

For digital transformation to run smoothly and be a boon to employees, and not a hindrance in their everyday work, staff must be well prepared for this process. Lots of people still prefer what they know and feel confident about, even if the tasks they perform every day are tedious and could easily be automated. Fear of learning new technologies affects many staff and undoubtedly is a factor slowing the progress of digitalization. Among persons responsible for tech development, only 28% of respondents believe strongly or very strongly in the readiness of employees for changes connected with the digital transformation in their organizations. This percentage fell by 3 pp from last year's study. Moderate preparedness of staff was reported by 46% of respondents. It may be cause for concern that 26% of the managers surveyed believe that the staff reporting to them are not at all prepared for changes, or are prepared only to a small or very small degree. This figure is worse than last year, when 16% of respondents fell into this group.



### KPMG COMMENT

” The use of digital tools for analysis and comparison of ESG results is becoming a key aspect for building a sustainable business model for companies. The market increasingly expects firms to move from mere marketing messages towards real, measurable change to respond to the more and more disturbing data on the human impact (overwhelmingly negative) on the environment.

A huge role is played here by the legislative requirements of the European Union in the area of reporting of sustainability issues by companies, where, as in the Corporate Sustainability Reporting Directive, there is an express requirement for digital reporting enabling machine analysis of the data.

For example, in the European sustainability reporting standards (ESRS), it is now mandatory not only to report the undertaking's carbon footprint in scopes 1, 2 and 3, but also to report the organization's reduction goals and strategies for achieving them. In this regard, it appears necessary to have a digital tool that will not only

help collect data in the organization, but also make the appropriate calculations, and then, based on them, prepare reduction scenarios and help choose the optimal one, based on criteria defined by the user. With such a tool, companies can track their emission levels on an ongoing basis, and also their progress in achieving their targets.

The use of digital tools in ESG reporting will be fostered by further reports and benchmarks from think-tanks and other organizations devoted to this issue. Acquisition and analysis of data also stimulates the development of initiatives such as CDP (the former Carbon Disclosure Project) and SBTi (Science Based Targets Initiative), supporting companies on the road to climate neutrality and verifying the compliance of their reduction targets with the scientific climate consensus and various types of sustainability rankings. Wherever there is a need for data under which the organization will be assessed, and data used as a basis for making investment decisions, it appears essential to have tools for delivering reliable data.



**Justyna Wysocka-Golec**

Director, Business Advisory, Energy & Climate, KPMG in Poland

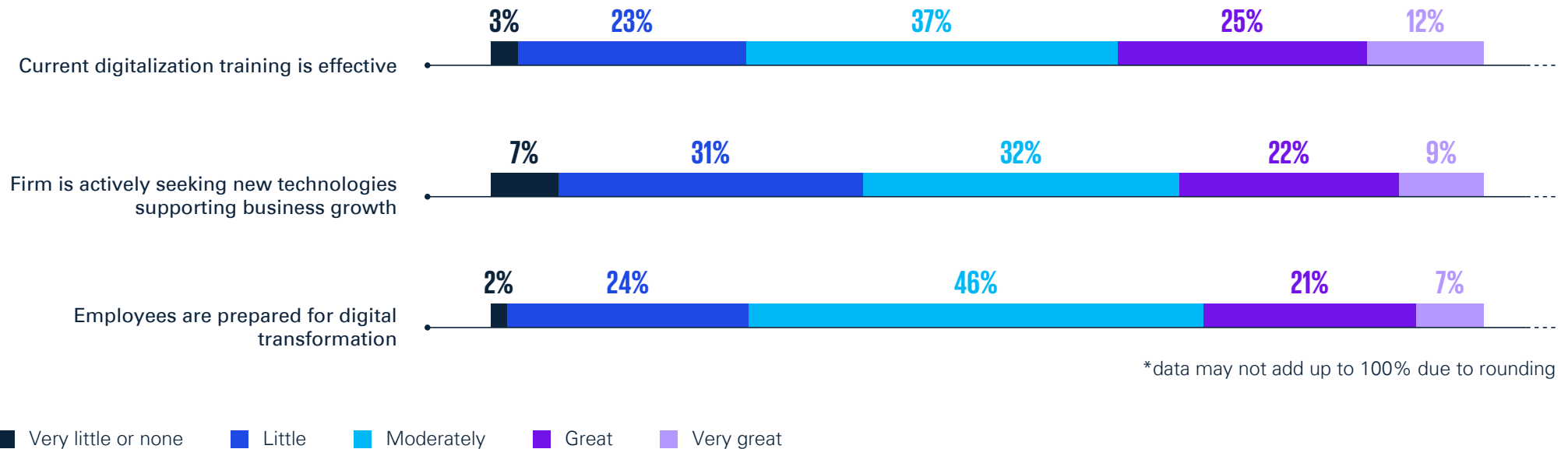
Ambiguous conclusions may be drawn from the responses to the questions about the level of training conducted in companies. On one hand, there was an increase in the number of respondents with a high or very high confidence in the effectiveness of their courses (from 30% in 2022 to 37% in 2023), while the percentage saying that training

is ineffective, or effective only to a small or very small degree, also rose (from 20% in 2022 to 26% in 2023). 37% of respondents believe their training is moderately effective. When training is not very effective, or not effective at all, that is undoubtedly an additional factor discouraging employees from embracing new technologies, and

contributing to their low preparedness for digital transformation. Employees' reluctance to change may in turn cause the company not to actively look for new solutions that could support business development, fearing staff reactions. 38% of respondents admit that this search for knowledge is not conducted at their company at all, or occurs at a low

or very low level. Such response more than doubled from last year. A moderate degree of active searching for knowledge was reported by 32% of respondents, while 31% said that such measures are pursued to a high or very high extent in their company (down 5 pp y/y).

### Firms' agreement with statements about potential for transformation



“ There is no doubt that digitalization is vital to ensuring the resilience of Polish enterprises, and thus the economy as a whole. It is the digitalization of processes and creation of new cloud-based operating models that have allowed companies to maintain their competitive positions and generate new revenue streams. Worryingly, more than three-fourths of the organizations participating in the survey had no formal digital transformation strategy, and only 5% of them plan to draw up such a strategy within the next year.

Companies can already see how the cloud accelerates the digitalization process, raising security, which is vital in the face of the growing number of cyber threats. In this context, the role of partners supporting companies and public administration in the process of implementing innovations and effective use of cloud technologies assumes greater and greater importance. Advisory and knowhow on managing the process of implementing solutions is like an insurance policy backing the success of digitalization projects.

The knowledge and skills of our technology partners build value for organizations and economies around the world.

Globally, we work with 400,000 partners in over 225 countries and regions. In Poland, we already have almost 7,500 companies whose highly qualified experts have won the trust of Polish and international organizations on the way to digital transformation. Their work and commitment have a key impact on the development of the Polish Digital Valley. Whether it's simple applications, complex systems or a variety of services, our partners have access to limitless possibilities thanks to the cloud, which allows them to innovate, scale and differentiate the solutions they deliver to their clients, so they can succeed and become more competitive on the market. This task carries great responsibility, especially today, when we face security issues globally. In all this, trusted technology, skilfully implemented using the right tools, requires such broad digital competencies.

With the creation of a new Azure Poland Central data processing region, Polish IT system integrators, software developers and many other IT companies are positioned to break down further barriers in the broader dissemination of the cloud. This applies in particular to organizations in regulated sectors such as energy, banking, insurance and public administration, which set specific expectations for data security and location

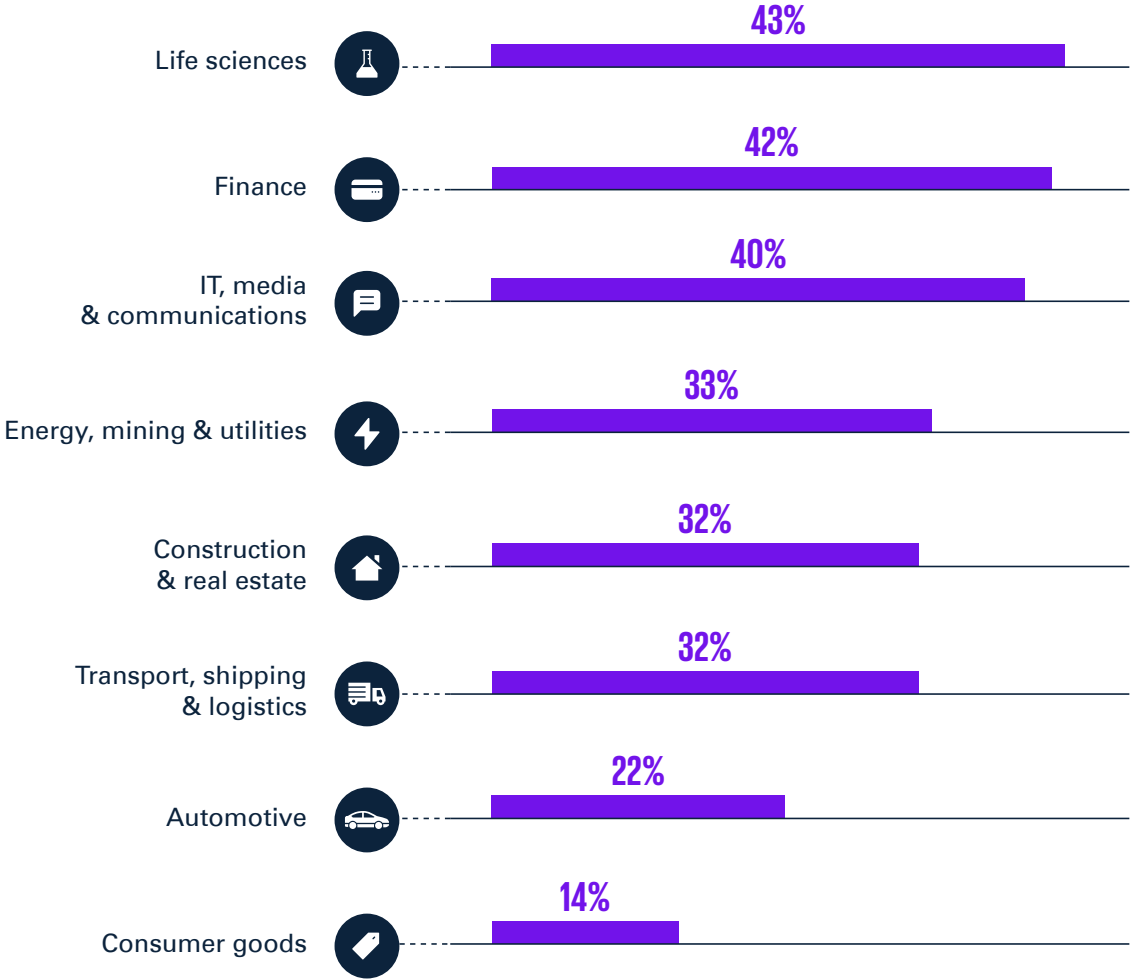
in Poland. The Microsoft region allows these requirements to be met. It ensures high availability, minimizes latency, increases scalability, and offers the latest achievements in the development of cloud infrastructure. The data processing region located in Poland also raises a protective shield over data resources of organizations vital for the functioning of the economy.



**Piotr Grzywacz**

Global Partner Solutions Lead,  
Microsoft Poland

**Sectors with the highest percentage of companies significantly or strongly agreeing that they are actively seeking new technologies to support business growth**



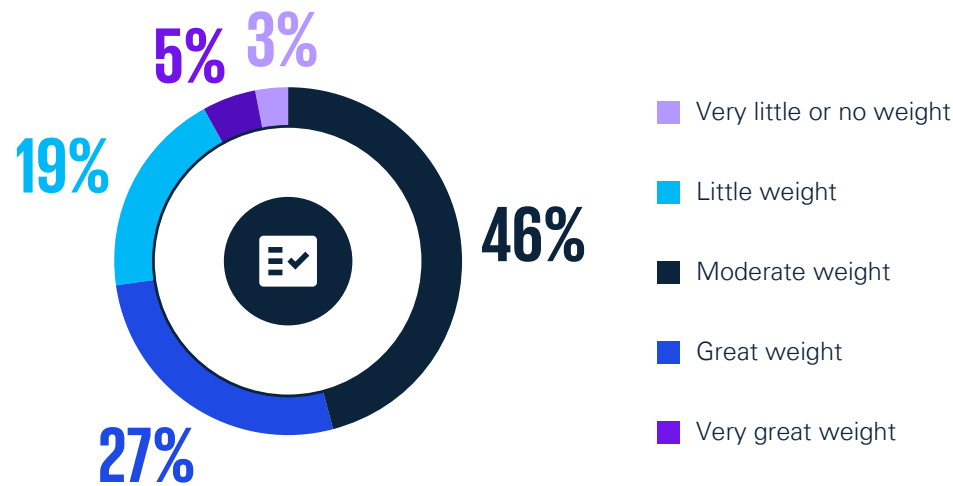
Confirmation of the reduction in the need to search for new technologies can also be seen in individual sectors. A slightly lower percentage of companies looking for such solutions to a large or very large extent than in the previous edition of the report was recorded in most sectors of the economy. The life sciences sector is the leader, with a score of 43% (up 4 pp), followed by the financial sector, where 40% of companies declare a continuing desire to develop their business through new technologies (down 8 pp). The worst performer in this classification was the consumer goods sector, at 14% (down 9 pp from last year).



Concern about employees' readiness for digital transformation and the effectiveness of training conducted in firms raises questions about effective methods of raising staff qualifications. Certainly, it is important to approach training on already implemented technologies with greater commitment in the coming months and years. In this year's edition of the survey, 46% of respondents declare that their companies will attach moderate importance to courses and improving

digital competencies over the next year. About 21% of businesses admit that such activities will be of little or very little importance to them, while one-third of companies declare that training will be important or very important to them. The sector that expects the greatest involvement in training over the next 12 months is finance, where 65% of respondents say they will attach great or very great weight to improving digital skills.

**Weight firms will assign to training on implemented systems and digital skills in the next 12 months**



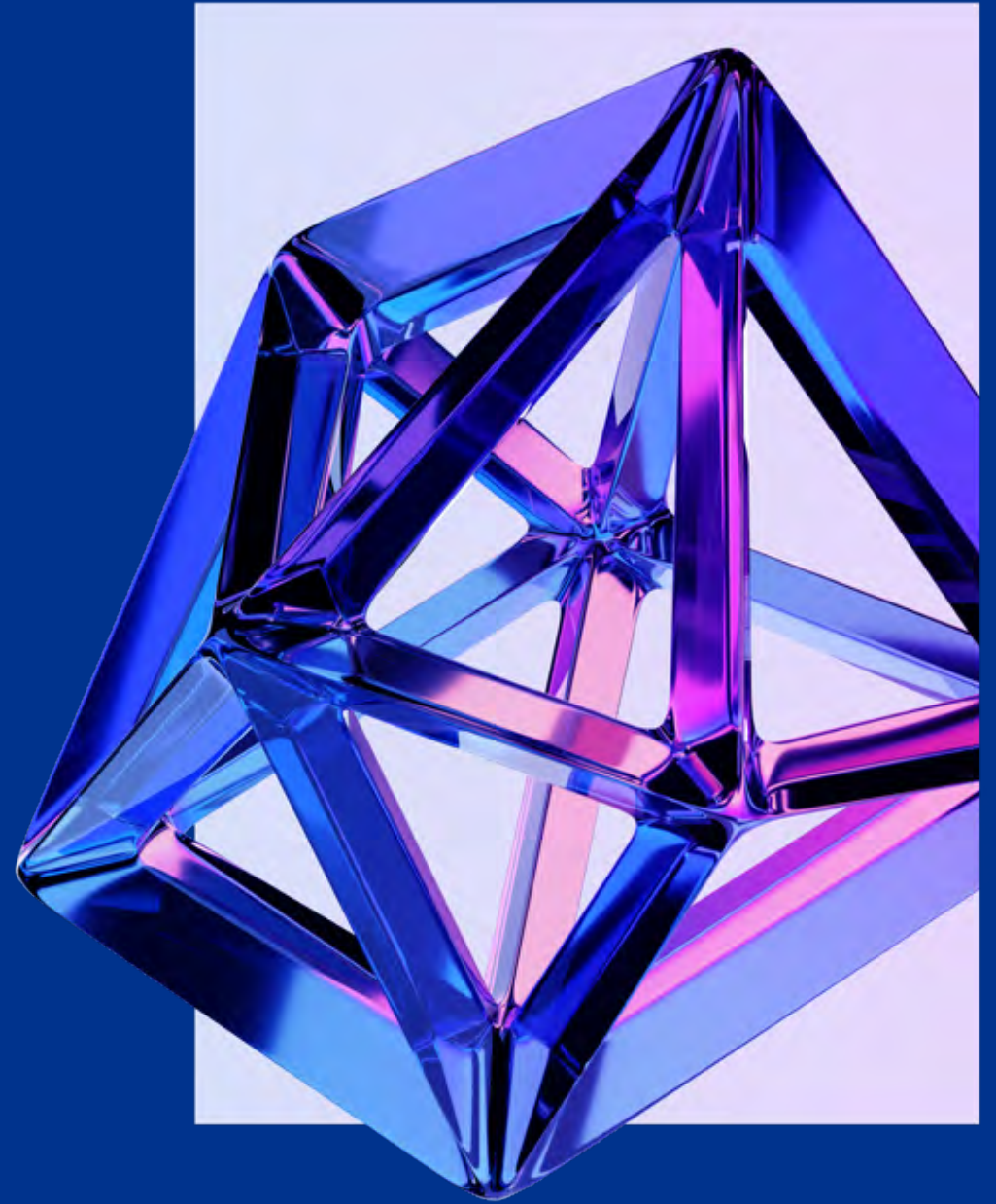
*In the current situation, companies commonly face the challenge of satisfying dynamically evolving needs of users, which include both customer experience and employee experience. The response to this is to implement elements of the digital transformation including the delivery of digital applications and services. Low-code technologies are a trend gaining steam as a key factor facilitating digital transformation. The three most important components used in this process are low-code application platforms (LCAP), business process automation (BPA) and robotic process automation (RPA).*

*Apart from the obvious benefits (higher efficiency and lower costs), their adoption also brings high throughput, scaling and usefulness of solutions, shorter time-to-market for producing solutions, and even shorter update cycles. The most popular LCAP, BPA and RPA solutions include development of less complex applications for handling various business needs, and digitalization and automation of business processes. Our observations reveal that organizations are particularly eager to use these solutions for customer service, employee operations, and any other processes for internal services and handling inquiries.*



**Jan Karasek**  
Partner, Management Consulting, Strategy & Operations, KPMG in Poland

# Scores in the Business Digital Transformation Monitor



Digital transformation is a product of four areas without which change would be impossible: digitalization strategy, technology implementation, cybersecurity and risk, and transformation potential. This could be imagined as an automobile that needs four wheels to travel safely. All of the wheels are equally important, and without any of them the car will go nowhere.

As shown by this year's *Business Digital Transformation Monitor*, all of the analysed areas require improvement to a greater or lesser extent. The hardest to implement and the most complex proved to be digitalization strategy, which performed the weakest in our study. Fear of the new and unknown can put the brakes on development. Paradoxically, in SMEs, where it might seem that

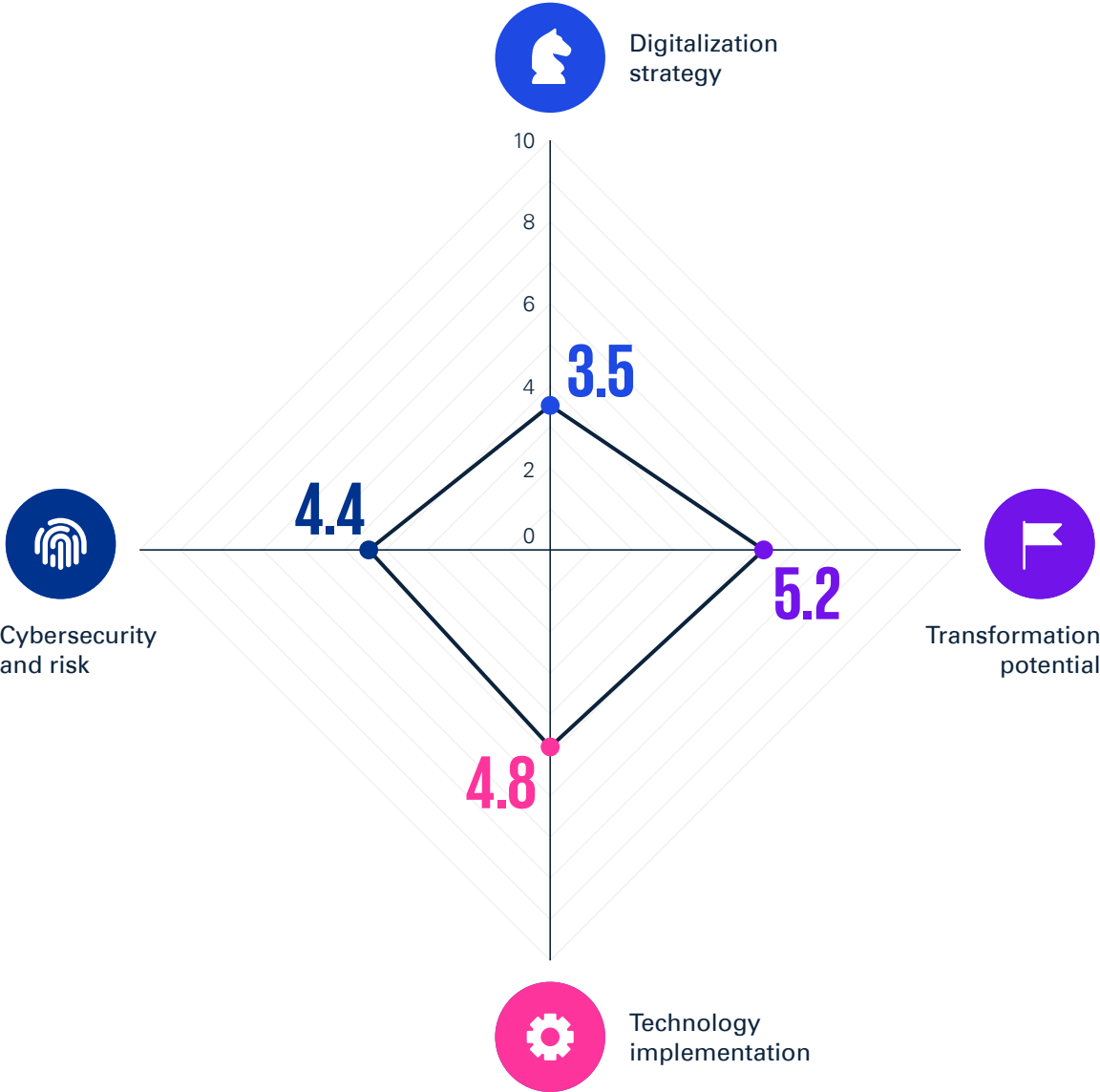
financial resources are less, strategy received higher scores than in large companies. Technology implementation received more points than strategy, but the current economic crisis and the cost-cutting accompanying it have pushed investments in new digitalization tools into the background. Cloud and mobile solutions, whose use has grown since last year, give cause for optimism. The highest score was for the area of transformation potential, which is founded on capital and people. It grows in direct proportion to financial outlays on digitalization. The final element essential for a successful transformation process, the glue holding all these elements together, is cybersecurity. Together they account for the level of digitalization of the given enterprise.

### Score in Business Digital Transformation Monitor in Poland (2023)





Scores in Business Digital Transformation Monitor in Poland (2023)



Strategy inadequate to the potential

The results in the different areas combine to make up a holistic assessment which is the total score in the *Business Digital Transformation Monitor*. In the study conducted in February 2023, the total score was 4.4 out of a possible 10 points. This result reflects the current situation and shows significant room for improvement. As digitalization sweeps the market, the only effective tool to handle a competitive environment full of expectations and challenges is building a digital strategy, exploiting the organization’s existing potential.

Management of digitalization strategy remained, once again, the worst-performing area in the study. The score of 3.5 was 0.3 point lower than a year ago. Fewer companies than in last year’s survey said they plan to increase investments and employment in digital transformation – hence the regression. In a tough economy, companies seem to pay less attention to digitalization, focusing on factors critical to their immediate operations. The assessment of the potential for transformation of enterprises also decreased by 0.3 point, to 5.2. This is the only area scoring in the top half of the scale. Respondents expressed concern about their employees’ readiness for the upcoming digital transformation. The lack of conviction of the effectiveness of the training conducted in their companies and the need to look for new technological opportunities, which declined from last year, is inextricably linked to lower financial outlays. But managers declare that they will place if not great weight, then at least moderate weight on development of the digital competencies of their staff. The area of technology implementation showed the largest

decline of all sections, from 5.3 in 2022 to 4.8 in this year's edition. Once again, the realignment of priorities in companies means that plans for developing digital technologies in specific areas of business operations are postponed. To improve the mood a bit, it is worth adding that the indicator is determined only on the basis of selected questions from each area, which have not

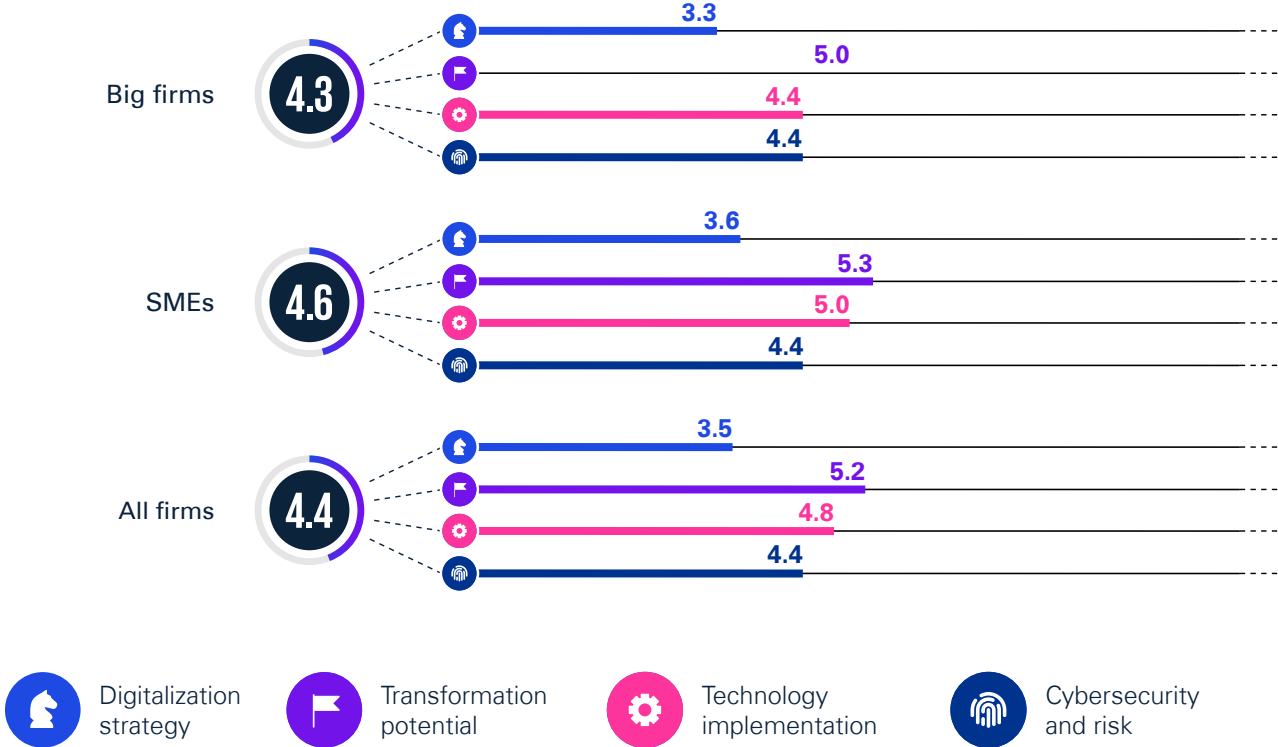
changed from one edition of the survey to the next. If the assessment were also dependent on the state of implementation of specific IT systems in companies, we would certainly see an improvement or at least maintaining the level from a year ago. The last, but by no means least important component of the *Business Digital Transformation Monitor* is cybersecurity and

risk, for which Polish companies received a score of 4.4, down 0.2 point from a year ago. Few companies plan to increase spending on this part of digital transformation. Apart from the overall reduced investment, this may also be attributed to the fact that most companies believe that they are already well protected against cyber attacks.

## Strength is not in numbers

It may come as a surprise that in this year's edition of the survey, SMEs, with a score of 4.6, outperformed large companies (employing 250+ people), where the average score was 4.3. SMEs thus outperformed the average for the overall economy. This is the reverse of last year, when large companies scored 4.9 and SMEs scored 4.7. The main area where firms employing up to 249 people stood out was technology implementation, where they scored 0.6 point higher than their larger competitors. SMEs also boasted a higher score in the areas of digitalization strategy and transformation potential. The only area where large companies matched the smaller ones this year was cybersecurity, where both groups averaged 4.4 points.

### Scores in Business Digital Transformation Monitor by company size



-  Digitalization strategy
-  Transformation potential
-  Technology implementation
-  Cybersecurity and risk

## Life sciences are the leader

The life sciences sector must be recognized as the biggest winner in this year's study. In addition to minor successes and the highest percentages of system adoptions, ultimately this sector achieved the highest overall score in the *Business Digital Transformation Monitor*, at 5.3. This result is particularly encouraging, as it exceeds the average for the overall economy by 0.9 point, and it is the only sector (apart from firms in miscellaneous sectors not singled out in the study) whose score improved from last year to this year. Companies

from the life sciences most highly rated their transformation potential and technology implementation, in which they are the undisputed leader compared to other industries. The finance sector placed second overall, with a score 5.1, and this industry performed the best in transformation potential. In third place was ICT, with a score of 5.0, and it also rated its potential most highly. The weakest performers in this year's edition were TSL and automotive, both scoring 3.8, with the lowest scores in the area of digitalization strategy. Transport, shipping & logistics caused particular concern, as its score fell 1.2 points from last year.



## COMPANY COMMENT



*The most important challenges for digitalization of the life sciences sector include the need to maintain the security, integrity and confidentiality of patient data and to ensure the data have the high quality crucial for their correct use, for example in the treatment process. Another key issue is to ensure continuous access to the data and IT systems necessary to conduct R&D, as well as interoperability.*

*Development of an IT ecosystem enabling the processing and analysis of large data sets (Big Data) is another vital element in the life sciences for achieving a better understanding of disease mechanisms and inventing more effective and efficient treatment methods. With the growth of artificial intelligence and machine learning technologies, more and more advanced data processing and process automation are becoming possible. We are already introducing AI-based solutions into our lives which can anticipate the demand for a specific group of drugs, but also predictive maintenance for the devices that produce them. This complementary pair boosts the availability of drugs, and will continue to do so. But it can also support drug manufacturers' ESG/ sustainability strategy.*

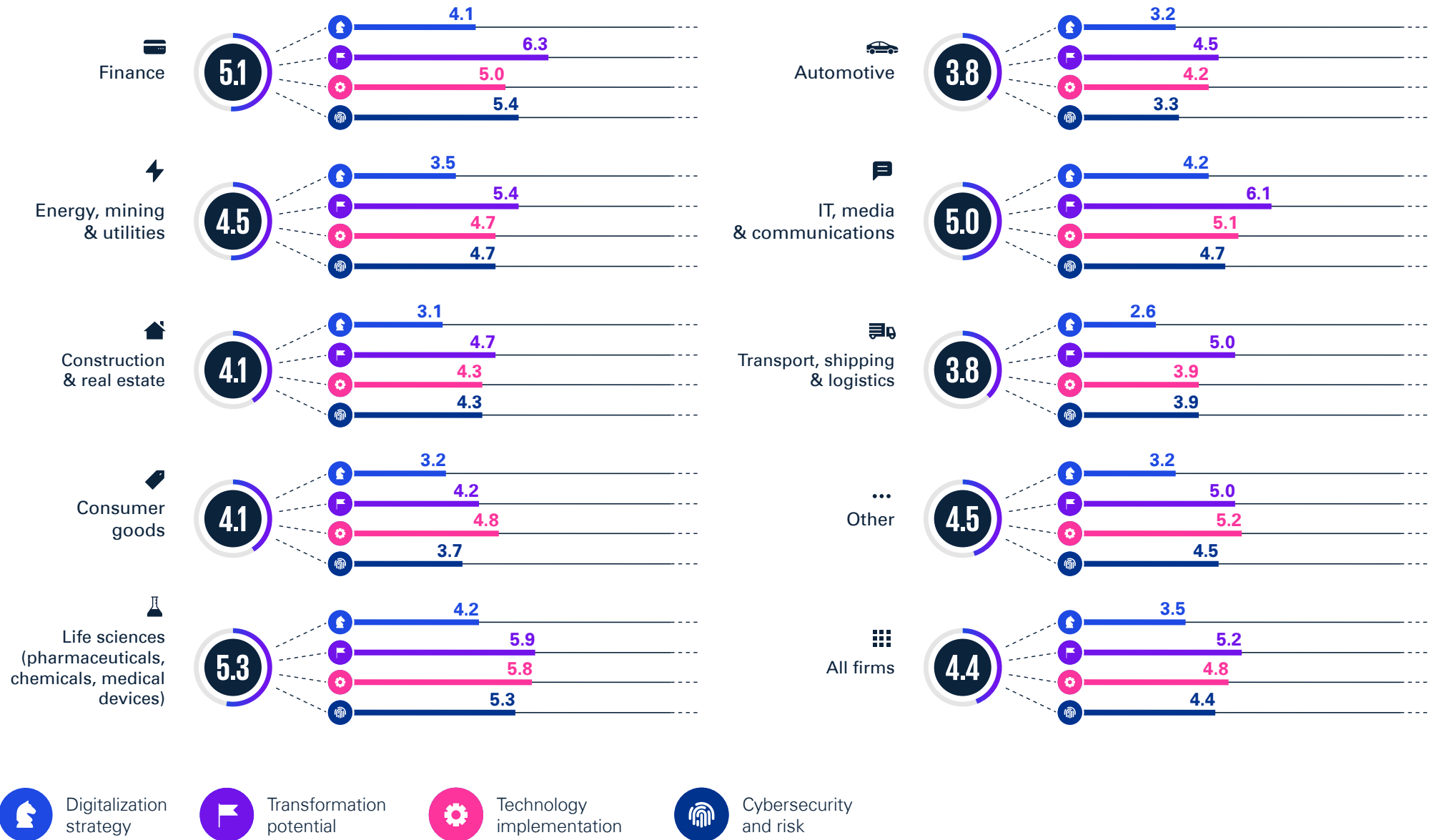
*In short, digital transformation is an integral part of the life sciences sector and plays a key role in improving the quality of healthcare and developing new treatments. At the same time, for the sector to meet the growing challenges it faces in the coming years will require continuous improvement and adoption of IT and digital solutions.*



**Robert Pławiak**

Chief Digital and Information Officer,  
Polpharma

## Scores in Business Digital Transformation Monitor by sector

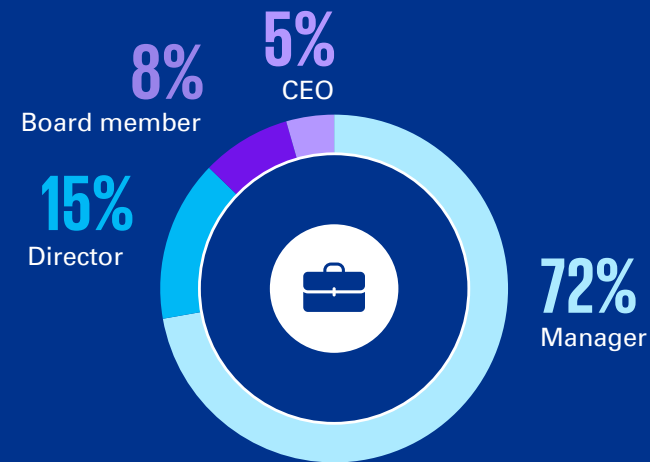


# Methodology

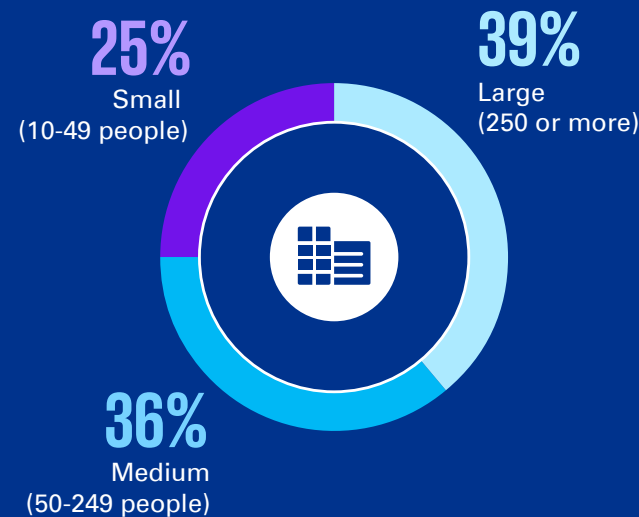
The survey was conducted by Norstat using the CATI method (computer-assisted telephone interviewing) in February 2023. There was a sample of 180 respondents responsible for digitalization issues in their companies. The group was made up of managers, directors, board members and CEOs.

The sample of companies surveyed was selected to reflect the approximate share of small, medium-sized and large enterprises in the Polish economy, excluding entities employing fewer than 10 people. The entities were categorized based on their core business into nine sectors: construction & real estate; energy, mining & utilities; life sciences (pharmaceuticals, chemicals & medical devices); automotive; consumer goods; finance; IT, media & communications; transport, shipping & logistics; other.

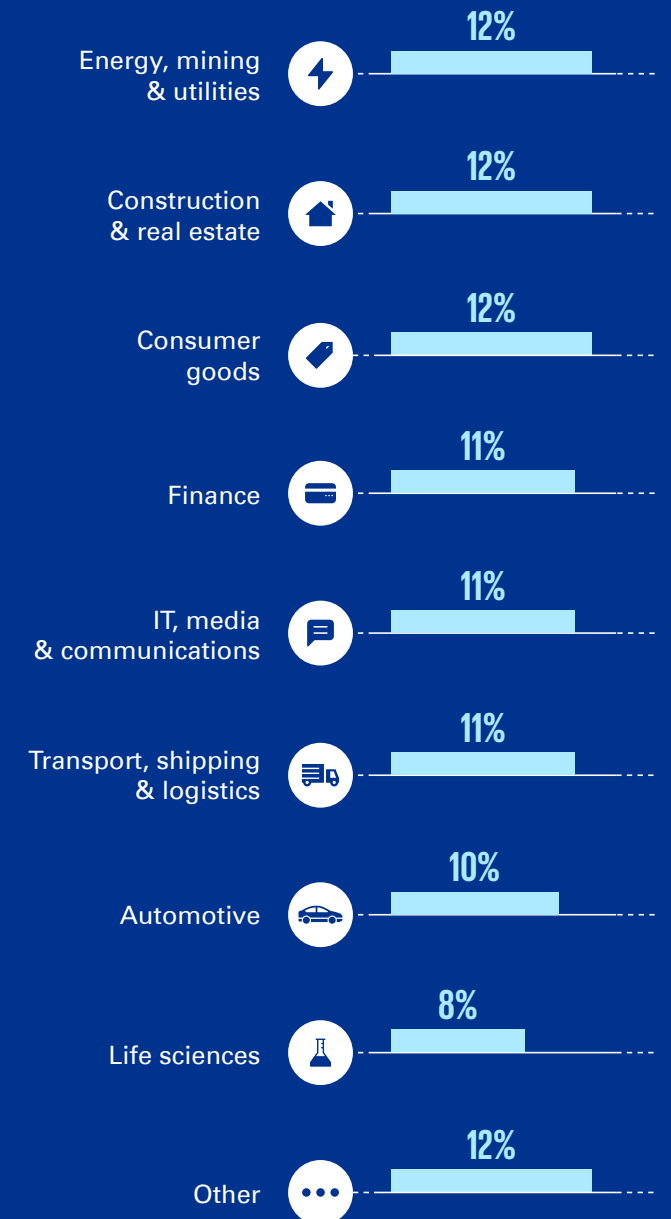
## Respondent's position



## Size of company



## Industry



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