



Artificial Intelligence is changing perspectives



REPORT Stock-

FOREWORD

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is necessary before we can have Artificial Intelligence.

Dear readers,

'Artificial Intelligence will give me many advantages in the future' – does this statement apply to you? Do you believe that new applications and offers will make your life easier? Not as a decision-maker in a company, but to you as a private person? If so, you are in good company: 55 per cent of the 1,000 respondents of our AI study agree with this statement. The question of personal benefits is one of the central questions our survey addresses. This is because it serves as an indicator of the current mood: Do people believe in the options offered by AI technologies? Or are they mostly sceptical? The viewpoint on this topic will be a factor in determining the extent to which AI-based applications will become established.

On the other hand, 300 business decision-makers also answered our questions. We asked them about their projects, plans and forecasts relating to AI. Their opinion on the importance of AI is clear: 90 per cent are convinced that AI applications are among the key success factors. The survey focused in particular on two topics: the cloud and chatbots. The former is one of the key technologies that powers AI applications. The latter have become the most visible manifestation of AI technologies used to interface with customers: Every third company already relies on such solutions or plans to do so. And chatbots are quite popular: Almost 60 per cent of customers who already have chatbot experience rated the communication as 'good' or better.

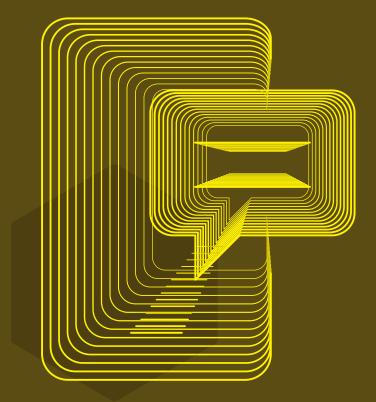
What do these and many other figures derived from our survey reveal? Customers are generally open towards AI and interested in this technology. Instead of 'German Angst' we rather found evidence of 'German curiosity'. Company leaders can be certain of this. Now it is up to them to develop compelling offers.



This report serves as a springboard for discussion about your perspective on AI and how we can support you with our experience, our understanding of technology and our industry knowledge. I'm looking forward to discussing this topic with you face-to-face and without any AI acting as a go-between.

> Best regards, **Volker Gruhn**

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CHATBOT SPECIAL:

In many companies, chatbots are among the first AI application scenarios. The dialogue-based systems are often used in external service processes – and they perform well here. The vast majority of customers are fine with communicating with a chatbot. Somewhat surprisingly, those who already have chatbot experience rated the communication favourably – 59% with 'good' or better. Optimism is the dominant mood.

MANAGEMENT SUMMARY

Taking stock fo opportunities, measures and mistrust

Artificial Intelligence (AI) has arrived: in people's heads, in planning and in projects. For almost one in two respondents, AI is at the top of the agenda for company managers. This is not really surprising. What did hold some surprises was the response regarding priorities for the coming years: The competition from digital giants such as Google and Amazon or from start-ups only concerns few companies. Only 14 per cent ranked this item at the top of their list. Given the dominance of these companies in many sectors of the economy and their unwavering drive to expand into new markets, this assessment is surprising.

But the results of the survey show that the great importance of AI is recognised by managers as well as the consumers. Both groups believe that the positive aspects of AI technologies outweigh the negative. Decision-makers see potential in AI applications, especially in the field of communication. The rather positive general mood is blemished somewhat when it comes to assessing the international position of Germany as an AI player: 56 per cent of decision-makers rate the positioning of their own country to be mediocre on a global scale. 24 per cent even consider it bad. These figures almost exactly match the results of the consumer survey.



CLOUD SPECIAL:

The technology behind the technology – cloud offerings also serve this role in the AI environment, as is confirmed by a considerable number of interviewees. Almost exactly half of the companies with previous AI application experience are drawing on cloud solutions. One reason is to obtain preconfigured AI applications. Another goal is to benefit from a more advantageous IT infrastructure.

The survey mainly focused on two topics: chatbots and cloud technologies. Chatbots are widespread today, and many customers have already had contact with such an application. It has left a positive impression on most. This means that the applications are not perceived as annoying, but rather as helpful. However, the application scenario is decisive. For example, only a minority of respondents can imagine opening an account through a chatbot. As an online shopping advisor, on the other hand, it is seen as viable by many people.

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When it comes to cloud offerings, the decision-makers are unanimous: Obtaining preconfigured AI applications is the central advantage for 86 per cent of the respondents. In contrast, data protection guarantees offered by cloud providers are not very convincing: 66 per cent of those surveyed see this as the biggest hurdle in the cloud arena.

Only **17%**

of decision-makers believe that AI is an overrated and hyped topic.



of decision-makers believe that investing in AI delivers competitive advantages.

Over 80%

of customers believe that they will benefit from AI in the future.

Almost **60%**

of consumers have already interacted with chatbots.

Almost **50%**

of decision-makers also rely on cloud technologies when it comes to Al.



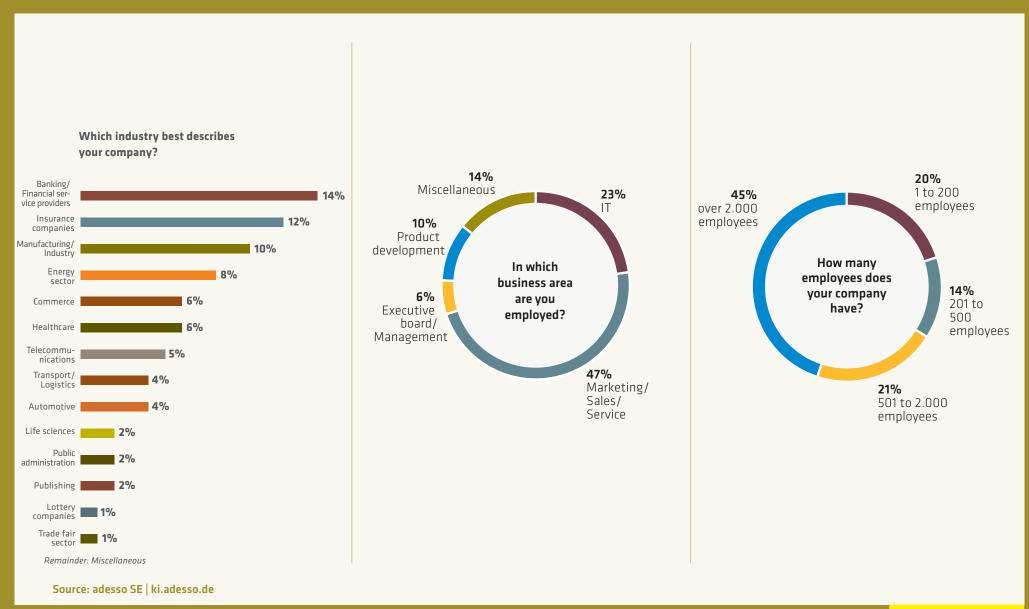
In January and February 2020, we conducted a survey among corporate decision-makers and end customers in cooperation with our market research institute Heute und Morgen GmbH. The survey addressed questions relating to Artificial Intelligence. Our aim was to gain a detailed picture of the current state of affairs as well as of expectations and planning based on the answers. We were interested in the different perspectives of the two target groups: Where do they think alike? What do they see differently?

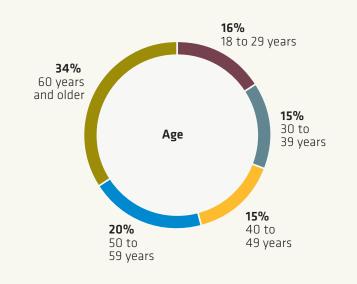
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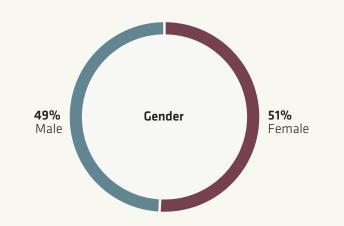
> 318 company managers and 1,000 end customers completed the online questionnaires.

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DECISION-MAKERS









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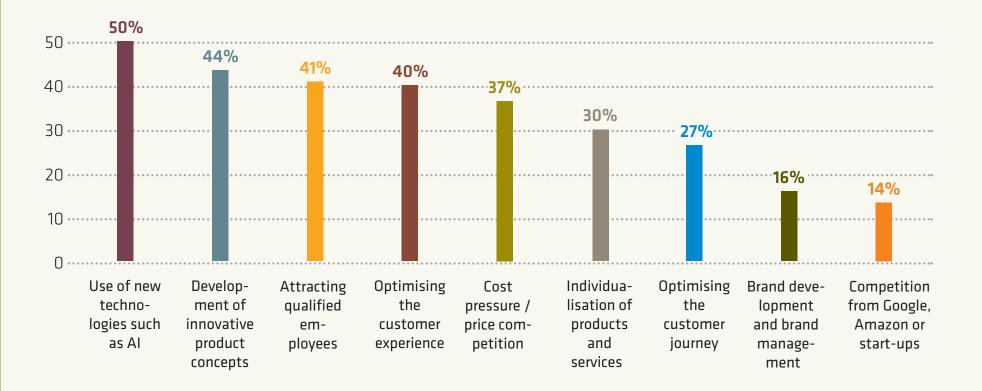
We had the survey participants take a look into the future: What will be the key challenges in the coming three years? As was to be expected, technologies such as Artificial Intelligence were of key interest to our respondents. With regard to the further market penetration of AI, this figure gives reason for hope. Surprisingly, the frequently invoked threat from digital competitors – be they giants such as Amazon or Google or start-ups – did not make it to the top of the list for most respondents.

> Only 14 per cent of the respondents mentioned competition from digital companies.





What are the key challenges in the coming three years?



Al is still in its infancy.

Al is in the 999 of the beholder

Experts and customers alike associate hopes and fears with AI technologies. A look at the details reveals that positive assessments predominate in both groups. The majority of customers (73 per cent) are not afraid of AI applications. Only 18 per cent of the decision-makers in Germany state that they do not yet know exactly how they can use AI in their own enterprise. There is also agreement on the importance of the topic: About 80 per cent of the customers and the decision-makers are convinced that AI is a decisive competitive factor.

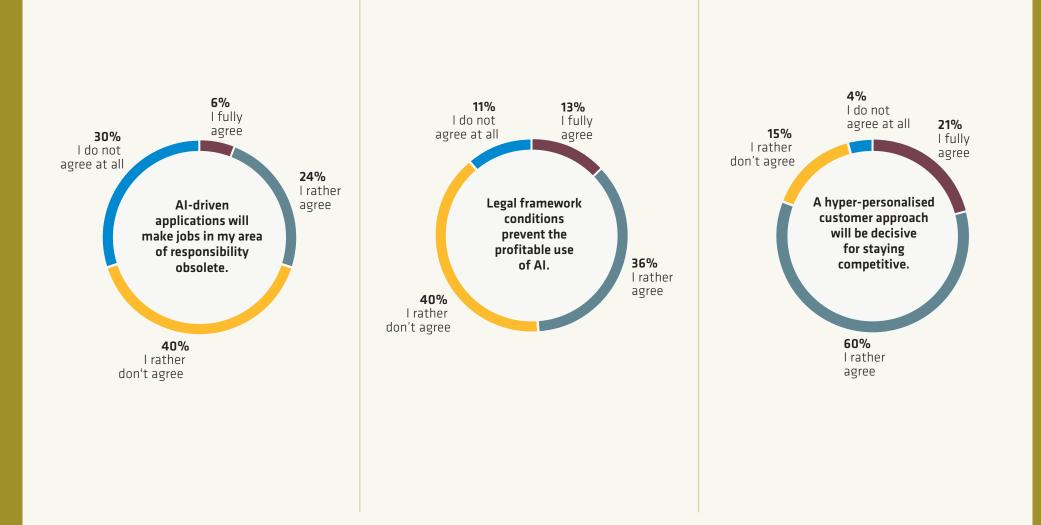


DECISION-MAKERS 1% 3% 7% 11% l do not 14% l do not l rather l do not agree at all l rather agree at all don't agree 23% agree at all don't agree l rather don't agree **29%** I fully agree Those who invest There is a lot 43% The application in Al over the next 25% I fully of resistance of AI is still in l fully agree five years will gain to AI solutions agree its infancy today. a competitive in our company. 49% advantage. l rather agree 54% 41% l rather l rather agree agree

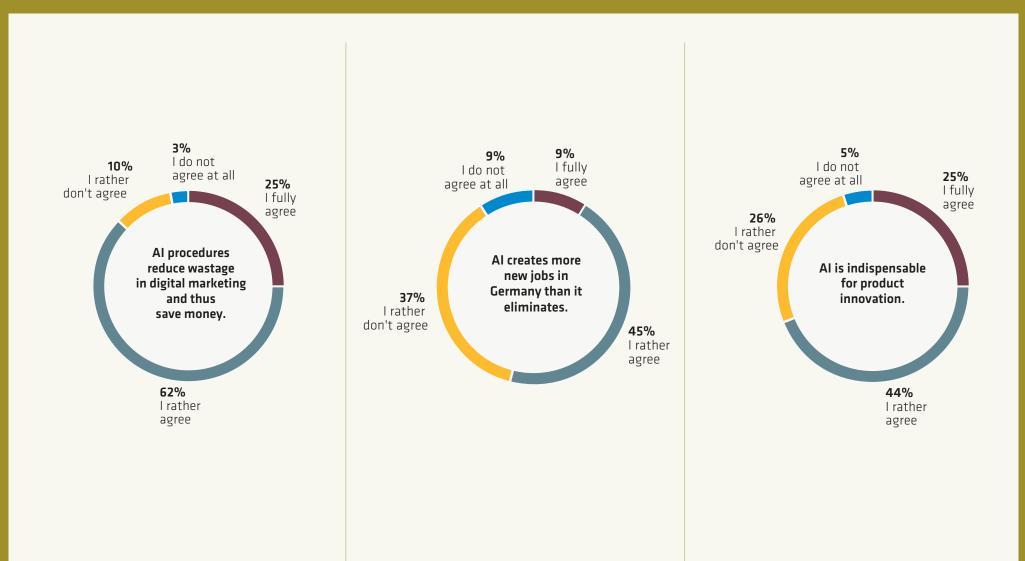
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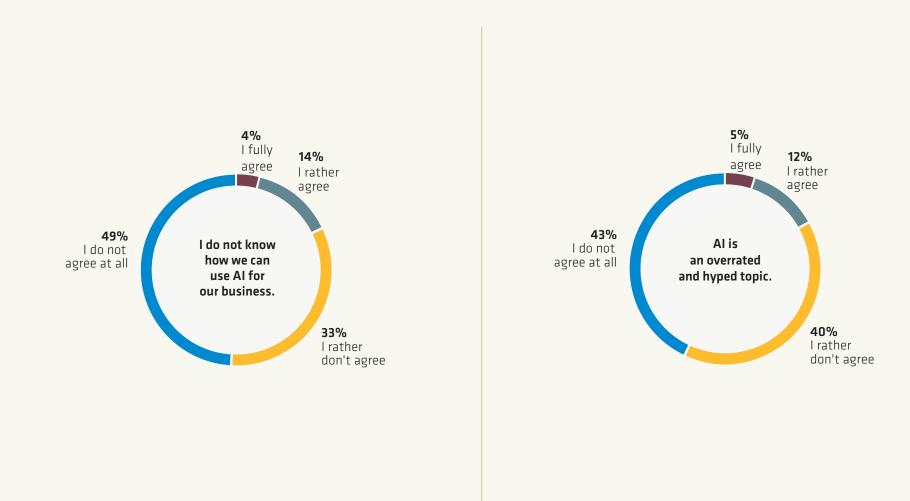
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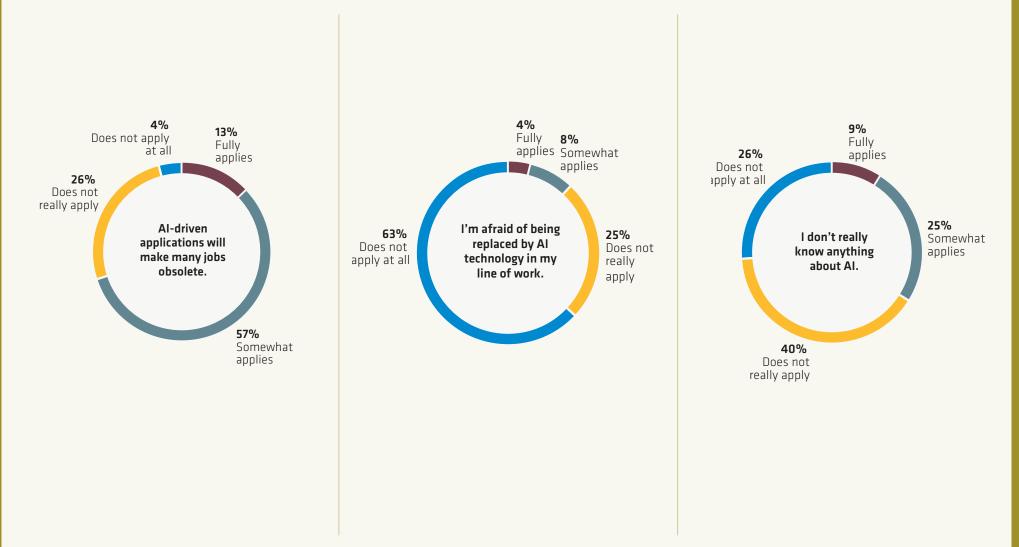


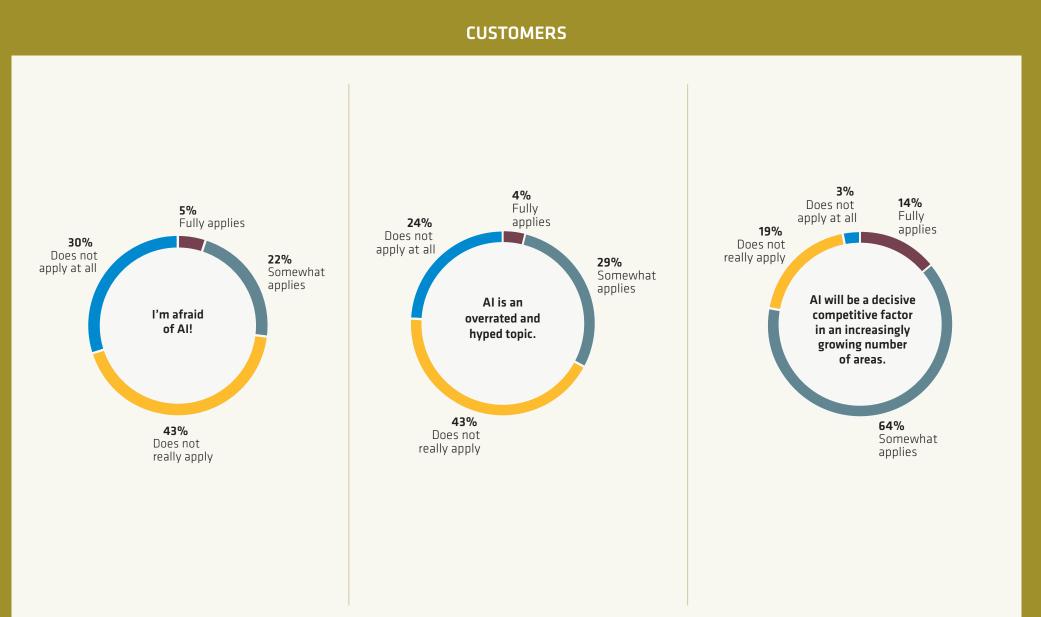
DECISION-MAKERS





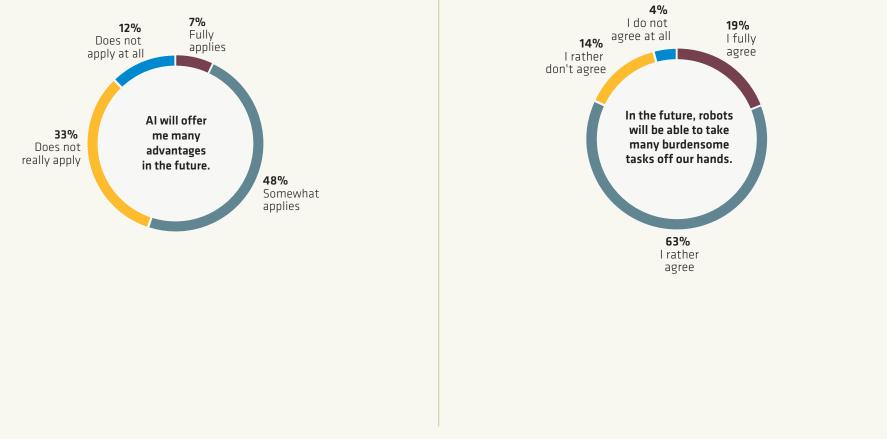






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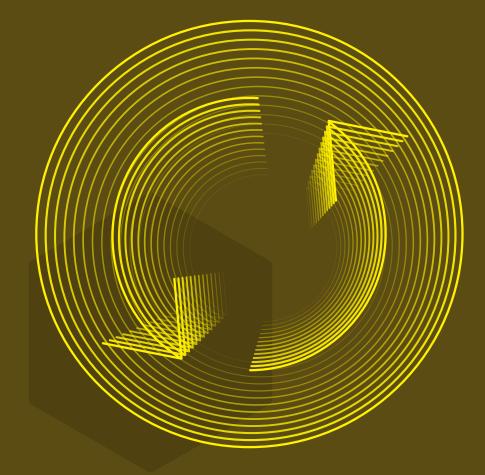




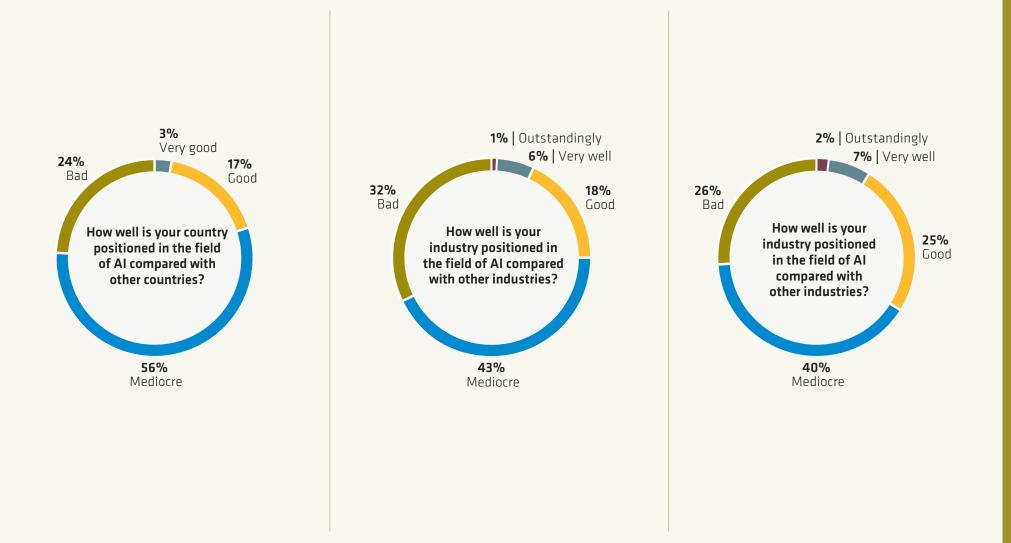
Only one in three managers is satisfied with the level of AI usage at their company.

It's for enough by far for top marks

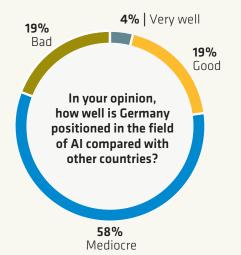
When asked about the positioning of their own country, industry and company, most company managers indicated that they are less than pleased. The majority of the respondents rated the positioning between mediocre and poor. Unfortunately, their own company is no exception: 40 per cent characterise the AI situation as mediocre, while 26 per cent even consider it bad. Customers assess the situation in Germany almost as badly.



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DECISION-MAKERS

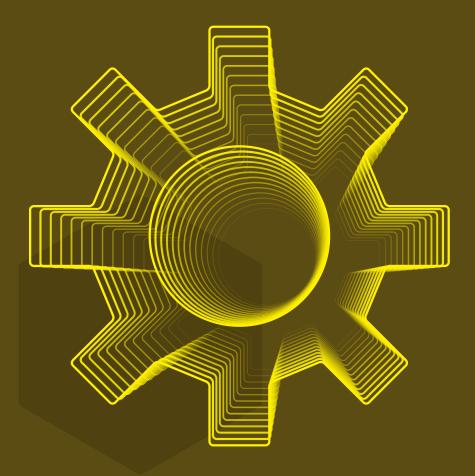




For one in three respondents, Albased prices are unthinkable.

Much is planned, elttil has been implemented

Regardless of whether one looks at sales, marketing or service, AI applications can play a central role in numerous business processes. And those in charge are open to almost all scenarios – as is indicated by the high approval ratings in the category 'not planned, but conceivable'. For many companies, the use of AI applications in the CRM system is of interest: Altogether 46 per cent of those questioned stated that they have already implemented AI, are currently in the process of implementing it or have concrete plans to do so.



16% Implemented or under 17% Not conceivable implementation Use of external 19% consultants to Planned evaluate and select Al solutions. 48%

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DECISION-MAKERS

6%

Not

conceivable

21% Implemented or under

Implemented or under implementation implementation 40% 44% Training existing Not Hiring new Not employees to acquire planned, ut we might consider this planned, employees. Al expertise ut we might consider this 29% Planned 27% Planned Not planned, but we might consider this





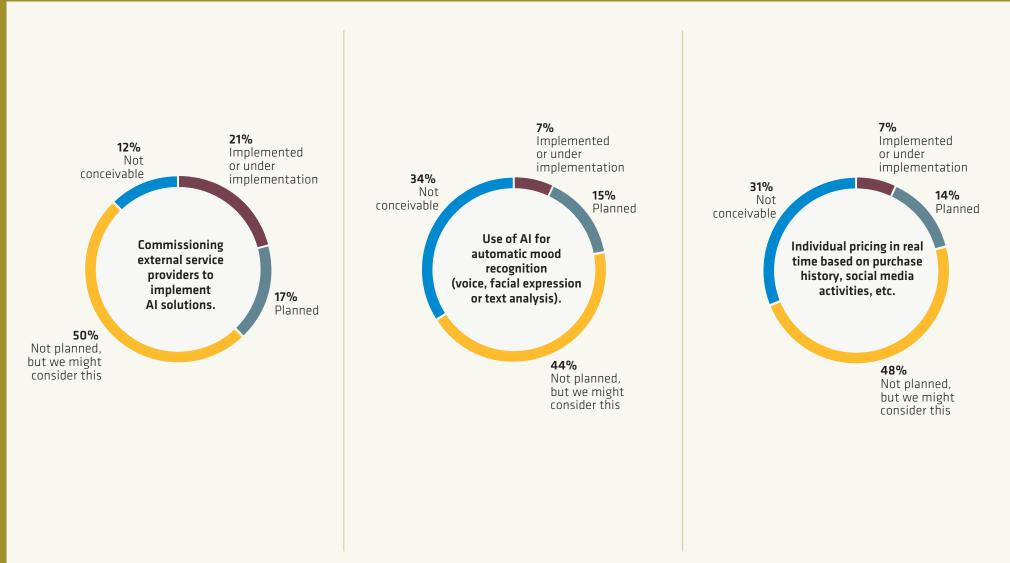
9%

Not

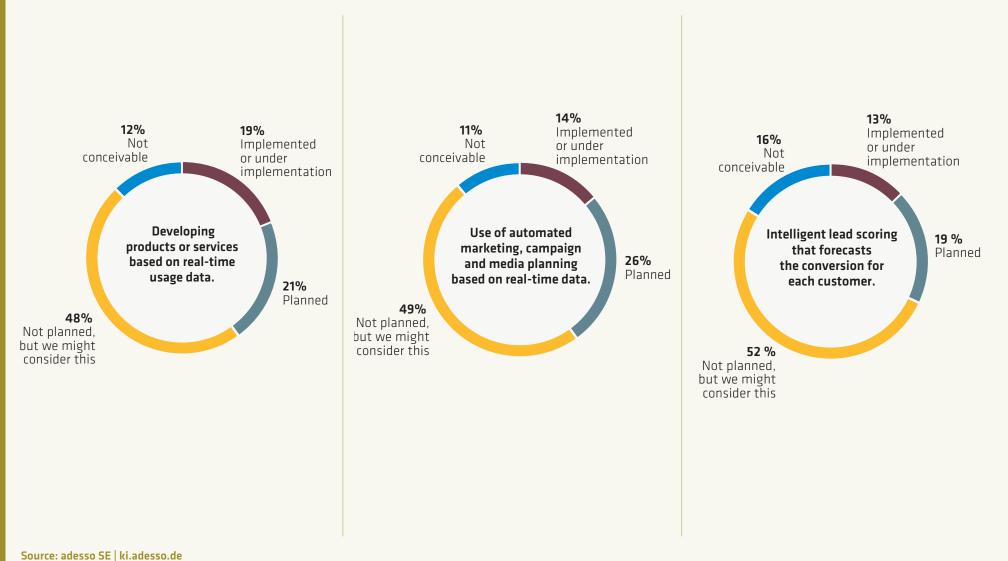
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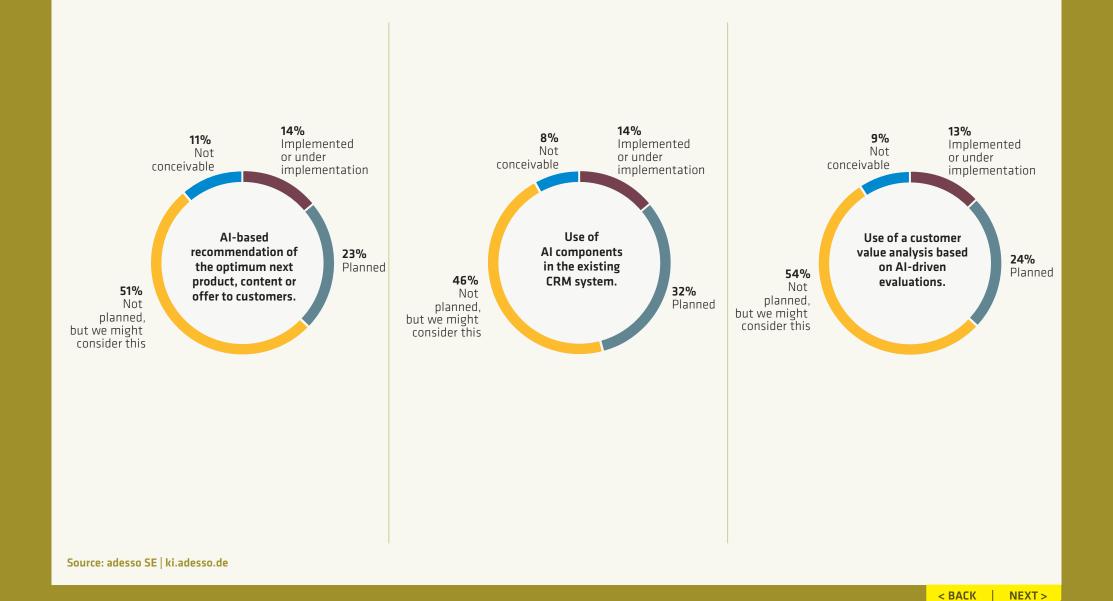
24%



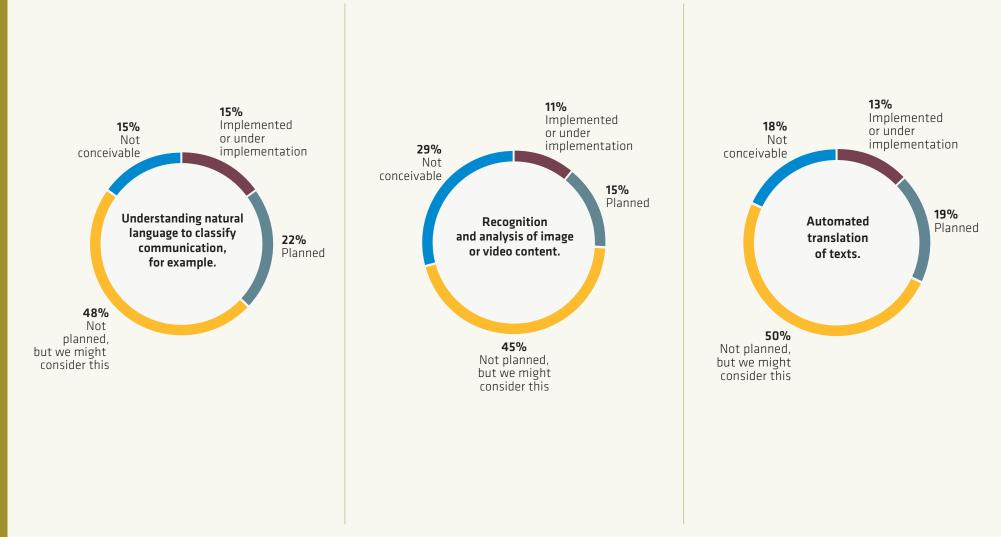


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DECISION-MAKERS



Nearly one in three companies relies on text chats.



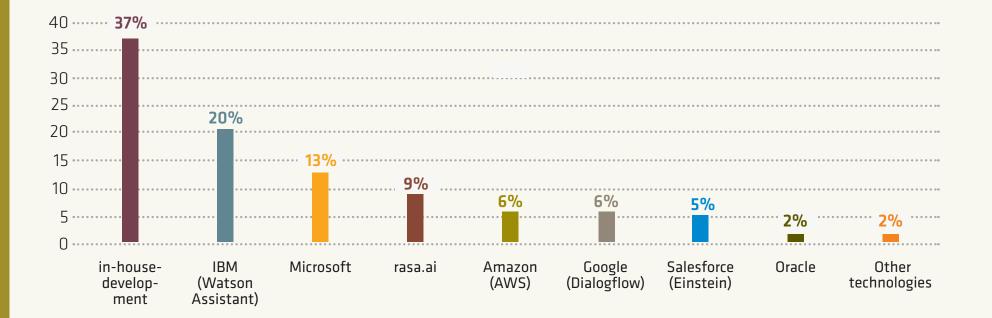
Chatting is what envy all about

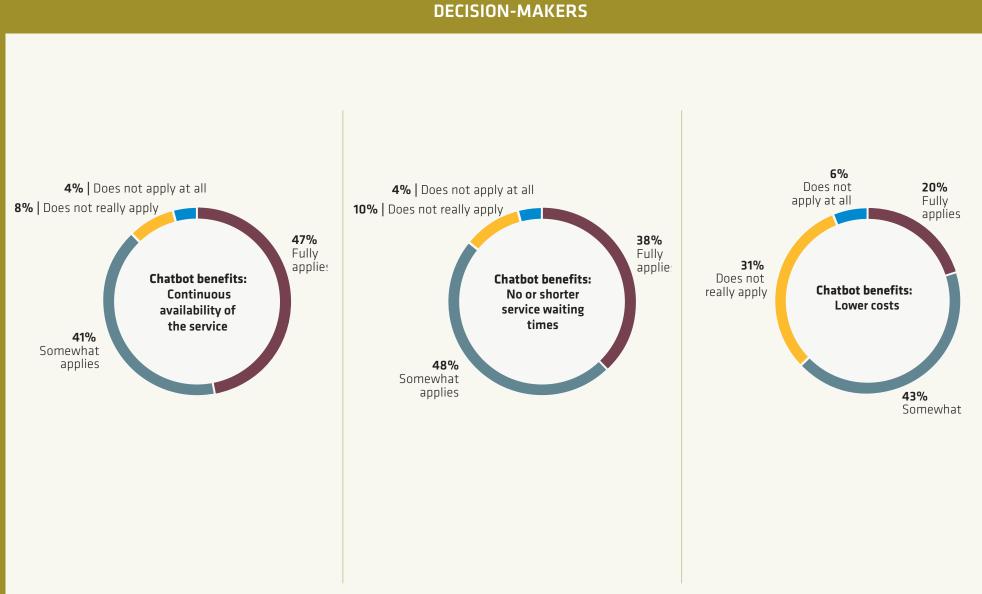
In many companies, chatbots are among the first Al application scenarios. The dialogue-based systems are often used in external service processes – and they perform well here. The vast majority of customers are fine with communicating with a chatbot. Somewhat surprisingly, Those who already have chatbot experience rated the communication favourably – 59% with 'good' or better. This means that the applications are not perceived as annoying, but rather as helpful. However, the application scenario is decisive. For example, only a minority of respondents can imagine opening an account through a chatbot. As an online shopping advisor, on the other hand, it is seen as viable by many people.

DECISION-MAKERS 10% 12% **27%** Implemented ot under Implemented Implemented or under 8% or under Not implemented **27%** Not conceivable implementation conceivable implementation 34% Not 14% conceived Planned 16% Planned Building on existing offers Voice chats Text chats (such as Alexa Skills) 38% Not planned, but we might consider this 27% Planned 42% 45% Not planned, but we might consider this Not planned, but we might consider this



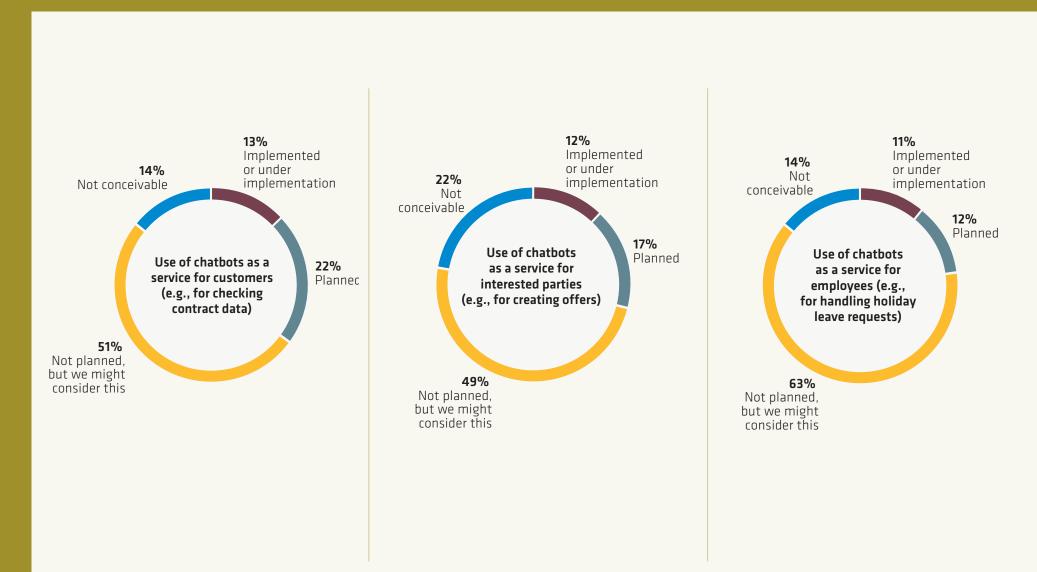
Which technology platform do you use or plan to use for your chatbot projects?



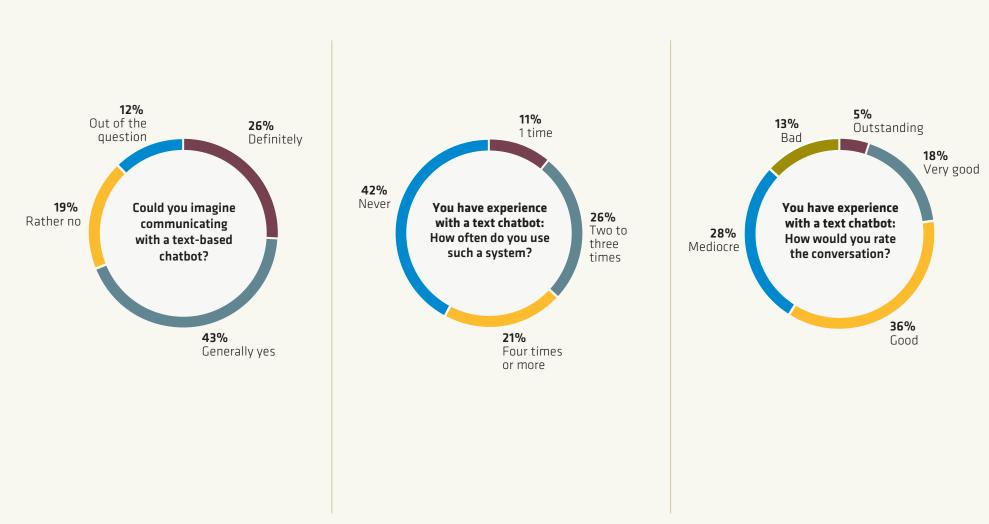


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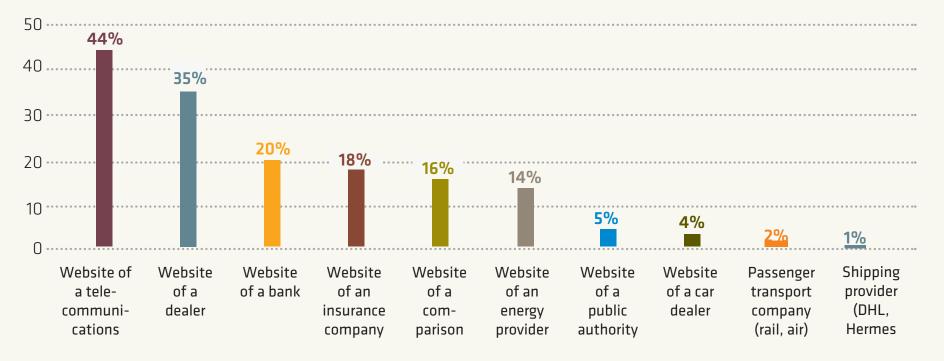
DECISION-MAKERS



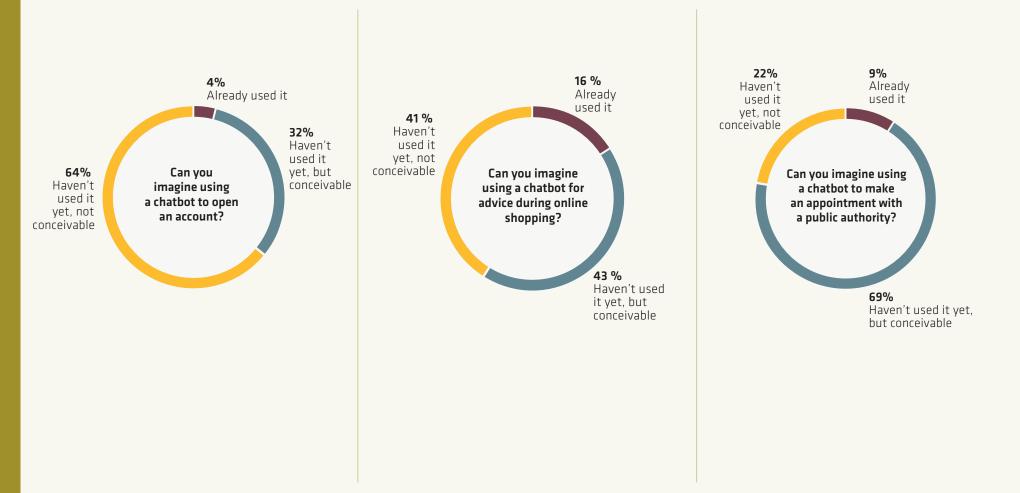
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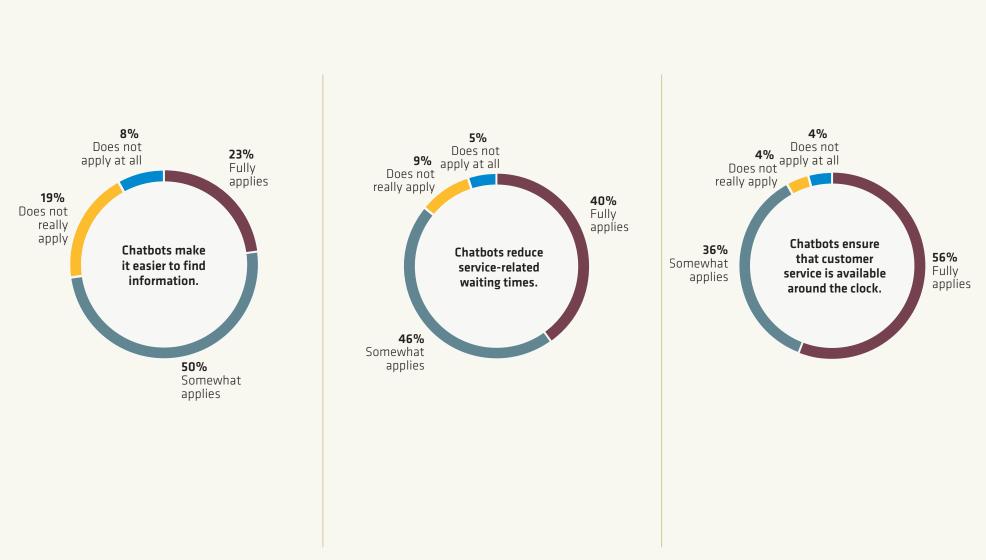


If you already have experience with a chatbot, in which context do you accept this offer?



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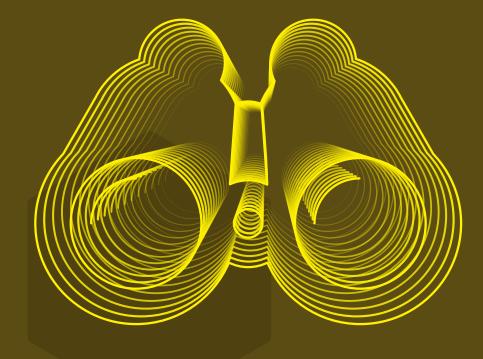




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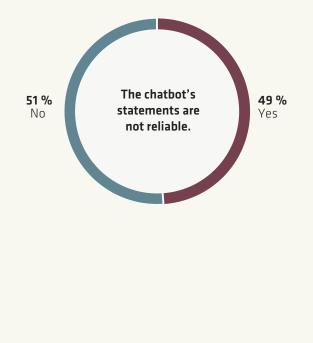




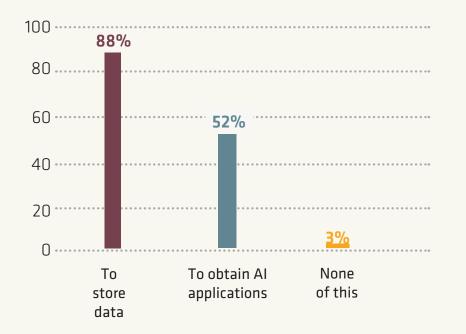
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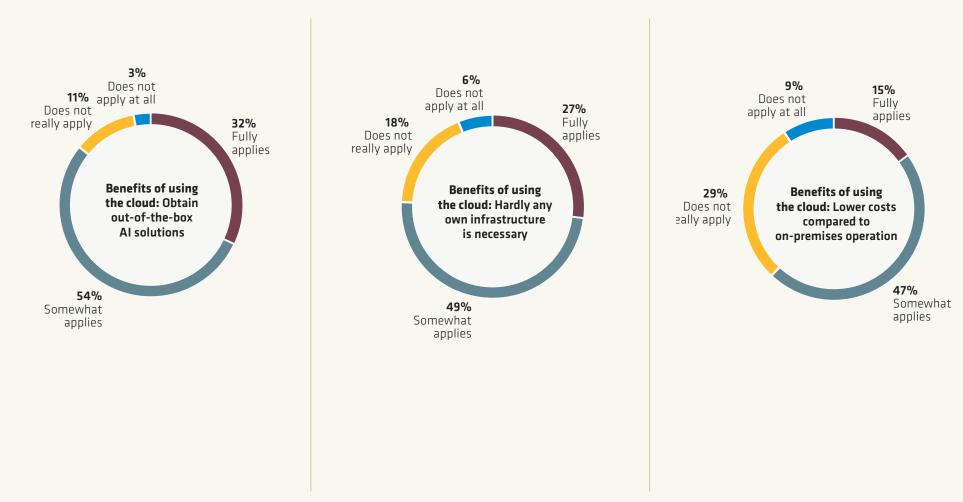
The technology behind the technology – cloud offerings also serve this role in the AI environment, As is confirmed by a considerable number of interviewees: Almost exactly half of the companies with previous AI application experience are drawing on cloud solutions. Traditionally, many managers see advantages in terms of costs and – closely linked to this – in the associated reduced investment in their own infrastructure. With regard to AI, the possibility of obtaining preconfigured applications via cloud offers is an added incentive. For 86 per cent of decision-makers, this represents the central cloud advantage. In contrast, data protection guarantees of cloud providers are not very convincing. 66 per cent see this as the biggest hurdle in the cloud arena.





If so, what do you use cloud solutions for?





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Seeing processes differently – building systems differently



Discovering use cases

Abstract mind games will not help you to see the potential of AI. But our use cases will. From chatbot to text analysis, from automated sales to automated communication processes. Take a look at what AI is changing in the here and now: in the world of football, in the car, in business – and before long, in your company. <u>www.ki.adesso.de</u>



Building AI systems

Al applications are the result of flawlessly planned and implemented projects. However, These systems pose different challenges to developers than traditional information systems. This has an impact on the way projects are structured, and it impacts the level of expertise required of those involved. Our 'building Al-based systems' process model is our answer to these challenges.

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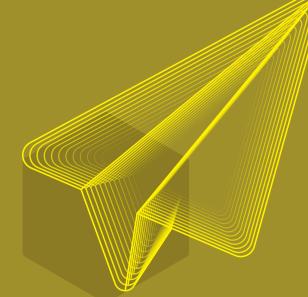


Team up with experts

When it comes to Artificial Intelligence, we have over 20 years of experience as an IT service provider. We can draw on instruments, procedural models and processes that match your goals and meet your requirements. Our AI experts are familiar with current technologies and know in detail how to develop business models and applications based on these.

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