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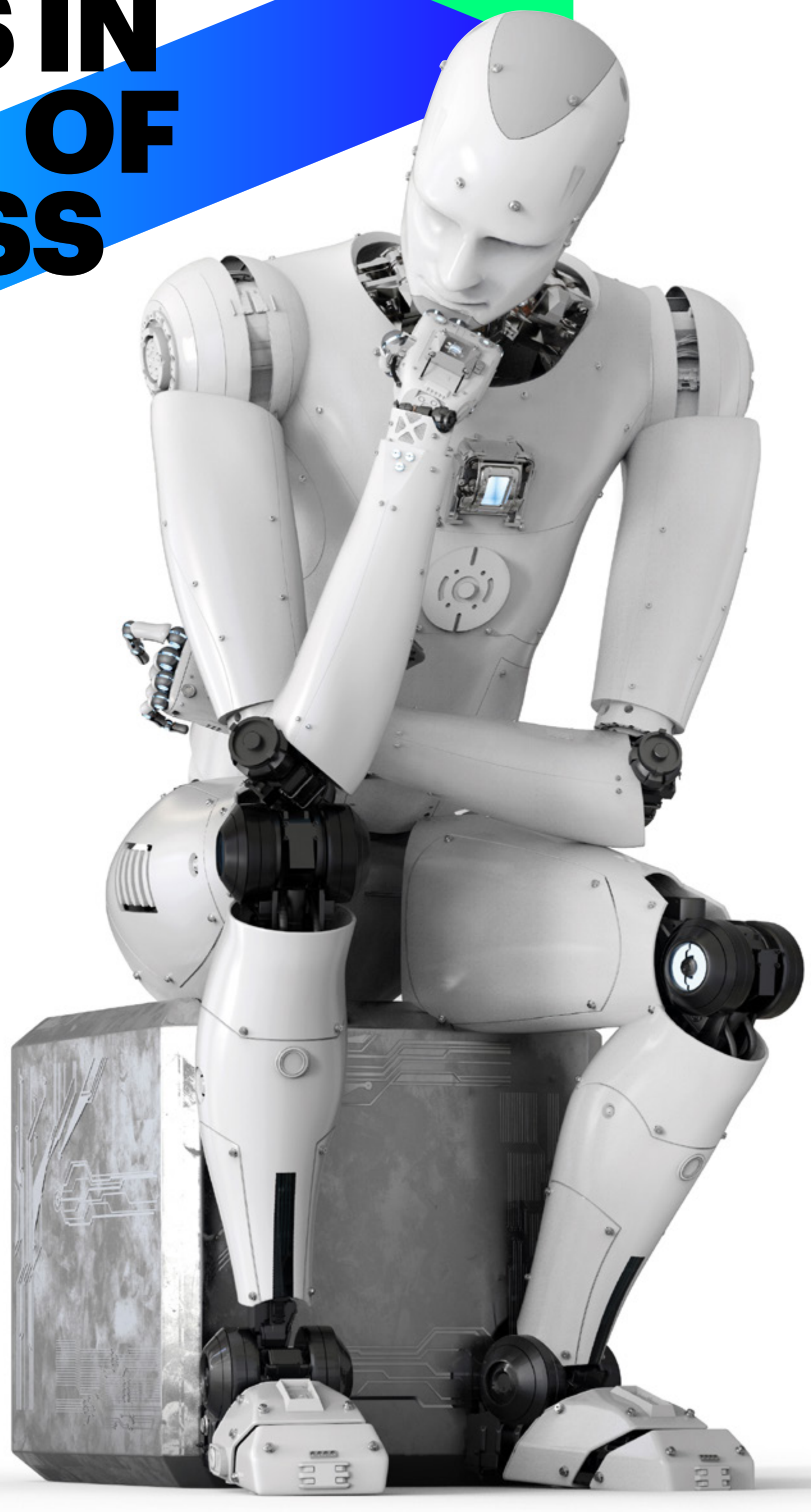
DIE WELT

GERMANY'S TOP500

DIGITAL BUSINESS MODELS IN SEARCH OF BUSINESS



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FOREWORD

Large German companies are on the lookout. Their purpose: To find new growth prospects. While revenue increases of more than 5 percent on average have not been uncommon for Germany's 500 largest companies in the past, that level of growth has not occurred for the last four years.

The reasons are obvious. With their high export rates, Germany's industrial companies continue to be major players in the global market. Their exports have, in fact, been so high in the past that it is now increasingly difficult to sustain their previous rates of growth.

Accenture regularly examines Germany's largest companies on the basis of their ranking in "Germany's Top500," a list published every year in the German daily newspaper *DIE WELT*. These 500 most successful German companies generate revenue of more than one billion Euros. In previous years, they were the engines of the German economy. Their growth rates exceeded the growth rates of Gross Domestic Product by a wide margin. However, the Top500 companies as a whole have lost their momentum. In 2016, they reported a modest growth rate of 1.5 percent.[1] In contrast, small- and medium-sized businesses grew by 3.9 percent[2] according to the KfW SME Panel. Germany's Top500 are no longer the pacesetters of the economy.

To unlock new opportunities to re-stimulate growth, the Top500 companies have to innovate, and either beat their competitors with new products and services or capture completely new groups of customers.

Digitization offers them the chance to do this. For the majority of the Top500 companies, digital transformation strategies have been a top priority for at least three years. Accenture has been tracking this trend – most recently, with the publications of two reports: "New Businesses, New Competitors: Germany's Top500 and the Digital Challenge" in 2014 and "Courage to think differently: digitization strategies of Germany's Top500" in 2015.

The questions now are: In what areas are signs of success beginning to emerge? Developing business models for the digital age is a top priority for many companies, but where is the revenue these models are supposed to generate? For this reason, the present study bears the – admittedly provocative – title "Germany's Top500: Digital business models in search of business".

This study is intended to examine critically the opportunities arising at the beginning of a new era of technology. Accenture uses four insights to not only describe the progress that has been made in digital markets, but also suggests possible steps companies can take to overcome weak growth.

The four insights in detail:

INSIGHT 1
Despite high levels of sales, growth among Germany's Top500 companies will be sluggish unless they succeed in using innovation to unlock new revenue potential.

INSIGHT 2
To date, companies have struggled to harness digitization's potential to drive significant increases in revenue.

INSIGHT 3
Legislation in the European Union is not adequately responding to changes in the geopolitical environment, thereby preventing companies from taking full advantage of their digital growth opportunities.

INSIGHT 4
The German Federal government could lead the way and significantly increase the growth potential of Germany's Top500 companies by serving as a source of technology-driven inspiration. However, the government still has a long way to go in that regard.

This study shows how digitization could become an enabler of success and growth for Germany's Top500 companies – and hence for the German economy as a whole. Further, it highlights possible solutions that lie at the intersection of business and government. Deploying these solutions will help ensure that the digital business models established by Germany's Top500 will soon have some business to serve.

INSIGHT 1

SLOW GROWTH RATES YET HIGH SALES

Despite a very high level of sales, growth among Germany's Top500 will continue to be sluggish if they are unable to use innovation to tap new opportunities.

It is impossible not to notice the dwindling growth rates of large German companies over the course of this decade. Catch-up efforts after the recession in 2009 triggered big increases in revenue, but the growth curve took a downward trajectory afterwards. Over the past four years, the Top500 companies have been unable to achieve growth rates of more than 5 percent.[3] In the four years preceding the recession of 2009, their average growth rate was around 8 percent.[4]

Recent developments give rise to fears that even the key German industries will no longer be able to maintain their previous growth rates. The automobile industry lost more than 60 billion Euros in revenue growth in 2016. The healthcare industry, as well as the machinery and plant engineering sectors, also fell significantly short of their growth rates of the previous year.[5]

Automobile manufacturing, which is the leading German industry, is not able to compensate for weak performance in other industries to such an extent that the Top500 as a whole can experience higher growth rates.

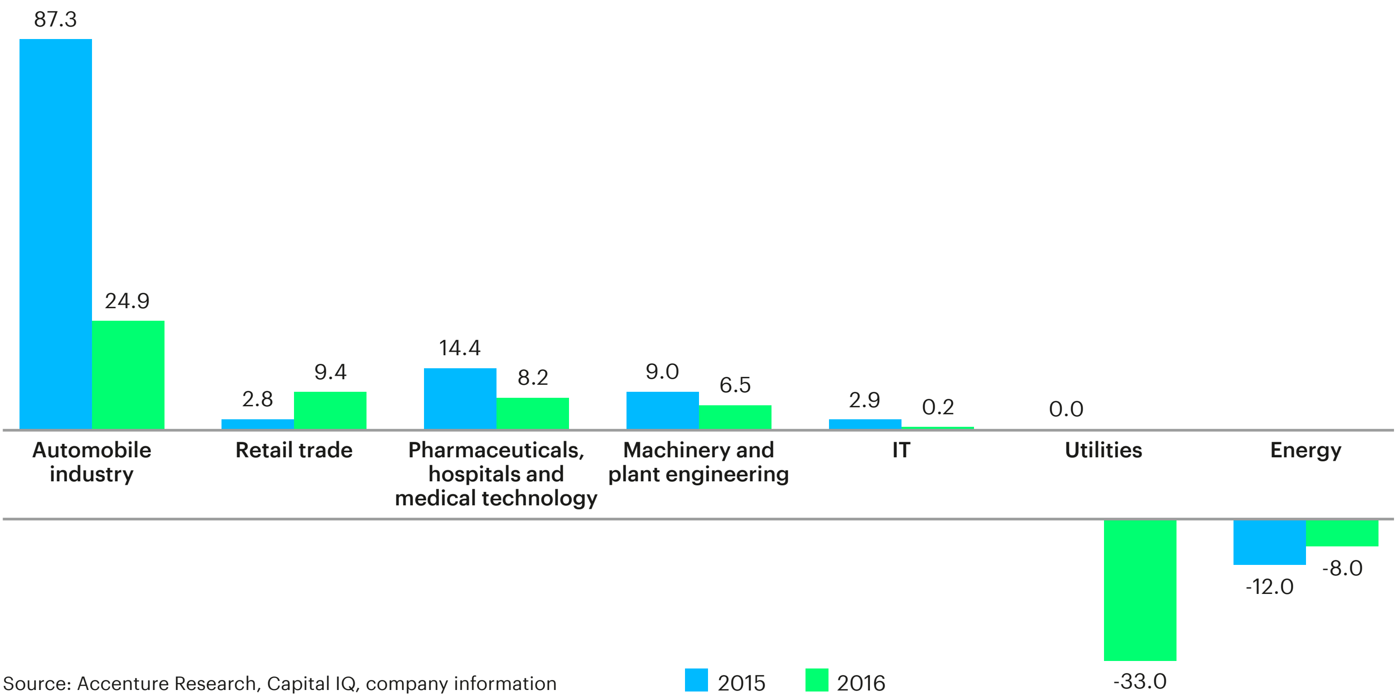
The reduced growth in export volumes put the brakes on growth in 2016. After a 6.2 percent increase in 2015, export volumes only grew by 1.2 percent in 2016. This amounts to less than the average growth rate over the previous eight-year period from 2008 to 2016.[6]

One reason for this is the weaker export growth in the automobile industry, which accounted for almost one-third of the overall increase in exports in 2015. Just one year later, the industry was also part of the Top500's low-growth trend.[7]

The increase in 2016 of 1.3 percent was hardly higher than the export growth across the overall economy. In the eight-year period from 2008 to 2016, the growth rates of exports in the automobile industry exceeded the growth rates of exports for the overall German economy by 1.5 percent every year.[8]

The majority of the Top500 companies registered a decline in overall revenue growth

Absolute revenue growth compared to previous year in selected industries (in billions of Euros)



Source: Accenture Research, Capital IQ, company information

Over the next few years, the Top500 companies will face increasingly difficult conditions – especially in terms of global competition. In China, in particular, emerging competitors have the potential to seize market share from Germany's leading companies. With its master plan for modernizing Chinese industry, dubbed "Made in China 2025," the government in Beijing is promoting automation and digitization, with a particular focus on mobility technologies and energy management among other things.

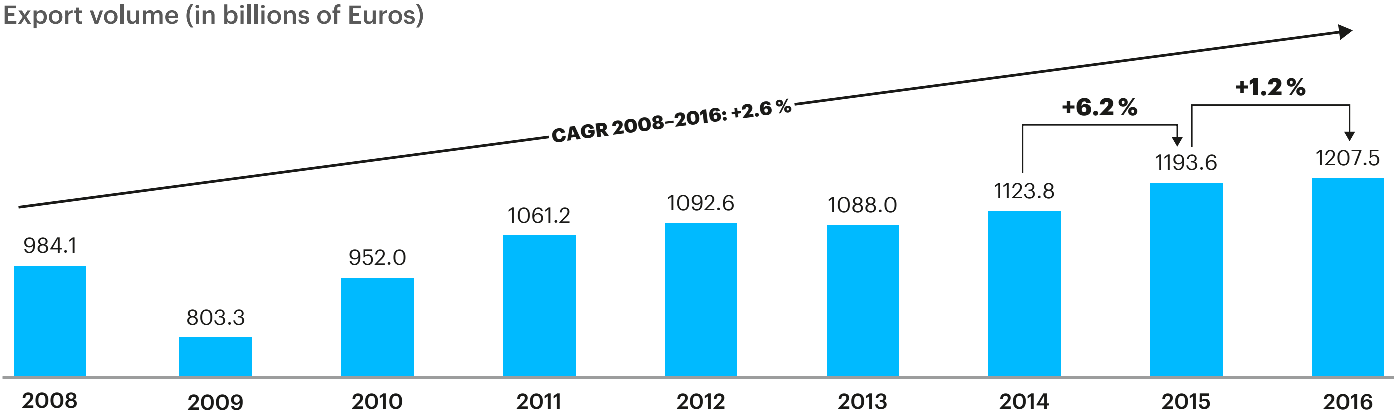
The weak revenue performance of the Top500 companies over the past few years also provides an impetus for a critical analysis of growth strategies in the German economy.

It is true that Germany is currently in the midst of an upward economic trend. However, compared with earlier economic recovery periods, growth this time will be more strongly driven by small- and medium-sized businesses and domestic economic activities.

An examination of how Germany's largest companies are planning to seize opportunities in the global market in future – particularly now in times of digitization – seems critical. That is especially true, given that the Top500's financial reports do not yet show any noteworthy revenues resulting from digital transformation.

Germany: Export growth was weaker in 2016

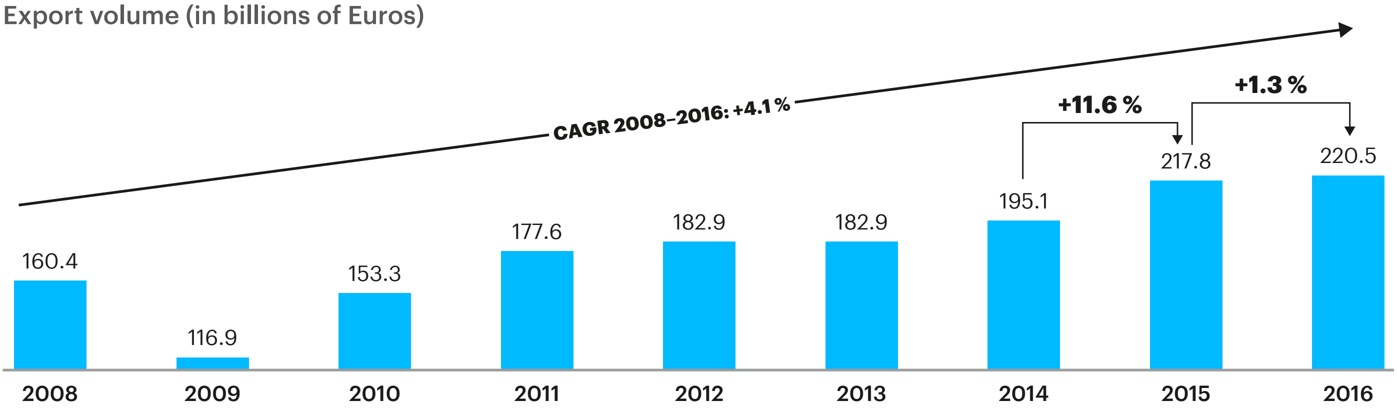
Export volume (in billions of Euros)



Source: Accenture Research, German Federal Statistical Office

The export growth in the automobile industry is significantly lower than the previous year

Export volume (in billions of Euros)



Source: Accenture Research, German Federal Statistical Office

INSIGHT 2

NOT ENOUGH REVENUE IS ATTRIBUTABLE TO DIGITIZATION

To date, companies have struggled to harness digitization in a way that generates significant revenue growth

Leading industries in the German economy are aware of the most important future issues pertaining to digitization, and initiatives are under way. This is the conclusion drawn from an Accenture analysis of interviews with executive board members from 263 companies. The more frequently certain terms were mentioned in the interview responses, the larger they appear in the illustration below. Looking specifically at the automobile industry, the focus is mainly on autonomous driving and electromobility. The emphasis is still on the product and not so much on associated services.

So far, digital technologies have been successfully used to increase efficiency and productivity. However, the question is whether companies have also seized the opportunity to develop new digital business models, and whether those are successful in the market. For this reason, Accenture concentrated on Top500 companies that already report considerable revenues generated by digital services.

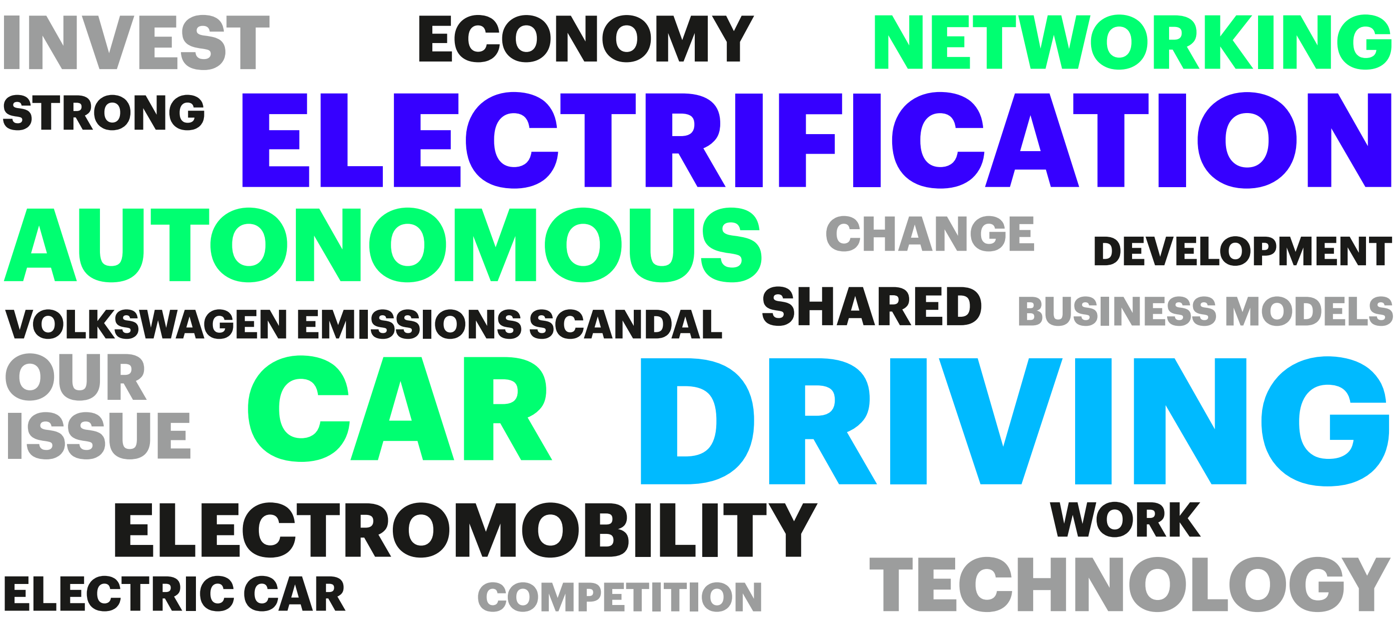
Result: In terms of monetization, digital transformation does not appear to be progressing at present. There are hardly any references to high-revenue digital services in the Top500s' annual reports. Commercial success is so far clearly lagging behind ambitions.

SAP, with its cloud business, is among the exceptions in terms of transparency. The software company, which is based in Walldorf, Germany, has provided detailed information regarding its efforts to transform its previous business license model. For the first nine months of 2017, Cloud subscriptions and support produced revenues of 2.8 billion Euros. That is an increase of 28 percent compared to the same period last year. This fast-growing business segment already accounts for almost 17 percent of SAP's total revenue today.[9]

Zalando – not even ten years old – is a high-growth star among the Top500 companies. The executive board plans to double its revenue over the next three years. At the same time, the company is continuing its transition from an online fashion business to a platform company.

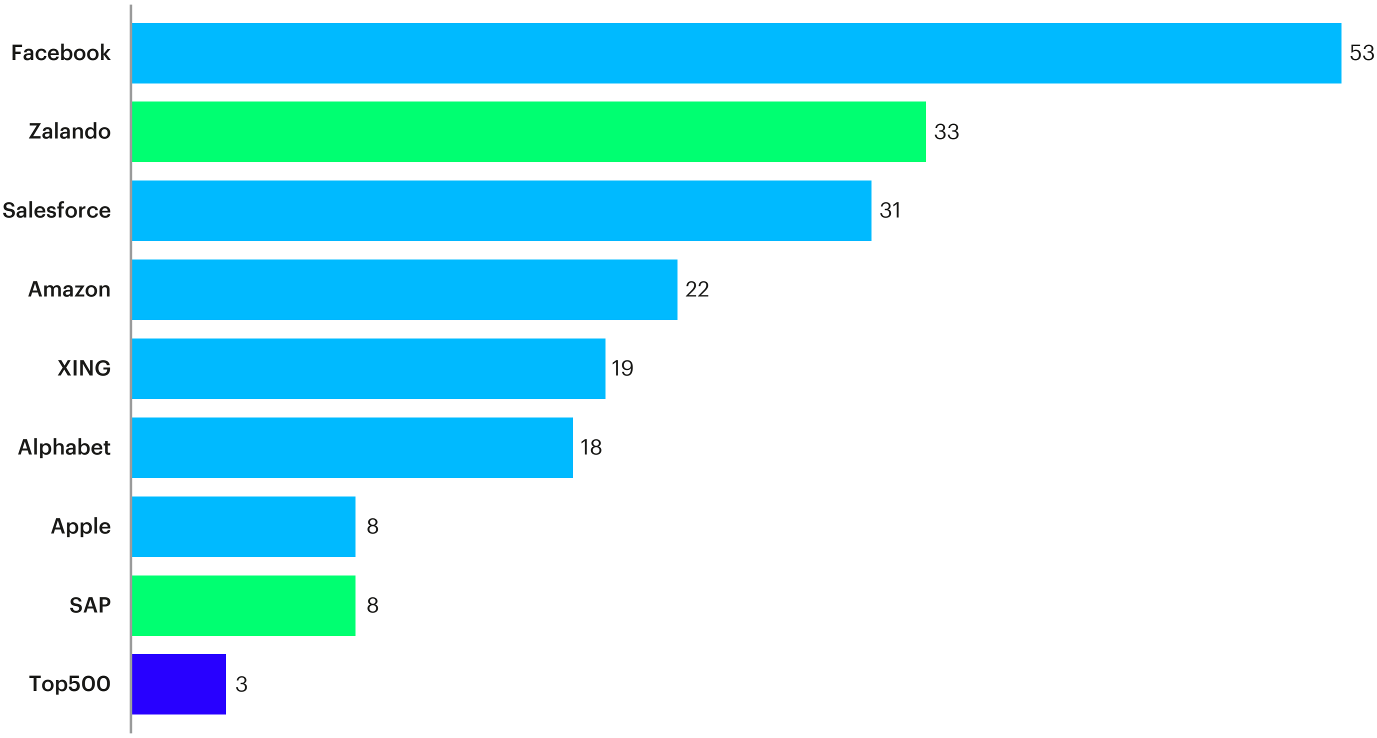
Interview analysis: Digitization as an issue of the future has reached German car manufacturing companies

The focus is currently on products, not so much on services



Source: Accenture Research, Dow Jones Factiva

Revenue growth of selected platform companies is clearly above the average of the Top500
Expressed as a percentage: CAGR (2012–2016)



Source: Accenture Research, Capital IQ, company information

Zalando's partner program is expected to expand significantly over the next period of growth. In the process, fashion brands will be able to offer their product lines through Zalando, while handling orders themselves. Although many other Top500 companies have announced numerous plans and activities, those are barely reflected in the companies' figures.

Examples of companies that have set up platforms (but not yet achieved their expected success in terms of revenue, other results, or the partners that joined) include Siemens with MindSphere, Bosch with IoT Suite, TRUMPF with Axoom, and Kloeckner with Kloeckner.i.[10]

A list of platform initiatives of the 50 top German companies can be accessed here:
www.accenture.com/top500

The automobile industry has been busy establishing platforms for car-sharing for several years now. Daimler's subsidiary, car2go, currently has 3,810 vehicles in the market and BMW has a fleet of 3,100 cars under its DriveNow brand.[11] However, these platforms only account for 1.4 and 1.2 percent of vehicle sales of Daimler and BMW in Germany, respectively.[12] The German car manufacturers saw the car-sharing platforms mainly as an additional sales channel for their vehicles. Open and independent platforms are more creative and, at the same time, make a significantly higher contribution to market capitalization by enabling connections of numerous user groups and competitors. Whereas the number of customers of German car-sharing platforms amounts to 2.4 million (car2go)[13] and 1 million (DriveNow)[14] the US company Uber, which was founded in 2009, already has 57 million users all over the world.[15]

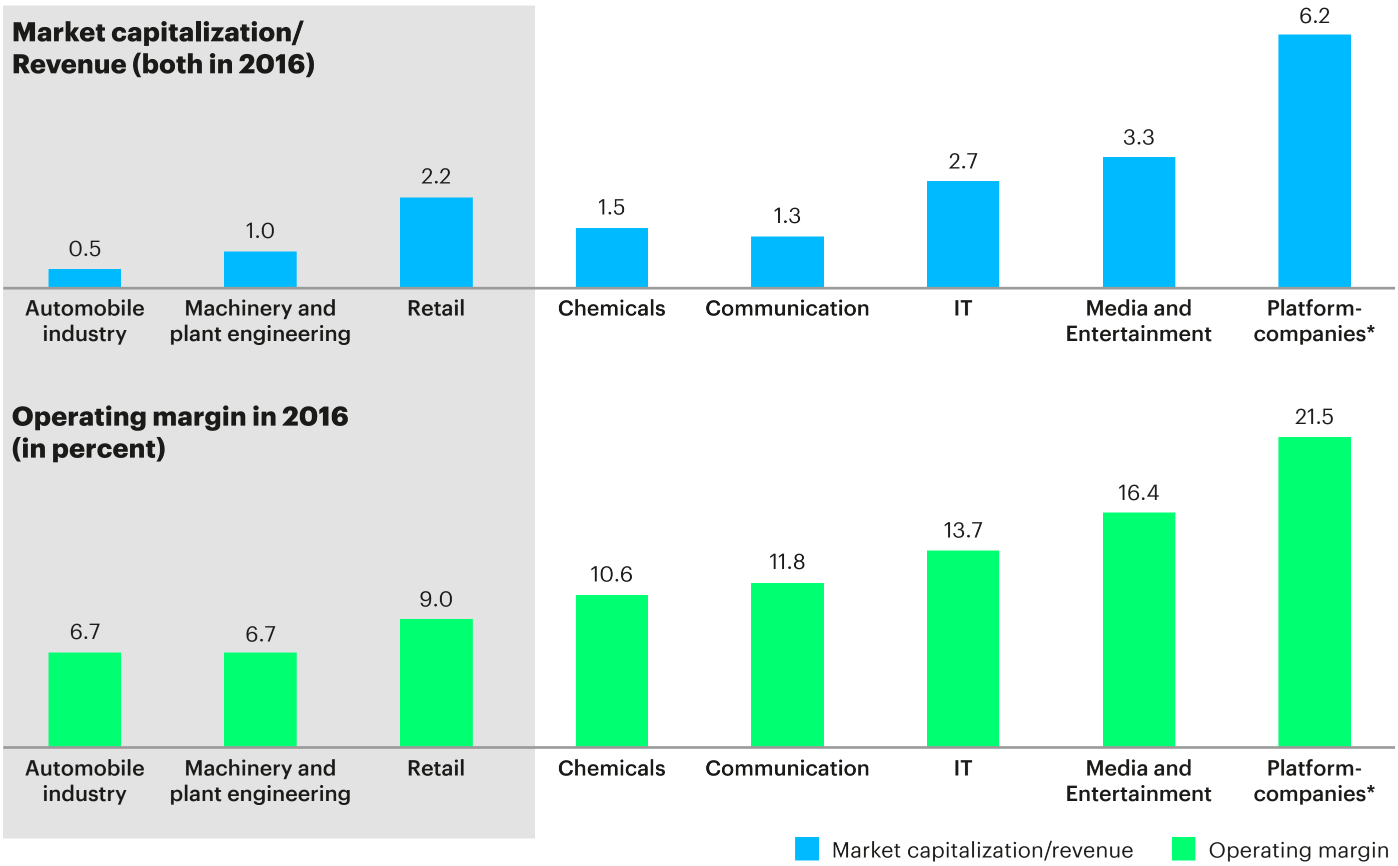
Apart from setting up platforms, adding digital services to traditional products offers even more growth potential. The combination of product and service results in an "experience" that elates customers and makes them loyal to the company, thereby contributing to higher sales and better margins. In many cases, US companies are farther along than German providers when it comes to designing the customer experience. For example, in the automobile industry, California-based electric vehicle manufacturer Tesla can deliver new customer experiences at any time by loading software updates to customers' vehicles on a daily basis.

German businesses have recognized the need to develop platforms and create new customer experiences based on digital technologies. The success of US Internet companies such as Google, Apple, Facebook and Amazon (GAFA) in terms of market capitalization shows the potential effect of digitization; the stock market values the future of platform companies considerably higher than the future of traditional industrial companies. Also, as far as margin and revenue growth are concerned, the leading German industry (car manufacturing) is clearly lagging behind platform companies.

On the stock exchange, those companies among the Top500 that only drive revenue growth are under-valued. The automobile, retail trade, machinery and plant engineering sectors contributed a whopping 40.8 billion Euros to the overall revenue growth of Germany's Top500 in 2016, and 99.1 billion Euros in 2015.[16]

It is for this reason that German companies urgently need to pursue new growth opportunities and bigger profits. The average EBIT margin of Germany's Top500 went down over the past few years. It amounted to 6.5 percent in 2012, but was only 6 percent in 2016.[17]

Platform companies achieve a higher valuation, as well as a higher operating margin



* Alphabet (Google), Amazon, Facebook, Apple, among others
Source: Accenture Research, Capital IQ, company information

The automobile industry for example is subject to high margin pressure. Compared to 2015, EBIT margins fell significantly in 2016. The margin is currently below the five-year average.

To improve profitability, it will be necessary for Germany's Top500 to apply digital business models that do not yet enjoy wide adoption. However, if they don't successfully set up platforms and develop new customer experiences, the Top500 will be in danger of dropping out of the innovation cycle permanently. To avoid that fate, the following courses of action have to be followed:

Higher yield from services
To date, efforts to monetize digital business models have been insufficient. In the future, profit margins will shift away from products toward services. The Top500 will have to learn how to generate higher revenues and profits from services. The most successful revenue model of the future will be: platforms + services.

Hold their ground as leaders
The Top500 owe their previous success to their leading positions in global markets. However, if competitors win the race to build dominant platforms, the large German companies will lack the market power to recapture higher margins.

More speed
Also in the business-to-business arena—where great opportunities lie for the Top500—platforms are being developed and set up quickly around the world. With the increasing use of artificial intelligence, the speed with which platforms and digital services are developed will increase even more. This means the Top500 companies will have to increase their agility.

More transparent reporting
It is very rare for the financial reports of Germany's Top500 to disclose separate figures for digital business models. However, more transparency in their reporting will spark new pressure to succeed, which in turn would accelerate digital transformation. In this regard, financial reporting would become a means of encouraging necessary digital re-alignment.

Adapting the corporate structure and culture
The Top500 companies should create an environment for more creative decisions and more agile development of business models by converting their corporate structures. Car-part supplier Schaeffler, for example, is creating an independent E-mobility division serving three business units.

INSIGHT 3

EU REGULATIONS ARE WEAKENING INNOVATION

Legislation in the European Union is not adequately responding to changes in the geopolitical environment, thereby preventing companies from taking full advantage of their digital growth opportunities. One example is the General Data Protection Regulation, which will make it more difficult for European companies to establish dominant platforms in the market.

In 2017, Accenture published the study "Germany's Top500 – Global growth in times of national focus." It examined the potential impact that the worldwide trend toward protectionist legislation could have. The study paid special attention to the actions and announcements made by the important trade partners, USA and China. The most recent example is US tax reform. Lower tax rates will result in significant relief for US companies. This means that German companies also now have clear incentives to expand production sites and report higher profits in the USA. Furthermore, many governments protect their economic interests through laws and regulations. The number of measures taken by G-20 member states limiting global trade almost quadrupled over the 2010–2016 period, growing from 324 to 1,263.[18]

Europe is not an outsider in this game. There are laws coming from Brussels that will make it more difficult for companies from foreign countries to compete – like, for example, the General Data Protection Regulation (GDPR). The tendency to enact more data protection laws has led to market fragmentation. The number of countries that have implemented data protection laws has more than tripled, from 34 to 109, in the period from 1995 to 2015.[19]

The GDPR regulation implemented by the European Union puts the competitiveness of European companies at risk. The GDPR outlines how data should be processed, the rights of those affected, and the duties of those responsible. Companies intending to process individuals' personal data have to obtain explicit permission to do so. If they fail to do that, they face harsh penalties that could add up to 4 percent of their annual turnover. A significant amount of legal uncertainty is already becoming apparent. According to a survey conducted by the digital association Bitkom, 57 percent of companies believe that the GDPR will result in more legal uncertainty in the short term. Additionally, 42 percent think that the regulation will make many business processes more complicated.

The EU's GDPR has the potential to introduce considerable legal uncertainty for German companies

Confidence and skepticism balance each other out when it comes to perceptions of the GDPR

The data protection regulation...

... will result in more legal certainty in the long run	**60 %**	**... will result in more legal uncertainty in the short term**	**57 %**
... will result in more standardized competitive conditions in the EU	**57 %**	**... will make many of our business processes more complicated**	**42 %**
... will set standards on a global level on how to deal with personal data	**51 %**	**... will slow down innovations in the EU**	**36 %**
... brings competitive advantages for our company	**39 %**	**... is a competitive disadvantage for European companies**	**23 %**
... is a competitive advantage for European companies	**38 %**	**... presents a danger for our business activities**	**14 %**

Source: Accenture Research, Bitkom

This means there is a risk of Europe turning into a difficult location for platform companies to operate, since building a dominant platform depends on processing large quantities of data. European companies will either be at a disadvantage in global competition or forced to pursue their platform activities in other markets.

This might, for example, have a significant impact on the development of European innovation hubs in the health sector. Working with patients' data is an important factor when it comes to researching new drugs or therapeutic or diagnostic processes. According to the new EU General Data Protection Regulation, every patient who releases some information has to give his or her consent again every time the data is to be used for new medical purposes. Applying pseudonyms to data owners does not eliminate this requirement.

However, research successes will be increasingly dependent on the analysis of gigantic and growing volumes of data. Because the costs associated with processing data are so great in the EU and companies are looking to minimize their risk of having to pay high penalties, there is a danger that research companies will opt to move to other countries with less strict regulations – like the USA, for example.

There is also a great danger that data-based business models will be affected in other industries, as well, or not even established in the first place. The exodus of research and development to more innovation-friendly countries could be accelerated due to the GDPR. Also, more lax data-protection laws could become a competitive advantage of companies from other parts of the world.

Germany's Top500 definitely face great challenges in light of the EU legislation. They have to expect limitations due to laws that restrict competition in other countries. Now, with a growing national focus, they have to keep an eye on their domestic market, as well.

The following steps could be a way out:

- It is up to the companies to participate in the creation of reforms by establishing associations and interest groups and communicating with legislators at early stages.
- Legislation should be checked not only for constitutional compliance, but also for digital compliance. Any measures that present obstacles to digital transformation and international competition should be stopped.

The GDPR has the potential to impose considerable penalties on companies – such as those in the pharmaceutical industry, for example

Non-compliance is likely to be highly detrimental to companies with business activities in the EU

HIGH PENALTY PAYMENTS

if the implementation is deficient

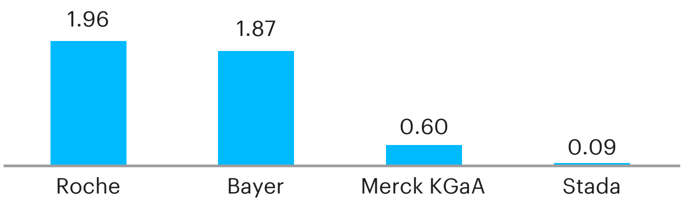
4 % **of annual global revenues**

OR

€ 20 M **depending on which is higher**

AMOUNT OF POSSIBLE PENALTIES

based on revenue in 2016 (in billions of Euros)



90 %

believe they face considerable challenges trying to fulfill the regulations of the GDPR*

75 %

state that they will have problems fulfilling the regulation in time*

Source: Accenture Research, Capital IQ, Varonis Systems

* Companies from UK, France, Germany and USA

INSIGHT 4

THE GERMAN FEDERAL GOVERNMENT COULD TURN INTO AN INNOVATION DRIVER

The Federal government and the public authorities could become pioneers and increase the growth rates of Germany's Top500 considerably by acting as a driving force open to technology.

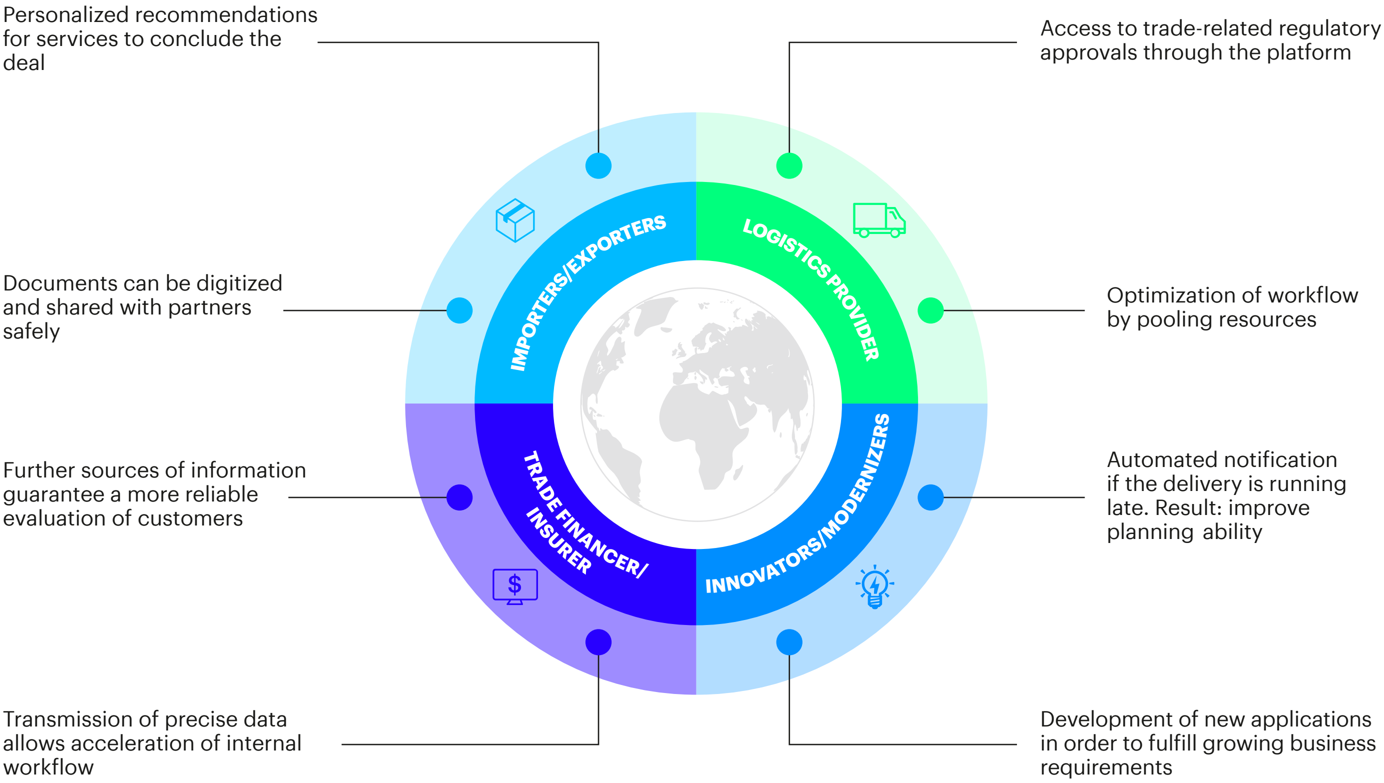
To date, the German Federal government and public authorities have not proved to be very successful as a driving force for digital transformation. In the provision of digital administration services, the Federal Republic ranks 20th among the 28 EU member states.[20] In a comparison of 10 industrialized countries in the "Government as a Platform (GaaP) Readiness Index[21]," Germany ranks 9th. In those cases where political action enabled digital initiatives, the commitment was either too late or ineffective. From the point of view of the Top500 companies, it would be desirable for the Federal government to become much more of a technology-driven source of inspiration.

There are several reasons for Germany's low ranking in the GaaP Readiness Index:

- Germany does not adequately tap into the potential of skills and infrastructure.
- Germany does not take advantage of a long tradition of co-operation between the public and private sectors when it comes to initiatives for technology and platforms.
- With very few exceptions, there is extremely limited co-operation among ecosystem businesses focused on developing innovative services in the public sector.

The government in Singapore demonstrates what a state-run platform initiative might look like. To improve its competitiveness among leading trade partners, the city-state established the "National Trade Platform" (NTP). The NTP aims to make foreign trade processes more efficient with digital support – for example, by enabling the electronic exchange of trade documents,

Prime example of a state-run platform initiative: Singapore's trade platform



Source: Customs Authorities Singapore

Companies from the trade, logistics and finance sectors all benefit from the one-stop information and management platform.

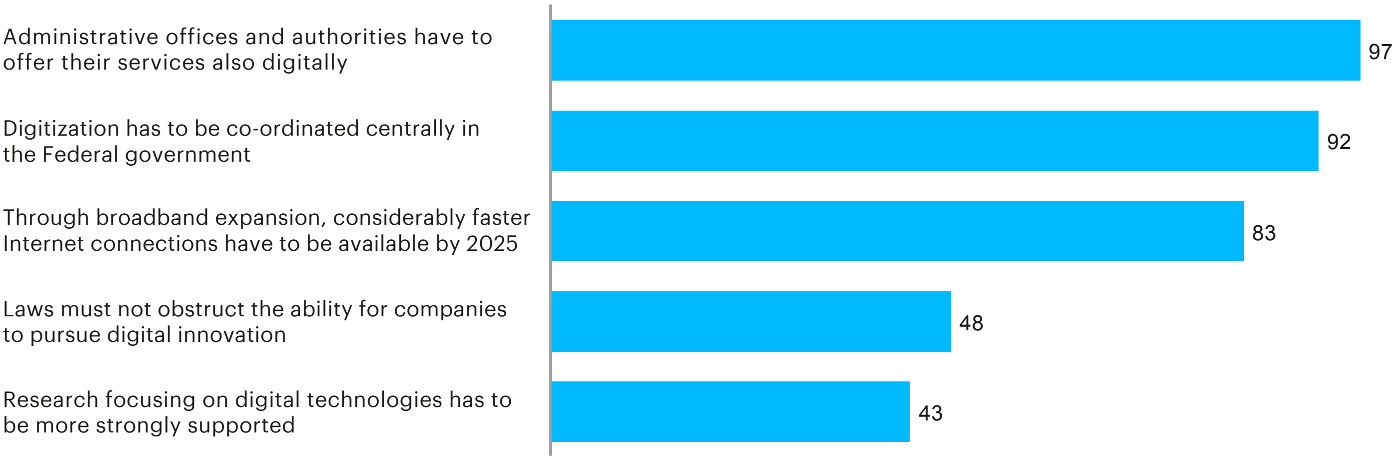
In Germany, companies want the Federal government to do more. According to a survey conducted by Bitkom in November 2017, 85 percent of companies are demanding that digitization become a key topic for government leaders. At the same time, one in two respondents (53 percent) believe that politicians have not understood digitization. Nearly all of them (97 percent) would like to see the extensive digitization of administrative offices and governing bodies at the top of a new digital agenda.[22]

From this and from international examples like Singapore, it is possible to compile a list of suggestions for German politicians to consider in order to accelerate the development of platforms in Germany:

- Politicians must see themselves as visionary entrepreneurs who recognize digital opportunities early on. Their role in this regard will be strengthened when the government itself sets up platforms around public services.
- The primary roles of government should be active initiator and designer. For example, the government could release data that companies could then use as a basis for digital services.
- In line with its industrial policy, the Federal government should arrange for more favorable conditions for digital transformation. One instrument for this could be financial aid, which would help young platform companies scale their operations.

Politicians must take stronger action than before in the area of digitization

To what extent do German companies agree with the following statements (in percent)



Source: Accenture Research, Bitkom

CONCLUSION

From the insights noted above, we have identified six actions that businesses and government leaders can take to stimulate new growth:

1. CREATE DIGITAL CUSTOMER EXPERIENCES

One of the core tasks of digital transformation involves using modern technologies to create new forms of customer loyalty. The new customer experiences will come about as a result of products plus digital services. Such experiences can help generate new revenues and higher margins. For this purpose, a new way of thinking is required when developing new products and services.

2. SET UP OPEN PLATFORMS AND ECOSYSTEMS

Platforms can present new opportunities for corporate growth and value if they are designed as ecosystems, open to as many user groups as possible, and incorporating products and services of other companies. Those who design platforms mainly as an instrument to increase sales of their existing products will not tap the full platform potential.

3. MAKE DIGITAL REVENUES TRANSPARENT

More visibility of results from digital business initiatives will accelerate the successful uptake of digitization. Transparency, therefore, can serve as a performance benchmark for digital progress in a company and, at the same time, a success factor. Sharing results will send an unmistakable message to staff members, suppliers and customers that digitization is a top priority for the company's future.

4. ESTABLISH A MORE AGILE CORPORATE CULTURE

Digitization requires a new corporate culture that establishes shorter cycles for developing new products and services or implementing projects. Making this shift requires that companies continually improve skills that promote agility. At the same time, setting up more flexible organizational structures is recommended.

5. POSITION POLITICIANS AND PUBLIC ADMINISTRATORS AS PIONEERS

To date, the government has not stood out for its delivery of innovative solutions that enable citizen-friendly and efficient public services. By building a digital administration capability, the government can lead the way on the path to digitization. At the same time, many processes can be automated, which would significantly cut the time required for administrative procedures. Platforms for public services are another possibility.

6. SUPPORT INNOVATION-FRIENDLY LEGISLATION

When it comes to reforms introduced by the Federal German government and the EU Commission, the basic question should always be whether the legislation supports or obstructs the innovation of German companies. An example: the General Data Protection Regulation (GDPR). If the GDPR turns out to disrupt the competitiveness of European platform companies, political leaders should be called upon to take counter-measures that promote innovation.

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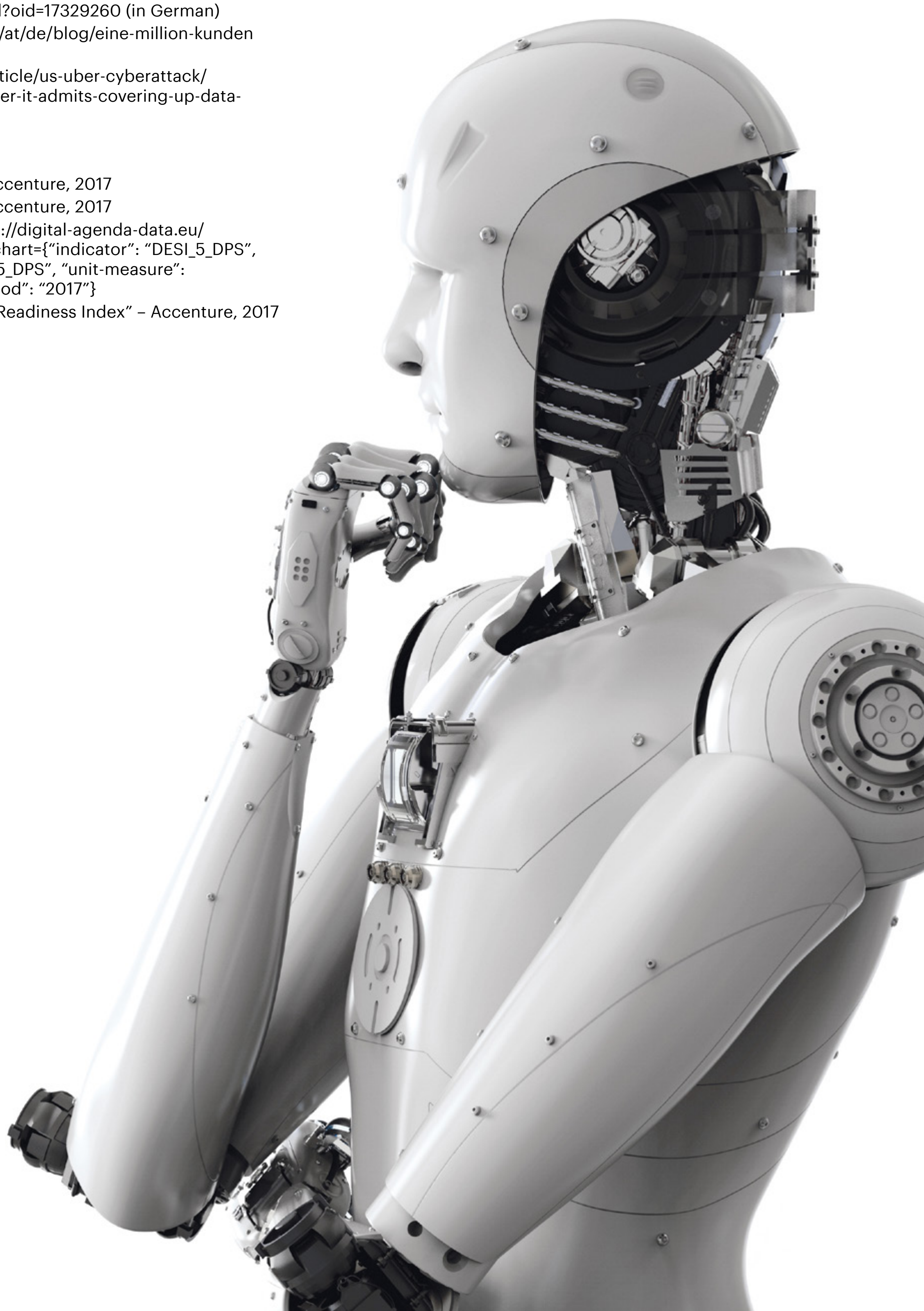

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