



Preface

Dear Readers

International investors are a significant pillar of Germany's economy and prosperity. There are more than 36 thousand companies in Germany that are owned by a foreign majority shareholder. They employ nearly 3.6 million people in Europe's biggest economy and generate a turnover of approximately EUR 1,600 billion and value added at factor costs of EUR 469 billion, which is 27 % of the total value added at factor costs in Germany.

However, the environment for international investors, as well as for German groups, has recently become very volatile. Geopolitical risks, trade conflicts and national protectionism are the new "normal" and are increasingly challenging companies with regard to their daily operations, as well as in their strategic planning for the future. Whether it has been unpredictable Brexit over the last three years, the fluctuating trade conflict between China and the USA, sanctions against Russia and Iran, the conflicts on the Arabian Peninsula or between Turkey and its allies, we find ourselves in very dynamic and uncertain times and are confronted by various disruptive forces. Furthermore, solitary political actors are increasingly trying to exert their own nation's influence on the globalized world economy, which to this date has been founded on a cooperative and multilateral free-trade model. In addition to this, technological and environmental challenges - in particular driven by digitalization and questions of sustainability – are important obstacles for global corporations to overcome.

Despite all the current difficulties and challenges, recent positive developments should not be overlooked. For instance, the economic partnership agreement between Japan and the EU, known colloquially as JEFTA (Japan-EU Free Trade Agreement), will bolster European-Japanese economic relations and will lead to increased trade between the EU and Japan.

Following on from 2016 and 2018, this year's KPMG "Business Destination Germany 2020" survey analyzes for the third time how international investors in Germany assess the business landscape here. It provides insight about Germany from the outside through the lens of foreign decision-makers.

A key finding of this year's survey is that Germany is still perceived, in spite of many issues that we will shed light on, as a safe haven by foreign investors. This general perception persisted when we asked 340 corporate decision-makers of the biggest international groups in Germany about their views on Germany as a business location. The excellent infrastructure, high labor productivity, the convenient geographical location in the heart of Europe, the high standard of living and a robust legal framework are key factors that speak positively for Germany as a business location and continue to make it an attractive proposition.

However, in comparison with our last survey undertaken two years ago, it is evident that Germany must reform to preserve its competitiveness. As per the view of the surveyed international companies, Germany needs to invest in its digital and logistic infrastructure, reduce taxes, simplify the complexity of its tax system and take steps to attract skilled labor. Last but not least, Germany should urgently improve its promotion scheme for the establishment of new business and its expansion. Germany's political stability is highly rated but politics must guard against complacency and a reluctance to reform and invest.

Our survey provides insight and guidance to both international investors and decision-makers in Germany.

I wish you an interesting and informative reading and look forward to your feedback.

Andreas Glunz

Managing Partner, International Business KPMG in Germany

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Executive Summary

Investing successfully in Germany





- Despite geopolitical uncertainties, rising global trade disputes and signs of a forthcoming recession, Germany still proves itself to be Europe's powerhouse for foreign companies:
 69 % of the surveyed subsidiaries of international groups assess their current economic situation in Germany as good or very good. Also 70 % assess their economic prospects for the next three years as good or very good (see Figures 09 and 10 on pages 31 and 32).
- International investors play a significant role in the German economy since more than 36,000 companies¹ are held by them, generating about 27 % of the gross value added and 24 % of the turnover of all industries in Germany (see Table 01 on page 11 and page 21).



GERMANY'S STRENGTHS

- In an EU-comparison Germany ranks very high in basic business location factors such as quality of life (80 % assess Germany as being among the Top 5 countries or the leader in the EU), public safety (75 %) and political stability (73 %) (see Figure 16 on page 39).
- Also labor productivity is highly rated (75% assess Germany as being among the Top 5 countries or the leader in the EU). However, this is not set in stone and German industry must invest in data analytics and artificial intelligence in order to maintain its level of productivity in the new decade, the 20s (see pages 52 and 53).
- 48 % rate Germany as at least among the Top 5 in terms of its capacity for innovativeness and 55 % for its research environment. The latter lost 9 percentage points compared to the last survey (see Figures 37 and 39 on pages 59 and 62).
- Unlike many other countries Germany's industry is spread across all federal states. International investors so far prefer Bavaria (with its capital Munich), North-Rhine Westphalia (Düsseldorf), Baden-Wuerttemberg (Stuttgart) and Hesse (Frankfurt) (see pages 20 to 23).

¹ Excluding financial and insurance activities



GERMANY'S CHALLENGES

- Germany must, however, act to retain its competitiveness. This concerns, in particular: investment in infrastructure (only 56 % state that Germany is at least among the Top 5 countries or the leader in the EU in that class, down from 76 % two years ago), the competitiveness of its tax system (only 19 %), the availability of skilled professionals (only 25 %) and the promotion of new business establishments and business expansions (only 21 %) (see Chapter 03 from page 38 onwards).
- Furthermore, with regard to coping with the challenges of digitalization and innovation, just 53 % of the foreign investors place Germany among the Top 5 countries or the leader in the EU with regard to **automatization**. This result appears rather encouraging because economic institutes often criticize Germany for being reluctant to embrace this aspect of modernization. Even still, an economy like Germany that is as dependent on mechanical engineering could benefit greatly by addressing with persistence all the necessary steps towards digitalization (see Figure 36 on page 58).
- Renewing Germany's infrastructure, in particular its logistics and digital infrastructures is a top priority. Otherwise, a massive investment backlog puts Germany's competitiveness at risk (see pages 42 and 43).
- Germany is definitely seen as a safe harbor in turbulent times. However, the question arises due to delayed reforms as to whether political stability in Germany nowadays is more of a disadvantage than an advantage, and more so since important investment projects are not acted upon with the required persistence. Instead, too many budget resources are directed toward consumption instead of value-generating projects (see pages 40 and 41).



INTERNATIONAL INVESTORS IN GERMANY

- The German market matters for international groups: the German subsidiaries of the surveyed international groups account for 31.4 % of their overall global group sales.
- Overall investment in Germany by international investors is declining. In 2017, a third of the respondents (34 %) still wanted to invest at least EUR 10 million on average per year over the next three years. Two years later, only 22 % were planning such investment (see Figures 13 an 14 on pages 35 and 36). Simultaneously, inflows of foreign direct investment (FDI) into Germany have decreased sharply from USD 37 billion in 2017 to USD 26 billion in 2018 (see Figure 06 on page 18).
- American, Chinese and Japanese companies in particular gain access to the European domestic market via their German location. Germany's strong economy and its geographic position at the heart of Europe are reasons for 49% of the surveyed companies to use Germany as their European headquarters (see Figure 43 on page 68).
- 39 % of German subsidiaries with a foreign parent company give no priority or at least very low priority to investing in the use of data analytics and AI (see Figure 44 on page 69).
- Brexit uncertainties have affected investment decisions in general. However, 72 % of the subsidiaries do not expect that Brexit will have any impact on their investment activity in Germany. Those that are intending to invest more in Germany due to Brexit are mostly Chinese and UK groups, followed by US groups (see Figure 50 on page 77).



ADVICE TO INTERNATIONAL INVESTORS IN GERMANY

- Germany is well placed to serve international investors as their hub for all German-speaking countries (the so-called DACH region) but also as a European headquarters due to its central location in Europe and its close links to all European countries (see Figure 43 on page 68).
- As German companies are globally the second-biggest
 Outbound investors after the US international investors
 can use their investment in German companies or co-operation with German companies to strengthen their global
 footprint and enter new markets and regions by making use
 of the contacts and shareholdings of German companies.

- Due to the specifics of the German and European markets and their environments, certain industries offer bigger growth rates and higher profitability for international investors than others. Such industries comprise, e.g.:
 - Healthcare due to an aging society (see page 24)
 - Renewable Energy due to the political decision to shift the energy mix in this direction (see page 25)
 - Infrastructure/Building and Construction due to the investment backlog for a long period of time, which is now easing (see page 26)
 - Industrial Manufacturing as it is one of the most important sectors with regard to Germany's value creation (see page 27)
 - Real Estate since interest from institutional investors is further increasing (see page 28)
 - Automotive since Germany's key industry has to reinvent itself from scratch (see page 29)

- Subsidies are available for international investors in desired investment fields, especially in Eastern Germany, and for investment in future technologies (e.g., battery techniques and digitalization), as well as for important political objectives (especially those related to sustainability and environmental initiatives) (see page 46).
- When acquiring companies in Germany, international investors should have a close look at start-ups in the vibrant German tech scene (see page 61) and at family-owned companies (see page 54) that are often world leaders in niche markets and are increasingly looking for successors. It must, however, be noted that Germany and Europe have introduced regulations and processes to restrict investment in and safeguard critical infrastructure and future technologies to avoid them from being taken over by foreign investors (ruled in the "Aussenwirtschaftsgesetz") (see page 48).
- International investors can copy the investment strategies
 of investors in Germany from other countries. Chapter 7
 provides insight into the views and investment strategies
 of foreign investors in Germany that are from the eight
 biggest investor countries.



Chapter 01

Foreign-controlled companies in Germany

In 2017, Eurostat registered 36,187 enterprises² that belonged to parent companies based abroad (hereafter also referred to as "Inbounds" or "German subsidiaries"). The biggest group of these companies (4,503) belongs to Swiss majority shareholders. However, the highest turnover of approximately EUR 301 billion was generated by Inbounds from the US, which also employed the greatest number of people, about 600,000. Throughout this survey, we will pay special attention to the eight

countries listed in the table below, as investor groups from these countries are strongly represented in Germany or – in the case of China – have recorded particularly strong growth rates in recent years. Inbounds from these eight countries, namely Switzerland, the Netherland, the US, the UK, France, Austria, Japan and China generate about two thirds of the turnover of all Inbounds operating in Germany, which amounts to roughly EUR 1.6 trillion.

Table 01: 2017 Inbounds activity in Germany³

Resident country of controlling unit	Number of subsidiaries	Number of people employed	Turnover in EUR mil.
Switzerland	4,503 (12.4 %)	423,839	125,695
The Netherlands	4,221 (11.7 %)	356,184	139,332
United States	3,930 (10.9 %)	600,263	300,957
United Kingdom	3,268 (9.0 %)	311,557	191,500
France	2,481 (6.9 %)	392,715	155,481
Austria	2,414 (6.7 %)	207,925	61,591
Japan	1,159 (3.2 %)	151,347	84,640
China	713 (2.0 %)	57,635	26,547
Other	13,489 (37.3 %)	1,050,626	513,991
World total (excluding Germany)	36,187 (100 %)	3,552,091	1,599,734

Source: Eurostat; Foreign control of enterprises by economic activity & a selection of controlling countries

^{2,3} Excluding financial and insurance activity

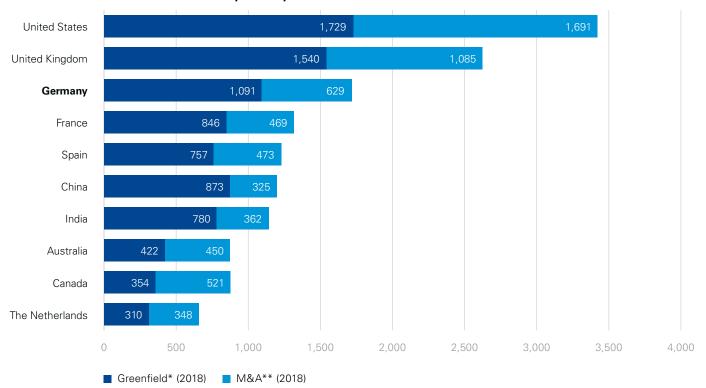
Greenfield projects and M&A deals

The number of Inbounds in Germany is continuously rising. According to Eurostat, the number of companies controlled from abroad operating in Germany has risen between 2008 and 2017 from 21,376 to 36,187⁴. This number increases whenever **Greenfield investment** or **Mergers & Acquisitions** deals by foreign companies are realized in Germany.

A Greenfield investment refers to a type of foreign direct investment where a company establishes operations in a foreign country. In a Greenfield investment, the company constructs new facilities (sales office, manufacturing facility, etc.) crossborder from the ground up. A Greenfield investment is a form of market entry commonly used when a company wants to achieve the highest degree of control over their foreign activities.

It is the opposite of what is meant by the term Mergers & Acquisitions, which is used to describe a merger or fusion of two companies into one legal and economic entity (merger) or the purchase of company units or an entire company (acquisition). In the case of an acquisition of a majority stake in a foreign company – in contrast to a Greenfield investment – the parent company takes over already existing operations instead of building them up from the scratch.

Figure 01: Number of Greenfield and M&A deals by country in 2018



^{*} based on Greenfield project announcements recorded by fDi Markets; fDi tracks crossborder investment in a new physical project or expansion of an existing investment which creates new jobs and capital investment. Joint ventures are only included where they lead to a new physical operation. Mergers & Acquisitions (M&A) and other equity investments are not tracked. There is no minimum size for a project to be included.

Sources: fDi Markets, 2019; Thomson One, 2019

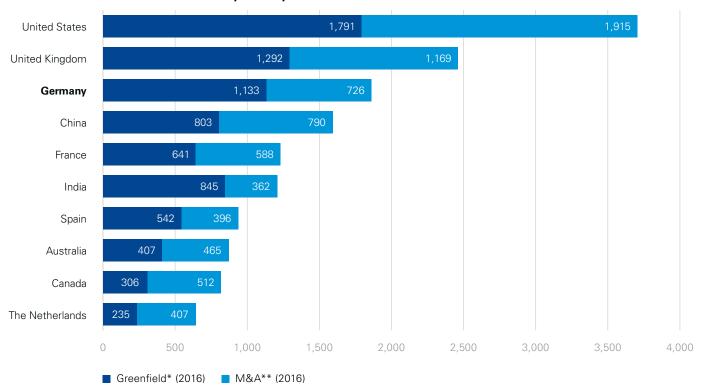
^{**} M&A deals which have been actually closed

⁴ Part of this change is due to a change in definition, the current definition of an Inbound has been in use since 2011. In 2011 the number of Inbounds stood at 27,717. (Source: Eurostat)

In 2018, a total of 1,091 Greenfield projects were announced and 629 Mergers & Acquisitions were made by foreign investors in Germany. This adds up to a total of 1,720 Greenfield and M&A projects in Germany in 2018. Globally Germany ranked third in these type of investments in 2018, the same position it held in 2016. The US continues to hold its own at the top with 3,420 Greenfield projects declared and M&A deals closed, followed by the United Kingdom with 2,625. By contrast, China's position has declined compared to 2016. It fell from fourth to sixth place

with just 1,198 Greenfield projects and M&A deals in 2018. In 2016, however, 1,593 foreign investment projects (M&A deals & Greenfields) were counted in China. Fourth place is now held by France, which has substantially increased its number of Greenfield projects from 641 to 846 in just two years. However, on the other hand, Mergers and Acquisitions in France dropped from 588 to 469 in 2018. Overall though, France's Greenfield projects and M&A deals increased from 1,229 in 2016 to 1,315 in 2018.

Figure 02: Number of Greenfield and M&A deals by country in 2016



- based on greenfield project announcements (including expansions and joint ventures)
- M&A deals which has been actually closed

Sources: fDi Markets, 2019 (2016 Figures adjusted due to updated data); Thomson One, 2017

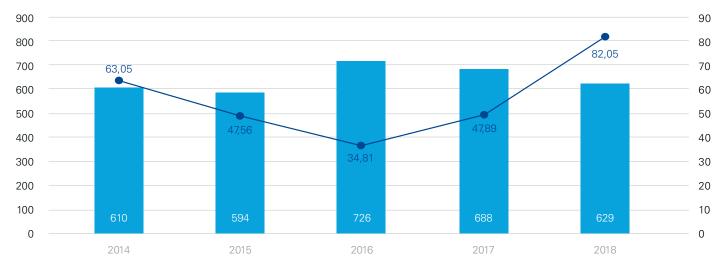
These figures indicate that Germany has remained popular as a destination country for foreign capital investment. The number of almost 1,100 Greenfield investments is consistent with the 2016 numbers (1,113).

According to fDi markets about 9,000 of this type of investment project have been realized since 2010 by more than 7,000 foreign firms in Germany. The vast majority of these investment projects relate to the opening of marketing and sales offices. Furthermore, German Trade and Invest (GTAI) has calculated that every seventh Greenfield project is either a production site or research facility.⁵

With regard to M&A deals, even though foreign investors closed around 100 fewer deals in Germany than in 2016 (726), it was still able to attain third place with 629. However, the first two countries of the ranking are far ahead, with more than a 1,000 closed deals.

Many investors viewed Germany as a predominantly positive business location in 2018. The size and structure of the German economy, its integration into the EU and its geographical location at the heart of Europe are probably the main reasons for this favorable evaluation.

Figure 03: Number & transaction volume of cross-border M&A deals in Germany*



Number of M&A deals

Volume of M&A deals (in USD bil.)

Source: Thomson One, 2019 (Note: Prior year figures were adjusted due to updated data.)

When we take a closer look at the make-up of M&A activity in Germany, we note an interesting development: whereas the number of effectively completed Mergers & Acquisitions has dropped from 726 deals in 2016 to 629 in 2018, the value of these deals in USD terms has more than doubled to 82,05 billion during the same period. There is a clear trend toward higher transaction amounts per closed deal.

^{*} M&A deals which have been actually closed

 $^{^{\}scriptscriptstyle 5}$ "Ongoing Interest in Greenfield Investments", GTAI homepage

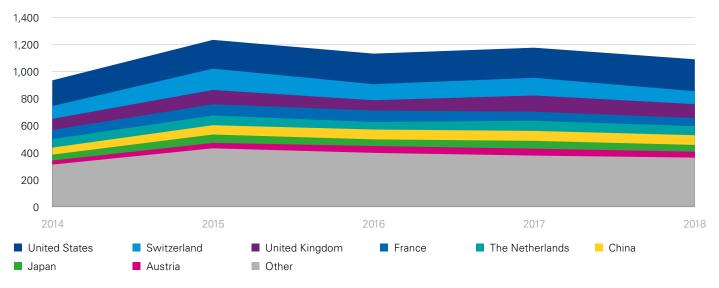
US companies are leaders in terms of Greenfield projects

and M&A activity

Consistent with our last survey, the top investor in Germany was the US in 2018, with 236 Greenfield projects and 91 M&A deals. They were followed by the UK with 103 Greenfield projects and 80 M&A deals, and Switzerland with 96 Greenfield

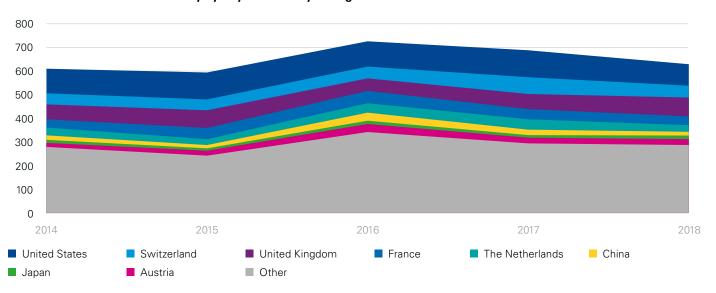
projects and 50 M&A deals. The number of China's Greenfield projects remained stable at roughly 70 projects but its M&A activity fell by more than 50 % from 34 deals in 2016 to just 16 in 2018.

Figure 04: 2014–2018 Greenfields in Germany by investor's country of origin*



^{*} based on Greenfield project announcements (including expansions and joint ventures) Source: fDi Markets (Note: Prior year figures were adjusted due to updated data.)

Figure 05: 2014–2018 M&A deals in Germany by buyer's country of origin*



^{*} M&A deals which have been actually closed Source: Thomson One, 2019 (Prior year figures were adjusted due to updated data.)

It was thought that the US tax reform of 2018 would be responsible for a very negative impact on foreign direct investment in Europe. Companies based in the USA might have had less incentive to reinvest profits in Germany as the reduced corporate income tax from 35 % to 21 % in the US encouraged repatriation of any profits earned abroad. As plausible as it sounds, this argument is not supported when we see the high number of 236 US Greenfield projects that were recorded for Germany by fDi markets in 2018.

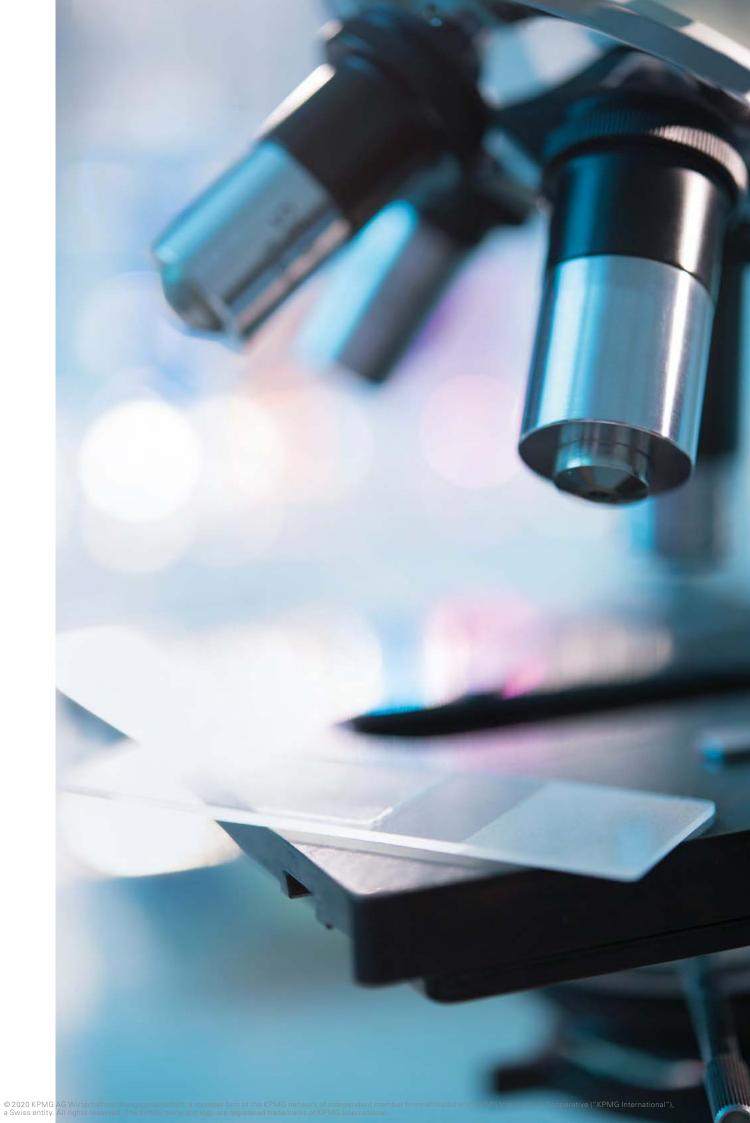
In terms of M&A deals, however, it is actually possible to see slightly clouded investment behavior from US companies in Germany. In 2018, American companies only acquired 91 German companies, compared to 111 in 2017. It is possible that the consequences of the 2018 US tax reform were already reflected in that reduction, a situation that might become even more apparent in Germany and other European countries after a certain period of time. It can nevertheless be concluded that, in general, Germany continues to be a particularly popular location for US investors.

It is striking that Germany has become substantially more attractive as a business location for British investors since the referendum on EU membership in the summer of 2016. The number of closed M&A deals rose significantly from 53 in 2016 to 80 in 2018. A clear upward trend can also be seen with regard to declared British Greenfield projects. Whereas fDi markets recorded only 76 British Greenfield projects in Germany in 2016, the number rose to 120 in 2017 and remained at an elevated level with 103 projects in 2018. These numbers indicate that several British companies might fear the consequences of their country's withdrawal from the EU and are opening up operations within it.

"Despite a decline in M&A activity in Germany for the first time in years and amid growing levels of political and economic uncertainty across Europe, I expect that M&A markets will continue to develop robustly in 2020 and will remain at roughly the same level as 2019. Strategic investors will continue to pursue transactions in Germany, which will sustainably improve their competitiveness in an increasingly digital and rapidly changing world. Increasing globalization, digitization, unsolved succession issues in Mittelstand companies, low interest rates and enormous liquidity in the markets will continue to be the main drivers for Mergers and Acquisitions. The funds and resources made available through these transactions will be subsequently used for investment in innovation, digitalization and disruptive technologies."



Managing Partner, Deal Advisory
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Foreign Direct Investment

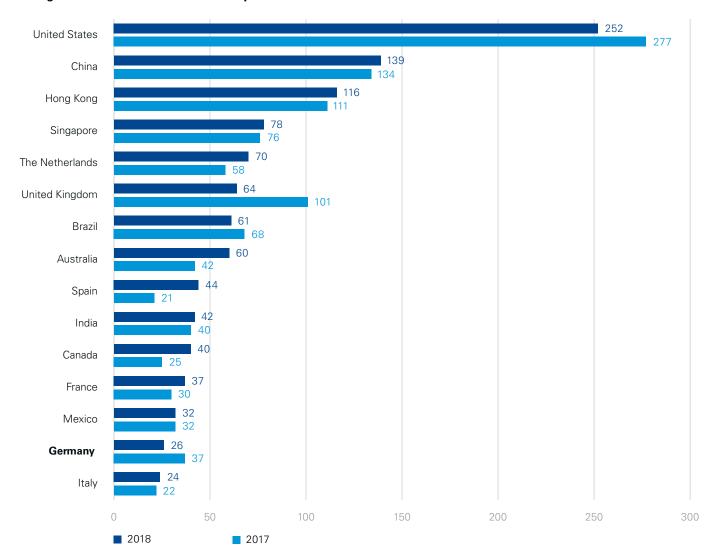
Since 2009, the global recession and subsequent Eurozone crisis have slowed the pace of foreign investment in Germany. Foreign direct investment (FDI) measures investment in Germany from abroad. According to the International Monetary Fund, the main characteristic of a foreign direct investment is a holding of at least 10 % in a company abroad. Thus, Greenfield investments and Mergers & Acquisitions are a subset of this concept.

According to the World Investment Report by UNCTAD, in 2019 FDI inflows to developed economies reached their lowest point since 2004, having declined by 27 % compared to 2018. Flows to Europe more than halved to USD 172 billion while those to

North America were more resilient, declining by just 4 per cent to USD 291 billion. In 2018, multinationals from developed countries reduced their investment abroad by 40 % to USD 558 billion. As a result, their share in global outward FDI dropped to 55 % – the lowest ever recorded.

Germany ranks 14th in terms of FDI inflows in 2018. FDI inflows were USD 26 billion, which represents a sharp decline of USD 11 billion and a drop in the ranking by three places. A 30 % fall in just one year is deemed to be a strong warning signal, more so since at the same time investment in other European countries increased, especially in the Netherlands, Spain, France and Italy.

Figure 06: Foreign direct investment inflows of Top 15 economies in USD billions



Source: UNCTAD World Investment Report 2019

As we have seen in the previous sub-chapter, the decline in Foreign Direct Investment stands in contrast to global M&A activity, which has not decreased in developed economies, especially not in Germany. Globally, the value of net M&As expressed as a percentage of FDI inflows reached 62 %, the highest level since the height of the dot-com boom in 2000. In developed economies, net M&A sales rose by 21 % to USD 689 billion, 84 % of the global total. In developing and transitional economies, net M&A sales remained steady at USD 127 billion (UNCTAD World Investment Report 2019). This increase was driven mainly by a doubling of acquisitions by United States multinationals.

Germany and the US are important global players in terms of global economic performance, together accounting for almost one fifth of global GDP, and almost one third of global trade. The sustained economic growth of both nations over years, lively trade relations and their high standard of living point to a successful future for the economies of Germany and the US. Still, as stated in the previous sub-chapter, American companies acquired only 91 German companies in 2018, compared with 111 in 2017. Increasing protectionism and political uncertainty, plus the previously mentioned US tax reform might be responsible for this decline in the number of transactions.

Furthermore, companies are facing increasing regulatory difficulties when conducting transnational deals. Protracted international anti-trust proceedings make closing deals more difficult. There is also a trend towards relatively smaller deals with a volume of less than USD 500 million.

The chemical industry made up for this overall decline with megadeals, as M&A sales more than doubled to USD 149 billion. These included the merger of Bayer (Germany) with Monsanto (United States), worth USD 57 billion, and that of Praxair (United States) with the industrial gases group Linde (Germany), worth USD 36 billion.

The most attractive sector for M&A deals for American companies is software and IT. In 2018 more than 20 acquisitions of German companies took place in this sector. As a provider of innovative technologies and new business models, the US can position itself favorably against the competition. Another attractive sector for US companies is the healthcare market with 15 acquisitions. Over the next few years, interest and investment in this sector is likely to continue growing, as Germany has the second oldest population after Japan, making it a promising future market.

Table 02: The biggest takeovers of German companies by US Companies in 2018/19

Takeover of	Takeover by	Deal effective as of	Value of transaction in USD billions
Linde AG	Praxair Inc	1 st part: 04.08.2019 2 nd part: 31.10.2018	35.5 ⁶
Merck-Health Business	Procter & Gamble Co	12.01.2018	4.2
Evonik Inds-Methacr Bus	Advent International Corp	31.07.2019	3.4
Erwin Hymer Group SE	Thor Industries Inc	01.02.2019	2.4
Stahlgruber GmbH	LKQ Corp	31.05.2018	2.1
L'Orange GmbH	Investor Group	01.06.2018	0.9
Aventics GmbH	Emerson Electric Co	17.07.2018	0.6
XI (DL) Holdings GmbH	James Hardie Industries plc	03.04.2018	0.5

Source: ThomsonOne, 2019 (Effective at date and Completed deal value)

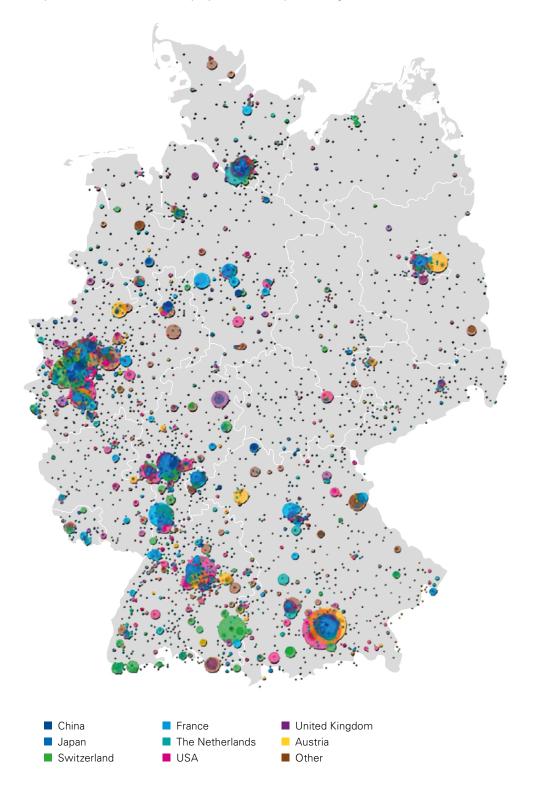
⁶ Deal was settled in two steps; the first part became effective on 31 October 2018, with a transaction volume of USD 32,367 million; the second part with a value of USD 3,181 million became effective on 8 April 2019; The second part implies the finalization of the squeeze-out.

Figure 07:

Locations of the German subsidiaries of foreign corporations

The pige of the date depends on the number of employees in the repositive re-

The size of the dots depends on the number of employees in the respective regions



Source: Bisnode company database 2020

Inbounds presence throughout the Federal Republic of Germany

In accordance with the German federal system, both in terms of political and economic structure, the subsidiaries of foreign companies are distributed throughout Germany. This is important to mention, as this structure is in sharp contrast to centrally governed states where all economic activity revolves around a very powerful economic and political center such as Paris or London. It can be noted according to Eurostat that the 36,187 subsidiaries of foreign companies in Germany (excluding financial and insurance activity) are spread across its entire territory with some dominant centers of very strong economic activity. Figure 07 illustrates which regions are particularly popular for international investors based on the number of employees working there.

The industrial region around Cologne/Düsseldorf is clearly the most popular in Germany for Inbound activity. Other dominant regional centers are around Munich, Stuttgart, Hamburg and Frankfurt. The capital Berlin is the only region in Eastern Germany with a stronger presence of Inbounds. However, compared to many other European countries, the capital of Germany is not at the heart of (foreign) economic activity. The settlement of Inbounds in Germany reflects the economic strengths of specific regions in Germany. What is striking is that even 30 years on from reunification, Eastern Germany is still considered unattractive to investors and is neglected in terms of foreign investment.

The more than 36,000 Inbounds form an extremely heterogeneous group. Among them we find simple sales companies, but also research institutions, production facilities and, of course, European headquarters. Although they account – according to the Federal Statistical Office – for just 1–2 % of the total number of companies operating in Germany, they contribute about 27 % of Germany's value added at factor cost. This underlines the immense importance of foreign-controlled subsidiaries to Germany's economic well-being.

But why do they invest so eagerly in Germany? What are the factors of attraction that Germany offers? Which function does the respective subsidiary fulfill within the Group? These are the questions that the KPMG in Germany-Survey "Business Destination Germany 2020" examines in the next chapters.

"With almost 7,000 employees and a turnover of over EUR 2 billion, Germany is a very important location for 3M in Europe. Besides Germany is much more than 'just' a production and sales market. We conduct intensive research and development at our Innovation Center in the city of Neuss, including digitalization of occupational safety equipment, for example. Many innovations and patents do originate from there. In future, we will continue building on the excellent research and science capabilities available in Germany, joined with the hope that the growing shortage of skilled workers and lack of qualified professionals will not negatively impact this favorable outlook."



Philipp BraunDirector, Head Government Affairs
3M Deutschland GmbH

Chair Innovation & Research Committee American Chamber of Commerce in Germany



Preferred regions in Germany for foreign investors

Four federal states proved popular with the respondents to our 2020 survey as future investment locations in Germany: Bavaria (31 %), North Rhine-Westphalia (NRW) (27 %), Baden-Wuerttemberg (20 %) and Hesse (16 %). These preferred states are also those with the greatest economic strength (in terms of GDP) among all federal states in Germany. With a GDP of EUR 705 billion in 2018, North Rhine-Westphalia has the largest economic output of all German federal states, followed by Bavaria (EUR 625 billion), Baden-Wuerttemberg (EUR 511 billion) and Hesse (EUR 292 billion). Furthermore, as we have seen in Figure 07, these preferred future investment locations correspond with the same places that have been chosen in past decades.

Figure 08 illustrates the preferred future investment locations of the surveyed companies of our eight target countries:

Bavaria is known as a powerhouse for automotive and IT technology and is the base of a wide range of mid-sized companies that operate in various industrial sectors. With a share of 49 %, Chinese companies focus their future investment on Bavaria, the highest share among the surveyed countries. Austria is ranked second with a share of 37 % of surveyed companies planning to invest in Bavaria.

NRW is the most industrialized federal state with by far the largest population. 37 % of Chinese companies and 35 % of subsidiaries from Japanese groups plan future investments in this state, followed by British firms (33%).

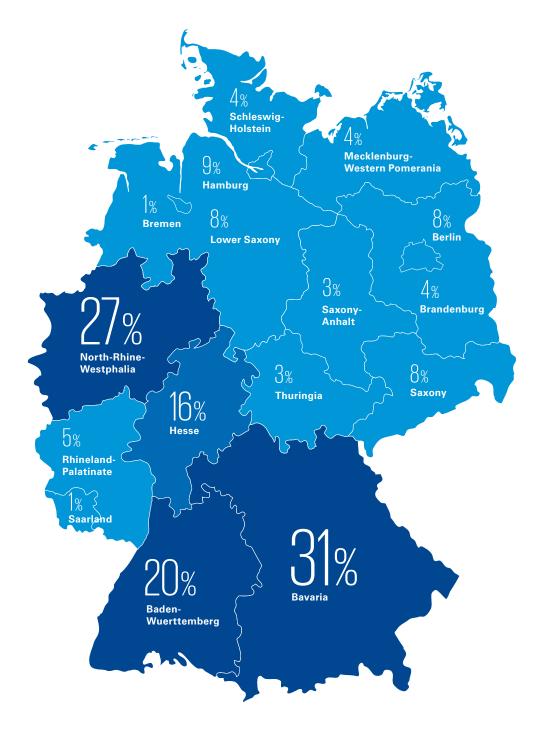
Due probably to its geographical proximity, Swiss companies prioritize Baden-Wuerttemberg as their investment destination, with a share of 34 %. However, this state is also attractive to Chinese (26 %) and Japanese (24 %) investors.

Hesse is targeted by mainly Japanese (29 %), Chinese (26 %) and Austrian companies (23 %).

Figure 08:

Future investment locations of surveyed Inbounds

Proportion of those for which the respective federal state is among the first three choices



Source: KPMG in Germany 2019 (n=340)

Selected promising industries in Germany for foreign investors

Due to the specifics of the German market and environment, certain industries offer bigger growth rates and higher profitability for international investors than others. Specifically, such promising industries comprise the following:



Healthcare: Demographic changes and legal certainty

Germany, the world's fourth-largest industrialized economy, spends EUR 4,544 a year per inhabitant on health. With a volume of EUR 387 billion in 2018, the German healthcare market is very attractive for companies from all over the world. Buy-and-build strategies have had huge synergistic capability and capacity effects. The focus of foreign investors has been on hospitals

and nursing homes, as well as rehabilitation and medical care centers. In particular, the fields of nursing care, outpatient care, dentistry and ophthalmology offer high returns on investment. There is still a fairly low degree of digitalization in the German healthcare system that requires enhancement, which translates into great investment opportunities.

"Demographic change coupled with current reform plans and changes in legislation pose major challenges for the German healthcare system. The aim should be to avoid gaps in care and to allow new ideas to enter the system. Existing structures and remuneration models are, therefore, being broken up and offer numerous opportunities for market entry into the respective submarkets. Those who manage to contribute to a good supply with new and efficient ideas have the chance to reproduce them in other countries facing similar challenges as Germany. The country is an anchor market in Europe."



Axel BindewaltPartner, Head of Health Care
KPMG in Germany



Renewable Energy: Political decision to shift the energy mix

The focus on climate change by a broad range of stakeholders – from consumers and corporations to governments and investors – has turned from talk to action. In Germany, this turnaround in energy policy is called "Energiewende". In this context, renewable energy has a decisive role to play in putting the world on a sustainable path, as it will cut emissions and greenhouse gases, improve air quality and save resources. As costs drop, efficiencies increase and technologies like battery storage advance, more corporations and institutions are looking to renewables for their energy needs, both on-site and through procurement.

Renewables are also attracting newer entrants, such as asset managers and real estate developers, who are starting to incorporate renewable solutions into their projects. Additionally, German consumers are looking for ways to achieve a target of 100 % renewable energy. They presently use, and are considering the use of, alternative technologies and solutions to address the low-carbon challenge. This is most evident in the case of a growing number of global corporations who want to be part of, and indeed control, the German "Energiewende". This trend is reshaping how energy markets will function in the future.

"The renewable energies sector in Germany is attracting increasing interest from international investors. The conditions could hardly be better for a market. Since the Paris climate agreement it has been clear that the trend towards renewable energies worldwide is inevitable. The growth is being pushed politically. In view of the energy turnaround in Germany, it is understandable that the interest of investors in projects in the field of renewable energies remains high in Germany."



Michael Salcher Regional Head, Region East Head of Energy & Natural Resources KPMG in Germany



Infrastructure/Building and Construction: The possible end of a lengthy investment backlog

Many international investors praise the infrastructure in Germany and consider it an advantage in business location competition. But maintaining, expanding and renewing the existing infrastructure are daunting tasks considering that investment needs run into billions of euros each year. Changing demographics, ongoing urbanization and an increasing demand for uninterrupted broadband coverage are driving additional investment in modern transport routes, public transport systems and also communications and electricity networks. In addition, the

'old' imperatives of commercial, residential and industrial building projects are being supplemented by other vital civil and social infrastructure projects. The financial restrictions on the public sector and the prospect of cost savings through more efficient management should lead to Public Private Partnership (PPP) projects in the area of public transport infrastructure. The importance of private investor involvement will increase, particularly for the financing of road construction projects.

"While the EU has one of the most complex transport networks in the world, Germany clearly stands out with the densest transport infrastructure, both in terms of rail and motorways. Given the ongoing increase in transport volume and evolving customer expectations, reinvestment in transport infrastructure and adjoining services such as telecommunications and energy is imperative. However, future investment opportunities within Germany will also be influenced by advancements in telematics, autonomous driving, alternative drive technologies and smart infrastructure."



Dr. Steffen WagnerPartner, Head of Transport & Leisure
KPMG in Germany



Industrial Manufacturing: One of the most important sectors with regard to Germany's value creation

Industrial Manufacturing is one of the powerhouse sectors of German industry and the country's largest industrial employer. With sales of EUR 232.3 billion in 2018, the mechanical and plant engineering sector ranked second among all sectors of Germany industry. The sector combines future technologies, such as electronics, robotics and software in support of industrial manufacturers' efforts to save energy and resources,

in effective production and in meeting regulatory and environmental requirements. Well-trained skilled workers, superior technological know-how, high quality standards in production and an excellent infrastructure for business create ideal conditions for international investors. Digital transformation, in particular, offers far-reaching opportunities due to changing customer requirements and business models.

"Most German manufacturers are highly specialized small-to-medium enterprises and, therefore, often suffer from limited operational and financial capabilities. As a result, many manufacturers are now looking for new ways to expand into new markets and access new customer groups. Many expect to gain strategic advantage by creating collaborative business models. Indeed, over the past few years German manufacturers have established R&D partnerships with suppliers and customers, pushed cross-sector research, joined manufacturing clusters and set up joint ventures in the hope of breaking down business risks, expanding markets, enlarging target groups, extending know-how and accelerating innovation."



Angelika Huber-Straßer Managing Partner, Head of Industrial Manufacturing KPMG in Germany



Real Estate: Interest from institutional investors is high

According to commercial real estate organization, Colliers International, there is an increased demand from occupiers, especially for office space. Furthermore, Germany's reputation as a safe haven in a time of uncertainty in Europe is appealing to investors. Germany was almost unaffected by the housing crash that hit most of Europe in the 2000s, making an investment in property a solid investment decision. The market is mainly affected by local forces like availability of housing stock and changing demographics. Since construction rates are low, demand is high and supply is not able to catch up. Mortgage rates are low, but rates are predicted to rise so investing now could be beneficial. In contrast to many European countries, there are no special requirements or restrictions for foreigners interested in buying property in Germany.

The country's most important economic centers and real estate markets are Berlin, Cologne, Dusseldorf, Frankfurt, Hamburg,

Munich and Stuttgart, including all their metropolitan areas. It is in these seven cities where the most office space is leased, with 50 % to 55 % of commercial transaction volume being generated there every year. A highly liquid real estate market means easy entry and exit.

The German real estate market is very decentralized with the above seven top locations and a number of liquid markets in secondary cities. What's on offer is highly diversified (office, retail, industrial, residential, hotel, etc.) with availability throughout the country. Germany enjoys a history of price stability and low-yield volatility, especially in the real estate hubs, and as such is regarded by many institutions as a "safe haven" investment location. A high level of economic, social and political stability means low external risk. The occupier market is characterized by ongoing high demand from a wide range of sectors and businesses.

"Our experience is that the digital transformation of our society is already affecting many industries – including Real Estate and Construction.

Real Estate users and owners are faced with challenges for which KPMG believes digital enablers and innovations may provide answers. We especially focus on sustainable innovations such as technical opportunities regarding energy savings, as they will be necessary to meet the regulatory and financial standards of tomorrow. The real estate industry is at the dawn of a technical revolution where highly integrated digital platforms, smart buildings and Artificial Intelligence will allow for new ways to build and operate, as well as communicate among all the stakeholders forming part of the value chain."



Dr. Hans Volkert VolckensPartner, Head of Real Estate
KPMG in Germany



Automotive: Germany's key industry has to reinvent itself from scratch, which offers great opportunities for investors

The automotive market is diverse. It ranges from original equipment manufacturers (OEMs) and component manufacturers, to dealerships and commercial vehicle manufacturers. In Germany, the automotive industry is the largest manufacturing sector and in terms of sales by far the most important industry. A complex ecosystem of German and international companies generates sales of around EUR 426 billion and directly employs over 830,000 people in Germany (2018).

The value chain in the automotive industry is differentiated with highly specialized suppliers and solution providers from a variety of different branches of industry. This includes capital goods and supplies of materials and parts, among others, from the chemical industry, the textile industry, mechanical engineering, the electrical engineering industry and the steel, aluminum and materials industry. In many areas, companies have developed a

pronounced system expertise in their segments. A central pillar of the success of the German automotive industry is its innovation leadership.

With the advent of emerging e-mobility and the market launch of alternative drive technologies, increasing requirements for emission reduction, the gradual development of connected and autonomous driving and changes in people's mobility behavior, the automotive industry is facing major challenges. The global auto industry enters a phase of restructuring, driven by connectivity and digitization.

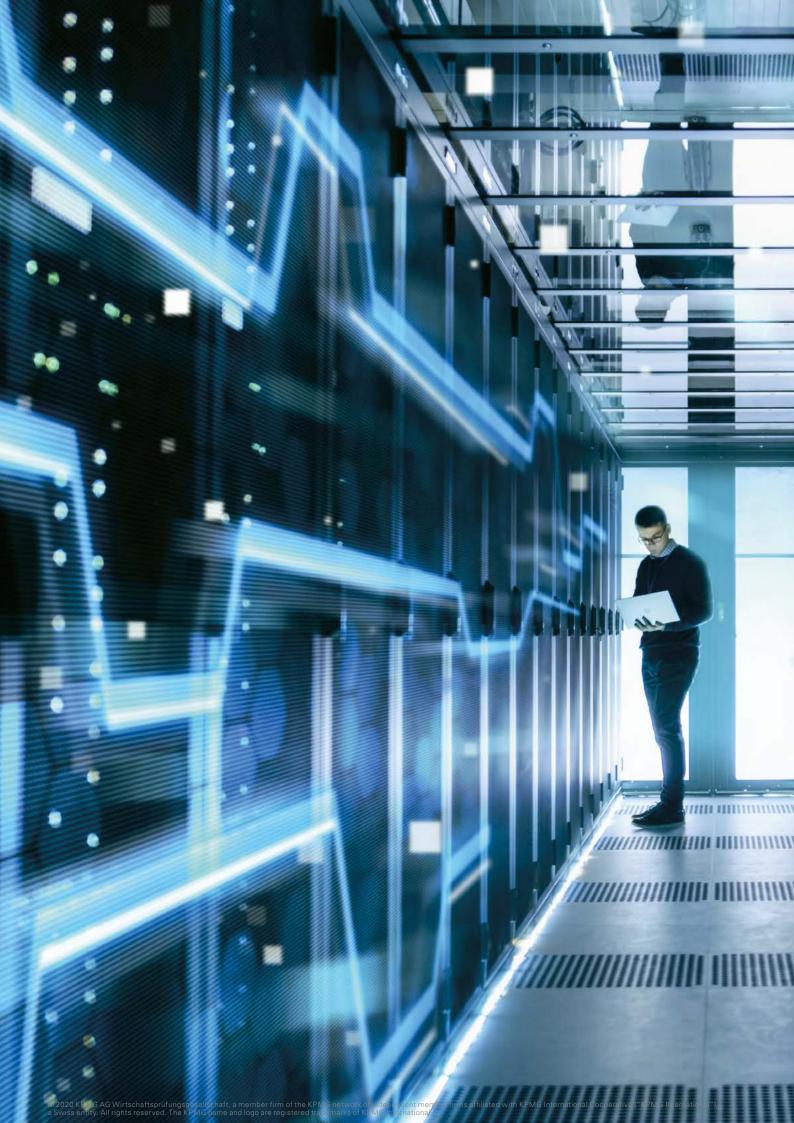
These developments will significantly change the automotive value chain in the next few years: new business models will be established, new players will enter the market and new opportunities for international investors will arise.

"Transformation of the mobility sector is fueled by three key technologydriven disruptive trends: electrification of vehicles (EVs) and alternative powertrains, connected and autonomous vehicles (CAVs) and Mobilityas-a-Service (MaaS).

Taken independently, each technology can significantly disrupt the ecosystem, but in combination, they will drive unprecedented change. These developments are set to replace our current vehicle-centric system with a radically more efficient, data-enabled and driverless ecosystem – with consumers at its heart. Users will be able to seamlessly transition between public, private, on-demand and scheduled modes of transportation, with dynamic travel information enabling changes in travel plans with no delay."



Angelika Huber-StraßerManaging Partner, Head of Corporates
KPMG in Germany



Chapter 02

Inbounds economic situation & investment plans

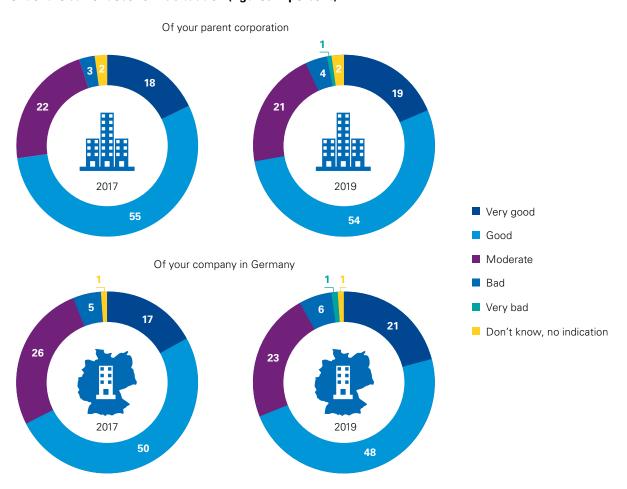
In this chapter, we show how the surveyed Inbounds perceive their current economic situation in Germany in general, and what investment decisions are being planned.

In Chapters 3 and 4 that follow we evaluate the business location factors that are the most important determinants of how foreign investors perceive Germany.

Economic situation and business prospects in Germany

69% of all surveyed companies assess the current economic situation of their German company as very good or good – just four percentage points below the perceived economic situation of the overall Group – and even two percentage points better than 2017

Figure 09: Assessment of the current economic situation (figures in percent)

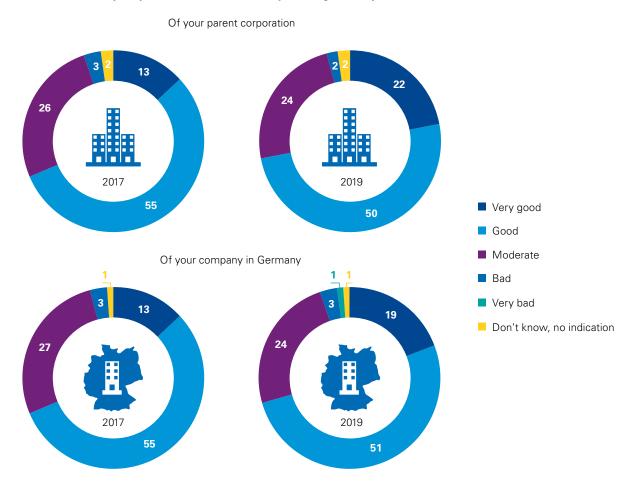


Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

Future prospects are viewed optimistically too: 70% of all surveyed companies assess the prospects of their German company as very good or good. The results were similar two years ago (68%).

Whereas 7% of the respondents stated in 2019 that the current situation of their German companies was bad or very bad, their prospects for the future are more optimistic, as only 4% have this skeptical outlook regarding their economic situation for the coming three years.

Figure 10: Assessment of economic prospects for the next three years (figures in percent)

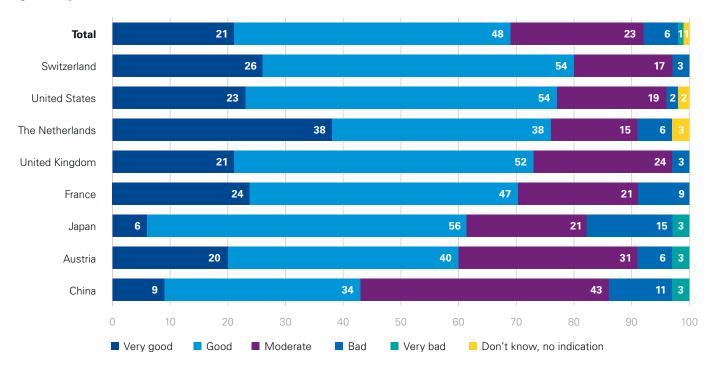


Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

The economic situation and prospects assessment differ depending on the parent company's country of origin.

Figure 11:

Assessment of the current ecomonic situation of your company in Germany by country of origin of mother group (figures in percent)

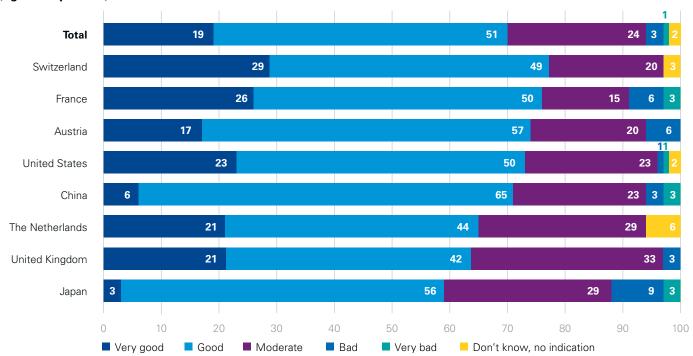


Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Only 43% of Chinese companies – less than the average – assess their company's current situation in Germany as good or very good. This is five percentage points less than in our last survey two years ago. In previous years, Chinese companies made large acquisitions in Germany – often distressed assets – that clearly have yet to pay off. However, as regards the next three years, the expectations of Chinese companies in Germany are much more optimistic: 71% have good expectations.

Swiss groups have the most positive assessment of their German subsidiaries with 80 %, which rate their current economic situation as at least good, followed by US groups with 77 %. Both countries often use Germany as a hub from which to manage their European and even non-European activities.

Figure 12:
Assessment of your company's prospects in Germany over next three years by country of origin of mother group (figures in percent)



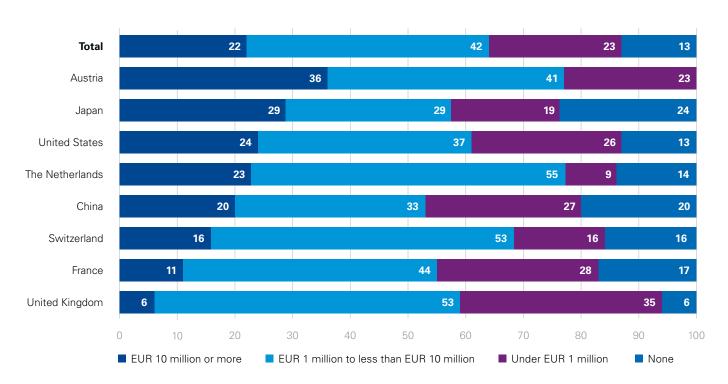
Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Planned investment in Germany for the coming years

As per our survey, planned investment in Germany is declining sharply overall. In 2017, a third of the respondents (34 %) still wanted to invest at least EUR 10 million on average per year over the next three years. Two years later only 22 % of subsidiaries plan higher investment.

The average value of intended investment over the next three years amounted to about EUR 8.2 million per year in 2019.

Figure 13: 2019 annual average planned investment in Germany over the next three years (figures in percent)

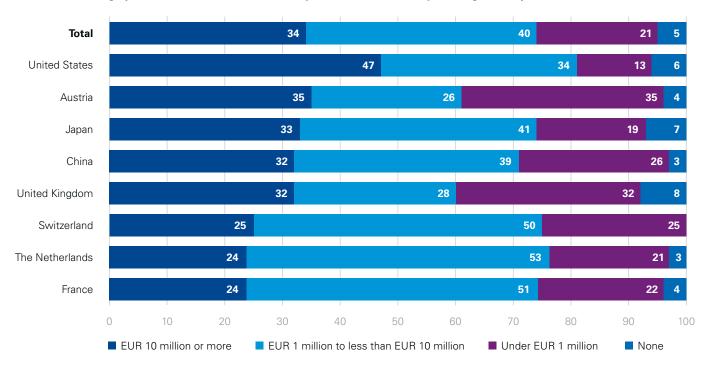


Source: KPMG in Germany 2019 (n=180); Deviations from 100 percent due to rounding differences

What is surprising and alarming is that 36 % of companies have announced that they will invest less than EUR 1 million in Germany or plan no investment at all. In 2017, only 3 % of Chinese companies did not intend to invest during the coming years – whereas two years later the ratio increased to 20 %.

Also Inbounds with headquarters in the US are reporting substantially lower planned investments than they did two years ago. Bigger investment projects of more than EUR 10 million are envisaged only about half as often (24 % of respondents) as in our previous review (47 %).

Figure 14: 2017 annual average planned investment in Germany over the next three years (figures in percent)



Source: Business Destination Germany 2018: n=251; Deviations from 100 percent due to rounding differences

"For the transformation from a culture of using resources to a culture of benefits and recovery in a circular economy, Veolia develops and realizes the necessary solutions: solutions that improve access to resources while protecting and renewing them. Veolia has many years of experience in the water, waste and energy sectors in Germany. Further investment, both organic and inorganic, is planned in Germany, as one of the significant countries of the Veolia Group. Main topics, therefore, will be the core region and business, as well as digitalization and innovation."



Emmanuelle Menning Chief Financial Officer Veolia Deutschland If companies plan to invest in Germany, their Top 5 investment areas are Core business, Digitalization, Expansion, Product development and Future technologies.

The survey results do not differ substantially by individual investor country. Dutch companies have the highest respondent rate for investment in Core business among all countries with 95 %. Swiss and Chinese companies have the highest ratings for investment in digitalization with 88 % and 83 % respectively.

Of course, there are various factors that determine what companies decide to invest in. In Chapters 3 and 4, we will look at different location factors, such as availability of talent or the research environment that may account for the decreased investment propensity of the respondents in the survey.

Figure 15: **Top 5 areas of investment for the next three years**

Average	United States	Switzerland	The Netherlands	United Kingdom	France	Austria	Japan	China
84%	78%	88%	95%	01% Core business	87%	86%	75%	92%
67%	65%	88%	58% Digit	50% alization of busin		73%	69%	83%
63%	60%	88%	50% Expansion	44% on of business seg	•	73%	56%	75%
46%	45%	50%	53% Developme	31% ent of marketable	20% products	50%	50%	75%
44%	48%	44%	42% Fu	25%	33%	55%	50%	50%

Future technologies

Source: KPMG in Germany 2019 (n=180); Deviations from 100 percent due to rounding differences



Chapter 03

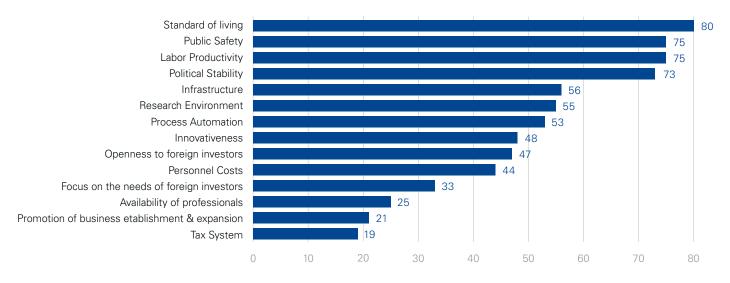
Basic characteristics of business location Germany in comparison to the EU

In this chapter we evaluate different business location factors, which are essential for foreign investors when determining their investment decisions. The surveyed companies were asked to compare Germany to other EU states with regard to several business location characteristics. Some of the questions were already asked in our "Business Destination Germany 2018" survey and, therefore, a time trend can be drawn.

Figure 16 summarizes the most relevant location factors, which in our view are decisive whenever investors compare countries in order to find the perfect match for their capital. The percentage numbers illustrate how many of our survey participants, who hold management positions in their respective subsidiary in Germany, consider Germany to be ranked at least among the Top 5 of the most successful EU countries in the various categories.

Figure 16:

Overview of all examined German business location factors



Percentage who see Germany at least among the Top 5 countries in the EU

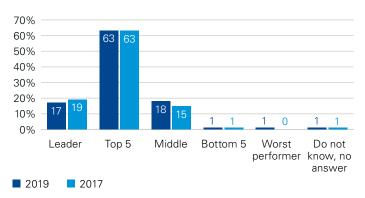
Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

A look at individual factors

${\bf Standard\ of\ living\ }$ and ${\bf Public\ Safety\ }$ retain almost the

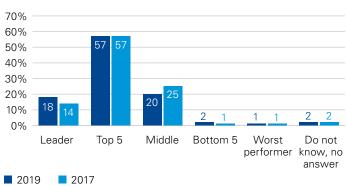
identical rating as they did in the 2017 survey.

Figure 17: Standard of living (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

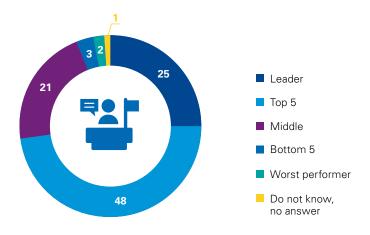
Figure 18: **Public Safety (figures in percent)**



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

Compared to the rest of the EU, Germany is particularly highly regarded as a business location in terms of standard of living, public safety and political stability.

Figure 19: Political Stability (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

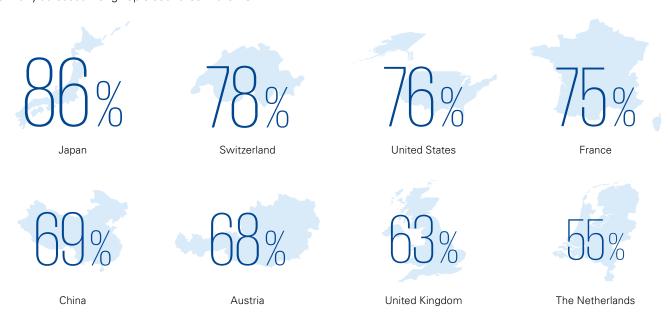
In these categories, between 73 % and 80 % of the companies surveyed stated that Germany is at least amongst the Top 5 in the EU. In today's volatile global environment, Germany's good positioning in terms of political stability and security should be viewed as a major advantage. These factors are of fundamental importance to a functioning and reliable economic system. They are the basis for trust and confidence in a functioning state under the rule of law. This is of particular important since investors often want to commit long-term to their business choices. In conclusion, Germany continues to maintain its position as a stable and safe haven in Europe.

73% of the surveyed Inbounds perceive Germany as at least among the Top 5 countries in the EU with regards to **political stability**. As stated, a stable political environment with a reliable and predictable rule of law is unquestionably one of the most important qualities investors look for as it reduces uncertainty. Interestingly, Japan, a country with a very different cultural background and political system, rates Germany's political stability as very high (86%), whereas some of its close neighbors, such as the Netherlands (55%) and Austria (68%), are much more skeptical in this regard.

Figure 20:

Political Stability rating by country

"Germany at least among Top 5 countries in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

We have seen in the previous sub-chapter that investment intentions for the next few years have declined substantially. This is to some extent in contrast to the very high assessment of Germany's political stability. Thus, it raises the somewhat provocative question as to whether Germany's political stability really is purely related to investment decisions in a positive sense. Important German trade associations complain regularly that Germany's political stability has made its political decision-makers somewhat complacent. As a consequence, stagnation with regard to initiating important future projects has led to sharp criticism, for example, from the BDI (Federation of German Industries). In this sense, we could argue that several of the surveyed companies might actually associate stagnation with Germany's strong political stability.

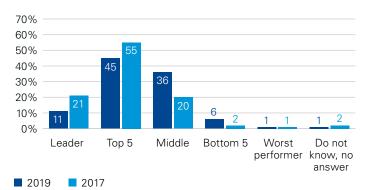
The German chancellor is currently leading the third large coalition of her term in office – it consists of both of the (former) strongest parties in Germany, the SPD and CDU. Each time, one central argument for the formation of this so-called "GroKo" ("Große Koalition" meaning big coalition) is that it provides stability in increasingly unstable times, both economically and politically, be it at a local, European or global level.

Now, however, as the end of the "Merkel era" approaches, the dominant impression seems to be that this political stability, which originally seemed attractive, is leading to a kind of over-stability. Political discussions in Germany have seemed paralyzed for many years and lively and heated debates on its political stage, the Bundestag, have been missing for quite a while. Clearly, political forces outside the executive have been too weak to coerce the governmental coalition into addressing future investment planning. A healthy democracy might need some degree of instability with regard to the formation of political will but, of course, this needs to take place within the context of a very stable set of rules, like that offered by the German constitution.

This kind of struggle inside the political system is important in shaping political visions. It seems that this kind of lively dispute has been partly discouraged by political decision-makers themselves. As a consequence, the stagnation of political powers might have led to a neglect of future investment initiatives. Many economic institutes in Germany, such as the "Deutsche Institut für Wirtschaftsforschung (DIW)", bemoan, in particular, the backlog of investment in education, innovation and infrastructure.

We asked the surveyed Inbounds how they evaluate Germany's infrastructure:

Figure 21: Infrastructure (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

In terms of the quality of German infrastructure the ratings of our target group deteriorated strongly in 2019. Only 56 % of respondents rate its quality as at least among the Top 5 in the EU. Two years ago the figure was twenty percentage points higher – a dramatic fall!

Foreign investors have become increasingly aware in their daily business of the oft lamented investment backlog in German infrastructure projects. According to the "Institut der deutschen Wirtschaft (IW)", a sum of approximately EUR 450 billion over ten years is required to address investment shortfalls in the areas of transport, broadband, decarbonzation, housing and education. The IW, which traditionally is very conservative when it comes to recommending government spending, emphasizes the absolute necessity of clearing the investment backlog. A strong and modern infrastructure is an important building block for the future viability of an economy.

In the following sections we will highlight two specific areas where Germany's infrastructure seems to fail; **digital infrastructure** and **logistic infrastructure**.

A recent report⁷ puts network coverage with the mobile phone standard LTE at just 65.5 % in Germany, which the report states places Germany at 70th place in an international table. The quality of the digital infrastructure has a huge impact on economic activity for businesses. A steady network is the spine of any digital economy. Slow transmission speeds and poor network coverage undermine business models and the competitiveness of entire regions. The current network coverage does not meet the requirements of an economically strong technology location.

"Operating in more than 200 countries and territories, UPS is the world's largest package delivery company and a leading global provider of specialized transportation and logistics services. Germany, due to its central location, infrastructure, strong manufacturing base and its highly trained workforce is an ideal and essential market for the logistics industry. Since coming here in 1976 UPS has continually invested in Germany to optimize its operations, expand its capacity and offer the best possible solutions to our customers, which means connecting them to global markets. High quality digital and physical infrastructure is a prerequisite for us to be able to do this."



Frank Sportolari Chief Executive Officer UPS Germany

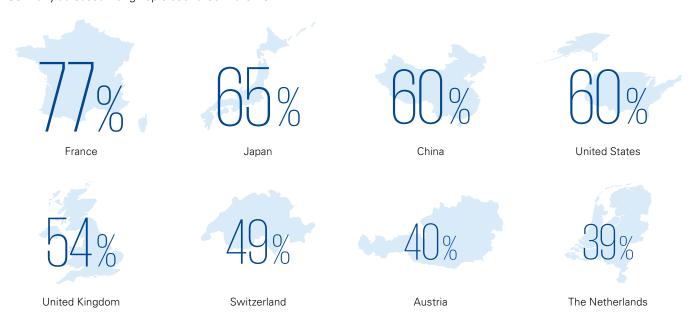
⁷ by App-Provider Etrality (Speedcheck)

Various business models of Industry 4.0 are based on high-quality IT infrastructure. Only one in five companies currently invests in digital business models, according to Bitkom data. Clearly, there is a lack of confidence in putting forward innovative digital applications in view of the poor quality of Germany's digital infrastructure. The start of the 5G extension is thus an important forward step in signaling a much greater involvement in digitalization by political decision-makers.

In addition to the lagging digital infrastructure, the low values with regard to the quality of German infrastructure also reflect the serious deficiencies in Germany's logistic infrastructure. Companies that are particularly dependent on just-in-time deliveries moan specifically about deteriorating roads, bridges and railway lines. In the worst case, transport delays can mean a temporary halt to production. The IW sees a need for investment of about EUR 60 billion to modernize Deutsche Bahn's long-distance rail network and another EUR 20 billion to expand the public transport system. A further EUR 20 billion is needed to repair the worst damage to the highways.

Figure 22: Infrastructure rating by country

"Germany at least among Top 5 countries in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Germany's direct neighbors, the Netherlands, Austria and Switzerland rate its infrastructure worst of all the countries surveyed.

There are other factors besides infrastructure that are relevant to location. The price of electricity and tax levies are decisive for many international investors and are, therefore, investigated below.

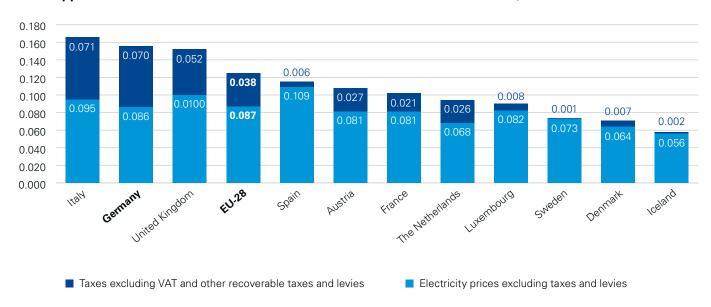
On a positive note, foreign investors can traditionally count on a very reliable power supply in Germany. However, due to a shift from traditional energy sources such as coal, gas and nuclear power to renewable energy, the price of electricity in Germany is relatively high.

Potential international investors may be deterred by high prices for electricity in Germany. As calculated by Eurostat for the first half of 2019, German industry's⁹ electricity cost per kWh of 15.6 Cent is significantly above the EU-28 average of 12.5 Cent, and especially above the price of its neighbor state, the Netherlands, where it is just 9.4 Cent. It is no coincidence that in our survey the Netherlands gives the worst rating to the quality of German infrastructure (39 %), as Figure 22 illustrates. Clearly the respondents from Dutch subsidiaries have much lower energy prices and a far more developed digital infrastructure back in their homeland. In Europe only Italian non-household consumers have a higher electricity bill (16.6 Cent) than those in Germany.

⁸ Digitalklausur der Bundesregierung: Bitkom zum Stand der Digitalisierung in Deutschland; Pressebereich bitkom

⁹ In the Eurostat data table this segment is called "non-household consumers"

Figure 23: Electricity prices for non-household consumers in EUR/kWh in selected EU-28 countries, 1st half 2019



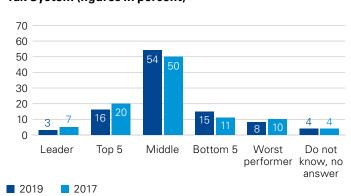
Source: Eurostat

High electricity prices in Germany are the result of very high non-recoverable taxes payable on each kWh-unit consumed. Germany even has the highest ratio of non-recoverable taxes and levies in relation to the overall price of electricity (45.1 %). The average across all EU-28 member states is about 30 %. Due to political decisions, such as the recently passed CO $_2$ tax, plus the 5.5 % rise of the so-called "EEG-Umlage" in 2020, this average will rise even further. Reducing electricity-related costs should be a top priority for politicians in order to retain the competitiveness of Germany as a location for the manufacturing industry.

The worst assessment in terms of location, however, relates to the **tax system** in Germany. It was judged by only 19 % of respondents to our 2020 survey as one of the Top 5 in the EU. Likewise, in 2017, this particular business location category in Germany occupied last place in our survey. About one quarter of survey participants (23 %) are of the opinion that it belongs to the Bottom 5 or is even the worst tax system in the EU.

Interestingly, Germany's tax system in its current form will celebrate its 100th birthday in 2020. After the First World War, a tax system emerged that has not changed fundamentally to this day. Depression and deflationary policies in the wake of the global economic crisis – during the Weimar Republic – increased the tax burden. However, tax law to this point in time has not

Figure 24: Tax System (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

become simpler and more transparent, let alone "more systematic", as a result of the numerous reforms since the 1960s. This might be reflected in the assessments of the respondents of our survey, who seem to have very little appreciation for the German tax system. This devastating feedback regarding the German tax system reflects the particularly high corporate tax rates in Germany compared to the EU average.

¹⁰ The EEG levy is used to finance the expansion of renewable energies. Operators of renewable energy systems that feed electricity into the public grid receive a fixed remuneration for this. In principle, all electricity consumers must pay the EEG levy. It is part of the electricity price. There are special rules for companies with specifically high electricity costs. They belong to certain sectors for which the share of electricity costs in the value added is particularly high.

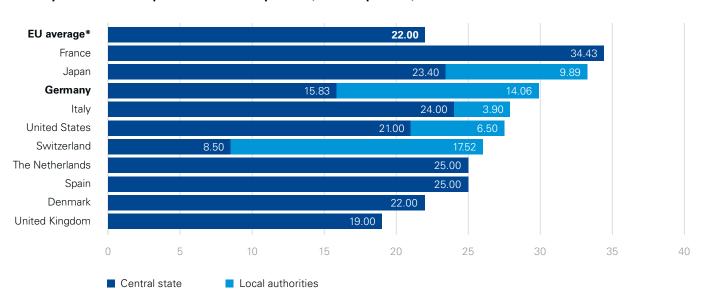


Figure 25:

2018 corporate taxation by international comparison (tariffs in percent)

"The transformation of businesses and the increasing use of technology solutions have changed the role of tax functions into sources of significant strategic value. At the same time, the global effort to curb base erosion and profit shifting created an additional challenge for tax functions: To balance operational excellence vs. reputational risk. Both challenges have focused the attention of multinational companies on tax competition among countries. However, such focus goes beyond the headline tax rate and includes the environment, in which taxpayers must manage their key risks and daily affairs. The survey shows that Germany is at a turning point: The effective tax rate is one of the highest in the Western world, the environment in which taxpayers operate is not favorable for multinational businesses. Germany has a limited advance ruling policy, tax audits take several years to conclude and leave taxpayer in uncertainty about major risks, joint audits with other countries are rather the exception than the norm. Therefore, Germany's key political challenge in the upcoming years is to reform the tax system, focus on an improved cooperation between taxpayers and tax authorities and reduce the tax rate to a competitive level."



^{*} According to BDI – no distinction made between different authorities who actually receive the tax Source: Bundeswirtschaftsministerium

As already mentioned, the US has recently reduced their corporate taxes substantially. Other important OECD countries have already followed the American example (e.g. Italy) or are about to follow it (e.g. UK, France and the Netherlands) and cut their corporate taxes. In Germany, it is the opposite with many municipalities recently raising their corporate taxes. Consequently, the Handelsblatt estimates that in 2019 the average corporate tax rate in Germany may have risen to a level of at least 31 %.

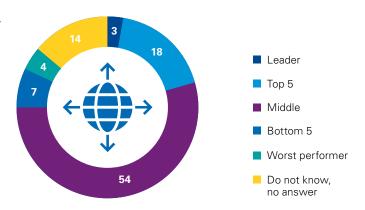
This depressing rating given by the surveyed Inbounds is reaffirmed in a study conducted by the World Competitive Center in Lausanne, in which Germany's tax system ranks at place 59 in global comparison. We conclude that tax reform would bring important impetus to the business location Germany.

Ease of opening up a business in Germany

Only 3 % of surveyed companies perceive Germany as a leader when it comes to optimal support of promotion of the **establishment of business** and the **expansion of companies**. In this category Germany is judged as very poor; only 21 % of surveyed companies rank it at least among the Top 5 EU countries. Only Germany's tax system, as highlighted above, was rated worse among interviewees (19 %).

Figure 26:

Promotion of establishment and expansion of business (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Once more, Germany's neighbors from the Netherlands are particularly critical with regard to this specific characteristic of business location Germany, whereas Germany's French business partners have again a much more benevolent view. Only 12 % of Inbounds with a Dutch mother company, as opposed to one third of subsidiaries with a French background, rank Germany among the Top 5 EU countries in this respect.

Subsidies in Germany

Subsidy policies in Germany are currently affected to a large extent by the Federal government's goal of transforming the energy system. The aim is to ensure a climate-friendly and environmentally-compatible energy supply without putting the competitiveness of German companies at risk.

In addition to climate protection as a key political concern, there are other current funding priorities in the areas of housing, digitalization and mobility.

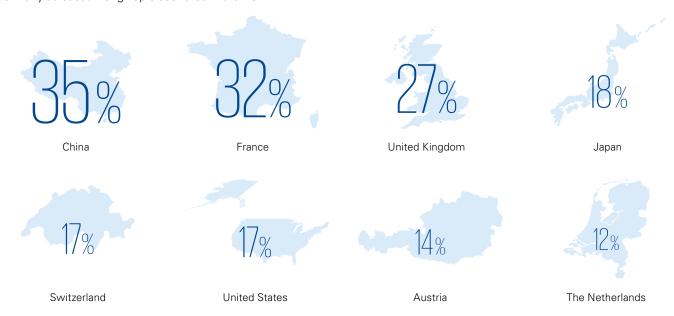
In total, there are more than half a dozen possible forms of subsidy ranging from loss grants to price guarantees to tax breaks. Promotional loans are also a form of subsidy. In addition, guarantees are given and exports are made easier. In some cases the state takes over external costs too.

Public grants can primarily be directed to those looking to create and secure jobs. This also includes the expansion of existing companies, the relocation of companies (including the founding of), the conversion of existing buildings or the reactivation of commercial and military wasteland.¹¹

The main task of the subsidy system in Germany is to accelerate technical, scientific and medical progress. But subsidies are also connected to political goals, environmental protection and climate protection.

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Figure 27: **Promotion of establishment and expanision of business rating by country**"Germany at least among Top 5 countries in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

We observe across all categories that French respondents are significantly more sympathetic to German as a business location than the Dutch. The surveyed companies usually compare the quality of a survey topic with a familiar benchmark. Since France as a business location is often criticized in the media for sharing some of the same weaknesses as Germany with regard to bureaucracy and infrastructure, the more positive assessment of Germany from the French compared to the Dutch is plausible. This argument is not intended to relativize in any way Germany's disappointing performance in this category. It merely serves to explain why there are sometimes systematic qualitative differences in the assessment behavior of various countries.

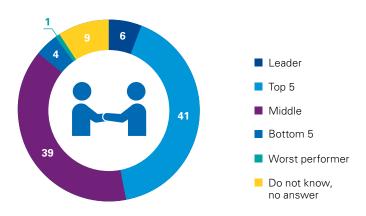
In Germany, subsidies are available for international investors in desired investment fields (especially in Eastern Germany), and for investment in future technologies (e.g. battery techniques and digitalization). They are also given for businesses with certain political objectives, especially those related to sustainability and the environment. However, this does not seem to impact the fairly depressing assessment of the surveyed companies in terms of promoting the establishment and expansion of foreign businesses. This together with irritation at, and confusion about, the many conflicting objectives of public promotion schemes, contributes to German's poor standing in this area.

"As a subsidiary of the Dutch Royal BAM Group, Wayss & Freytag draws from a network of experts, manifold potential and years of experience. Joint ventures with sister companies abroad are a very common and successful form of cooperation, as well as synergy utilization. The main focus of its activities in Germany include civil engineering and international tunneling markets. When working in Germany, the company is nonetheless dependent on public investments and approval procedures."



Ingo Rojczyk Management Board Wayss & Freytag Ingenieurbau AG

Figure 28: **Openness to foreign investors (figures in percent)**



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Germany enjoys a solid reputation among international companies with regards to its **openness to foreign investors.** Almost half of them (47 %) assess it as at least among the Top 5 countries of the EU.

The strong presence of German institutions in foreign countries has a positive impact on the attitude of foreign investors towards Germany. For decades Germany has been able to establish and expand a successful network of institutes that promote foreign trade. This is supplemented by the German embassies and the German Chambers of Commerce that operate in more than 90 foreign countries. The Wall Street Journal once called this active worldwide networking infrastructure "Germany's Secret Economic Weapon".

This approach promotes bilateral business relations and acts as first point of contact for newcomers in foreign markets, as is reflected in the survey results.

The respondents with a more critical view of Germany's openness towards foreign investors point to the recent tightening of foreign trade regulations ("Aussenwirtschaftsverordnung") in Germany. Stricter regulations with regard to investment capital from outside the EU underline the intent of the German government to protect Germany's critical infrastructure and future technologies against foreign influence. Of course, these measures can be perceived as protectionist and, therefore, an offence to international investors, especially those from China.

Aussenwirtschaftsverordnung

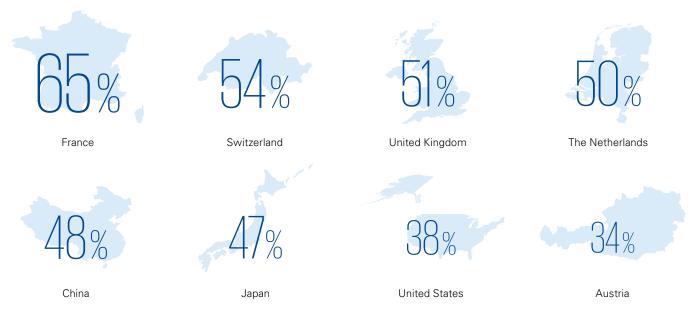
The "Aussenwirtschaftsverordnung" allows for – under certain circumstances – the scrutiny of ventures and takeovers by buyers from outside the EU. Its criteria have already been tightened once at the end of 2018. Since then the Ministry of Economics has been allowed to examine and, if necessary, prohibit foreign investments in certain areas of critical infrastructure, such as IT security. The threshold for

initiating such an investigation has been lowered from acquisitions of 25 % to those of 10 %. At the end of 2019, the Federal Minister of Economic Affairs announced that this threshold will also be lowered for acquisitions of shares of companies that operate in the area of future technologies, such as artificial intelligence, robotics, semiconductor or biotechnology.

Figure 29:

Openness to foreign investors rating by country

"Germany at least among Top 5 countries in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

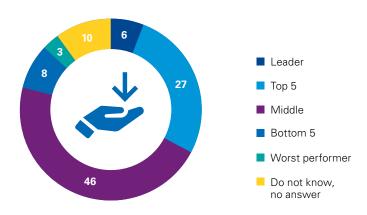
The ratings of respondents from Chinese Inbounds with reference to Germany's openness to foreign investors do not, as yet, reflect these stricter "Aussenwirtschaftsverordnung" regulations, which seem particularly targeted against China. Nevertheless, there are early indications that Chinese business partners, in particular, notice a change in Germany's attitude toward foreign investors. In November 2019 the Chinese Trade Association in Germany (CHKD) expressed very strong annoyance at the German political initiative that aims to exclude Huawei from 5G rollout.

Apart from the fact that there may be specific rational reasons for this tighter policy from the government, it should be noted that these discussions pose a huge risk to normally very productive cooperation between German and Chinese industry.

In contrast to Chinese respondents, those from the United States have already expressed strong irritation as witnessed in this year's survey. Actually, Germany's traditional international business partners from the US seem quite offended by recent regulatory developments. Furthermore, the latent trade conflict between Germany and the US government is strongly reflected in the low number of 38 % who testify that Germany has a very open attitude towards foreign Investors.

Figure 30:

Focus on the needs of foreign investors (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Germany ranks only as rather unsatisfying in the category of **focusing on the needs of foreign investors.** Overall, 46 % rank Germany in the middle, 27 % rank it in the Top 5, but only 6 % as the European leader. Overall, just one third of respondents give it a positive rating (at least among the Top 5 EU countries). This is definitively not satisfactory for an economy that is as dependent on international economic exchange as Germany is.

A variety of criteria come to mind, such as visa regulations or the availability of international schools, when evaluating whether a country attaches enough importance to the needs of foreign investors. In our view, one of the most pressing tasks for Germany in this regard is to substantially improve its e-government services for businesses. This would be an important signal from an economy that wants to put itself at the top of global digitilization. Furthermore, it would simply make the daily business of international companies much easier.

The DESI report 2019 issued by the EU Commission, which evaluates e-government services for businesses, only ranks Germany in the middle among all EU countries. This respected indicator measures the degree to which basic public services for businesses – when starting a business and conducting regular business operations – are available online and cross-border. The really annoying fact for those concerned with this issue is not that Germany is only ranked mid-table, but that according to the report it dropped off more than 4 points (the index goes from 0 to 100) in 2018 compared to 2017. With regard to the interaction between authorities and citizens in general, the same report even puts Germany among the Bottom 5 countries.

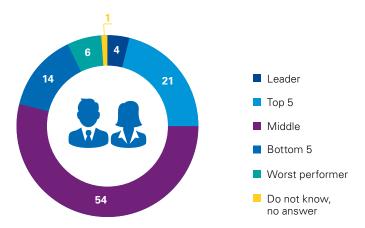
Again, this lack of will in addressing the needs of a modern digitalized economy reflects to some degree a certain coziness on behalf of political decision-makers after a decade of stable economic growth.

Labor market

Skilled professionals are one of the critical drivers of foreign subsidiaries in terms of innovation, competitiveness, growth, and employment. As development continues, securing a skilled labor force is one of the significant challenges facing overseas investors.

The **availability of professionals** is viewed as among the least favorable location qualities in Germany. Consequently, the majority of the surveyed subsidiaries (75 %) do not even see Germany in the Top 5 with regard to the availability of skilled workers. When compared to our last survey these figures show deterioration, and noticeably not for the first time. In 2018, "only" 56 % of respondents did not see Germany among the best EU countries in this regard. The lack of enough skilled labor is a problem, which the surveyed Inbounds are currently very aware of.

Figure 31: Availability of professionals (figures in percent)



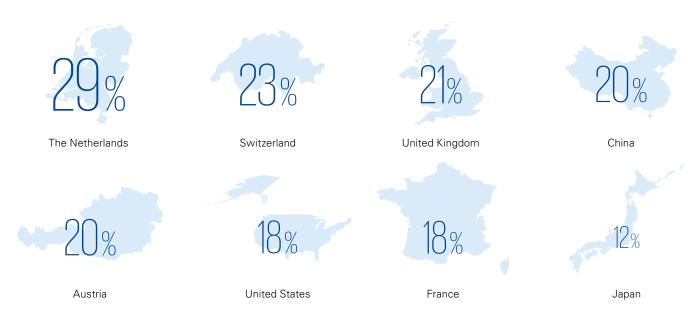
Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

The verdict of Germany's direct neighbors is particularly devastating: 29 % of Dutch companies see Germany as at least among the Bottom 5 performers! The percentage of Swiss and Austrian companies with this view stands at 23 % and 20 % respectively.

Figure 32:

Availability of professionals rating by country

"Germany among Bottom 5 countries or the worst in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

The respondents clearly anticipate that the lack of young people coming into the workforce due to a very low birthrate for decades, the upcoming retirement wave of the baby boomer generation and the low numbers of students of Mathematics, Informatics, Natural Science and Technology (MINT) will continue to aggravate the problem. The German education system in general develops (highly) skilled and innovative Human Resources but they are absolutely not available in the required quantities. According to estimates by the crafts association, "Zentralverband des Deutschen Handwerks (ZDH)", some 250,000 jobs remain unfilled in the skilled crafts sector alone because companies are unable to find suitable employees.

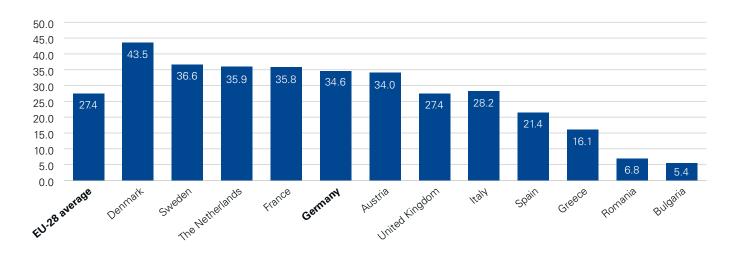
The Vocational Training Act ("Duale Ausbildung") that came into force 50 years ago is still the basis for the high quality of vocational education and training in Germany. In 1969 vocational training was regulated across national borders and sectors for the first time. It is an important attraction factor for those who might choose Germany as a business location as it ensures a well-educated labor force is in place. Furthermore, Germany still has an enviable reputation when it comes to the quality of its academic workforce, especially engineers. On page 54 we will deal explicitly with the structure of the German economy in terms of the small and medium-sized companies that shape it. In fact, in a global comparison Germany has a particularly large number of world market leaders - often in special market niches in this segment. This can't be a coincidence given its highly skilled and educated labor force. Unfortunately, the numbers of available skilled workers as they stand are much too low.

It should, however, be noted that the German Federal Government has just passed a skilled workers Immigration Act, which came into force on March 1, 2020. It is part of the Federal Government's Skilled Workers Strategy, which intends to make it significantly easier and quicker for qualified workers from non-EU countries to find their way into the German labor market. However, as this law – which has been a topic for discussion for decades in German politics – had not been passed at the time of the survey, it has had no bearing on our survey results, for now. This law offers hope that the shortage of skilled workers will be alleviated. Hence, the results in this category might hopefully improve by the time of our 2022 survey.

Apart from availability of professionals, the participants of the survey also view **personnel costs** with a critical eye.

According to Eurostat, Germany has an elevated cost level for human labor (EUR 34.6/hour). It is well above the EU average (EUR 27.4/hour), but in the Netherlands, in France and especially in the Scandinavian countries, the average price for one hour of human labor still is higher than in Germany.

Figure 33: 2018 Cost of labor rates in EUR/hour for selected EU-28 countries*



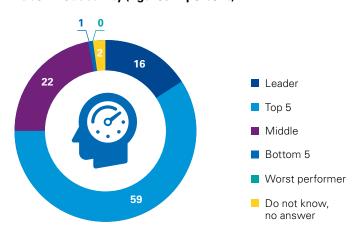
^{*} Wages in Industry, Construction & Services; Compensation of employees plus taxes minus subsidies (per hour) Source: Eurostat

High labor costs are tolerable for an economy, as long as they are grounded in high workforce productivity. Our survey respondents seem pretty impressed by the level of **labor productivity** that they come across in their daily business activities in Germany. Three quarters of them give a positive assessment of the German economy in this respect. 16 % judge Germany as the most productive country among EU member states and 59 % rate it among the Top 5. Only 1 % place Germany among the EU countries with the weakest capacities with regard to labor productivity. This verdict is definitely something Germany can be proud of; it has certainly earned it through decades of hard work, persistence and a spirit of innovation.

Its productivity is regarded as the key variable of whether the economy of a country is growing in an economically sustainable manner. Labor productivity, also known as workforce productivity, is defined as real economic output per labor hour. Growth in labor productivity is measured by the change in economic output per labor hour over a defined period. Figure 34 shows how important this variable has become since the beginning of the 21st century in Germany. The rise in Germany's labor productivity has, indeed, been pretty impressive since the year 2000. Although starting from a much higher level of labor productivity (USD 38.18) than the EU-28 average (USD 29.94), Germany's productivity growth rate per year (3.48 %) has still been pretty much in line with that of the EU-28 average (3.67 %). In 2018 EU-28 labor productivity per hour stood at USD 57.3, whereas Germany reached USD 70.6. But, as we can see in Figure 35, between 2017 and 2018 Germany's labor productivity has witnessed hardly any growth at all.

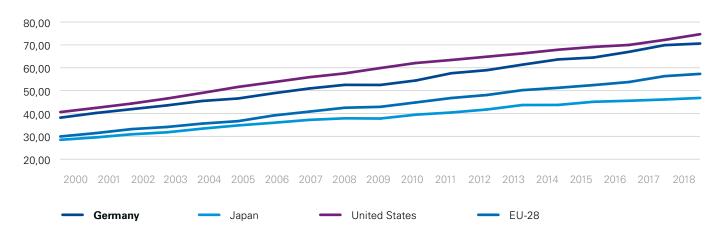
Figure 34:

Labor Productivity (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Figure 35: Labor Productivity: GDP/hour worked in USD using current rates & PPP



Source: OECD.Stat

In addition to the recently emerging stagnation in labor productivity, the chemical industry association "Verband der Chemischen Industrie (VCI)" notes that even the third important pillar of Germany's value creation, its chemical industry, is revising its profit forecasts downwards for the year 2020 and announcing job cuts. The other two main pillars of Germany's economic strength, the automotive industry and mechanical engineering are both struggling as well due to a collapse in demand. The president of the "Institut für Weltwirtschaft (IfW)" told the Handelsblatt that in his view the root cause for current stagnation is that the trend of productivity growth is systematically declining. Germany might not only be facing a temporarily drop in economic performance but a long-term decrease in productivity in these vital pillar sectors.

Thus, the question arises as to whether Germany has something planned for the industrial and technology sectors that are decisive for the future economic development of the country, and within which lie the value creation of the coming decades. Germany still has a lot to offer as its dominant industries – automotive and mechanical engineering – provide huge growth potential if they can master the digitalization of their industries. In the next chapter, we will examine the state of Germany with regard to future technologies such as **process automation**.

If these huge opportunities for the economy are not realized in Germany but abroad, there will be no alternative but to cut labor costs should Germany wish to remain competitive in its leading industries.

"As a technology leader, Oerlikon wants to set a conscious example for future technologies. Oerlikon is spearheading the revolution that is Additive Manufacturing (AM). AM allows for the creation of new components, which cannot be achieved by any other process. Weight may be reduced, saving material costs and providing benefits for the service life of the product. Young technology in particular has a chance in Germany. There are highly qualified employees and corresponding customers. The company is nonetheless concerned about global economic developments."



Christoph Huber
Head of Group Tax, Senior Vice President
OC Oerlikon Management AG, Pfäffikon

Essential also for Germany's high productivity is its particularly strong "Mittelstand". The German Mittelstand is characterized by a multitude of small and medium-sized, often family-owned, companies. This strong German Mittelstand is one of the main reasons for the German economic success story of the last decades; one that has led to more than 36,000 Inbounds investing in Germany.

The German Mittelstand

The "German Mittelstand" is an expression that is recognized internationally because of its long-lasting economic performance. The expression refers to the structure of the German economy, which is characterized by a multitude of small and medium-sized, often family-owned, companies. They provide jobs for 70 % of the German workforce.¹² According to the DIHK, Mittelstand dominance is specific to Germany: in no other country is there a comparable situation. A particular characteristic of this structure is that it is grounded in strong regional business and traditions, while in centrally governed states, such as France or the UK, everything is focused on the capital city. These Mittelstand companies represent a high number of rather "unknown" world champions in various niches of the global economy - the "hidden champions". The government counted about 1,400 that can claim a leading position in the world for Germany, far ahead of the US. This Mittelstand structure is supported by state governments, whose goal it is to promote regional business through specialized development agencies. Thus foreign investors in Germany can count on well-established, powerful economic structures, even in many rural areas such as, e.g., the region of Olpe in the Sauerland. Despite the strong anchoring of many SMEs to their regions, one should not think that they are not deeply integrated into global markets. The Mittelstand is internationally active and competitive. Nearly 45 % of German SMEs are directly or

indirectly involved in global value chains. Among the medium-sized firms more than 50 % are directly exposed to international clients and suppliers.

In 2018 about 6,900 small and medium-sized companies turned to the association "Deutscher Industrie- und Handelskammertag (DIHK)" for help because they wanted to transfer their business into other hands. Almost one in two (48 %) had no potential successor at that time. Both these figures were higher than ever before. DIHK President, Eric Schweitzer, is convinced that the challenge of company succession is becoming more and more explosive among German medium-sized businesses. In his opinion the search for new managing directors and shareholders for those entities is particularly difficult in Eastern Germany.

Even family-owned companies – the hidden champions that are highly successful internationally – often have difficulty these days in handing over their business from one generation to the next. Although the vast majority of these firms are aware that succession cannot succeed without precise rules and planning, many of them seem to have not put procedures in place that are necessary for achieving a fluid transfer of their company to the next generation. This provides a good opportunity for foreign investors to take over highly successful German hidden champions.

12 Source: KfW-bank

"Family businesses are deeply focused on innovation. We see many German family businesses getting involved with innovation hubs and partnering with smaller, more nimble start-ups – whether through direct investment, sharing ideas, co-developing products or other means. Working with start-ups enables family businesses to access the 'courage' needed to move fast, take risks and accelerate innovation."



Dr. Vera-Carina ElterPartner, CHRO and Managing Partner for Family Owned Businesses
KPMG in Germany





Chapter 04

Business location Germany -Digitalization & Innovation characteristics in comparison to the EU

Innovative technologies are on the advance: Artificial Intelligence ("AI"), Data & Analytics, Industry 4.0, Internet of Things and Process Automation mean companies are confronted with major opportunities as well as challenges. This chapter focuses on business location comparisons between Germany and eight other countries with regard to characteristics of digitalization and innovation.

"Ranking among the top six country organizations within global Thales group, Thales Germany is a central part of German high-tech industry in Transportation, Aerospace, Space, Defence & Security as well as Digital Identity & Security. Thales in Germany is a key provider to the capability range of the group, being the home of the global Main Line Rail Signaling product line at its headquarters in Ditzingen near Stuttgart. It also provides a competence center for satellite communication and propulsion components in Ulm. Development and production facilities for ground radars and round up Thales Germany's industrial country's scope."



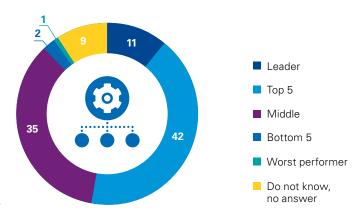
Dirk Jan de BruijnChief Financial Officer
Thales Deutschland

Process Automation on track but definitively room for improvement

Process Automation can be described as any process being automated through the use of computers and computer software. Processes that have been automated require less human intervention and less human labor hours to deliver. The survey results partially confirm that Germany is on track in this field: more than half of foreign subsidiaries state that Germany is among the Top 5 (42 %) or even the top country (11 %) in comparison with other EU countries. Around a third (35 %) of the companies consider Germany to be an average performer in this domain. Germany's potential and its capabilities in this area do not seem to have been fully perceived by global companies, as yet.

This mildly positive result regarding process automation is underpinned by adequate policy measures. Despite a lot of criticism about internet accessibility in Germany, it must also be noted that the German network agency (Bundesnetzagentur) has recently published framework conditions for local 5G applications for company networks. The aim is to support innovative 5G applications in order to boost new business models. The Bundesnetzagentur, in agreement with all relevant ministries, has set the fees for frequency allocation for local frequency use in the 3.7–3.8 GHz range. The Frequency Fee Ordinance will be amended accordingly and published shortly in the Federal Law Gazette. Apart from a basic fee, prices are related to the chosen bandwidth, the duration of use and the surface area that needs to be covered. In this way the network agency intends to provide

Figure 36: Process Automation (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

exclusive frequencies with which local company networks can be set up according to the needs of the companies on them. The tailor-made provision of 5G local campus networks would strengthen Germany as a location for modern industry applications and thus put forward another case for investment, after which further applications regarding the automation of processes would then be possible.

"Knowing that digital transformation is not only a technological shift, but a procedural and organizational change at the intersection of technology, business and people means that is has to take into account countless possibilities. Always remember that technology in of itself does not equate to digital transformation. The customer, culture and employees, along with business continuity, must be at the heart of every technology investment."



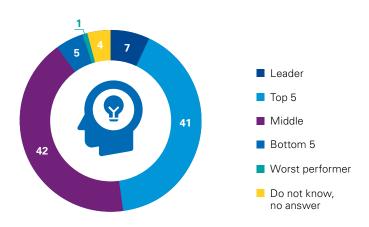
Ioannis TsavlakidisManaging Partner, Consulting
KPMG in Germany

The global trend towards automation and digitalization in the manufacturing sector is providing continuous growth momentum. According to GTAI, Germany's robotic and automation industry has enjoyed unprecedented success over the last decade, recording average annual growth of 10 % and almost doubling its turnover between 2010 and 2017 (EUR 14.5 billion). As a consequence, German industry is well equipped with high-tech robotic and automation technology. According to the International Federation of Robotics (IFR), in 2017 German industry had a ratio of 309 industrial robots to 10,000 employees. The global average stands at 74 robots. This density is the highest in Europe and in third place worldwide. Germany is doing well in this regard, turning its manufacturing and production processes towards "Industry 4.0". The survey results also indicate it is moving in the right direction.

Ambivalent picture with regard to Innovativeness

The assessment of Germany's capacities in terms of **Innovativeness** is the following: 48 % rate Germany as at least among the Top 5 in innovative capabilities. This result is rather positive, especially as there are only a few negative assessments. Only 6 % of respondents see Germany among the Bottom 5 countries. However, 42 % still perceive Germany as only in the middle of the pack. Thus, this result is somehow ambivalent.

Figure 37: Innovativeness (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

"Mitsubishi Electric's technologies are working quietly in the background to ensure sustainability, energy efficiency, comfort and safety for people across the globe. In particular, close ties with our customers in Germany are paramount to successfully providing integrated solutions addressing diversifying social challenges in the areas of life, industry, infrastructure as well as mobility. The push, especially, for climate change mitigation, digitalization and innovation in automation, robotics and autonomous driving symbolize an historic shift for society. Germany is a leader in this transformational journey and Mitsubishi Electric is providing key solutions to successfully making this change happen."



Andreas WagnerPresident of the German Branch
Mitsubishi Electric Europe B.V.

In terms of innovativeness in general, Germany's position is strong: no other European country lists more patent applications than Germany – a total of nearly 20,000 in 2018. French companies ranked second with nearly 8,000 patents per year, which is less than half as many as their German competitors (WIPO, 2019). In terms of international patent applications, Germany ranked 4th in global comparison in 2018. The USA, on the other hand, is top with almost 56,000 patent applications. In terms of patent applications, Robert Bosch was the most innovative German company with precisely 4,230 patents registered in 2018.

There are several universities in Germany, which have an excellent reputation when it comes to innovativeness. The TU9 universities ¹³ are the nine most innovative universities in Germany. They hold 21 of 57 current clusters of excellence for research into technology of the future, which were all approved by the German Ministry of Education and Research. Clusters of excellence enable German universities to establish internationally visible and competitive research and training facilities, thereby enhancing scientific networking and cooperation among the participating institutions.

TU9 universities maintain excellent international networks and have many and diverse collaborations with the business world. This makes them an essential element of Germany as a location for science and innovation. However, in terms of international ranking, German universities are only in the middle, according to the "Times Higher Education World Universities Ranking (THEWUR)" and the "Shanghai Ranking Academic Excellence Survey (SAES)". They rank the performance of universities worldwide. Although there are 8 German universities in the top 100 of the THEWUR Ranking of 2020, none of them are in the top 30. According to the Süddeutsche Zeitung¹⁴, the ETH Zurich, which is 13th in the 2020 ranking, has 15 times more funding than, for example, the German RWTH Aachen, which is 99th in the same ranking. This being the case, it can be viewed as impressive what some German universities, such as the RWTH, continue to achieve by global comparison in light of their systematic underfinancing.

Figure 38: Patent applications by countries in Europe in 2018 (Top 5)



Source: WIPO 2019

One in eight German industrial companies already uses artificial intelligence and machine learning within the framework of Industry 4.0, according to an April 2019 survey by the German digital association Bitkom. The outstanding number of patent applications in the field of Artificial Intelligence shows how essential this field of research has become to the German economy. It is pleasing to see that, according to the survey, Germany ranks second only behind the USA in terms of the expansion of Industry 4.0, ahead of Japan, China & South Korea.

In contrast, the KPMG Global CEO Outlook 2019 puts Germany as behind schedule in this important future technology. 31 % of companies in the US are already using wide-ranging artificial intelligence, according to the executive staff surveyed in the Outlook. The global average stands at 16 %, whereas in Germany only 10 % of companies use artificial intelligence. Global expectations that the use of Al-applications will achieve a positive ROI (Return of Investment) over the next 12 months have increased fivefold compared to the previous year.

 ¹³ RWTH Aachen, Technische Universität Berlin, Technische Universität Braunschweig, Technische Universität Darmstadt, Technische Universität Dresden, Gottfried Wilhelm Leibniz Universität Hannover, Karlsruher Institut für Technologie, Technische Universität München, Universität Stuttgart
 14 Exzellenz hat ihren Preis; Deutsche Universitäten verfügen über zu wenig Geld und Personal, um international glänzen zu können; Süddeutsche Zeitung;
 20. Dezember 2018

Expectations of a positive ROI for automation applications have doubled compared to the previous year. Thus, according to the KPMG Global CEO Outlook 2019, Germany has to catch up in order to be in a position where it is able to exploit the anticipated benefits of a widespread use of artificial intelligence.

Eleven young and promising German start-ups have just been ranked among the Top-50 of fastest growing tech companies in Europe by the investor network "Tech Tour". All companies on that list are funded by venture capital and are considered to be potential "unicorns", start-ups with a valuation of more than USD 1 billion. While a larger number of promising British startups were placed on that list, those from Germany were on average highest valued (336 USD million). Apart from the high valuation, it has to be stated positively that a very broad range of business applications are covered by these potential German future unicorns. Besides banking, very creative services can develop a strong following, particularly in the education sector. To emphasize two, Blinkist is especially popular with pupils and students. Its services summarize non-fiction books into shorter texts that can be read or listened to for educational objectives. DeepL offers translation services based on artificial intelligence. Frequent users even consider the quality of these translations to be clearly superior to those offered by Google.¹⁵

As illustrated by the aforementioned Tech Tour list, Germany has a vibrant and innovative start-up scene, but it is also characterized by difficulties, especially with regard to raising venture capital. According to the latest Global Startup Ecosystem Report from the association "Startup Genomes", the German capital Berlin, which was ranked 7th globally in the 2017 report, dropped to the 10th position in 2019. While Berlin is still a topnotch ecosystem, it faces a particular challenge: it has to prove itself when it comes to large start-ups. In 2014, Berlin had two Initial Public Offerings (IPOs), valued at an approximate total of USD 14 billion (Zalando & Rocket Internet). Since then though there have only been few comparable IPO successes. The used-car platform "Auto 1", one of the few German unicorns, is one of the rare big startup accomplishments realized in Berlin in the recent past.

Apart from Berlin, the report ranks Frankfurt and Munich among the 14 strongest start-up centers in Europe and the Middle East. Frankfurt is strong when it comes to Fintech, with young companies that, for example, focus on the analysis of large amounts of data and cyber security. Fintech, health issues and mobility are cited as the most important start-up threads for Munich.

Munich especially seems to stride ahead with regard to its importance to successful start-up activity. According to FAZ¹6, Google is expanding its operations in Munich with a new premises in a central location and 1,500 more employees. The Bavarian capital has long been home to tech companies from all over the world. Google's choice of Munich is certainly an expression of genuine appreciation of a very innovative tech and start-up environment in that city. Google settles where it sees creative potential in terms of talent and innovation. Thanks to its universities, which are talent forges, especially in the technical field, the tech and the start-up scene in Munich is gaining in international appeal. The software start-up Celonis has recently joined the ranks of the "unicorns".

There is a lot of vibrant start-up activity in Germany, but among founders two-thirds criticize a serious lack of venture capital to support it. Consequently, the digital association Bitkom states that every fourth start-up is thinking of moving abroad. This is more so when start-ups get bigger, as they do not get enough of the actual capital they need to grow. Yet there is hope that the dynamic German start-up scene will eventually receive the support it needs. The German government plans a EUR 1 billion fund for start-up financing. This so-called "Zukunftsfond" will incentivize the channeling of more private money into the financing of start-ups.

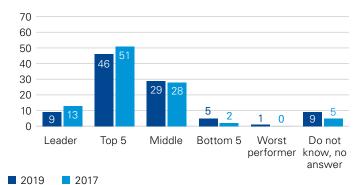
¹⁵ Deutsche Einhörner im Anmarsch; Frankfurter Allgemeine Zeitung; 19.02.2020

¹⁶ Digitales Biotop; Frankfurter Allgemeine Zeitung; 21.12.2019

Proven research environment loses some of its approval

In 2017, 64 % of respondents said that the German **research environment** was one of the Top 5 or even the best in the EU. However, two years later this figure fell by 9 percentage points.

Figure 39: Research Environment (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

According to the Ministry for Education and Technology, in 2017 Germany spent around EUR 99 billion on research and development (R&D) in companies, universities and public or publicly funded R&D institutions. This was 7.5 % more than in the previous year and added up to 3.04 % of Germany's gross domestic product. As such, the contribution of German industry to total German R&D expenditure amounted to EUR 68.6 billion

(2.09 % of GDP). Compared to 2016, this represented an increase of 9.3 %. According to current estimates, roughly EUR 30 billion (0.93 % of GDP) were spent on R&D in universities and public institutions in 2017. This was 3.6 % more than in 2016. This increase in the overall economic R&D intensity to 3.04 % of GDP was primarily due to the private business sector.

The public German research landscape includes not only universities, but also practice-oriented universities of applied sciences, as well as research institutes, some of which are state funded. An example of the latter that is particularly successful in Germany is the Fraunhofer Gesellschaft. It transforms research results into marketable products and services. The inventions that have emerged from this research institute range from airbags and mp3 technology, through to white LEDs and dandelion rubber. In this context, Fraunhofer was named a "Top 100 Global Innovator" in 2018 for the sixth time in a row.

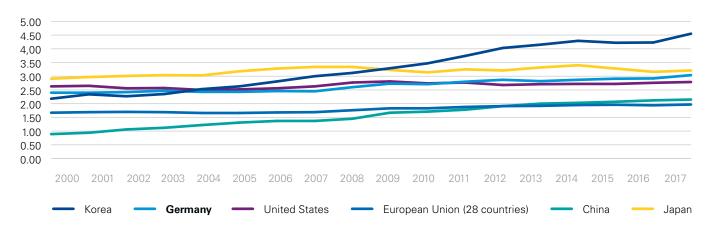
Germany has evolved over decades into an efficient research and innovation location. According to the Federal Ministry for Education and Research, more than every tenth product traded worldwide that has been produced as a result of special research activities originates from Germany. This places Germany on a par with the USA. With a current share of about 3 % of its gross domestic product, Germany is also one of the five countries with the highest expenditure on R&D worldwide; ahead of the USA, France and China. Around 650,000 people are employed in research and development in Germany. In addition, it is noteworthy that the federal cabinet has recently even decided to increase investment in research and development to 3.5 % of GDP by 2025.

"The German start-up ecosystem continues to be a major destination for venture capital investment in Europe. With Q3 2019 setting a new quarterly record, Germany in 2019 has seen the highest yearly VC investment ever. The concerns about Germany's key industrial sectors like automotive and banking seem to fuel VC investment due to the growing pressure on traditional companies to pivot their core business models. Germany enjoys a maturing start-up scene that breeds a growing number of unicorns, while at the same time a lack of interest in IPO leads to a higher number of companies that have matured but still remain private."



Tim DümichenPartner, Tax Services
KPMG in Germany

Figure 40: Research Intensity: Expenditure on R&D (public & private) in relation to GDP



Source: OECD.Stat

A recent study by the Frauenhofer Institute and other institutes stresses how much Germany's future prosperity depends on current research activity¹⁷. According to the report, an increase in R&D expenditure from 3 % to 3.5 % of GDP, as planned by the government, will lead to additional GDP growth of 1.3 %. At the same time, there will be a need to increase personnel ranks by 170,000 additional full-time employed people. This higher investment in R&D is particularly valuable to efforts geared towards increasing the attractiveness of Germany as a location for new businesses and business expansions. One question that seems obvious is why the respondents in our survey do not seem to be aware of, or appreciate, the federal government's plans for increased financial engagement.

One reason for the declining figures in our survey in terms of the research environment in Germany may be found in the instinctive antipathy of many Germans toward technological and scientific progress. In order for innovation to better flourish in Germany, a more open-minded approach to new trends and products by all relevant stakeholders would be beneficial.

A current example of this line of reasoning is Tesla's planned EUR billion Greenfield investment in the region of Grünheide in Brandenburg. Tesla cited the excellent conditions for research and development in Germany as an important reason for its commitment. According to a press release, Tesla has already applied for German state aid for battery cell production and research. The settlement of this innovative and also glamorous e-car company is a huge opportunity for the region, especially since Tesla has announced its intention to work specifically with local suppliers.

Furthermore, it is important to review the legal environment companies are acting within – in Germany but at EU-level as well – to see how it affects innovation. The dilemma of balancing ethical and societal concerns with scientific matters always influences the attractiveness of a business location. Thomas Wessel, Chairman of the Research, Science and Education Committee of the German Chemical Industry Association (VCI) is convinced that too often research with huge potential gets blocked from the outset because scientific facts are ignored. Outstanding research personalities still emigrate from Germany because they find more open-minded and attractive research conditions elsewhere.

Research and development with regard to digitalization in Germany has fallen slightly behind due to prevailing concerns about technological changes. In order to not fall out of touch with China and the United States, Germany must take action. There are many areas that will be radically changed by digitalization. Germany must focus on building global market leaders for future value creation in at least some of the decisive fields, such as Quantum computers, Artificial Intelligence, Blockchain or new business models that are the result of digitalization in transportation or energy. The trade-off between concerns and a desire to shape future technologies needs to be re-evaluated in Germany. This viewpoint is what can be assumed from the feedback of the surveyed companies.

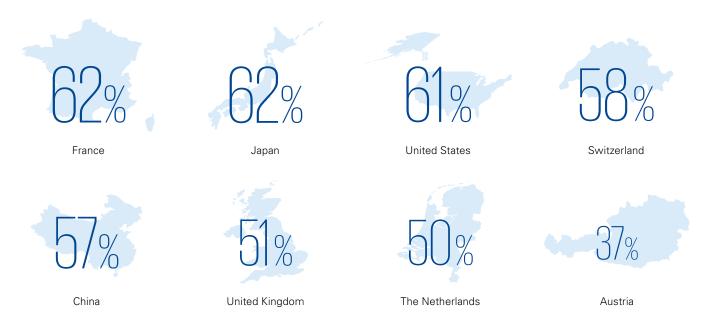
¹⁷ "Schrittweise Erhöhung der FuE-Quote auf bis zu 3,5 Prozent des BIP – Instrumente und Auswirkungen auf volkswirtschaftliche Kennzahlen"; A study by the Fraunhofer Institute for Systems and Innovation Research and economic research and consulting firm Prognos & Leibniz Center for European Economic Research

With regard to research and development, Figure 41 shows that Austria (37 %) and the Netherlands (50 %) are again the countries that are particularly sceptical about Germany as a business location. At the top end of the scale, Germany can be pleased about positive ratings from high-tech countries Japan (62 %) and the US (61 %).

Figure 41:

Research Environment, rating by country

"Germany at least among Top 5 countries in the EU"



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences





Chapter 05

The role of German subsidiaries in the entire group

Germany has a dominant position in the European Union, is located at the crossroads of traditional intra-continental trading routes and, according to the World Bank's Logistics Performance Index, is endowed with world-class logistics facilities. Furthermore, as the second largest export nation in the world it is deeply embedded in global markets. As a consequence, Germany as a business location offers excellent conditions for global and, in particular, European cross-linking. Furthermore, the DACH language area consisting of Germany, Austria and Switzerland can also be accessed via German subsidiaries.

American, Chinese and Japanese companies manage on average more than five countries from a German base. On the other hand, European companies – with less than four countries – bundle significantly less management competence at their German locations. Access to the DACH area and the European domestic market is a decisive factor in the investment strategies of foreign companies.

Therefore, it is hardly surprising that international groups consider their German business location to be very important to the strategic management and coordination of cross-border business activities.

Figure 42: Number of countries managed from a German subsidiary

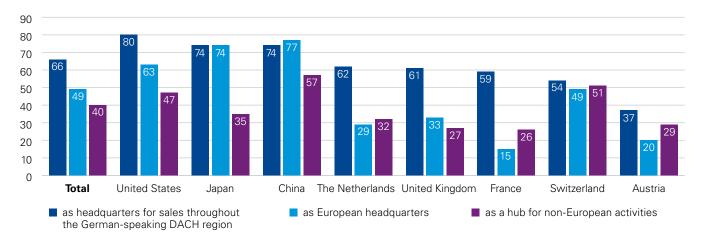


Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Germany seen as door opener to international markets

On average, around two-thirds of the surveyed companies use their German location as their DACH headquarters, which seems logical as all in the region share a common language. However, Germany stands out from the alternative locations of Austria and Switzerland due to its great economic power and its global economic embedding, which explains why 49 % of companies use Germany as their European headquarters.

Figure 43: "Do you use your Germany-based company ...?" (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

"In Germany, General Electric (GE) is represented at more than 20 locations with around 6,000 employees. All of GE's major business areas are located here, with a focus on green technologies, medical technology, research and development, digitalization and additive manufacturing. For us, the German market is a key market of worldwide importance, which is why we will continue to invest here in the future with the aim of enabling sustainable growth."



Dr. Wolfgang DierkerChairman of the Management Board
General Electric Deutschland Holding GmbH

American, Chinese and Japanese companies, in particular, gain access to the European domestic market via their German locations. The above-average use of Germany as a management location within Europe, alongside the management of DACH sales activities, makes clear the difference between the investment strategies of non-European and intra-European companies. Although groups from Europe also use Germany to a large extent as their DACH headquarters, they tend to bundle the management of international and European business at their group headquarters. This is in line with expectations, as these groups already have access to European domestic markets.

However, it is not only Germany's membership of the European economic area but also its important role in global trade that is the reason for it being regarded as attractive by international corporate leaders. Accordingly, 40 % of the companies surveyed manage their non-European activities from their German locations. Both non-European and European groups rely in this regard on the expertise and global footprint of their German subsidiary.

As part of a non-EU and non-EEA country, Swiss companies, with their own specific business model, stand out from the other surveyed companies. Swiss companies, which are managed with above-average independence, tend to consolidate their competencies in Germany. The fact that Swiss groups manage both European and non-European activities from Germany could be due to Germany's excellent trade relations within Europe, and the global economy as a whole. More than half of all surveyed companies from Switzerland manage their sales activities for the DACH region (54 %) and for global markets as a whole (51 %) from Germany. This first number is particularly surprising as Switzerland is located in the DACH region itself. Clearly, Swiss executives see advantages in consolidating wholly the strategic management of international relations and many other business competencies at their German subsidiary.

Given the predominant use of their German subsidiary as the DACH sales headquarters of international groups, it is hardly surprising that most of the companies surveyed (40 %) stated that they focus on sales. In addition to sales, a quarter of the companies focus on services. Although Germany is an attractive location with respect to innovation activities, only 7 % of Inbounds surveyed focus on research and development. This fact is also reflected in the low investment needs of artificial intelligence (AI) and data analytics reported by our surveyed target group.

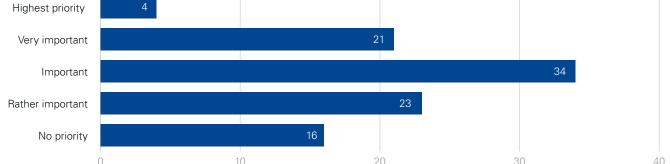
According to our survey, 39 % of German subsidiaries with a foreign parent company see investing in the use of data analytics and Al as no or very low priority. On the scale from 10 (extremely urgent) to 0 (no priority), the average was only 4.3.

This underlines what was written previously: subsidiaries of foreign groups in Germany focus more on sales or on other activities within Germany. Investment in AI, etc., is done mainly at headquarters.

The country with most AI companies worldwide is undeniably the USA with over 2,000 companies in 2018. The American companies Apple and Amazon have found their way into our everyday lives with their best-known products Siri and Alexa. Blackrock's Aladdin, a data analytics system is another example. Again though, investments are mainly undertaken at a group level in the United States.

The realization that Inbounds in Germany are mostly used to open up European or international sales markets should lead to high export activities. We will look at this in the next sub-chapter, especially at the differences between European and global Inbounds. Thus, the export share provides information about the role German subsidiaries play in their Group's value chain.





Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

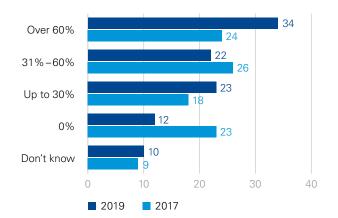
Export share of foreign subsidiaries

The export share of Inbounds in Germany depends on the specific industry, the business structure of the Group and, as discussed in the previous sub-chapter, the country of origin of the parent corporation.

European-based groups predominately serve the German market with their German subsidiaries, whereas their wider European markets are usually served from their European corporate headquarters. On the other hand, for non-European based corporations – especially those from the US, China and Japan – this would be expensive and difficult to achieve. Their German subsidiaries, therefore, serve other markets predominantly through exports. The respective export quotas reflect this.

For non-European based companies the average export share amounts to 47 %, whereas for the European companies, it is 20 % less (27 %). Japanese companies, in particular, with a share of 51 %, use their Germany subsidiary as a distributor for their exports.

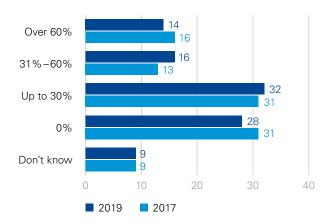
Figure 45: Export share of non-European companies (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

Overall, the proportion of non-European companies with an export share of over 60 % has increased since 2017 by 10 percentage points to 34 %. Only 14 % of European companies have an export share of 60 % and above. Amongst this group, Swiss companies in particular show high figures. The majority of European countries either have no export share via their German subsidiary (28 %) or an amount of up to 30 % (32 %).

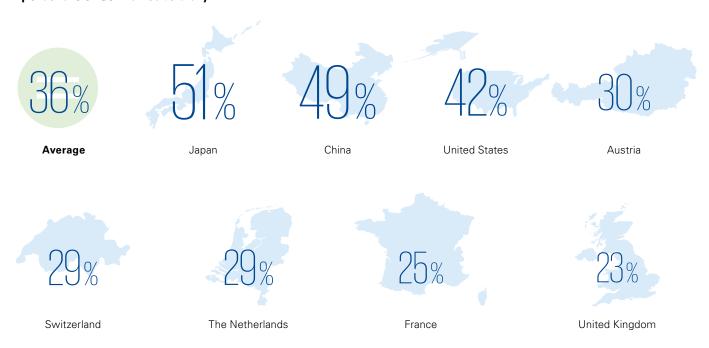
Figure 46: Export share of European companies (figures in percent)



Sources: KPMG in Germany 2019 (n=340); Business Destination Germany 2018 (n=529); Deviations from 100 percent due to rounding differences

The average export share of German subsidiaries is more than one third. This number indicates the relevance of Germany as an export-oriented business location for foreign investors. The export share of non-European investors is particularly high: on average German subsidiaries from the US export a share of 41.7 %, from China 49.0 % and from Japan 50.9 %. This underscores Germany's strong integration into the entire value chain of non-European corporations. In contrast, European investors in Germany have export shares of less than 30 %.

Figure 47: **Export share of German subsidiary**



Source: KPMG in Germany 2019 (n=340)

The EU faces a record number of international trade barriers. The EU Commission reported in June 2019 that 45 new measures came into force in 2018 in countries outside the EU, which has now brought the total number of trade and investment barriers to 425, a new record high. EU companies will suffer losses running into EUR billions due to these additional trade obstacles encountered in foreign markets.

Apart from these trade barriers, we note that some political developments globally have put the availability of open markets worldwide into question. This would pose a major threat to

export-oriented Inbounds in Germany, which as already pointed out appreciate Germany, in particular, for its export-oriented business structures. Our survey results referring to export activity don't reflect these threats, yet. However, if these developments continue they are likely to have an impact on the business strategies of German subsidiaries of foreign groups that are especially dependent on open international markets.

It is definitively worth examining these threats to international trade in more detail.

Deteriorating business environment due to rising trade disputes

Since March 2018, the US and China have entered into a growing trade dispute via increasing tariffs and trading bans. According to the "Section 301 Investigation Fact Sheet" published by the US, China deliberately manipulated the global currency system in order to influence the trade balance in its favor. The US imposed punitive tariffs on all imports of steel, aluminum and other metals from China. China also introduced tariffs on imports from the US and as a consequence an escalating tit-for-tat tariff spiral has been set off that has also indirectly affected European companies.

In 2018, Germany exported goods and services to the value of USD 134 billion to the US and USD 110 billion to China. Due to the trade dispute between the US and China, German companies that export goods and services from their Chinese production sites to the US and vice versa are affected by these rising tariffs. However, German companies who produce goods and services "in China for China or Asia" are less affected.

Apart from tariffs on cars and car parts, the US also intends to introduce tariffs on European steel products. For German steel producers the US is the largest export market outside the EU. In order to reduce steel imports to the US, President Trump introduced tariffs on imported steel. Global overcapacity in steel and the use of the EU market as a dumping ground for the world's excess capacity are at the root of the problem. Steel imports into the EU have more than doubled since 2013 while demand had increased only marginally and fell in 2019.

At the time of writing this report, the European Union announced that it might take counter measures by introducing retaliatory tariffs. The focus would be on symbolic US goods such as steel, corn, orange juice, whiskey, houseboats, motorcycles and jeans. Products made with American steel such as ships and boats would also be affected. The additional duty levied on these products since June 22, 2019 amounts to 25 %. These extra duties have been designed in such a way as to compensate for the damage that the US duties are assumed to be doing to the EU.

Even individual European countries such as France are starting to take counter-measures in order to show resistance to Donald Trump's trade policies. In summer 2019, France passed a duty on digital services – the so-called Gafa tax – in order to make the big US-tech companies Google, Amazon, Facebook and Apple pay at least nominally for their activities in France. Donald Trump furiously reacted by announcing tariffs of up to 100 % on French gourmet foods such as cheese and champagne. If the US were to follow through with these announced tariffs, France stated that heavy counter-measures should be taken by the EU. It seems clear that a further escalation in international trade conflicts is very likely in the course of 2020.

An aggravating trade dispute could worsen the weakening global economy and have far-reaching global economic consequences. It could have an additional impact on the export-oriented German economy and international companies with operations in Germany that export to other countries.

"Companies in Europe and especially in Germany are facing challenges from the US and China trade war but also could benefit from these trade disruptions. Basically, the additional duties imposed by the US or any retaliatory duties are linked to the "country of origin" and to dedicated customs tariff numbers. So in principle any substantial transformation in Germany could lead to a beneficial or unfavorable country of origin."

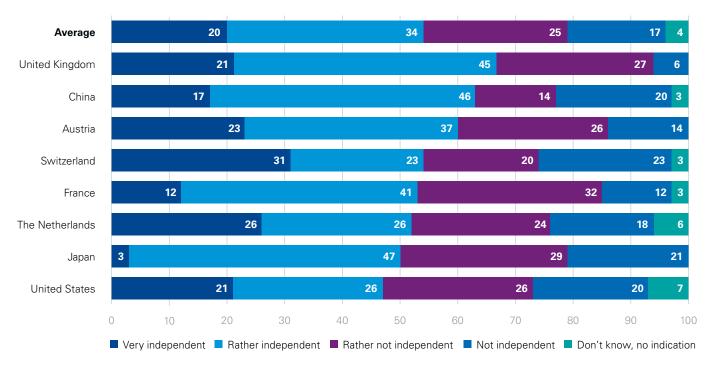


Partner, Head of Trade and Customs Germany and EMA
KPMG in Germany

Independence of German subsidiaries

More than half of the decision-makers of companies surveyed said that their German subsidiaries are granted a great deal of independence. A total of 54 % replied that their company in Germany was run very or rather independently of their parent company.

Figure 48: Level of German subsidiary independence from headquarters (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

Group companies from the United Kingdom enjoy the greatest independence with 66 % claiming that their subsidiary was very or rather independent, while only 6 % described their German subsidiary having no independence.

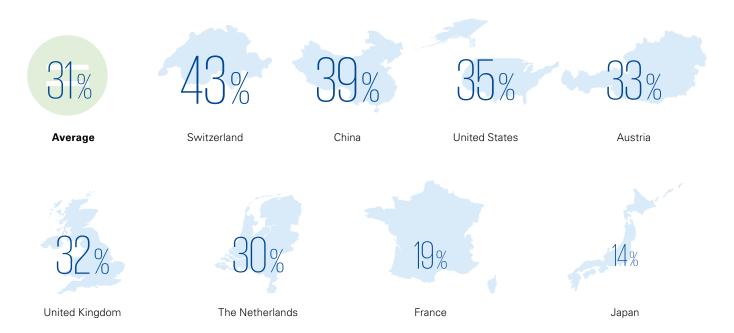
The other extreme is Japan: only 3 % of entrepreneurs we surveyed stated that their German company is very independent – by far the lowest of all the companies surveyed. This may be down to the hierarchical and central management culture of Japanese companies.

German subsidiaries contribute significantly to Group's overall success

Companies based in Germany incorporate the respective location factors into their business strategy, and German subsidiaries are becoming increasingly important from an overall group's

perspective. On average, the German subsidiaries of the surveyed groups already account for almost one third (31.4%) of the total group sales.

Figure 49: Current share of total Group turnover achieved by German subsidiary



Source: KPMG in Germany 2019 (n=340)

Swiss companies stand out again as, on average, their German subsidiaries contribute nearly 43 % of total sales, and 29 % of the Swiss companies we surveyed even stated that they generate more than half of their sales in Germany. In the case of American and Chinese companies this share amounted to one-fifth. In contrast, for Japanese subsidiaries it is substantially lower. The share of the total turnover of the Japanese companies we surveyed in Germany averaged out at only 13.8 %. This comparatively low share of sales by their German subsidiaries reflects the international set-up of Japanese groups who are more active in Asia and the US.

Almost 38 % of Japanese Inbounds stated in our survey that they were involved in business interactions with German companies, even outside Germany. Most of these interactions outside of Germany took place in another European country (30 % agree). Chinese companies located in Germany also report a high proportion of business interchange with German firms abroad (37 %), but these actually take place more often than not in Asia (29 % agree) and less so in other European countries (20 % agree). Hence we state that Chinese and Japanese Inbounds are those with the highest degree of interlinking with German companies, even outside Germany.

"Putzmeister develops, produces and sells high-quality and service-oriented machines to its customers in the whole world. We are representing amongst others the following areas: truck-mounted concrete pumps, stationary concrete pumps, concrete mixing, concrete placement and removal of excavated material in tunnels and underground, mortar machines and special applications. Our market fields lie in the construction industry, in mining and tunnel construction, with major industrial projects in the pre-cast industry, power stations, sewage treatment plants and waste incinerators. The German brand is one of our unique selling points, together with the aspects stated previously."



Alexander Diez
Head of Governance, Risk & Compliance
Head of Group Internal Audit, Putzmeister



Chapter 06

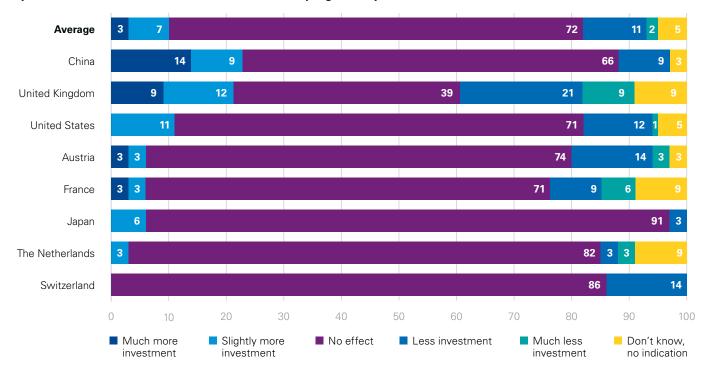
Brexit

The United Kingdom has been immersed in a close partnership with the European Union for a number of decades. Nevertheless, by triggering Article 50 of the Treaty on European Union, the British government has started a withdrawal process from the EU. However, the precise nature of the exit process and future business relationship remains unclear. The separation process will still keep the involved institutions occupied for years to come. Thus, many uncertainties will remain until a new set of economic rules between the separated regions is determined. During this transition period making long-term investment or divestment decisions is more risky.

The German British Business Outlook, a survey conducted by the British Chamber of Commerce and KPMG in Germany in the first quarter of 2019, shows that roughly half of the surveyed German companies predict new administrative burdens after Brexit, as well as decreasing sales and service volumes.

Furthermore, roughly one quarter foresee increased customs and trade expenses and disruptions in their supply chain. Most of the surveyed German companies say that as a result they will revise investment and recruitment plans and move businesses to continental Europe. Among the international subsidiaries in this survey, Brexit insecurities seem not to affect investment decisions to a great extent. There are two noteworthy exceptions: German subsidiaries of companies from China and the UK. 23 % of the Chinese companies intend more investment by their group in Germany in the course of Brexit, with 14 % of those expecting much more investment. 21 % of UK subsidiaries also expect investment to increase in Germany, whereas at the same time around one third (30 %) of UK entities in Germany – which is the biggest percentage of all countries – expect less investment by their group in Germany. Overall, however, roughly 7 out of 10 foreign subsidiaries do not anticipate their investment in Germany to be affected by Brexit.

Figure 50: Impact of Brexit on investment activities in Germany (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences



Chapter 07

Major investor countries

Germany lies in the heart of Europe. For almost all EU countries, Germany represents the most important or second most important export market. Demand from Germany ensures added value and employment throughout Europe, especially between the economies of highly developed countries, which have very close trade links. The creation of the European single market has established a differentiated international division of labor in recent decades and in conjunction with this, an intensive exchange of goods.

According to the FDI Report by Germany Trade & Invest (GTAI), 2,062 foreign companies opened up businesses in Germany in 2018 – a new record. Germany is the most important source of Greenfield and expansion projects in the EU. As a single entity, the US holds the position as top investor country with 345 investment projects followed by Switzerland (229), China (188) and the UK (168).

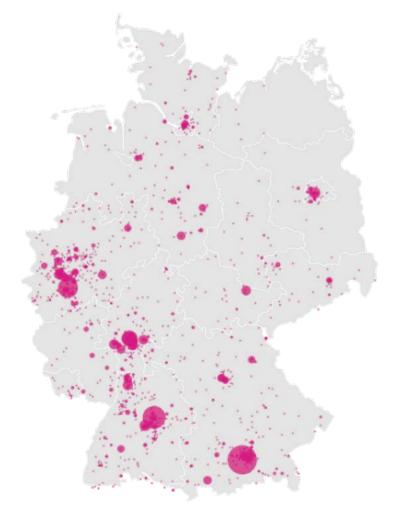
The influence of the Asian market on the German economy is shown by the fact that Germany's trade with Asia has reached almost double the volume of its trade with the United States. China is Germany's most important trading partner with goods (exports and imports) worth EUR 199.3 billion traded between the two in 2018. In second and third place are the Netherlands with goods traffic of EUR 189.2 billion and the United States with a foreign trade turnover of EUR 177.8 billion.

In this chapter, we provide an overview of the relations between Germany and other major investor countries, current developments, and the opportunities and challenges that are there for current and prospective investors.

USA

3,930 Inbounds in Germany (10.9 % of total)* 600,263 employees

Turnover of EUR 300,957 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- The United States is the biggest acquirer of German exports and Germany is the United States' most important trading partner in Europe.
- In terms of the total volume of US bilateral trade, Germany remains in fifth place, behind China, Canada, Mexico and Japan. The United States ranks third among Germany's most important trading partners with a total turnover of exports and imports of EUR 178 billion in 2018.
- ▶ Germany continues to be an attractive business location, but with a slight downward drift: 73 % of American decisionmakers expect their German company to be in good or even very good economic shape over the next three years.
- US companies less willing to invest: In 2017, 47 % of the US companies surveyed stated that they intended to invest EUR 10 million or more in Germany on average per year over the next three years. In 2019, only about half as many (24 %) stated the same.

- Only 17 % of the US companies surveyed feel optimally supported when it comes to promoting business start-ups and expansions.
- One in five companies (21 %) consider Germany's attractiveness as a business location in terms of taxes and duties to be Bottom 5 or even in last place in the EU.
- Every third (35 %) US subsidiary wants to invest in future technologies. This intention requires well-trained specialists in all aspects of digitalization. Only a quarter (26 %) of US companies rank Germany at least among the Top 5 in the EU in terms of available skilled workers.

US parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Ford Motor Company	Ford Deutschland Holding GmbH	Automobile	21.7	25,844
McKesson Corp.	McKesson Europe AG	Wholesale of pharmaceutical products	21.2	25,056
Amazon.com, Inc.	Amazon Group companies**	Internet retail trade	19.9	14,500
Exxon Mobil Corporation	ExxonMobile Central Europe	Mineral oil	9.7	1,290
Philip Morris International	Philip Morris GmbH	Wholesale of tobacco products	7.4	2,100
International Business Machines	IBM Deutschland Group companies**	Manufacture of data processing systems	6.3	13,500
Deere & Company	John Deere GmbH & Co, KG	Manufacture of agricultural and forestry machinery	6.0	10,300
The HAVI Group, LP	HAVI Europe Management GmbH & Co. KG	Logistics	5.7	7,237
Phillips 66 Company	JET Tankstellen Deutschland GmbH	Processing and wholesale of mineral oil	4.3	243
Cargill Incorporated	Cargill Group companies**	Food, feed and renewable raw materials	2.7	2,830
3M company	3M Group companies**	Industry, worker safety, healthcare & consumer goods	2.4	6,711
Microsoft Corporation	Microsoft Group companies**	Software development	2.1	2,468

^{*} Excluding financial and insurance activities

Sources: KPMG Research, Bundeanzeiger, AmCham Germany, Bisnode Firmendatenbank

"Overall US direct investment in Germany has been in decline since 2014 as companies have pulled back investment and focused more on core business, as opposed to expanding existing businesses or making acquisitions. Despite high sales, the willingness of US companies to invest in Germany has declined significantly. Under a quarter of them will invest EUR 10 million or more in this country in the next three years, as evidenced by the KPMG study US Business in Germany 2020."



Warren Marine
Partner, Head of Country Practice USA
KPMG in Germany

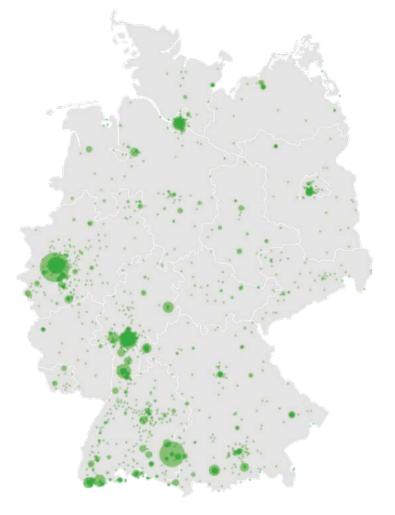
^{**} Individual subsidiaries of the Group in Germany were aggregated

^{***} Derived in part from consolidated financial statements of German groups of foreign Inbounds, which partially imply revenues from subsidiaries outside Germany; If 2018 figures were not available, 2017 figures were taken

Switzerland

4,503 Inbounds in Germany (12.4% of total)* 423,839 employees

Turnover of EUR 125,695 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- Switzerland exports more goods across the border to the southwestern German state of Baden-Wuerttemberg than to China. More than 15 % of Swiss exports go to Germany, which accounted for around EUR 40 billion in 2018. Germany is Switzerland's number one export country.
- In May 2019, the public voted for corporate tax reform with effect as of 2020 which removed preferential tax rates for multinationals while reducing baseline rates to maintain Switzerland's competitiveness. It will be interesting to see what impact that will have on investment activities abroad, for example, in Germany.
- Swiss companies tend to consolidate international activities in Germany: The reason that Swiss groups manage European and non-European activities from Germany may be explained by Germany's good trade relations within Europe. 54 % of Swiss companies use their German subsidiary as the DACH location for its sales management.

- Among all surveyed countries, the companies of Swiss groups rate their outlook in Germany the best: 80 % rate their current economic situation as good or very good. However, for the coming three years this value declines to around 77 %.
- Investment in Germany: Swiss companies are only planning to invest around EUR 4 million in Germany on average per year in the next three years. This is only half the average (EUR 8.2 million) across all countries.
- Labor productivity in Germany in comparison to other countries is assessed as poor by Swiss companies: Only 60 % rate it positively in comparison to an average across all countries of 75 %.
- With regard to the progress made in process automation, however, the Swiss give the German business location a rather positive rating. 60 % place Germany at least among the Top 5 countries, compared to an average figure of 52 %.

CH parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Roche Holding AG	Roche Group companies**	Pharmaceuticals	8.5	16,200
Liebherr-International SA	Liebherr Group companies**	Manufacture of mobile and crawler cranes	6.2	18,000
Coop Gruppe Genossenschaft	Transgourmet Central and Eastern Europe GmbH	Wholesale of luxury food	5.4	18,423
Novartis AG	Novartis Deutschland GmbH	Management of companies in field of pharmaceuticals	4.1	7,491
Nestlé S.A.	Nestlé Group companies**	Production and distribution of food products	3.6	5,618
Walter Frey Holding AG	Emil Frey Automobil Holding Deutschland GmbH	Import of motor vehicles	3.2	4,229
ABB Ltd.	ABB AG	Production of electric motors, generators & transformers	3.1	10,099
SoftwareONE AG	COMPAREX AG	Consulting & development in information technologies	2.7	2,405
Cofra Holding AG	C & A Mode GmbH & Co. KG	Retail sale of clothing	2.3	13,410
EuroChem Trading GmbH	EuroChem Agro GmbH	Fertilizers and products for agriculture	1.2	2,931
Endress+Hauser (international) Holding AG	Endress+Hauser (Deutschland) AG+Co. KG	Measurement technology	1.1	6,300
OC Oerlikon Textile Holding AG	Oerlikon Group companies**	Materials, equipment and surface technologies	1.0	3,325

^{*} Excluding financial and insurance activities

Sources: Bundesanzeiger, Bisnode Firmendatenbank

"With the adoption of the corporate tax reform by referendum in May 2019, Switzerland has come closer to the positions of the EU and the OECD, particularly in the area of corporate taxation. This alignment of tax systems further strengthens the attractiveness of Germany as an investment location for Swiss companies."



Volker ZieskePartner, Head of Country Practice Switzerland
KPMG in Germany

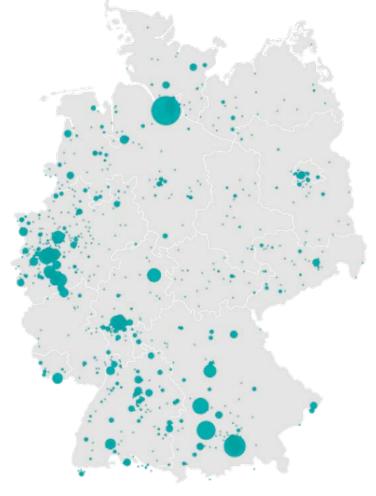
^{**} Individual subsidiaries of the Group in Germany were aggregated

^{***} Derived in part from consolidated financial statements of German groups of foreign Inbounds, which partially imply revenues from subsidiaries outside Germany; If 2018 figures were not available, 2017 figures were taken

The Netherlands

4,221 Inbounds in Germany (11.7 % of total)* 356,184 employees

Turnover of EUR 139,332 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- The Netherlands is Germany's second most important trading partner in the world after China, and thus its most important European trading partner.
- Bilateral trade (imports and exports) amounted to approximately EUR 189 billion in 2018.
- A fifth of all Dutch exports and a quarter of exported agricultural products are shipped to Germany.
- Dutch groups and their subsidiaries in Germany expect economic prospects for the next three years to deteriorate: 68 % see good or very good prospects for the overall group, and for the company in Germany only 65 %. We note a decrease of 11 percentage points for Dutch enterprises when compared to our 2018 survey.
- Subsidiaries from Dutch groups plan investment in Germany of around EUR 12 million on average per year for the coming three years. Only companies with an Austrian background intend to make higher investments (EUR 24 million) per year.
- Most investment targets the core business of Dutch companies in Germany: 95 % plan to invest, the highest value in this category.
- Companies with a parent group in the Netherlands usually rate the characteristics of Germany as a business location worst of all countries.
- ▶ The promotion of establishment and expansion of business (12 %), automation of processes (41 %) and infrastructure (39 %) receive the lowest scores from Dutch entities.
- The standard of living in Germany, on the other hand, is evaluated as at least among the Top 5 in Europe by 85 % of Dutch interviewees. The average is 80 %.

NL parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Royal Dutch Shell plc ****	Deutsche Shell Holding GmbH	Mineral oil	23.4	3,177
TenneT Holding B.V.	TenneT TSO GmbH	Electricity transmission	19.0	1,679
LyondellBasell Industries B.V.	Basell Group companies	Chemicals & Pharmaceuticals	4.4	2,297
Vion N.V.	Vion Group companies**	Wholesale meat products	3.6	5,618
Koninklijke Philips N.V.	Philips GmbH	Manufacture of electrical equipment and apparatus	2.5	4,567
Randstad Holding NV	Randstad Deutschland GmbH & Co. KG	HR services	2.3	2,800
Unilever N.V.****	Unilever Group companies**	Food of all kinds, cleaning and personal care products	1.6	1,261
Zuivelcoöperatie FrieslandCampina U.A.	FrieslandCampina Germany GmbH	Manufacture and sale of milk and milk products	1.3	1,100
Akzo Nobel N.V.	Akzo Nobel GmbH	Chemicals	1.2	2,452

^{*} Excluding financial and insurance activities

Sources: Bundesanzeiger, Bisnode Firmendatenbank

"When Germany coughs, the Netherlands gets the flu" – although the Dutch economy has become far more independent from the Germany economy, this dictum still stands for the strong economic relationship between both countries. Germany remains – together with the emerging markets – one of the most attractive countries to invest in for both Dutch multinationals, as well as SMEs. We see a growing interest on behalf of Dutch private equity funds and portfolio companies to invest in Germany, especially in the SME segment. A long breath and gaining trust from the German entrepreneur are key to closing acquisitions – due to the close economic relationships, Dutch investors appear to have an advantage in this regard."



Michael Buchwald Partner, Head of Country Practice Netherlands KPMG in Germany

^{**} Individual subsidiaries of the Group in Germany were aggregated

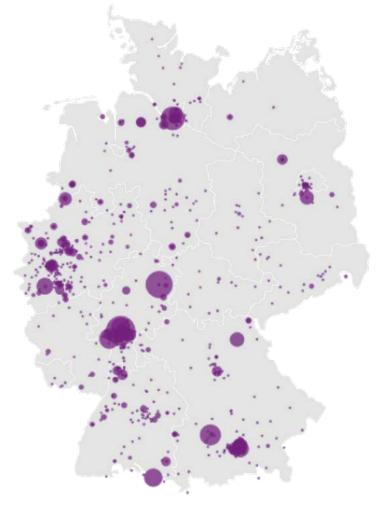
^{***} Derived in part from consolidated financial statements of German groups of foreign Inbounds, which partially imply revenues from subsidiaries outside Germany; If 2018 figures were not available, 2017 figures were taken

^{****} Dutch-British group

United Kingdom

3,268 Inbounds in Germany (9.0 % of total)* 311,557 employees

Turnover of EUR 191,500 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- The number of British Inbounds in Germany is rising due to Brexit.
- For more than three years since the UK voted to leave the EU Brexit has dominated British politics. On January 31, 2020, the official EU exit date, the UK entered a transitional period during which a new trade deal is to be negotiated. The business relationship between Germany and the UK is currently being placed on a new footing.
- Brexit consequences are ambiguous for British companies in Germany: 21 % expect slightly more investment, whereas 30 % suppose investment activities to decrease.
- With EUR 3.1 million on average per year, British companies, out of all those from countries viewed, have the lowest investment volume planned for the coming years. The average for all countries is EUR 8.2 million per year. Clearly, the UK's impending exit from the EU has had a paralyzing effect on investor intentions.

- Companies from groups located in the United Kingdom enjoy the greatest independence. 67 % claimed that their subsidiary was very autonomous or rather autonomous, while only 6 % described their German subsidiary as having no independence.
- The German tax system has a particularly bad reputation among the companies of British groups. Only 6 % rate it positively, which is the lowest total among all countries surveyed.
- The view of the economic situation is one of ambivalence. Although 73 % of British companies questioned assess their current situation as good or very good, optimism about the coming years is more dampened (63 %).

UK parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
BP p.l.c.	BP Europa SE	Wholesale of petroleum products	29.3	1,211
Ineos Ltd.	Ineos Group companies**	Chemicals & Pharmaceuticals	21.5	10,300
Vodafone Group Plc.	Vodafone Group companies**	Telecommunications	13.6	13,500
Rolls-Royce Holdings PLC	Rolls-Royce Group companies**	Production of combustion engines & turbines; Aerospace engineering	5.8	10,542
British American Tobacco p.l.c.	British American Tobacco Group companies**	Tobacco processing	4.0	982
Adient Holding Germany Ltd	Adient Germany Ltd. & Co. KG	Automotive	2.6	6,234
Computacenter PLC	Computacenter Holding GmbH	Technology management services	2.2	6,435
Hays International Holdings Ltd	Hays Groups companies**	Personnel & job placement; Vocational training	2.0	7,284
GlaxoSmithKline plc	GlaxoSmithKline Group companies**	Research and development in the medical field	1.9	3,587
Sky Ltd.	Sky Deutschland Fernsehen GmbH & Co. KG	Subscription TV channel	1.8	1,397
Jaguar Land Rover Ltd	Jaguar Land Rover Deutschland GmbH	Wholesale of motor vehicles	1.6	297

^{*} Excluding financial and insurance activities

"The everlasting question was, will Brexit become reality? Now, as we know this, what happens next? The continuing uncertainty of the future relationship between UK and continental Europe is impeding business activity as well as customer spending. This is unfortunately a reality. However, the UK is an important market-place for Germany, and so is Germany for the UK. Future cooperations in third markets are deemed to be new business fields for UK and German entities."



Nikolaus SchadeckPartner, Head of Country Practice UK
KPMG in Germany

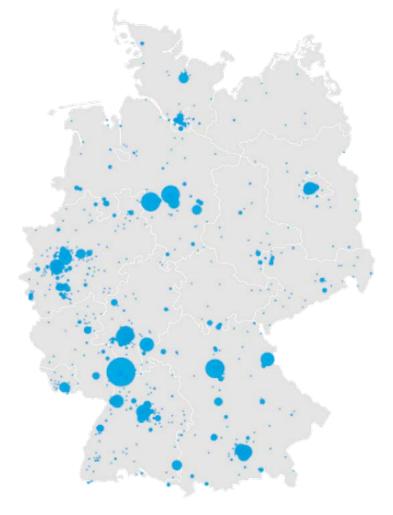
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France

2,481 Inbounds in Germany (6.9 % of total)* 392,715 employees

Turnover of EUR 155,481 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- In 2018, German trade with France (exports and imports) was worth a total of EUR 170.5 billion.
- France is Germany's second largest trading partner in the EU and Germany is France's biggest trading partner.
- France and Germany are both founding powers of the European Union and its most influential members.
- Among all countries surveyed, French companies rate Germany as by far the best business location. In most categories they rate Germany significantly above average, often with the highest value of all surveyed countries.
- France companies rate quality of life and standard of living in Germany particularly high, with a share of 91 %. As well, labor productivity (86 %), openness to foreign investors (65 %), automation of processes (65 %) and further categories are given the highest scores among all surveyed countries.

- ▶ The only category where French entities are more skeptical than their peers is the availability of professionals. None see Germany in the leading position and only 21 % view it as among the Top 5 EU countries. This is below the overall country average of 25 %.
- Investment in Germany: 24 % of French companies don't want to invest at all or want to invest only up to a EUR 1 million annually in the coming three years.
- ▶ Economic expectations for the entire group of the surveyed companies are highest among the French: 82 % rate the actual economic situation for their group as good or very good. However, looking ahead for the next three years this optimism declines to 79 %.

FR parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Total S.A.	TOTAL Group companies**	Crude oil and natural gas	16.8	3,700
Groupe PSA – Peugeot Citroen Automobiles S.A.	Peugeot Citroen Group companies**	Automobile	10.6	18,625
Sanofi S.A.	Sanofi-Aventis Deutschland GmbH	Pharmaceuticals	4.8	8,536
Compagnie de Saint-Gobain S.A.	Compagnie de Saint-Gobain Group companies**	Building materials	4.1	15,000
Sonepar S.A.	Sonepar Deutschland GmbH	Wholesale electronics	3.2	5,700
Burelle S.A.	Burelle Group companies**	Automotive components	2.6	4,925
Faurecia S.A.	Faurecia Automotive GmbH	Automotive components	2.0	5,993
ENGIE S.A.	ENGIE Deutschland GmbH	Electricity generation	2.0	3,900
Le Groupe La Poste	DPD Deutschland GmbH	Parcel delivery service	1.8	10
Air Liquide S.A.	Air Liquide Group companies**	Production of industrial gases	1.8	4,425
Renault S.A.	Renault Deutschland AG	Automobile	1.7	419

^{*} Excluding financial and insurance activities

"The reforms in France in the context of the National Action Plan for Business Growth and Transformation (PACTE) will also influence the investment decisions of French companies in Germany. The action plan is primarily aimed at strengthening the domestic economy. However, growth should not stop at the national border and should also include the development and increased penetration of foreign markets. In Germany, this will be particularly noticeable in the regions in western and southern Germany, which are preferred by French companies."



Martin C. Bornhofen
Partner, Head of Country Practice France
KPMG in Germany

^{**} Individual subsidiaries of the Group in Germany were aggregated

^{***} Derived in part from consolidated financial statements of German groups of foreign Inbounds, which partially imply revenues from subsidiaries outside Germany; If 2018 figures were not available, 2017 figures were taken Sources: Bundesanzeiger, Bisnode Firmendatenbank

Austria

2,414 Inbounds in Germany (6.7% of total)* 207,925 employees

Turnover of EUR 61,591 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- Austria benefits from close trade relations with Germany and other central European countries.
- ▶ The European Union accounts for 70 % of Austria's foreign trade and Germany's share makes up about 30 % of that economic indicator.
- Austria's manufacturing industry is very well integrated into Germany's value chain. Austria remains, therefore, dependent on economic cycles in Germany and in other central and eastern European countries.
- Austrian respondents have solid expectations for their company in Germany and their overall group: 74 % rate the economic perspective as at least good for the next three years. The current situation in Germany is considered less so, with only 60 % evaluating it as good or very good.
- Investment in Germany: Austrian companies plan to invest an average of EUR 24 million on an annual basis in Germany over the next three years, making them the leaders in that category among the countries surveyed.

- Most of the Austrian companies in Germany focus on their core business with regard to their investment decisions: 86% of Austrian subsidiaries state their priorities as such.
- Austrian enterprises are one of the most critical countries regarding the assessment of Germany as a business location.
- Austrian companies rate Germany's promotion schemes for business establishment and expansion (14 %), openness for foreign investors (34 %) and research environment (37 %) as particularly low. These numbers are by far the lowest of all countries assessed.
- The standard of living in Germany is the only business location factor that is rated as positively by Austrian companies, as it is rated around the average of the other countries (80 %). All other factors are rated substantially below average.

AUT parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Strabag SE	Strabag AG, Germany	Building construction and civil engineering	7.9	29,595
AMS AG	OSRAM Licht AG	Lighting solutions	4.1	5,600
OMV Aktiengesellschaft	OMV Deutschland GmbH	Mineral oil processing	3.8	484
Millennium Privatstiftung	Exyte AG (formaly: M+W Group GmbH)	Building systems engineering and plant construction	3.0	6,000
SIGNA Holding GmbH	SIGNA Group companies**	Real estate and retail	2.8	14,575
Benteler International AG	Benteler Group companies**	Manufacture of parts & accessories for motor vehicles	2.5	8,954
Andritz AG	Andritz Group companies**	Mechanical engineering	1.9	8,540
XXXLutz KG	BDSK Handels GmbH & Co. KG	Retail sale of furniture and home furnishings	1.7	10,500
LSW Privatstiftung	POCO Einrichtungsmärkte GmbH	Retail sale of furniture and home furnishings	1.3	7,265
Dr. Helmut Rothenberger Holding GmbH	Rothenberg Group companies**	Mechanical engineering and real estate	1.3	6,260

^{*} Excluding financial and insurance activities

"Germany remains the most important trade partner for Austria. At the same time Austrian businesses seek to strengthen collaboration with German partners and continuously increase their direct investment in Germany. The same is true for German businesses investing in Austria. A common reason we notice is to join forces in the transformation of traditional business models and the exchange of know-how in new technologies. Both countries share similar perspectives regarding geopolitical risks and global transformational challenges."



Karl SpanglerPartner, Head of Country Practice Austria
KPMG in Germany

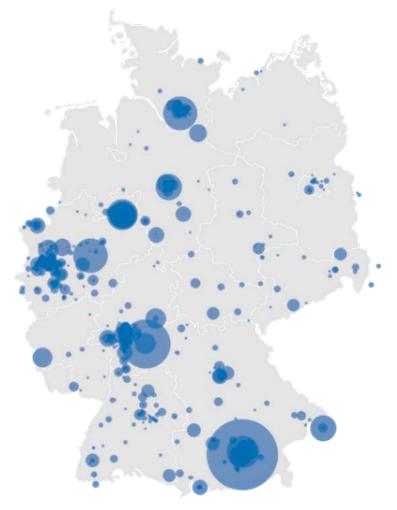
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Japan

1,159 Inbounds in Germany (3.2 % of total)* 151,347 employees

Turnover of EUR 84,640 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- Germany is Japan's most important trade partner in Europe, accounting for around EUR 44 billion of bilateral trade in 2018.
- The Japan-EU Free Trade Agreement (JEFTA), which came into force on February 1, 2019, aims to strengthen economic and political relations and will lead to rising trade volumes between these two important trading blocs.
- JEFTA enables mutual recognition of standards. In conclusion, approval procedures are being simplified and thus barriers to trade are being reduced. Furthermore, some customs duties have fallen, for example, on cars and electronic equipment.
- None of the Japanese companies in the survey saw Germany as a frontrunner with respect to promotion schemes for attracting foreign companies to Germany. Only 18 % saw Germany amongst the Top 5.

- ▶ 62 % of Japanese companies state that they see Germany has competence regarding its research environment.
- Regarding the state of automation of processes in the German economy, 44 % of Japanese companies stated that Germany is already quite good.
- Over one third (36 %) of Japanese companies state that the German tax system is among the most unfavorable and complex in the EU.
- Brexit consequences have almost no impact for Japanese companies in Germany so far: 91 % state so.

JP parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Panasonic Corp.	Panasonic Group companies**	Wholesale of consumer & industrial electronics	4.4	4,220
Fujitsu Ltd.	Fujitsu Group companies**	Wholesale of data processing equipment & software	2.8	5,220
DMG MORI CO., LTD	DMG MORI Aktiengesellschaft**	Manufacture of machine tools	2.7	7,500
Toyota Motor Corporation	Toyota Group companies**	Automobile and motorsport	2.6	2,060
Nintendo Co., Ltd.	Nintendo of Europe GmbH	Wholesale of consumer electronics	1.9	900
TDK Corp.	TDK Group companies**	Production of electronic components	1.9	25,330
Mazda Motor Corp.	Mazda Group companies**	Automobile	1.6	480
LIXIL Group Corporation	Grohe Holding GmbH	Sanitary fittings	1.4	6,425
Hitachi Ltd. Corporation	Hitachi Group companies**	Multinational conglomerate	1.4	1,130
Mitsubishi Corporation	Mitsubishi International GmbH*	Multinational conglomerate	1.3	142
Nippon Telegraph and Telephone Corporation	NTT Group companies **	Communications technology solutions	1.0	3,517

^{*} Excluding financial and insurance activities

Sources: Bundesanzeiger, Bisnode Firmendatenbank

"Germany continues to be the major business and investment location for Japanese companies in Europe. This is due to the stable German economy, the new EU Japan Free Trade Agreement (JEFTA) and an excellent business infrastructure for Japanese companies in the major hubs Dusseldorf, Munich, Hamburg and Frankfurt. The business outlook for Japanese companies in Germany remains positive, despite threats due to global trade conflicts and protectionist tendencies."



Jörg GrünenbergerPartner, Head of Country Practice Japan
KPMG in Germany

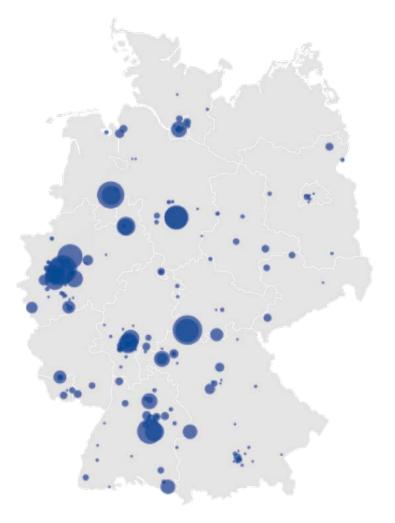
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China

713 Inbounds in Germany (2% of total)* 57,635 employees

Turnover of EUR 26,547 million**



- * Excluding financial and insurance activities
- ** Source: Eurostat 2017

Source of graphic illustration: Bisnode company database, 2019; KPMG-presentation

- Bilateral trade between the two countries reached EUR 199.3 billion in 2018.
- China is Germany's most important trading partner for the third consecutive year, ahead of the Netherlands (EUR 189.4 billion) and the United States (EUR 178 billion).
- There are more than 700 Chinese companies operating in Germany, in contrast to around 5,200 German companies in China.
- Economic situation of the Chinese companies in Germany: Only 43 % of Chinese companies assess their economic situation in Germany as good or very good. Taking into account the overall country average of 69 %, this is by far the lowest value.

- Chinese companies use their German location for EU market access: 77 % use Germany as their Europe base in order to enter regional markets via that German subsidiary
- As a state for future investment, Bavaria is more popular with companies from China than any other country with nearly half of them (49%) stating that Bavaria is among the first three locations for planned investment.
- In comparison to the other featured countries, Chinese companies show a weaker appreciation than the average for the innovative potential (42 %) of Germany, the second lowest figure.
- Chinese companies in Germany contribute on average 39 % to total group revenue – the second highest value after Swiss companies.

CHN parent group	German subsidiaries	Industry/Sector	Sales 2018 of German sub- sidiaries*** (in EUR bil.)	Employees 2018 in Germany
Midea Group Co., LTD	Midea Group companies** (e.g. KUKA AG)	Industrial robots & automation technology	3.3	14,150
Huawei Technologies Co., Ltd.	Huawei Group companies**	Telecommunications equip- ment and consumer electronics	2.7	2,420
Lenovo Group Ltd.	Lenovo Group companies**	Computer hardware & electronics	2.4	1,420
Ningbo Jifeng Auto Parts Co. Ltd	Jiye Auto Parts GmbH (Grammer AG****)	Automotive parts	1.9	14,657
MLS CO., LTD. (MLS)	Ledvance GmbH	Lighting products	1.8	7,315
Zhejiang Geely Holding (Group) Co., Ltd.	Volvo Car Germany GmbH	Automobile	1.6	158
China National Chemical Corporation	KraussMaffei Group GmbH	Machinery for plastics extrusion technology	1.4	5,320
Zhengzhou Coal Mining Machinery Group Co., Ltd.	SEG Automotive Germany GmbH	Automotive parts	1.4	8,000
Anhui Zhongding Sealing Parts Co., Ltd.	Zhongding Europe GmbH	Automotive parts	0.9	7,235
Sany Heavy Industry Co., Ltd.	Putzmeister Holding GmbH (SANY Europe GmbH)	Heavy equipment manufacturer	0.8	3,137

^{*} Excluding financial and insurance activities

Sources: Bundesanzeiger, Bisnode Firmendatenbank

"In order to mitigate the effects of the US trade dispute, the Chinese government encourages foreign direct investment in China and opens up the Chinese market to which access was previously restricted. On the other hand, the Federal Government of Germany has tightened the regulation for investment controls by lowering the threshold for the examination and approval of direct investments through non-European investors in certain industries from 25% to 10%, and extended the scope of critical infrastructure investments subject to investment control. However, Germany continues to be one of the focal regions for Chinese investors due to its sectors such as automotive, advanced manufacturing, consumer, healthcare, etc., and its favorable business and operation environment."



Jack CheungPartner, Head of Country Practice China
KPMG in Germany

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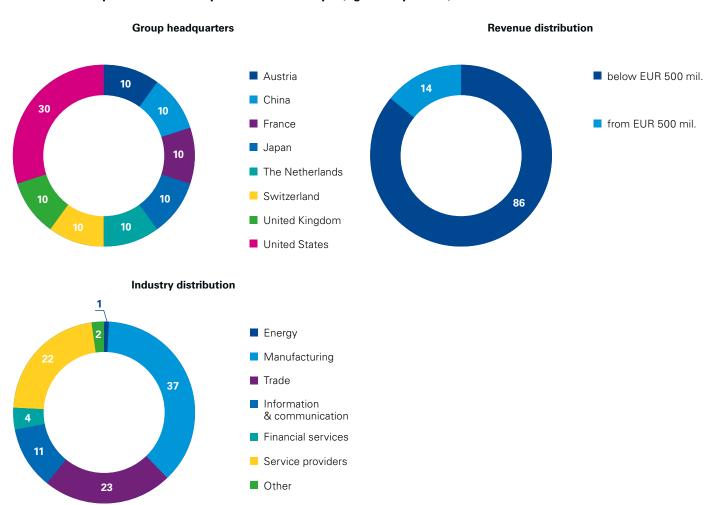
^{****} Majority shareholder

Methodology

For the study the opinion research institute KANTAR Emnid conducted a telephone survey on behalf of KPMG of 340 corporate decision-makers of private German subsidiaries of foreign parent corporations in the period May 21, 2019 to July 5, 2019. Only the largest subsidiary of a parent corporation was approached. This helped avoid multiple answers in the same grouping and brought more clarity to the representative character of the responses. The companies were selected according to the size of annual turnover in Germany, starting with the highest.

Companies with an annual turnover in Germany of at least EUR 100 million were surveyed. The distribution of the companies according to parent corporation country, annual turnover and sector can be found in the illustrations below. The survey was supported by qualitative interviews held by KPMG with representatives of selected international companies.

Figure 51: Selection of respondents and composition of the sample (figures in percent)



Source: KPMG in Germany 2019 (n=340); Deviations from 100 percent due to rounding differences

About KPMG

KPMG is a corporate network with around 220,000 employees in 147 countries. KPMG in Germany is one of the leading auditing and consulting firms and employs around 12,600 people in 25 locations.

Our services include audit, tax, consulting and deal advisory. All legal services are provided by KPMG Law Rechtsanwaltsgesellschaft mbH.

KPMG in Germany has established Country Practices for all relevant business corridors between Germany and foreign countries respectively regions. All Country Practices consist of multi-disciplinary country experts who are familiar with the particularities and regulatory environment of these markets, who work regularly in these countries and who are involved in the corridor-related issues of German and respective international companies on a day-to-day basis.

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