KPMG

# Business Destination Germany 2022

**How CFOs of German subsidiaries of foreign corporations evaluate Germany**

Survey

# Foreword

Dear Readers,

Our biannual survey "Business Destination Germany 2022", which is being published for the fourth time, again examines Germany's most important characteristics as a business location in an EU comparison. We surveyed 360 CFOs of the largest German subsidiaries of international corporations from the most important investor countries in Germany. This alternative perspective offers an outsider's view of Germany for both international investors and decision-makers in politics and business. This is extremely important because Inbounds in Germany generate around a quarter of Germany's economic output and thus make a significant contribution to Germany's prosperity.

First of all, the positive news, Germany's attractiveness as a location for international corporations is still at a very high level. In 10 of the 16 location factors we focused on, at least 40% of the surveyed companies see Germany at a minimum as among the Top 5 countries in the EU. In addition, the confidence of Inbounds management has increased in view of the strong economic recovery across all industries: Two thirds (66%) of the respondents estimate their current economic situation to be at least good and 59% forecast a further improvement in 2022.

However, international corporation representatives also see many and varied challenges for Germany as a business location and have reduced their investment plans for the coming years. These come in the form of renewed deterioration in some key location factors compared to our survey 2 years ago, and are a signifier of an urgent need for substantial reforms in these areas. The respondents consider the inadequate digital infrastructure and the non-competitive tax system to be among the biggest barriers to investment. In addition, there are deficiencies in the logistical infrastructure, a continued rise in energy costs, high labor costs with stagnating labor productivity and weakness in the implementation of innovations.

The strong attraction of Germany as an investment location is also based on its embedded position in the EU and so depends to a large extent on a properly functioning European internal market. The high level of indebtedness of the EU states, the current EU legislative initiatives, which have the potential to impair the competitiveness of companies based in the EU, as well as the tendency to introduce further bureaucracy and more regulation in the EU and Germany, represent fundamental obstacles.

In spite of this somewhat gloomy environment, there are also massive business opportunities. We can point to the megatrends of digitalization, environmental protection and sustainability, as well as geopolitical developments and demographic change, with various industries in Germany undergoing a fundamental transformation process, which is being supported by politics in Germany and also underpinned by some massive EU funding programs. It is also very exciting for international corporations to participate in this situation. Germany, in addition, is characterized by its strong family-owned businesses and innovative startup scene bases. They both offer diverse opportunities that can be taken advantage of by international investors.

Germany elected a new Bundestag on September 26, 2021. There are signs that the new federal government will be progressive, growth-oriented and investment-friendly, as well as be willing to make the aforementioned megatrends a priority for business and politics. In addition, funding measures of 130 billion EUR for modern technologies already agreed upon during the pandemic are likely to be significantly increased once more. Investments are made explicitly in future areas, such as the hydrogen economy, quantum technologies or artificial intelligence.

In a time of global upheaval, it will be of crucial importance to be agile and to actively address the opportunities that arise.

We would like to thank the CFOs we interviewed who shared their assessments and insights with us.

I wish you an interesting read with lots of new insights that provide the basis for you to make the right decisions for your company and, thereby, for Germany as a business location.

Andreas Glunz

**Andreas Glunz**
Managing Partner International Business,
KPMG in Germany

# Contents

# Executive Summary

## Part 1: Current state of their business and expectations of interviewed foreign investors based in Germany

***In 360 structured interviews of CFOs of the largest German subsidiaries of international corporations from the most important investor countries in Germany we asked about their current situation and their future plans. These are their responses:***

### Current state

- Around two thirds of the 360 Inbounds surveyed rate the **current economic situation** of their German business unit as **good or very good** (Chapter 2.1).
- Nearly half (45%) of the Inbounds surveyed use their German location as their **European headquarters,** in particular, corporations from non-EU countries such as Switzerland (67%), China (60%), Japan (57%) and the United States (53%). And almost as many (41%) also use Germany as a **hub for their non-European activities.** Even more, almost 7 out of 10 companies (68%) use Germany as their **base for the entire German-speaking DACH region** (i.e. including Austria and Switzerland) (Chapter 2.2).
- On average the Inbounds surveyed **contribute** almost a third (29%) to the total sales of their respective **groups** with their business activities in Germany (Chapter 2.3).
- The **export quota** of the surveyed Inbounds is just above a third (35%). Accordingly, the strong international network and export orientation of the German economy resonate strongly with the Inbounds operating in Germany (Chapter 2.4).

### Expectations

- For 2022, 59% of Inbounds predict a **further improvement** in business; 70% expect this in the medium term (Chapter 2.1).
- As the economically strongest industrialized country in the EU, Germany has a pull on non-European and British companies that want to **gain access to the European single market following Brexit:** 26% of the British and 13% of the US-American Inbounds cite Brexit as the reason for increasing investment in Germany (Chapter 2.8).
- Inbound **expansion investment** planned for Germany is essentially **in decline**. In 2021, only 19 percent plan to invest at least 10 million EUR per year in Germany, compared to 22 percent two years ago and 34 percent four years ago. At the same time, the average investment volume of the respondents also fell in 2021, by 12% to 7.2 million EUR, compared to the survey two years ago (Chapter 2.5).
- The companies that want to invest in the next 3 years (168 of the 360 companies surveyed) will **focus on digitalizing** their business (75%), **expanding capacity** (66%) and **increasing** their **workforce** (64%) (Chapter 2.6).
- The three **most popular federal states** for new investment by foreign investors are Bavaria (36% stated this state amongst their Top 3 choices), Baden-Wurttemberg (30%) and North Rhine Westphalia (24%) (Chapter 2.7).

## Part 2: Strengths and weaknesses of Germany as a business destination from the perspective of foreign investors

***We also investigated how these 360 foreign investors assess the current strengths and weaknesses of the business location Germany, and compared the results with our respective surveys undertaken in previous years.***

### Strengths

- Germany consistently scores very high, and this time was even better than in our last survey two years ago with regards to a number of **fundamental location factors:** Inbounds value the high standard of public safety in Germany (80% rate it at least among Top 5 EU countries), the stability of the political system (80%) and the high standard of living (81%) which qualifies Germany as a **safe haven for long-term investment** (Chapter 1.1).

- Germany has also made significant progress in terms of the **availability of qualified specialists:** 38% of international CFOs place Germany at least amongst the Top 5 in Europe. Two years ago just 1 in 4 found this to be the case (Chapter 1.8).

- While there is a wide range of business-related reform needed in Germany, it should not be overlooked that more than 40 percent of those surveyed see it at the very least amongst the Top 5 of all EU countries for 10 of the 16 featured location factors. Although a number of location factors are rated worse than two years ago, they still point to the **fundamental strengths** of Germany as a location to do business. This includes, in particular, labor productivity (72 percent see Germany at least among the Top 5), logistics infrastructure (59 percent), research environment (56 percent), openness to foreign investors (50 percent) and process automation (45 percent) (Chapter 1).

### Weaknesses

- In the view of foreign investors the **weaknesses** that existed two years ago as per our last survey assessment have **remained** at the same level (tax system and logistics infrastructure) or **dropped even further** (digital infrastructure and energy costs). Whereas comprehensive measures are being undertaken and planned to improve the digital infrastructure, the same cannot be said for all the other identified weaknesses (Chapter 1).

- By far the worst rated location factors in Germany are its **digital infrastructure** (only 13 percent see Germany among the Top 5 countries in the EU, while 33 percent place it among the Bottom 5) and its **tax system** (only 20 percent put Germany among the Top 5, while 25 percent have it in the Bottom 5) (Chapter 1).

- In a European comparison, Germany unenviably not only holds top position for its high **tax rates** but also **energy costs** as a result of the ongoing energy conversion (Chapters 1.5 and 1.6).

- The **logistics infrastructure** (roads, bridges, railroads, etc.) is perceived as rather aged and not up to required standards. The view of the quality of the infrastructure has deteriorated substantially compared with our survey undertaken four years ago when 76% put Germany at a minimum amongst the Top 5 in the EU. In the current survey that figure is only 59 percent (Chapter 1.4).

- **Personnel costs** remain at a high level but have not been balanced with an improvement in **labor productivity** over the last 4 years, which is in sharp contrast with other industrialized countries whose labor productivity is not just better than that of Germany but shows more consistent improvement. This is currently also how respondents perceive it because compared to the 75% who put Germany at least in the Top 5 most productive EU countries two years ago, only 72% do so now (Chapter 1.9).

- Not only have previous weaknesses of Germany as a business location not been improved upon in the last two years but at the same time the **previously reliable strengths** of Germany in this regard have **deteriorated:** In **process automation** this is down from 52 percent to 45 percent and in **innovation** from 48 percent to 36 percent. In the eyes of international investors, Germany distinguishes itself with engineering skills and inventiveness, which is expressed in it being top in registered and granted patents. However, Germany is viewed as **too cautious** and questioning in its **implementation** of the latter. More courage and less worrying are what is needed when it comes to not only inventing new technologies but also establishing them in the market (Chapters 1.3 and 1.11).

- Overcoming these various and sometimes serious weaknesses requires **far-reaching reforms** that have not been forthcoming in the last two legislative periods – leaving the newly forming federal government facing a major challenge.

## Part 3: Status quo of Inbound business in Germany based on desktop research and analysis

***Apart from the 360 interviews we have also undertaken comprehensive desktop research and analyzed publicly available information and data about the current state of Inbounds business in Germany. Our main findings are listed below:***

### Status quo

- Around 27,000 Inbounds employ around 3.7 million people across Germany and generate around a quarter of all sales in Germany; they make a **significant contribution to prosperity in Germany** (Chapter 5.1).[1]
- The **Top 3 investor countries in Germany** according to the number of Inbounds are the United Kingdom (3,647 companies), Switzerland (3,344 companies) and the United States (2,675 companies). The order changes according to the level of sales generated in Germany; the United States (295 billion EUR) leads Great Britain (197 billion EUR) and France (165 billion EUR). Based on the number of employees, the United States also takes top spot (approx. 639,000) ahead of Switzerland (approx. 446,000) and France (approx. 391,000) (Chapter 5.1).
- Germany is **one of the most internationally business-connected countries** in the world. The stock of German foreign direct investment abroad, at almost 1,400 billion EUR, is around two and a half times as high as the stock of foreign direct investment in Germany, at around 560 billion EUR (Chapter 5.3).
- Due to the pandemic **new foreign direct investment** in Germany **fell** by around a third to EUR 36 billion in 2020, however, there is expected to be a **catch-up** in 2021/22 (Chapter 5.4).
- The number of foreign Merger & Acquisition deals[2] (M&A deals) and Greenfield investments[3] in Germany fell in 2020 compared to 2019 by 26.7% from 2,021 projects to 1,481 projects, also due to the pandemic. In 2020, Germany was able to **maintain** its **strong third place globally** behind the United States and UK for these types of investments (Chapter 5.5).
- In 2020, the Top 3 countries for Greenfield investments and M&A deals in Germany were the United States, Switzerland and Great Britain. A trend towards **higher volume transactions** can be seen in both types of investments. The 12 largest M&A deals in 2020 and 2021 had a volume of more than 57 billion USD in total (Chapter 5.6).
- **M&A deals from China** have fallen significantly with only 15 projects in 2020 compared to 54 projects in 2019 (Chapter 5.6).

[1] Eurostat 2021 (latest available recorded year is 2018)

[2] M&A (Mergers & Acquisitions) is a collective term for transactions in the corporate sector such as mergers, company acquisitions, business transfers or takeovers

[3] A Greenfield investment is a type of foreign direct investment (FDI) in which a parent company creates a subsidiary in a different country, building its operations from the ground up

## Part 4: Opportunities and threats presented by Germany as a business location based on desktop research and analysis

***The future opportunities and threats of Germany as a business location presented below are not based on the survey of the Inbounds in Germany, but on our extensive analysis of publically available data and informed sources. The listed opportunities are also open to international investors, who can, therefore, participate in the dynamic transformation process that is currently taking place in Germany and can expect to receive additional impetus in doing so from the newly formed federal government. Future opportunities are always associated with obstacles that companies can only avoid to a certain degree. These hindrances not only concern Germany as a location but also its membership in the EU.***

### Opportunities

- The **megatrends** of digitalization, environmental protection and sustainability, and demographic and geopolitical change are leading to a **fundamental transformation of Germany's core industries.** This is actually resulting in a wide range of opportunities for investment and cooperation for international investors; particularly in the automotive, industrial manufacturing, healthcare, renewable energy and infrastructure, building & construction industries (Chapter 3.2).
- Germany provides many and varied **incentives for R&D,** which are available to international investors also. They include the ZIM program for small and medium-sized entities, startup loans and the IPCEI program (Chapter 3.3).
- To overcome the effects of the pandemic Germany also introduced an **economic stimulus package** with a total value of 130 billion EUR of which 50 billion EUR is earmarked for R&D (Chapter 3.4).
- **Family-owned businesses** are the backbone of German industry and comprise a lot of unseen global champions. They represent an opportunity because a lot of them are seeking successors so they can continue in the market (Chapter 3.5).
- The **German startup scene** is growing steadily, specifically in Berlin, Frankfurt (with a focus on FinTech) and Munich (mainly for health and mobility). German startups are seeking venture capital, which would keep them from looking for it in another location (Chapter 3.6).

### Threats

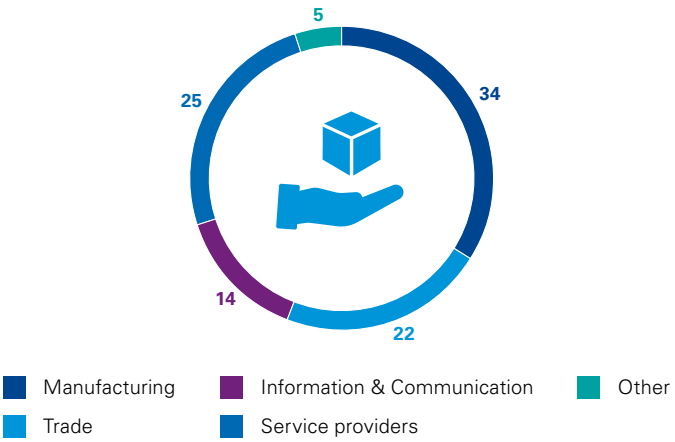
- If the **necessary reforms** and **future-oriented investment** are not forthcoming in the short term from the new German government, then it could have severe consequences in terms of how Germany is assessed as a business location.
- The huge levels of **indebtedness of several EU member states,** the high Target2 balances of most EU countries vis-à-vis Germany, and the **additional funds required** to overcome the Corona crisis pose a major risk for Germany, and on a fundamental level to the cohesion of the EU (Chapter 4.2–4.5).
- With **current legislative initiatives in the EU** (European Climate Law, the EU's Environment Action Program 2030 and the EU-Carbon Border Adjustment Mechanism), the EU is playing a global pioneering role. The laws that are going to be enacted must also be transposed into the national law of Germany as one of the member states, and as such can have a significant influence on the competitiveness of companies based in Germany, and ultimately on the attractiveness of Germany as a location (Chapter 4.6).
- **Excessive regulations** and the further **expansion of bureaucracy** in the EU and in Germany in connection with, among other things, sustainability rules, can be a burden to companies based in Germany in comparison to other regions (also Chapter 4.6).

# Survey Methodology

For this survey, the opinion research institute Kantar interviewed a total of 360 representatives from German subsidiaries (hereinafter also referred to as Inbounds) of international majority shareholders from June 14 to August 16, 2021 by telephone on behalf of KPMG Germany. This document is the fourth publication in a biannual series of studies and follows on from studies in 2016, 2018 and 2020. The respondents – mainly CFOs – represent the eight main investor countries: the United States (with 100 participants), plus Japan, China, the UK, France, the Netherlands, Switzerland and Austria with 30 participants each. In addition, 50 Inbounds were surveyed from further important investor countries: Brazil, Denmark, Finland, Greece, India, Italy, Sweden, Spain and South Korea. All respondents were asked for their views on the pros and cons of Germany as a business location in comparison with other European countries.

The assessment of Germany as a business location from the point of view of the managers of international groups is the subject of this study. The companies can be grouped by industry as follows:

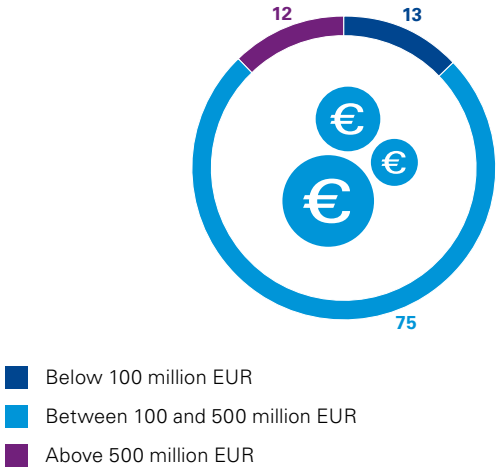
*Figure 1:*
**Split of surveyed Inbounds by industry (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

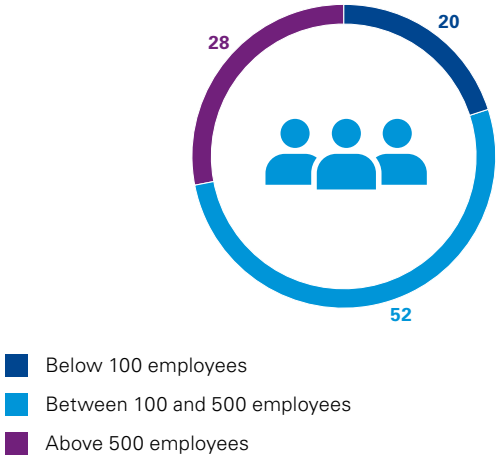
The companies were selected based on the volume of their annual turnover in Germany; those with annual turnover of at least 100 million EUR and more than 100 employees were preferentially surveyed.

*Figure 2:*
**Split of surveyed Inbounds by volume of generated sales in Germany in 2021 (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

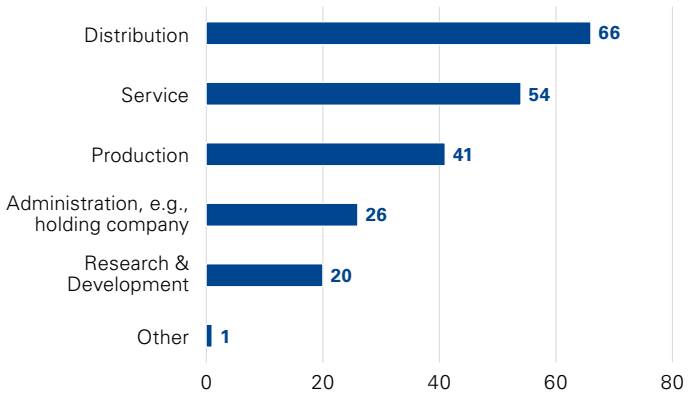
*Figure 3:*
**Split of surveyed Inbounds by number of employees in Germany (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

Two thirds (66%) of the Inbounds questioned stated in our survey that they use their German location to sell their products. In addition, 41 percent are in Germany to produce and 20 percent to do research and development.

*Figure 4:*
**Split of surveyed Inbounds by kind of operations undertaken in Germany (multiple answers allowed, figures in percent)**




*Source: KPMG in Germany 2021; n=360*

# About KPMG

KPMG is an organization of independent member firms with around 227,000 employees in 146 countries and territories. KPMG in Germany is one of the leading auditing and consulting firms and employs around 12,500 people in 26 locations.

Our services include Audit, Tax, Consulting and Deal Advisory. The 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. 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 the German and the respective international companies on a day-to-day basis.

**For more information click here:**

Chapter 1

# Assessment of Germany as a business location by the surveyed international investors based in Germany

**Chapter 1:**

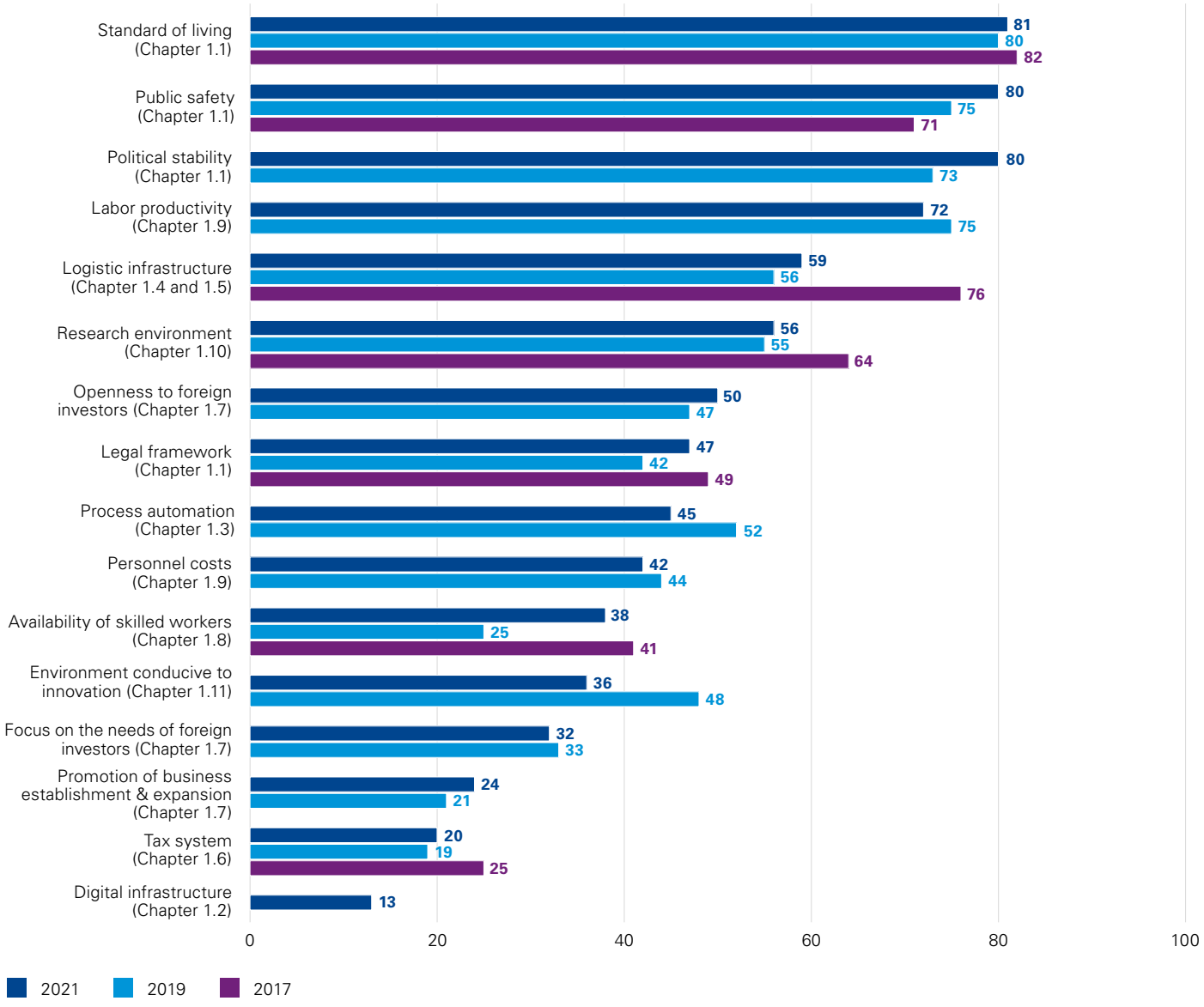
## Assessment of Germany as a business location by the surveyed international investors based in Germany

In this chapter we analyze the location factors that are the most important to foreign investors when they make their investment decisions. The interviewed company representatives were asked to rate Germany in terms of various location characteristics in an EU comparison. Some of the questions have already been asked as part of the last three KPMG surveys, so it is possible to show a pattern over a period of time.

The following graphic summarizes the evaluations of the location factors, which we believe are decisive when investors make comparisons with other countries in order to find the right investment location for their capital. The percentages show how many of the executives surveyed see Germany as at least among the Top 5 most successful EU countries.

*Figure 5:*

**Summary of survey results – share of respondents that assess Germany as at least amongst the Top 5 countries in the EU (surveys 2021, 2019 and 2017, figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), 340 (2019), 529 (2017)*

The survey results displayed below in Figure 6 show a heterogeneous picture of Germany as an investment location and pinpoint location factors that have both deteriorated and improved since our last surveys two and four years ago respectively. Overall, the figure indicates that there is a significant demand for reforms to improve the business environment for foreign investors.

*Figure 6:*
**Development of location factors over time**


Comprehensive measures are already undertaken or are planned to improve location factors

**1.2.** Digital infrastructure
**1.5.** Energy cost
**1.6.** Tax system

**1.4.** Logistic infrastructure
**1.7.** Openness to foreign investors/ Focus on the needs of foreign investors/Promotion of business establishment and expension
**1.8.** Availability of skilled workers
**1.9.** Personnel costs and labor productivity

**1.1.a** Standard of living
**1.1.b** Public safety
**1.1.c** Political stability
**1.3.** Process automation
**1.10.** Research environment
**1.11.** Innovativeness

*Source: KPMG in Germany 2021*

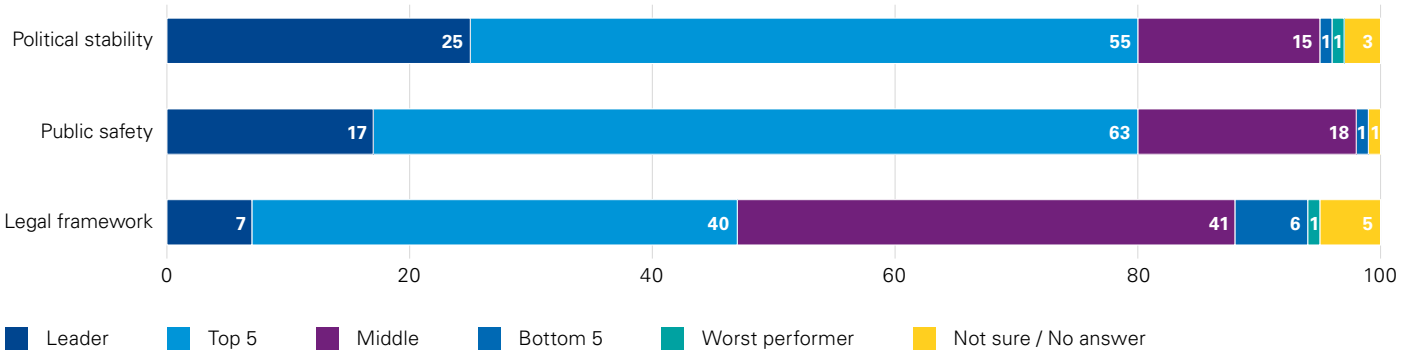
In the following texts and graphics we present the survey results in more detail and according to thematic focus, and we interpret the results on the basis of publicly available information and data.

## 1.1 Germany scores high on fundamental location factors

As in our survey two years ago, the standard of living (quality of life, residential and leisure value) in Germany is perceived as excellent. 81% of the executives surveyed are of the opinion that it is at least one of the Top 5 among all EU countries. The overwhelming majority of the executives surveyed agree that Germany is a country where one feels extremely comfortable.

There are also other location factors that create the framework for any form of economic activity; on an elementary level these are political stability, public safety and the legal framework. Hardly any investor will be willing to get involved in a country in which she or he would have to fear for the continued existence of its political institutions or worry about the predictability of its judiciary or the security of his or her investment. In particular, foreign investors in Germany traditionally rate public safety and political stability very positively with four fifths of those surveyed placing Germany at the best EU countries in these location factors (Top 5 or leader).

*Figure 7:*
**Fundamental location factors in an EU comparison (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

Germany is viewed as much weaker in terms of its legal framework; only 47 percent see Germany as a leader in this category (at least Top 5). We suspect that this lower rating is primarily the result of the many bureaucratic hurdles and complex approval procedures connected to economic activity. Nevertheless, there are no doubts about legal certainty in Germany. The former chairman of the German Council of Economic Experts, Lars Feld, points out that Germany could significantly improve its reputation as an investment location without the need for major financial input by just reducing excessive bureaucratic regulations. According to Feld, investment activity is suffering from an overload of bureaucratic regulations that is akin to a strangulation of the economy. Although the reduction of bureaucracy and implementing lean approval processes are regularly mentioned by decision makers, it seems too little is happening.[4]

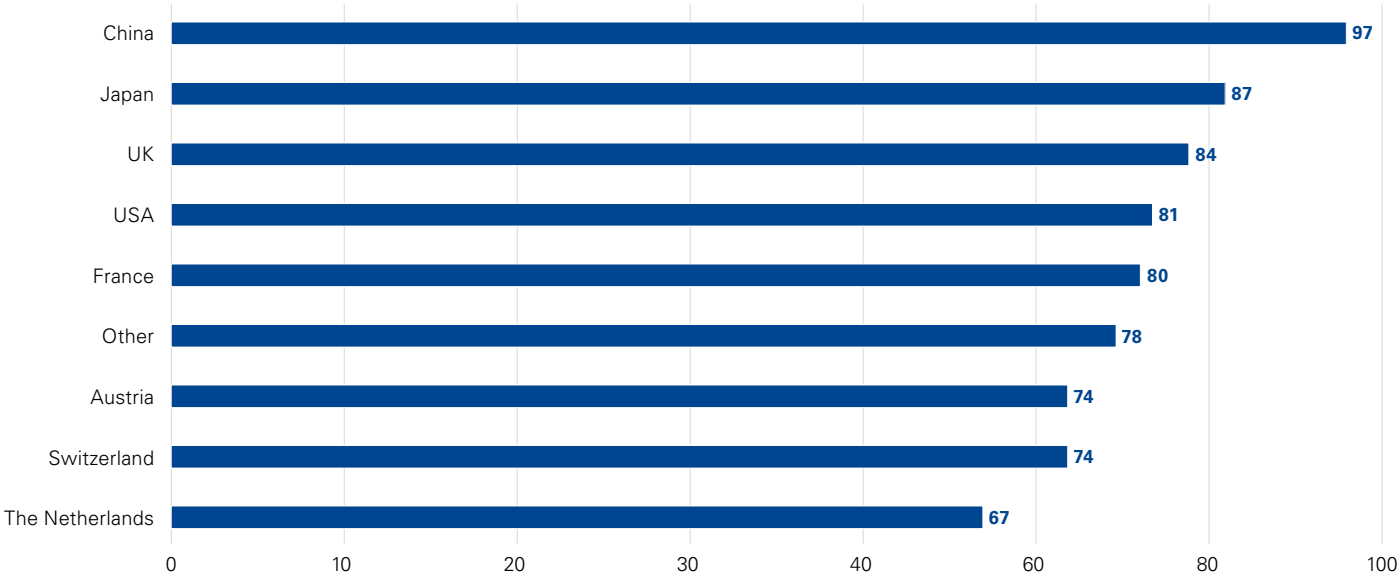
In spite of this, we can confidently state that the political and legal institutions in Germany are very highly regarded from the point of view of international investors and have built the foundation for economic prosperity in Germany since the Second World War.

It is interesting to take a look at how the assessments of the political system differ according to the country of origin of the group the interviewed Inbound representative belongs to. At 97 percent the political system is highly rated by Chinese Inbounds but is viewed the weakest by Dutch Inbounds at 67 percent. Nevertheless, for the Dutch Inbounds political stability still scores high since two thirds of those Inbounds place Germany at least in the Top 5 within the EU.

[4] Eine Renaissance der Wirtschaftspolitik? Da wäre ich vorsichtig, WirtschaftsWoche, April 17, 2021

We have included "Other" in this year's survey in order to give a voice to countries with lower investment volumes in Germany. This includes companies connected to a group that has its origins in Brazil, Denmark, Finland, Greece, India, Italy, Sweden, Spain or South Korea. For 78 percent of this grouping, the political system in Germany is one of the most stable (at least Top 5) in the EU.

*Figure 8:*
**Rating by Inbound's country of origin with regards to Germany being at least amongst the Top 5 in Europe in political stability (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (All)*

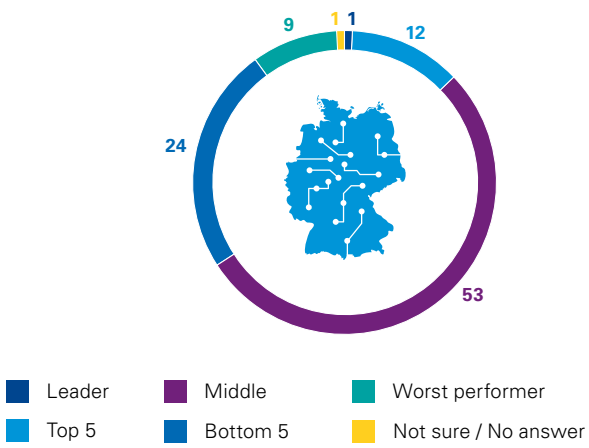
## 1.2 Worst performer on digital infrastructure

This year, as a separate component of the infrastructure category, we solicited views for the first time on the quality of the digital infrastructure in Germany, including opinions on general network availability and the availability of industrial networks.

During the Corona pandemic, physical distance from fellow human beings became the norm in social interaction. Digital forms of interpersonal interaction have, therefore, gained significant traction in its aftermath. In this huge (economic) crisis, in particular, society was made very aware of the importance of digitalization in all aspects of life. The underlying basis for this growing facet of our lives and our communication is fast, high-quality broadband connectivity.

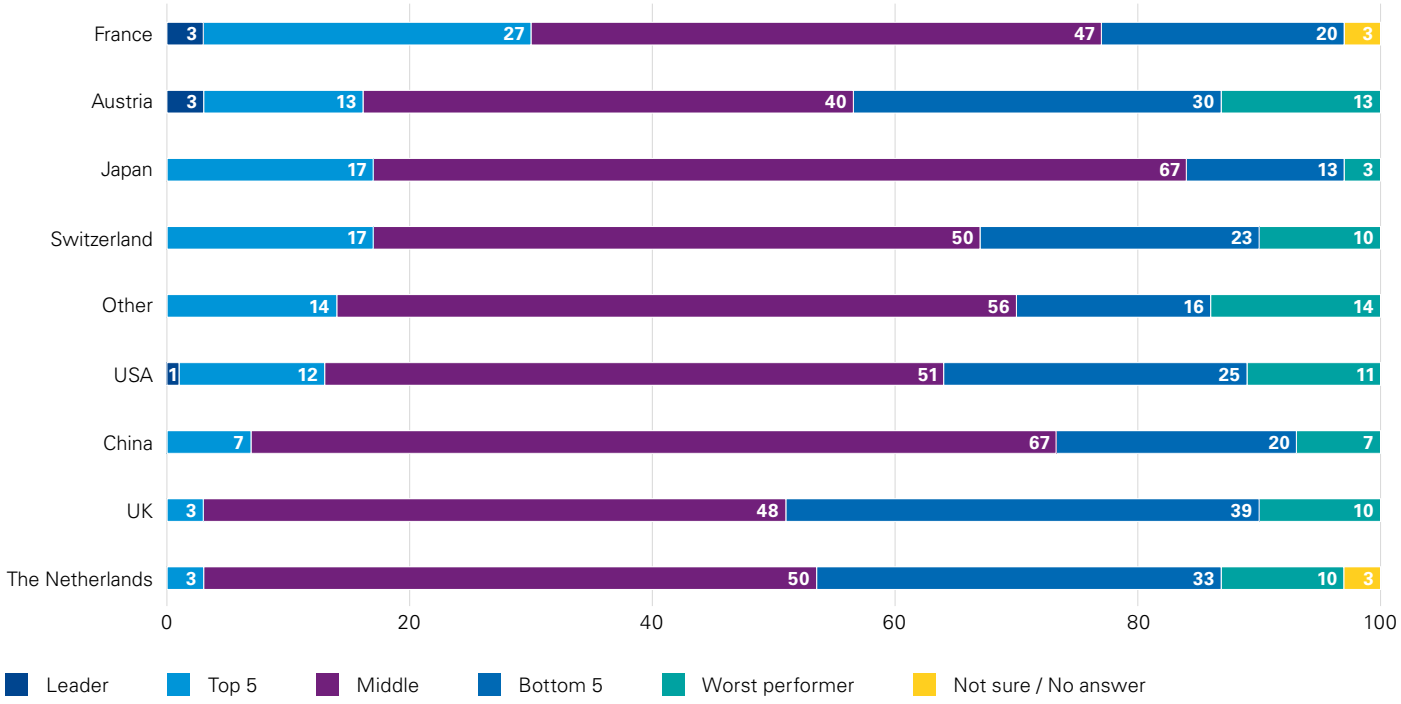
The survey results show that international investors surveyed stated that Germany's digital infrastructure is by far its worst location factor. Only 13 percent of the Inbounds surveyed state that Germany's digital infrastructre is of a quality comparable to the rest of the EU (at least Top 5).

*Figure 9:*
**How Inbounds rate Germany's digital infrastructure (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

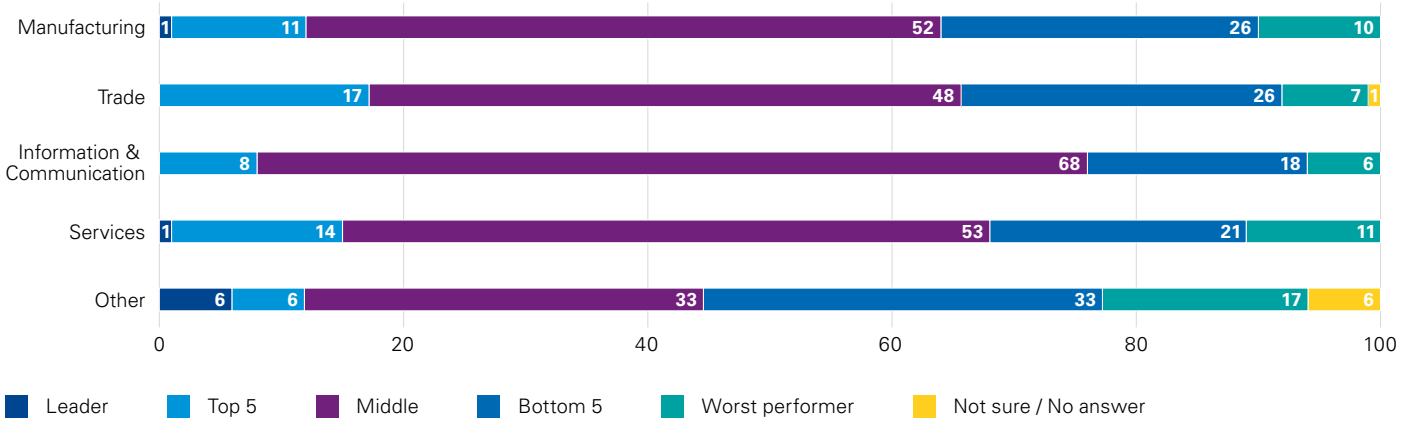
*Figure 10:*
**Assessment of Germany's digital infrastructure according to Inbound country of origin (figures in percent)**



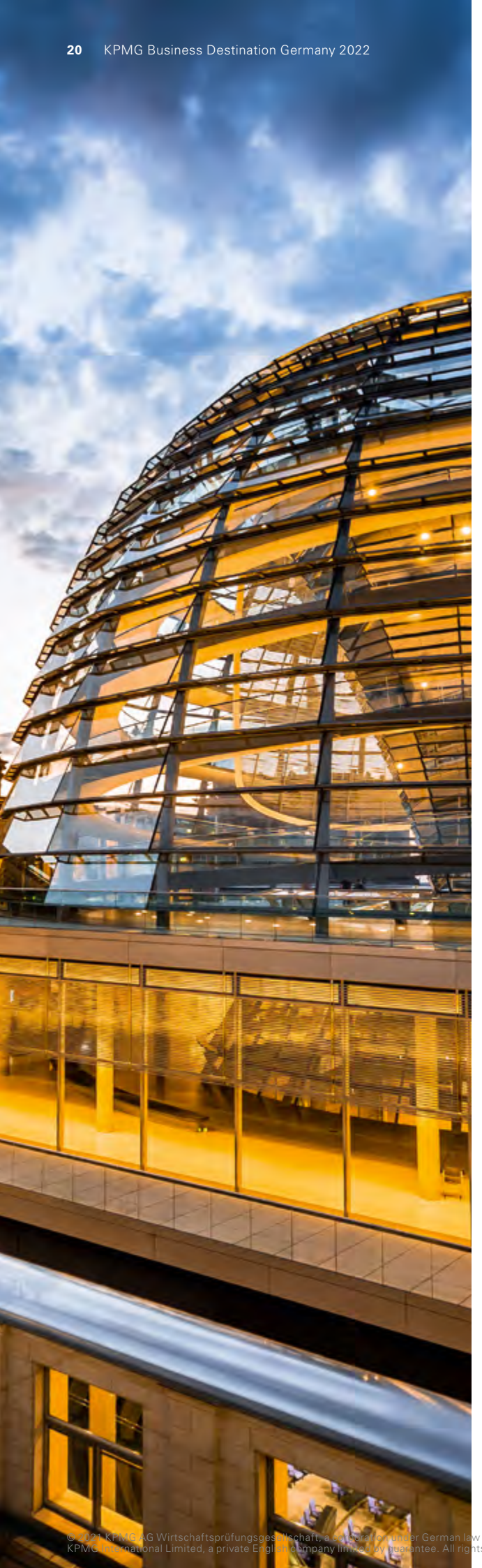

*Source: KPMG in Germany 2021; n=360 (2021)*

The ratings of the British, Dutch and Austrian Inbounds are particularly negative. The British Inbounds (49%), the Dutch and the Austrian (at 43% each) rate the digital infrastructure in Germany as the worst or one of the Bottom 5 in the EU.

*Figure 11:*
**Assessment of digital infrastructure in Germany by industry of surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2021; n=120 (manufacturing), n=81 (trade), n=50 (Information & Communication), n=91 (services), n=18 (other)*



This assessment of Germany's IT infrastructure by industry underlines that digitalization is not just a topic for specific industries. The base for modern technologies is an excellent digital infrastructure and this is a decisive element in achieving companies' aims for all sectors. Modern technologies are used in all industries where they offer the potential to realize great leaps in production. The fluctuations between sectors in the evaluation of the digital infrastructure are only slight but the assessment of the information and communications industry is the worst: 92 percent of those surveyed believe Germany is not one of the Top 5 countries in the EU for digital infrastructure and none believes that Germany is the leader in the EU. Over a third (36%) of the companies from the manufacturing sector, and half of the sectors represented by "other" rank Germany among the Bottom 5 EU countries, or even consider it to be the worst performer.

In discussions about the importance of a fully-functioning and state-of-the-art digital infrastructure, reference is usually made to technology trends such as autonomous driving, AI-supported production processes or telemedicine, which have only been made possible by digitalization. The decision makers we interviewed have also taken into consideration their experiences with less spectacular technologies during their everyday Corona routine in their assessment; home office and home schooling were specifically on the rise at the time of their interviews. Who is to say that schools that were not prepared and poorly equipped for video lessons might also contribute to a negative view of Germany's IT infrastructure? Network problems during a decisive sales pitch via Teams, for example, might have also had a negative influence on the judgment of those questioned. In addition, there may have been less than positive experiences outside of the professional context with public authorities and the health system, for example, that had perhaps not built up their digital competence and could not cope with the particularly heavy demand during the pandemic.

**Broadband landline connections**

Slow data lines in Germany are still an enormous problem, especially in rural areas, and particularly for many medium-sized companies, some of which were certainly amongst those Inbounds we surveyed. The more peripheral a municipality is, the less fiber optic coverage it has. The regional planning report of 2021[5] describes the inadequate digital connection of many businesses in rural regions as a "serious competitive disadvantage". Insufficient broadband expansion is hampering development, which means the great potential of digitalization can only be realized to a limited extent. This judgment is so worrying precisely because in many rural regions in Germany there are medium-sized, highly innovative companies whose development is being stunted by a poor network infrastructure. According to a study by the OECD, the share of fiber optic connections in all households in Germany is currently 4.7 percent; even many supposedly underdeveloped countries have a higher share. At the top of the fiber optic connection ranking is South Korea, which is often praised for its technological progress, with a share of 83.9 percent. European countries such as Sweden (73 percent) or even Spain (69.7 percent) also have much higher rates of fiber optic connection than Germany.

In addition to fiber optics, other technologies also enable high speeds. However, even the quality of alternative technologies is not up to sufficient standard in Germany, especially not in rural areas. The Federal Ministry of Transport's "Broadband Atlas"[6] states that, for example, in rural areas only 24.3 percent of commercial locations have data lines with download speeds of one gigabit. Even in cities, the proportion is only 56.4 percent. The main sticking point in broadband expansion is the question of how to deal with the particularly expensive last mile, i.e., the final route to the home or business. This last step usually involves cable made of copper – some of which can be up to 80 years old. New communication technologies often require particularly high bandwidths in order to transmit data, however, this is difficult to achieve with copper cables; a DSL connection on this type of cable can usually only be used to achieve peak values of between 50 and 100 Mbit/s. Fiber optic represents the backbone of digitalization, yet Germany has delayed its adoption and expansion for several decades.[7]

**Cellular networks and campus networks**

As the next generation of the mobile cellular network 5G, will open up new business models and, it is presumed, additional sources of income for companies in all sectors of the economy. At the Mobile World Congress 2019, KPMG presented the results of its research on value creation through 5G as follows: The 5G roll-out will take place successively worldwide in the 2020s. It will start with private, regional networks, followed by cities and then nationwide coverage. A further KPMG study undertaken in 2020 revealed that geographically most centralized industries, e.g. manufacturing, will be the first to benefit from 5G.[8]

Productivity boosts based on 5G application options are a result of higher data speeds, lower latency times and a simplified division of the physical infrastructure into several virtual networks that can be tailored to different end users (network slicing). The global association of mobile operators, GSMA, predicts that 5G will contribute 2.2 trillion USD to the global economy by 2034, accounting for 5.3 percent of global GDP. In particular, two key German industries, the manufacturing industry ("smart manufacturing") and the automotive industry ("autonomous cars") could achieve significant productivity leaps through a tailored use of the new generation of radio technology. The market research institute, Oxford Economics[9], even predicts the creation of over 200,000 new jobs in Germany in the event of a full 5G rollout by 2030.

In the summer of 2019, the Federal Network Agency (BNetzA) auctioned frequencies to telecommunications companies to set up nationwide mobile networks. As part of an auction of 5G frequencies to mobile network operators, the Federal Network Agency reserved part of the spectrum – between 3700 MHz and 3800 MHz – for local networks connected to industry, research institutions and agriculture. Corporations, medium-sized companies and universities quickly seized on this opportunity and by May 2021, frequencies for 120 campus networks had already been allocated.

In addition, the Federal Network Agency dedicated the first designations in the 26 GHz range to local and regional 5G networks, as announced in its 2020 annual report on May 19, 2021. Since January 2021, additional frequencies for 5G use in the 24.25 to 27.5 GHz range have been allocated. In this range, at the time of publication of the Federal Network Agency's annual report, five designations had been made amid increasing demand.

[5] Raumordnungsbericht 2021, Bundesinstitut für Bau-, Stadt- und Raumforschung

[6] Aktuelle Breitbandverfügbarkeit in Deutschland, Bundesministerium für Verkehr und digitale Infrastruktur, December 2020

[7] Schnelles Internet – Warum Deutschland hinterherhinkt, tagesschau.de, March 18, 2019

[8] New value creation potential with 5G and Edge Computing – supporting pillars for the recovery of the global economy, KPMG, 2020

[9] Study: "Restricting Competition in 5G Network Equipment throughout Europe", June 2020
Note: a distinction is made between scenarios, the figure refers to the baseline scenario (benchmark).
If Huawei is excluded as a supplier for technical infrastructure, for example, the scenario would be different

For the first time, many industrial companies have the opportunity to tailor their own individual network to their specific needs. The technology group Nokia estimates there potentially to be between 5,000 and 10,000 5G campus networks in Germany by 2025; the majority of which will be run by German medium-sized companies. Industrial heavyweights such as Airbus Defense and Space, BMW and Evonik Industries are prominent participants in the allocation. In addition, research institutions such as the Fraunhofer Institute and universities throughout Germany are also users of the frequencies. The step of awarding local 5G frequencies benefits small and medium-sized companies, which are allowed more independence in the establishment of tailor-made solutions.

Due to the particularly dominant industrial base in Germany, the added value potential that can be tapped through 5G applications (such as robotics or numerous promising industrial IoT solutions) is particularly huge. In many cases, these activities rely on low-latency connectivity for precise thresholds and real-time analytics. Campus networks make this possible and also offer an entire company site or industrial area increased security against cyber attacks without running the risk of being slowed down by public cellular networks. The independent control by the company of its configured campus network – its decision-making sovereignty – therefore, promotes trust in the use of 5G. In addition, it makes sense for industry to have direct access to these frequencies. After all, who knows their system requirements better than them? What ultimately matters is for industry to function as efficiently as possible, and in these instances, entities feel this is more possible with maximum autonomy over one's own network infrastructure. Therefore, the Federal Network Agency's decision – which in addition to the nationwide auctioning of frequencies also provides for the allocation of local (regional) frequencies on request – is recognized as the right step forward in the eyes of the big four German industry associations: VCI, VDA, VDMA and ZVEI.

According to the GSMA, worldwide IoT connections in intelligent manufacturing will grow four-fold to over 1.3 billion connections for the period between 2019 and 2025. Germany's path of allowing companies and research institutes to set up their own networks – independent of the large telecommunications companies – should encourage the implementation of 5G applications.

But the required investment sums are enormous. For Germany alone, a volume of over 100 billion EUR is estimated. Compared to conventional infrastructure projects, the investment options for 5G are far more complex, and opportunities and risks are more difficult to determine. How companies, the public sector and investors can get involved and what challenges need to be overcome when investing in 5G are described in KPMG's white paper **"How to unlock deal value in the 5G era".**[10] It provides six key questions that can be used to structure project collaboration and all relevant process steps. The insights gained from the answers to these questions enable an optimal tailoring for the respective 5G infrastructure project.

The German way of auctioning off some radio frequencies directly to industrial customers – without involving the telecommunications providers – is promising. However, its value is not yet reflected in our survey results.

**"The pandemic has relentlessly revealed the importance of digitalization and new technologies and has forced executives to prioritize transformation within their companies. The potential of digitalization is enormous and can, for example, help to reduce costs through process automation and engage customers more actively through new digital business models. Alongside that process, it is also important to keep potential risks in mind and mitigate against them proactively by ensuring cyber security and people enablement along the whole value chain."**

***Ioannis Tsavlakidis***
*Managing Partner Consulting, Head of Advisory EMA, KPMG in Germany*

[10] How to unlock deal value in the 5G era, KPMG Whitepaper, 2021

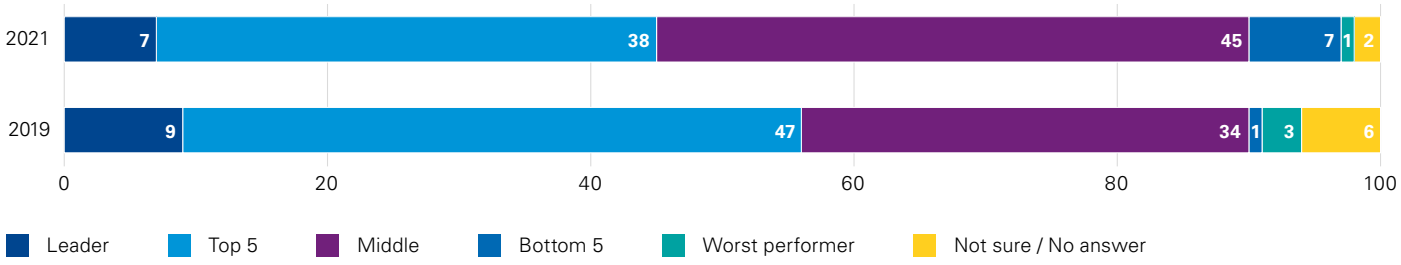
## 1.3 Process automation rated weaker

The results of the survey regarding the degree of maturity of Germany as a location in terms of the automation of processes are also significantly poorer than in our survey two years ago. At that time, 52% of the Inbounds surveyed considered Germany's competence in this important field in terms of future productivity leaps as at least among the Top 5 EU countries. This year that leading position has been reduced and only 45% percent hold this view.

Examples of less complex automation are repetitive activities, such as master data updates, customer data maintenance or document storage. Rule-based process automation is considered more complex. These rule processes are characterized by a large number of different tasks and decisions, whereby the sequence of activities often requires flexibility; some examples are decisions about applications, offers or medical treatment. The most complex form of automation is intelligent process automation, where the software must even react to unpredictable events. Intelligent process automation is based on machine learning technology. Cases of use are the processes of product development, as well as more efficient forms of strategy development.

According to the World Robotics Yearbook 2020, in 2019 Germany had the highest ratio of automated systems in relation to employees in a European comparison with 221,500 industrial robots, while France had only 42,000 such units. This puts Germany in fifth place worldwide, behind China, Japan, South Korea and the United States. These figures suggest that Germany is on the right track in this field. Its large industrial sector, in particular, offers numerous opportunities to achieve further leaps in productivity using automated systems. The weaker rating from the interviewed Inbounds is surprising and it is possible that those from countries of origin that are ahead of Germany in process automation, such as the United States, Japan or China, had the level in their home country in mind as a benchmark for their assessment. This being the case, from their point of view, it leaves Germany still lagging slightly behind in this field.

*Figure 12:*
**Assessment of level of process automation in Germany by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019)*

## 1.4 Logistics infrastructure in Germany is showing increasing signs of wear and tear

In Germany there are 539 airports, almost 33,600 kilometers of railway track, 625,000 kilometers of paved roads, thousands of kilometers of well-developed waterways and dozens of strategic hubs for sea and inland shipping.[11] This may look good on paper, but the condition of these logistical features is a serious problem. Quite often routine repairs have barely been carried out on this infrastructure, with damage only being repaired as a last resort, if at all.

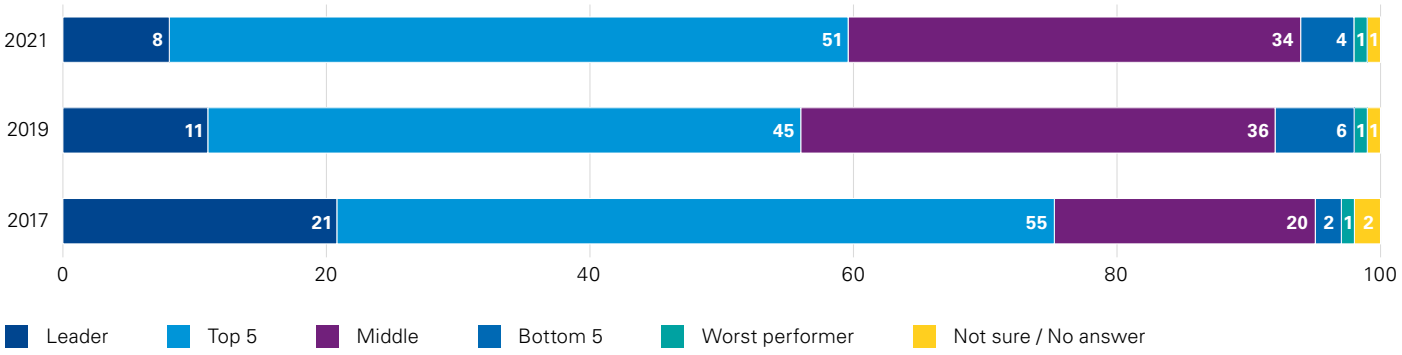
With regard to its public logistics infrastructure (e.g. roads, bridges and rail), according to our survey participants, Germany is increasingly showing signs of wear and tear. Four years ago in 2017, the proportion of those who ranked Germany's logistics infrastructure in at least the Top 5 in the EU was 76% but in 2021 only 59% are of this opinion. Although this represents a slight improvement of 3% compared to the 56% of 2019, it would be premature to speak of a trend reversal. After all, the KfW municipal panel points out that the municipal investment backlog – even in the face of increasing investment – now amounts to 149 billion EUR, which is an increase according to the figures from May 2021.[12]

The investment backlog is largely due to the shortfall in the areas of schools (46.5 billion EUR) and transport infrastructure (33.6 billion EUR). For example, in August 2021, the new Autobahn authority pointed out that around 3,000 bridges were in an inadequate or unsatisfactory condition. In addition, according to the Federal Highway Research Institute, every sixth kilometer on German autobahns is in poor or even very poor condition; that equals 10,000 kilometers. Damaged roads cause delays in supply chains, among other things, and lead to additional economic expenditure on a daily basis. The survey results reflect the increasing deterioration of Germany's physical infrastructure in the view of the study particpants.

Word Economic Forum reports point to a gradual deterioration in quality in all logistical areas in Germany: roads, railways, airports, ports and the power supply.[13] According to a current estimate from the federal government, the pending railways investment is currently 29 billion EUR.

A reliable estimate of the exact total needed for public investments is not possible. Prior to the Corona crisis, the Institute of German Economy called for an investment offensive in infrastructure – in order to make Germany future-proof – to the tune of 450 billion EUR over ten years. Numbers of this magnitude are not implausible if one takes into account the quality of the existing infrastructure and the cost of new infrastructure. What the Corona crisis has meant with regard to public investment needs cannot yet be forecast. However, it has no bearing on the fact that a solid and modern infrastructure is an important building block for the future vibrancy of any economy.

*Figure 13:*
**Assessment of Germany´s logistics infrastructure (roads, bridges, rail, etc.) by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019), n=529 (2017)*

[11] The CIA World Factbook, 2020
[12] KfW Research, KfW Municipal Panel 2021 – Summary, May 2021
[13] World Economic Forum, The Global Competitiveness Report, 2020

## 1.5 Energy conversion in Germany drives up electricity costs

In addition to the establishment of a high-quality infrastructure, the cost of it is also an extremely relevant location factor. In this regard, it is electricity costs specifically that are relevant for energy-intensive industries.

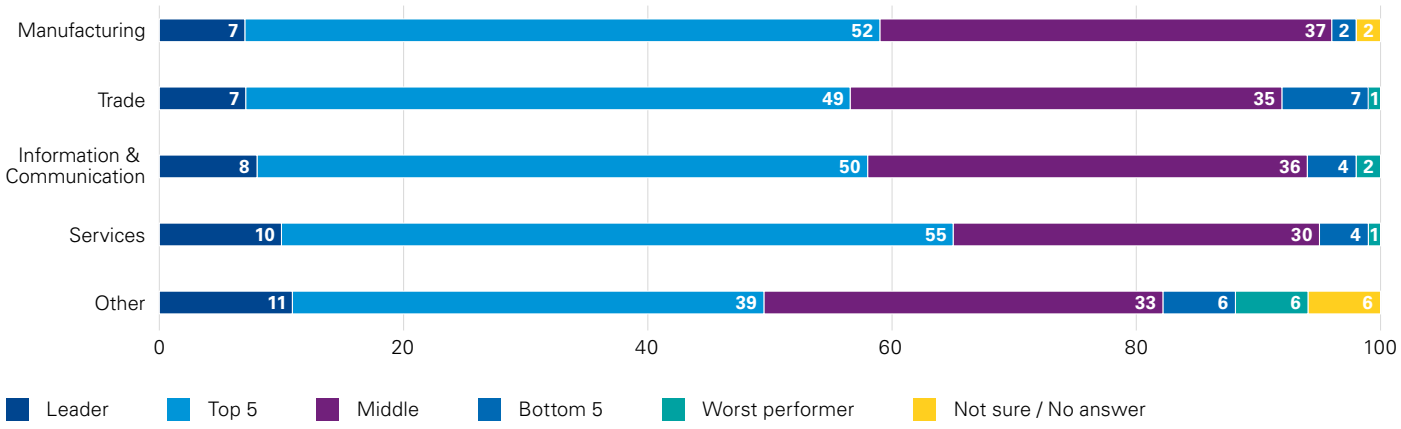
It is, therefore, understandable that the evaluation of the infrastructure of sectors with huge energy requirements – such as the "manufacturing industry" (59%) and the "others" (50%), which includes the energy sector – is at a lower level than that of the "service providers" (65 %) for whom cheap electricity is not so critical to business success.

On the positive side, foreign investors in Germany can traditionally count on a very reliable power supply. Here, Germany actually shows itself to be above criticism. In 2019, the most recent reporting year, the Federal Republic of Germany had a total of only 159,872 supply interruptions in the medium- and low-voltage power grids. According to the Federal Network Agency, the outage duration fell to just 12.20 minutes on average; in previous years, too, the numbers were similarly impressive. This puts Germany in the top grouping in the World Economic Forum ranking, which deals with the quality of the electricity supply from a basic economic perspective.

Due to the growing switch from traditional energy sources such as coal, gas and nuclear power to renewable energies, prices for electricity in Germany have risen sharply in recent years. As calculated by Eurostat for the second half of 2020, the actual cost of German industrial electricity, excluding the reimbursable taxes, is 18.18 cents per kWh, well above the EU-27 average of 12.54 cents, and far more then the prices in neighboring France with 9.5 cents. These days, Germany is in top spot for actual industrial electricity costs in an EU-27 comparison and has, therefore, ousted Italy from the inglorious position it held in 2019.

The way above average electricity prices in Germany are the result of a very high proportion of non-refundable taxes that must be paid on every consumed kWh unit. They reflect the short-term cost of the accelerated shut-down of the nuclear power plants and of the funding of renewable energy. Germany is the only EU country with a share of non-refundable taxes and duties[14] in relation to total electricity price, which in the second half of 2020 was more than half of the cost (51.1 percent).

*Figure 14:*
**Assessment of Germany´s infrastructure by surveyed Inbounds by industry (figures in percent)**



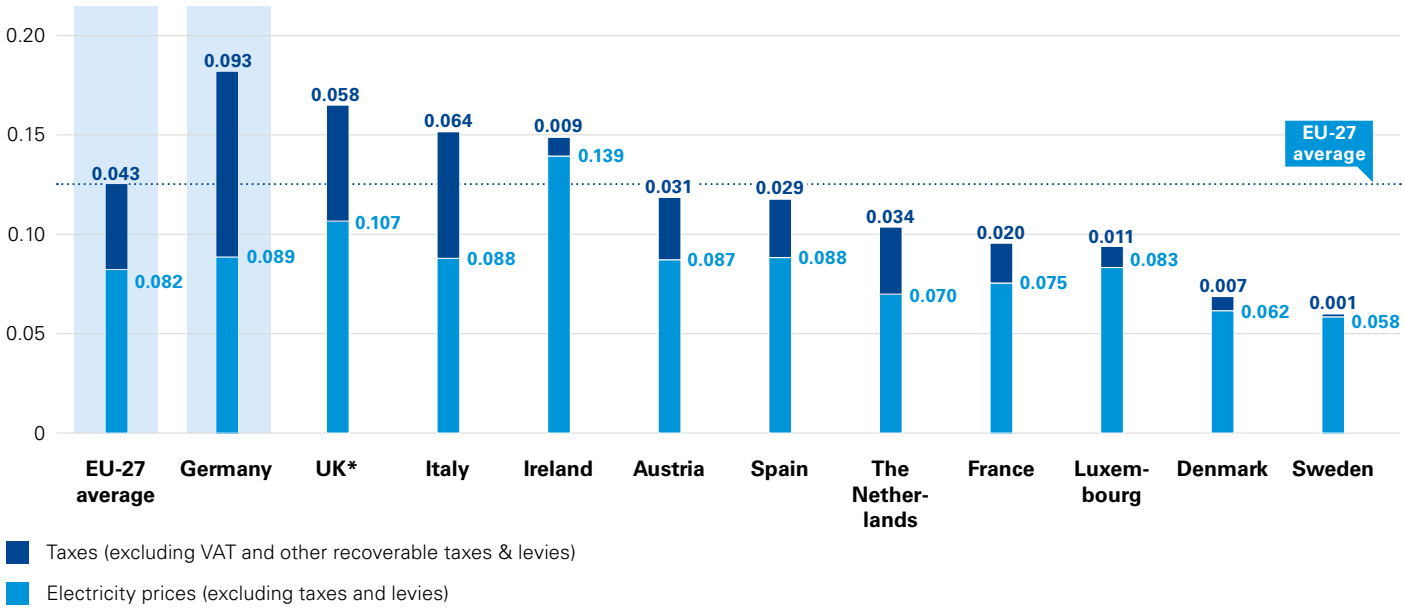

*Source: KPMG in Germany 2021; n=120 (manufacturing), n=81 (trade), n=50 (information and communication), n=91 (services), n=18 (other)*

[14] Refers to the taxes that cannot be refunded by the state through exemptions and credits. This means that it is the tax that is actually effectively incurred.

In contrast, the 2020 average of this proportion across all 27 EU member states was only 34%. German politics now seems finally to want to bring some countermeasures. Part of the economic stimulus program to cope with the consequences of the Corona pandemic is aimed at reducing the EEG surcharge[15] from 6.76 ct/kWh initially to 6.5 cents (from January 2021), and then eventually down to 3.72 cents in 2022. This step should be and can be financed through income from $CO_2$ pricing and additional budget funds amounting to 11 billion EUR. This countermeasure could in the best case prevent a further increase in the total price, but it will not reverse the trend of rising electricity costs in Germany.

*Figure 15:*

**Electricity prices for non-household consumers in 2nd half of 2020 in EUR/kWh for selected EU-27 countries (and the UK)**




**for the United Kingdom only the 1st half of 2020 was available*

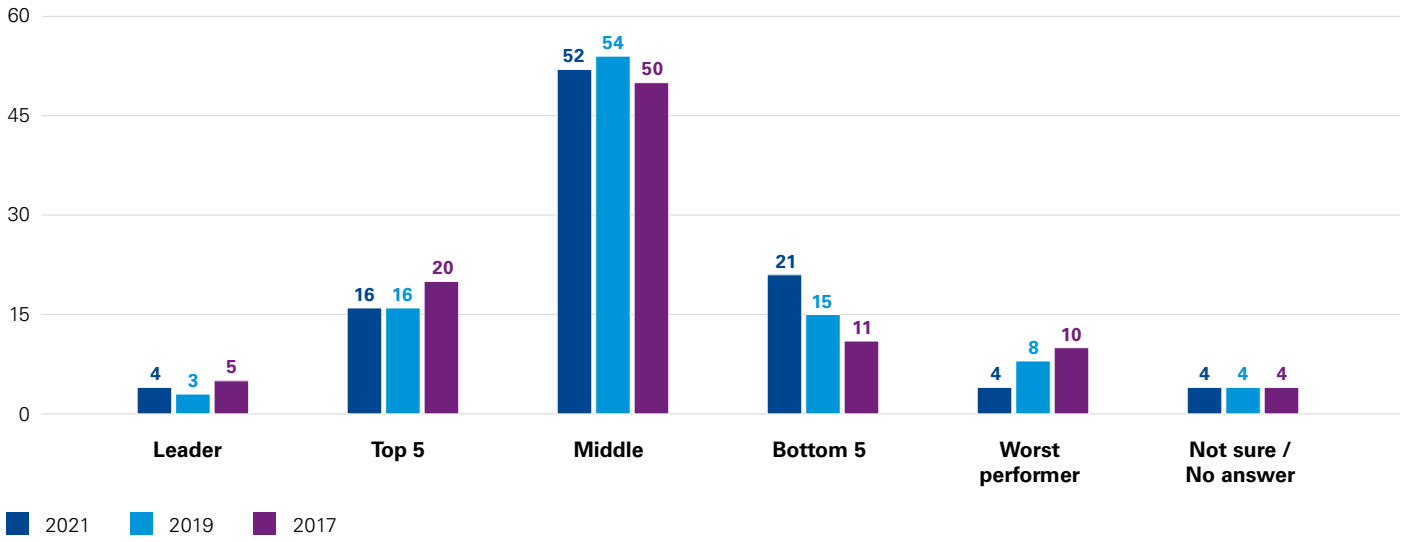
*Source: Eurostat*

## 1.6 High rates of tax and complex tax system

The German tax system – which celebrated its 100-year anniversary in 2020 – received a particularly weak rating in our survey series. This year only 20 percent of the survey participants see Germany as at least one of the Top 5 attractive EU locations in this regard. The acceptance of the German tax system is still low compared to our surveys in 2019 (19%) and 2017 (25%). In 2021, 25 percent of those surveyed even voted the German system one of the Bottom 5 of attractive locations in EU or even the worst performer in this category. Clearly, the Austrian Inbounds questioned are most unhappy with the German tax system as 47% of them classify the German tax system as one of the Bottom 5 in the EU. Only 7% of the Dutch Inbounds rate Germany's tax system as one of the Top 5 in the EU.

[15] The EEG levy is used to finance the expansion of renewable energies and is laid down in the Renewable Energy Sources Act ("Erneuerbare-Energien-Gesetz (EEG)"). All electricity consumers pay the EEG levy via a share of their electricity procurement costs. Exemptions apply to electricity-intensive industries whose electricity consumption is particularly high and which are in international competition; they can receive reductions.

*Figure 16:*
**Assessment of Germany's tax system by surveyed Inbounds**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019), n=529 (2017)*

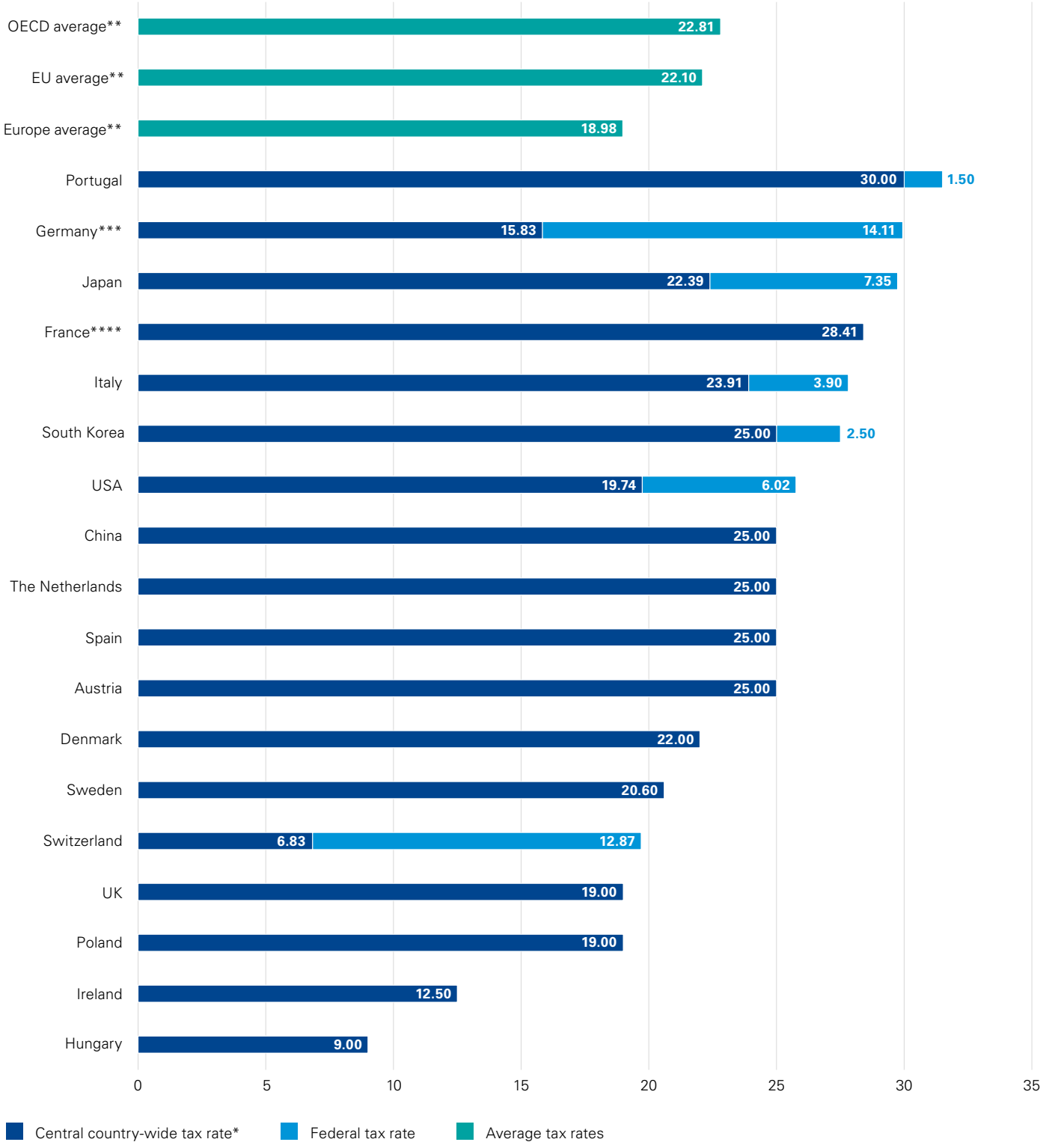
The main reason for the negative viewpoints is that Germany is a high tax rate country by international comparison. Subsidiaries of international corporations in Germany have to live with an average tax of 30%, while the average tax burden for corporations across the EU is only 22.10%, Europe-wide 18.98% and 22.81% for all OECD countries. Figure 17 shows the tax rate burden for corporations by way of international comparison. It also takes into account the fact that in some countries, such as Germany and Italy, in addition to taxes paid to the central government, there are also tax obligations through regional taxation systems. In Germany, for example, the total taxation of corporations consists of a corporation tax (15%), the solidarity surcharge (0.825%) and a different trade tax rate depending on the region. These varying business tax assessment rates that are set by the municipalities generally lead to tax burdens between 7% and 21%. Municipalities that want to offer incentives for business relocation set low assessment rates. Overall, the total corporate tax rate fluctuates between 22.8 percent and 36.8 percent due to the local trade tax rates. The average trade tax rate is around 14 percent, resulting in an overall tax rate for corporations of around 30 percent (see Figure 17).[16]

Within the EU it is Germany and Portugal that hold the unenviable top position in terms of the average total taxation of corporations. This topic is particularly relevant for subsidiaries of foreign corporations, as they often operate in the legal form of a corporation, while German family businesses usually operate in the legal form of a partnership.

In the medium term, the competitive disadvantage that the survey participants expressed through the negative assessment of the German tax system could soften, since a global minimum tax on corporate profits of 15% has just been decided by the G20 finance ministers. The new regulation should apply from 2023. In particular, large multinational corporations, which have previously shifted their profits to countries with low tax rates are targeted. This reduces the gap between high taxation countries like Germany or France and tax havens like Switzerland. In the Swiss canton of Zug, for example, it is possible to reduce the tax burden for multinational corporations to just 9 percent by taking advantage of tax structuring options. Under the new legislation, this would no longer be possible.

[16] Corporate Tax Rates Table; KPMG Research

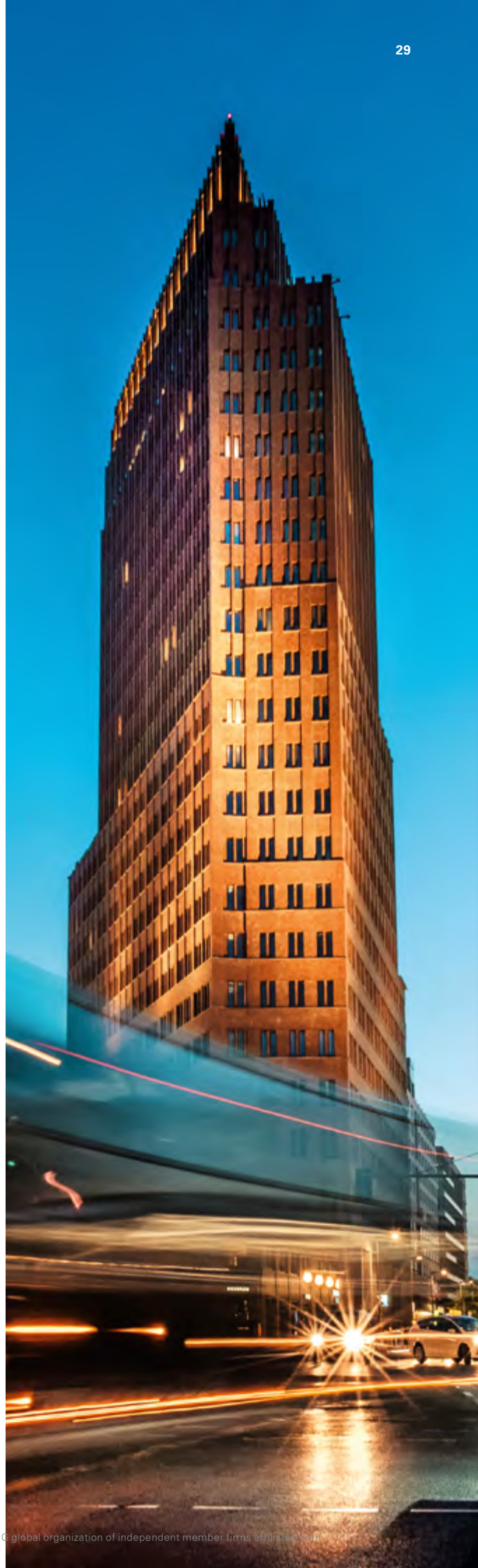
*Figure 17:*
**Statutory corporate income tax rates in 2021 by international comparison (tariffs in percent)**




* *Corporate income tax rate less deductions for subnational taxes*
** *Aggregated corporate income taxation: centrally run and state run*
*** *Average trade tax assessment rate of 442% from 50,000 inhabitants (2019)*
**** *The rate applies on all profits for companies with a turnover of at least 250 million EUR*
*Source: KPMG Research & OECD.Stat, Statutory corporate income tax rate, 2021*

In addition to the tax rate, the tax base also plays an important role in determining the total tax burden. Here German politics has started to offer tax relief on certain R&D activities. Profits that flow into research and development activities (research funding) are tax-exempt as per the federal government's economic stimulus package. For the years 2021–2024, 5.6 billion EUR has been earmarked for this purpose (see Section 3.4).

In our estimation, tax losses resulting from omitted taxes on R&D activities should be compensated for in the long term by additional income from the R&D activities stimulated by this incentive package. The Institute of the German Economy's simulated calculations show this to be the case.[17] Regardless of the question of the tax issue of R&D expenses, research in the study indicates that reductions in the corporate tax rate of up to 5% – in the case of a highly taxed country such as Germany – would not cause problems as the positive windfalls of tax rate reductions in the form of economic growth, increase in private investment and employment after about 10 years exceed the temporary tax shortfall for the state. The Ifo Institute also supports this hypothesis, assuming as it does that a 5 percent reduction in corporate tax – after an adjustment period – will increase economic output, as well as private household consumption by 3 percent. Employment would rise by 1.4 percent and wages by around 4 percent.[18]



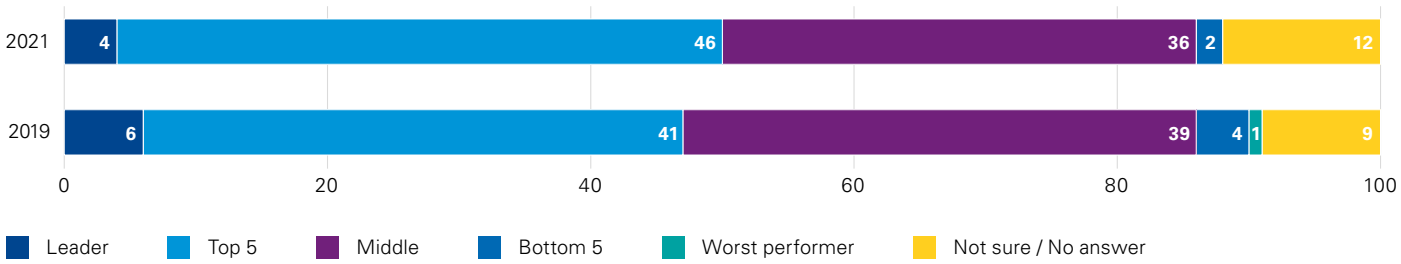
[17] Wirtschaftliche Effekte des BDI-Steuermodells der Zukunft, Institut der deutschen Wirtschaft, 2021

[18] „Wie beeinflussen Steuerentlastungen die wirtschaftliche Entwicklung und das Steueraufkommen? Eine quantitative Analyse mit einem CGE-Modell", ifo Institut, 2021

## 1.7 Foreign investors are welcome but are not a main focus

Germany is perceived by 50% of the respondents as a country that is open to international investors. The number of those who voted Germany at least among the Top 5 EU countries for this location factor has increased by 3 percentage points since our last survey two years ago.

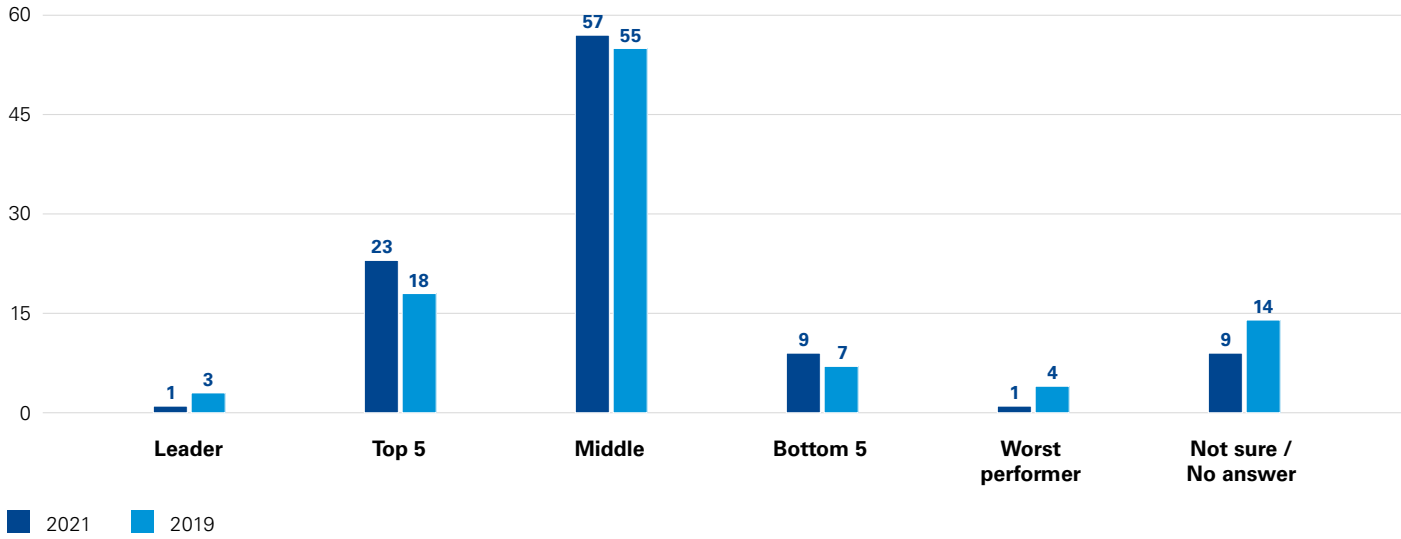
*Figure 18:*
**Assessment of Germany's openness to foreign investors by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019)*

However, there still seems to be a gap between the fundamentally perceived openness towards foreign investors and the specific measures that are actually being taken to promote business sites. This view is backed up by the relatively small 24 percent who count Germany as at least in the Top 5 of EU countries when it comes to providing incentives for establishing companies and promoting expansions.

*Figure 19:*
**Assessment of Germany's promotion and incentivizing of business establishment or expansion by surveyed Inbounds (figures in percent)**



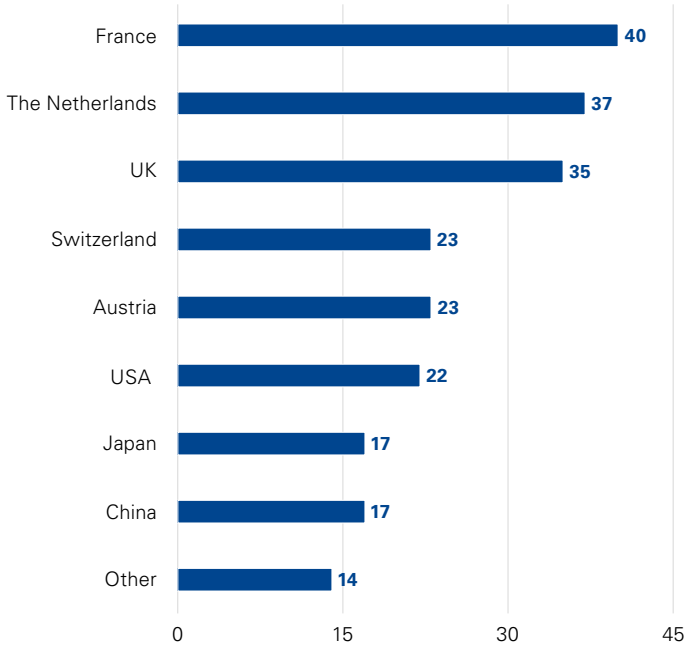

*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019)*

Startupdetector, the industry service from Berlin, in cooperation with Statista, calculated how long it took in 2020 after a notary appointment for startups to be entered and published in the commercial register. The overall results point to stark differences between the speeds of action of local courts in different locations. In some places, startups have to wait several months after the notary appointment before their company is included in the commercial register. In other places the process was completed within a few days. The procedures of drawing up of contracts, submitting them to the court, opening a business account and paying in share capital are still very time-consuming in many places in Germany. Furthermore, a large number of bureaucratic formalities, such as registering new managing directors via notaries, are still not possible via digital channels.

Those interviewees who state that incentives for foreign companies to locate in Germany need improving also take into consideration the recent tightening of foreign trade regulations in Germany. Stricter regulations for investment capital coming from outside the EU were put in place by the authorities to protect Germany's critical infrastructure and future technologies from foreign influence. These measures are also perceived as protectionist.

The results of our survey show that Chinese Inbounds, in particular, are critical of Germany's incentives to establish companies (only 17% see Germany among the Top 5 EU countries).

*Figure 20:*
**Proportion of Inbounds who put Germany's promotion and incentivizing of business establishment and expansion at least among the Top 5 in the EU (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

# Außen-wirtschafts-verordnung

The foreign trade regulation **("Außenwirtschaftsverordnung")** allows – under certain conditions – for the examination and, if necessary, rejection of participations and takeovers by buyers from outside the EU. It was tightened at the end of 2018 and since then the German Ministry of Economic Affairs has been allowed to scrutinize and, if necessary, prohibit foreign investment in certain areas of its critical infrastructure, such as IT, where security is paramount. The threshold for initiating such an audit has been lowered from a 25 percent to a 10 percent stake in a company.

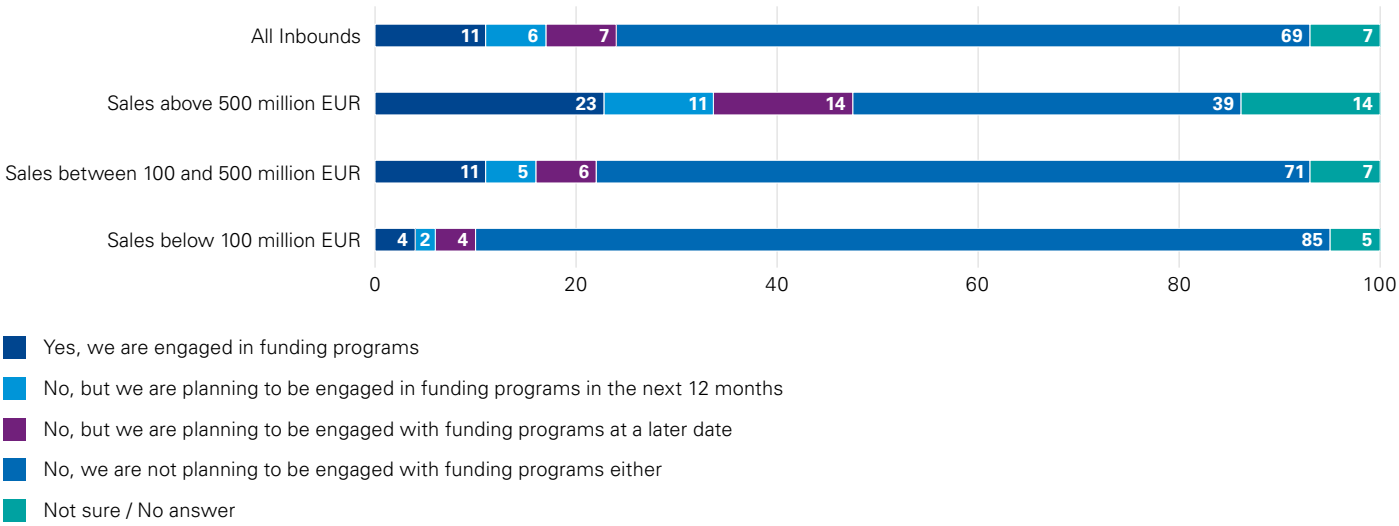
In April 2021, the federal government tightened the ordinance for a second time, so that in future it will be easier to intervene in the potential entry of investors from non-EU countries into German high-tech companies. The core element is new reporting requirements for investment in high-tech and future technologies, as security interests could be affected by these cases. It includes scrutinizing potential investors in artificial intelligence, autonomous driving, robotics, semiconductors, cyber security and aerospace. The reporting obligation applies from 20% participation; it already applies from 10 percent in the case of particularly security-sensitive critical infrastructures.

Investors' perceptions of whether a location welcomes their business activities is also largely determined by the breadth of existing funding opportunities that are open to them. In response to the Corona pandemic, the German federal government launched an investment program with a total volume of 130 billion EUR in 2020. Future areas such as the hydrogen economy, quantum technologies and artificial intelligence are the main targets for this funding. A particularly attractive element of the program is that Germany offers potential investors the possibility of tax research subsidies. In the years 2021–2024 they can take advantage of research grants in the amount of 5.6 billion EUR (we refer to our explanations in Chapters 3.3 and 3.4 in this regard). These programs are accessible for international investors too.

Almost a quarter (24%) of all Inbounds surveyed are already making use of subsidies or are planning to do so in the next 12 months, or at some point after that period, especially those that are larger. Of the companies surveyed with a turnover of more than 500 million EUR, 23 percent are already using the program and 25 percent are planning to in the next 12 months or more. Smaller companies are currently much more hesitant to take advantage of the funding package, although it is definitely also aimed at small and medium-sized companies. It is possible that smaller Inbounds especially are not yet sufficiently informed about whether they are eligible for funding. For example, many companies do not apply because they assume that they do not conduct research and are not entitled to an allowance. The term "research" according to the FZulG, however, is very broad.

*Figure 21:*

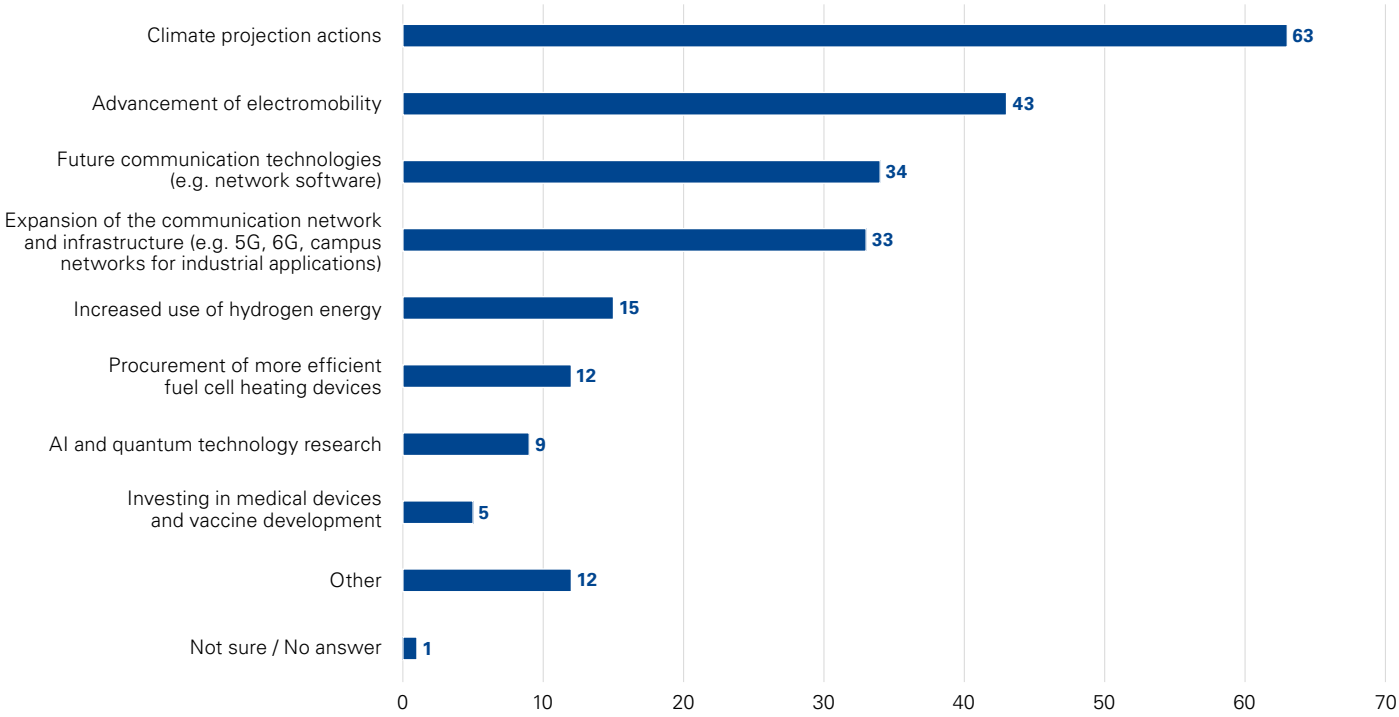
**Does your company use Federal Republic of Germany funding programs, in particular those focused on promoting sustainability? (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (all), n=43 (sales > 500 million EUR), n=269 (sales between 100 and 500 million EUR, n=48 (sales < 100 million EUR)*

In addition, we asked the 24 percent of the surveyed Inbounds who said that they would take advantage of funding measures or plan to do so in the future about the specific projects they are intending to undertake. Almost two-thirds (63%) use, or will use, funding for climate protection measures and 43 percent for funding electric vehicles. This is followed by future communication technologies with 34% and the expansion of communication networks with 33%. Sustainability elements (climate protection and electric vehicles) are, therefore, at the top of the agenda of companies that have applied for funding or would like to do so. The interviewed Inbounds anticipate that the new federal government will give climate protection issues a significantly higher priority than previous governments. The interviewed Inbounds are already preparing for this, not least because questions of sustainable value creation are also becoming a key competition factor.

*Figure 22:*
**Inbounds use of funding according to number of times mentioned (multiple responses possible, figures in percent)**



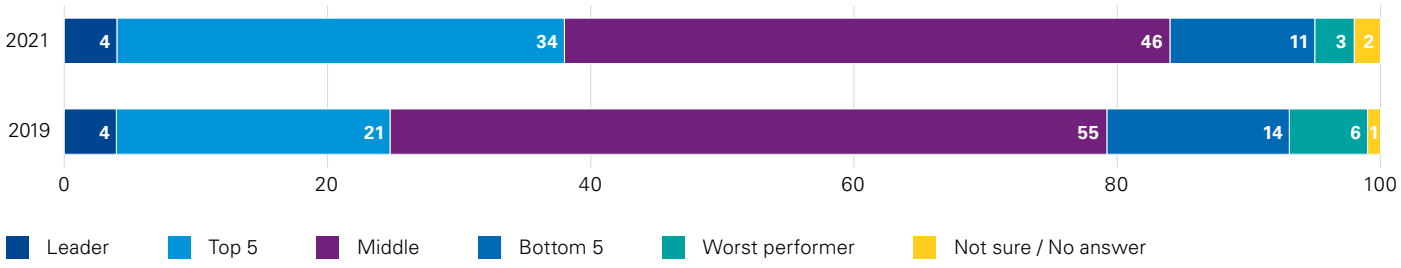

*Source: KPMG in Germany 2021; n=86 (includes all companies that are engaged in funding programs or will be at some point in the future)*

## 1.8 Growing availability of a well-trained workforce

Skilled professionals are one of the critical drivers for foreign subsidiaries in terms of innovation, competitiveness, growth, and employment. As demographic change happens, securing a skilled labor force is becoming one of the more significant challenges for companies.

As per the study participants, Germany has made progress in terms of the availability of skilled workers. Two years ago only 25% gave Germany a good ranking in this area (at least Top 5). Indeed, a fifth of those questioned even saw Germany among the Bottom 5 EU countries for finding suitable personnel. This year, 38% see Germany among the Top 5 EU countries or as the leader, and only 14% see Germany amongst the Bottom 5 or as worst performer.

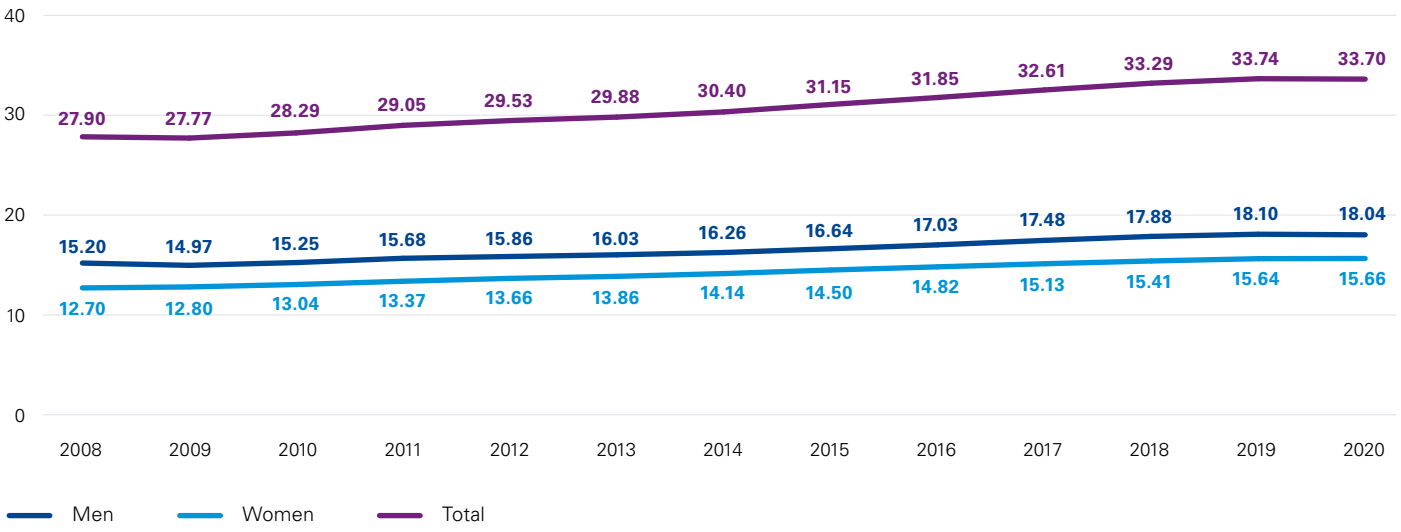
*Figure 23:*
**Assessment of availability of highly qualified and skilled workers in Germany by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2020; n=360 (2020), n=340 (2019)*

In the last 13 years Germany succeeded in increasing its workforce, despite a shrinking pool of people of working age. Since 2008 both women and men have contributed roughly equally to this increase. It is largely linked to labor market reform (the so-called "Agenda 2010") brought in by former Chancellor, Gerhard Schröder. He took effective action against numerous false incentives in the German social security system at the time. As a result, the number of employees subject to social security contributions has risen by more than 6 million people and (long-term) unemployment has more than halved. Agenda 2010 was the starting point for very positive economic development in Germany.

*Figure 24:*
**Number of employees subject to social security contributions in year-on-year comparison (in millions)**




*Source: German Federal Office of Statistics (Destatis), 2021*

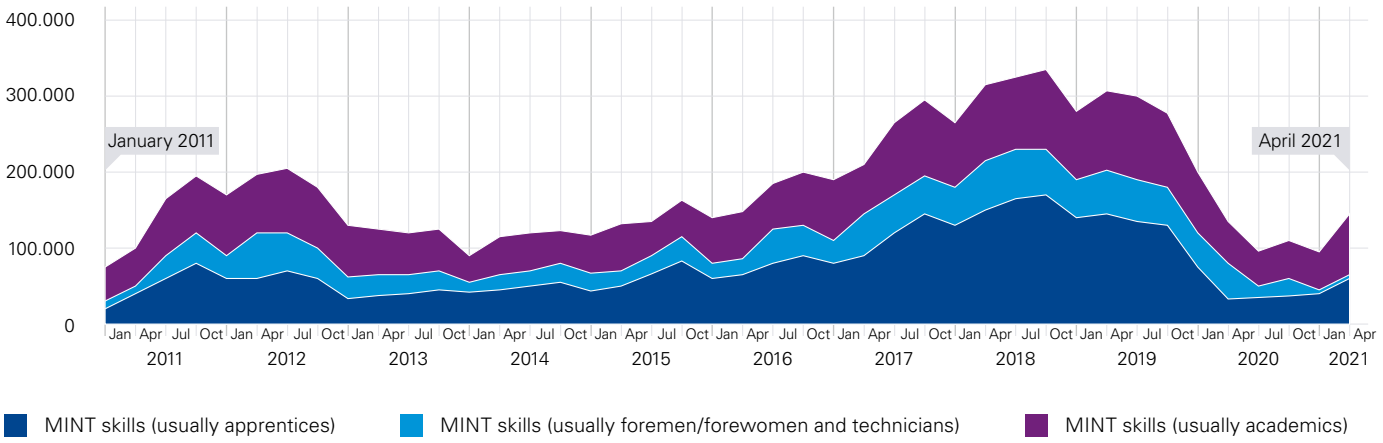
There are, however, two reasons why the availability of qualified skilled workers – if decisive measures are not taken – is likely to decrease significantly. On the one hand, there is the aging of the population and, on the other, the pronounced imbalance between the qualifications sought and the skills on offer. The former is confirmed by the fact that the number of people of working age continues to decline, the latter by the fact that too many young people do not develop the skills that are actually in demand on the labor market.

The Federal Office of Statistics has calculated that if there is no more immigration then the working-age population is expected to decrease by 4 to 6 million by 2035. An annual immigration of 480,000 people would be necessary to compensate for the decrease in the working-age population calculated to happen by 2035. Thus, the shortage of skilled workers threatens to get significantly worse due to the unfavorable demographic structure in Germany.

In addition, the excess demand for MINT[19] graduates in Germany remains high. Increasing digitalization and technological growth are opening up new fields of activity that require highly qualified experts. In the production of regenerative energies, for example, or in biomedicine, or in the research departments of industry, there is a lack of highly qualified academics. The use of data analytics solutions in German companies is also slowed down by the lack of available data scientists and data engineers.

According to figures from the Federal Office of Employment there was a labor gap of 145,100 people for April 2021, aggregated across all 36 MINT occupational categories (Figure 25). With a total of 72,000 people, the MINT expert occupations form the largest bottleneck group, followed by 60,200 people in the MINT skilled worker occupations and 13,000 in the specialist or master and technician occupations segment. If one differentiates the gap according to MINT areas, the biggest bottleneck can be seen in the energy/electricity professions with 48,200, construction professions with 31,000 and IT professions with 29,000.

*Figure 25:*
**MINT skills shortage in Germany from January 2011 to April 2021**




*Source: German Federal Office of Employment (based on calculations by the Institute for Economic Research Cologne), 2021*

To remedy the problem Germany is now trying to recruit foreign skilled workers, for example, through the National MINT Forum. In addition, the new Skilled Workers Immigration Act, which came into force on March 1, 2020, appears to be bearing its first fruits. It is part of the federal government's skilled workers strategy, which is intended to make it much easier for qualified workers from non-EU countries to access the German labor market.

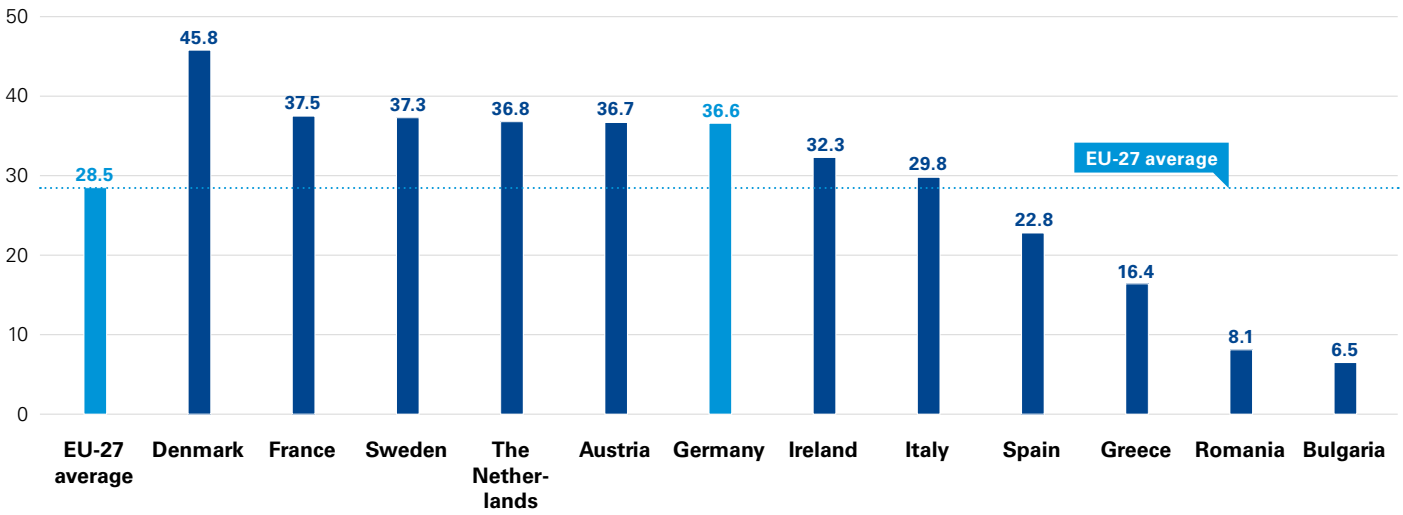
We also asked the survey participants about their priorities with regard to planned investments to expand their business activities (see Section 2.6). 75 percent give a great deal of attention to further digitalization initiatives, underpinned by expanding the workforce to include experts with the right skills (64 percent). It is, therefore, becoming apparent that the demand for (highly) qualified personnel – especially with a MINT background – will continue to rise.

[19] The abbreviation "MINT" stands for mathematics, computer science, natural sciences and technology.

## 1.9 High labor costs with stagnating labor productivity

In addition to the availability of a sufficient number of well-trained specialists, the level of their remuneration also plays an important role for foreign investors: labor costs in Germany are relatively high by international comparison, not only to emerging countries but also to other industrialized countries. This applies, in particular, to additional wage costs in the form of social contributions. According to Eurostat, the cost of a worker in Germany at 36.6 EUR per hour is above the EU average of 28.5 EUR per hour. However, the average price for one hour of work is even higher in the Netherlands, France, Austria and, in particular, the Scandinavian countries.

*Figure 26:*
**Labor cost levels* for selected EU-27 countries in 2020 in EUR/hour**




** For the whole economy (excluding agriculture and public administration); in enterprises with 10 or more employees*
*Source: Eurostat (online data code: lc_lci_lev)*

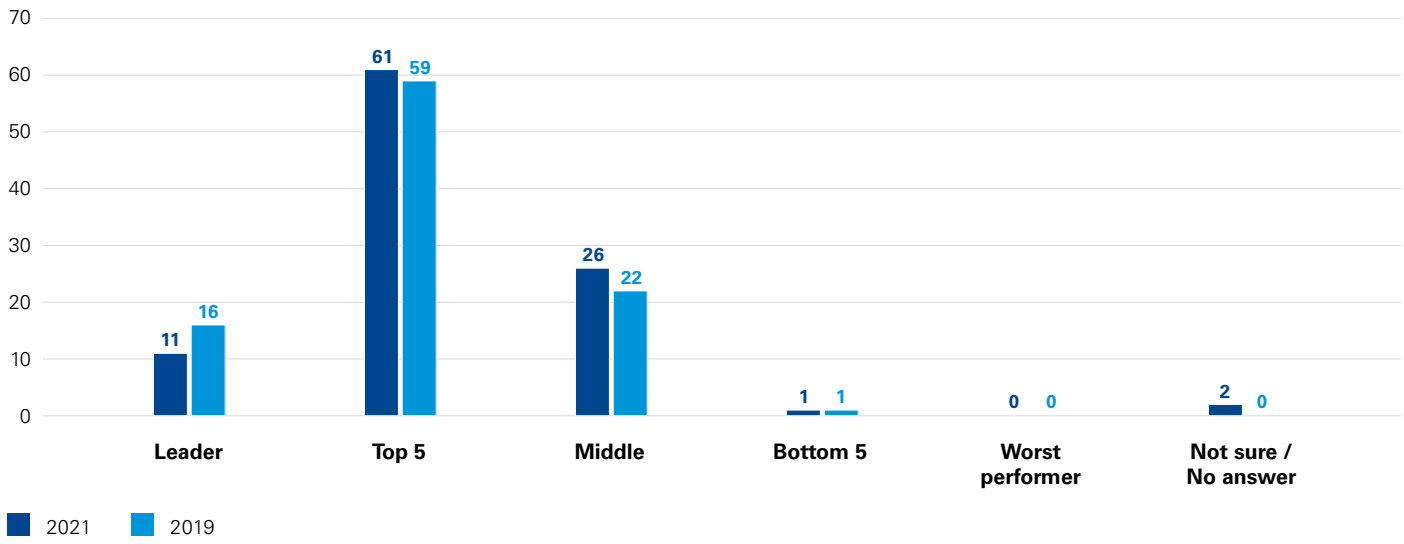
High labor costs are tolerable for an economy as long as they are balanced with high labor productivity. Our survey respondents view the level of labor productivity in Germany in a very positive light. Almost three quarters (72%) of them rank Germany amongst the Top 5 in the EUR or the leader. 11 percent judge Germany as the most productive country among EU member states, and 61 percent rate it at least amongst the Top 5. However, it should be noted that levels have dropped somewhat compared to our survey two years ago.

Labor productivity is regarded as the key measure as to whether the economy of a country is growing in a sustainable manner or not. Figure 28 shows how this important variable has developed in Germany, the EU and other industrialized countries since the beginning of the 21st century. Up to 2017, Germany's labor productivity rose steadily and was always above that of the other big European countries like the UK and France and also above the EU average. Although starting from a much higher level of GDP in 2000 of 58,00 USD per hour compared with the EU average of 46,00 USD per hour, Germany's labor productivity grew at the same rate as the EU average. But between 2017 and 2020 Germany has not experienced any labor productivity growth at all. This probably accounts for why the survey participants rate German labor productivity in 2021 as somewhat poorer than in our last survey. The Advisory Council for the Assessment of Macroeconomic Development (SVR)[20] had already pointed to a slowdown in the development of labor productivity as far back as 2015. A study by DIW Berlin suggests that increasing bureaucratization could be a major reason for issues with labor productivity. Researchers from various disciplines, backed by many theorists on the matter, point to increased state regulation. On the one hand, regulations are necessary to ensure fair competition but on the other, excessive regulation, e.g. in the area of public procurement, can inhibit development.[21]

[20] SVR, Zukunftsfähigkeit in den Mittelpunkt, S. 284, 2015

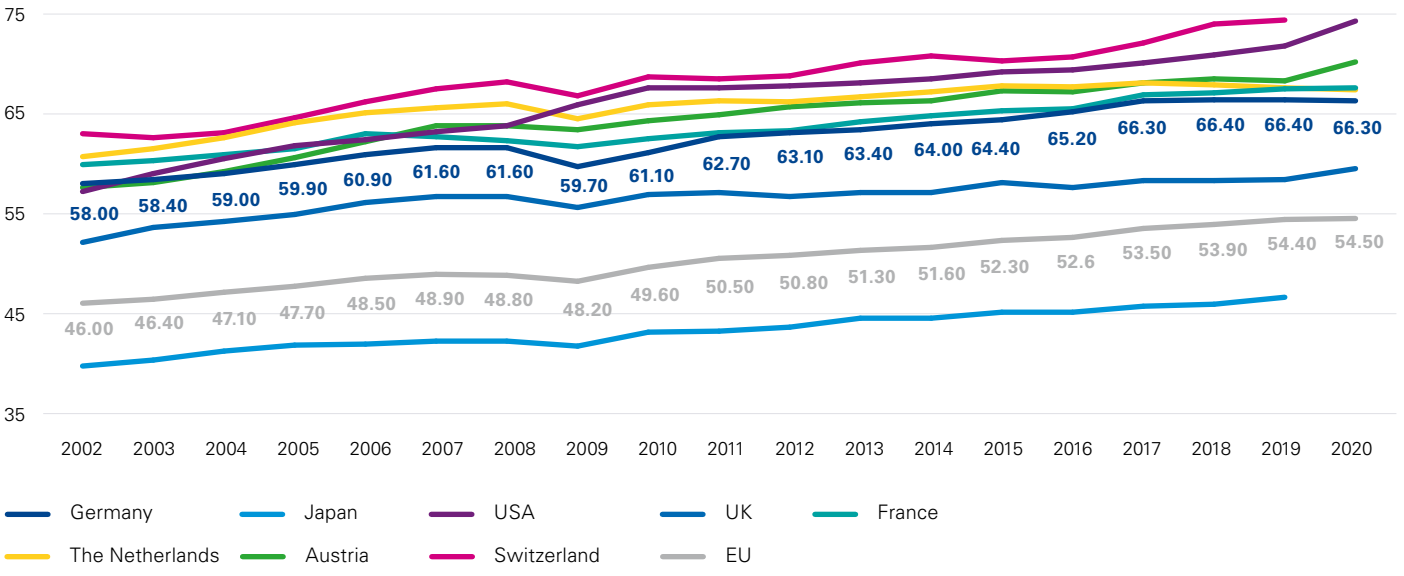
[21] Deutsches Institut für Wirtschaftsforschung (DIW) 2019, Produktivitätswachstum sinkt trotz steigendem Qualifikationsniveau der Erwerbstätigen

*Figure 27:*
**Assessment of Germany's labor productivity by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2020; n=360 (2020), n=340 (2019)*

*Figure 28:*
**GDP per hour worked according to country at 2015 constant prices & respective PPPs[22] (in USD)**



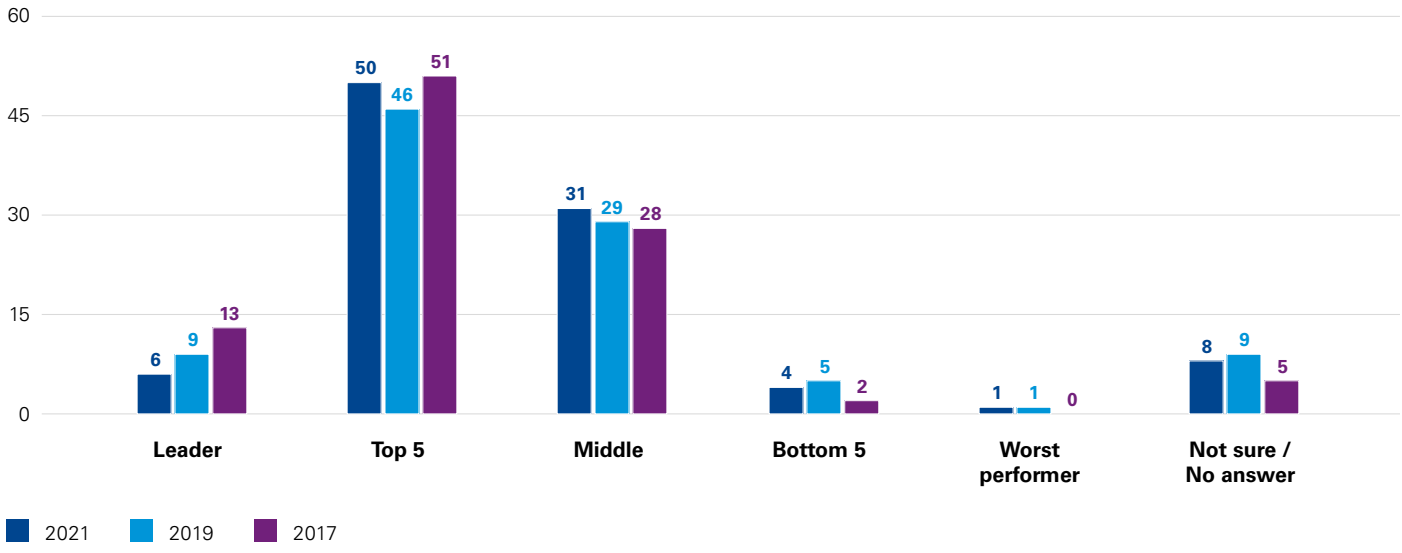

*Source: OECD.Stat, 2021*

[22] PPP: Purchasing Power Parity. A situation in which two currencies have the same purchasing power, i.e. one can purchase the same basket of goods

## 1.10 Measures being taken to keep strong research environment

The quality of the German research landscape is essentially viewed the same as it was in our survey of Inbounds two years ago. Six percent rate it as leading, and for 50 percent it is definitely in the Top 5 in the EU. Thus, the downward trend has not continued that we witnessed two years ago in the survey. The assessment in this year's survey is essentially the same for all interviewed Inbounds regardless of their country of origin. One country stands out, however, as the executives from Japanese Inbounds give Germany an above average rating as a research location. A total of 80 percent of them are of the opinion that the German research landscape is at least one of the Top 5 in the EU.

*Figure 29:*
**Assessment of research environment in Germany by surveyed Inbounds (figures in percent)**



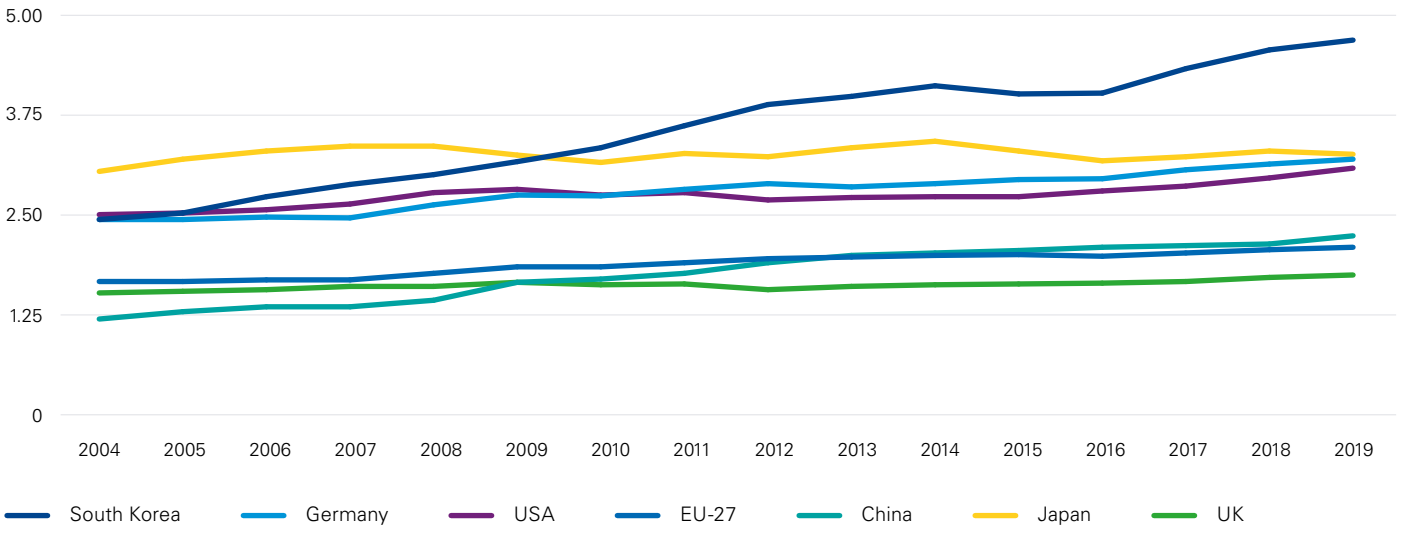

*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019), n=529 (2017)*

A current measure that has certainly increased the attractiveness of German as a research location is tax subsidies for research and development (the Research Allowance Act – FZulG). This is part of the economic future package of the Federal Republic of Germany that has been available since January 1, 2020. It has enhanced the framework for more private investment and innovation, and has in turn strengthened Germany as a business location. In the second Corona Tax Aid Act[23], the maximum base amount for tax research allowance for the period from 2020 to 2026 has been doubled from two million EUR to four million EUR per year. The survey participants' assessments seem to indicate appreciation that Germany has introduced these tax research subsidies for the first time.

When compared with how much other countries are investing in research and development, Germany now scores very well. In 2019, it was 3.18 percent of GDP, while the US spent just under 3.07%. At 2.10 percent, the average for EU countries is well below the German level. Other important EU countries, France (2.19%) and Italy (1.45%) for example, are well below the German level. Even the UK, now a former EU member, only gives over 1.76% of GDP to R&D. However, Asian countries such as Korea and Japan outperform Germany with 4.64% and 3.24% respectively. In Germany, around 66% of R&D expenditure is borne by the private sector itself. As part of the recently adopted "High-Tech Strategy 2025", the federal government is reaffirming its goal to increase spending on research and development in Germany to 3.5 percent of GDP by 2025. A total of 735,584 researchers and developers earned their living in this space in 2019, around 30,000 more than in the previous year.

[23] BGBl from June 30, 2020; Part I No. 31

*Figure 30:*
**Research expenditure on R&D (public & private) for selected countries in relation to GDP (figures in percent)**




*Sources: OECD.Stat, 2021*

On the science side, German companies benefit from the extensive knowledge of its numerous internationally recognized research institutions. These include the Max Planck Society, the Fraunhofer Institute, the Helmholtz Association of German Research Centers, the Gottfried Wilhelm Leibnitz Scientific Association, universities of applied sciences and numerous other internationally renowned universities. Until the beginning of 2020, however, Germany was one of the five OECD countries out of 36 that did not subsidize research and development through taxation. This has been remedied with the Research Allowance Act outlined in Chapter 3.4.

A study by the Fraunhofer Institute and other institutes[24] underlines how much Germany's future prosperity depends on current research activities. According to the study the increase in R&D expenditure offered by the federal government will increase the level to 3.5% of GDP in 2025, based on a rate of 3.0%, which Germany exceeded for the first time in 2017 (3.05%) – and will lead to additional GDP growth of 1.3%.

At the same time, personnel numbers will increase to 170,000 additional full-time employees. In fact, the figures from the Federal Office of Statistics suggest that the actual effect could possibly be even greater than forecast in the Fraunhofer study. The increase in the R&D rate from 3.05% to 3.18% between 2017 and 2019 alone led to an additional staffing requirement of 50,000 and the actual number of full-time employees rose from around 686,000 to 736,000 during this period.

More investment in research and development is vital in order to increase the attractiveness of Germany as a location for business startups and expansion. The results in this survey regarding the topic of research location show that the survey participants realize the improvement of the situation in this regard.

[24] „Schrittweise Erhöhung der FuE-Quote auf bis zu 3,5 Prozent des BIP – Instrumente und Auswirkungen auf volkswirtschaftliche Kennzahlen"; study by Fraunhofer-Instituts für System- und Innovationsforschung, Economic research and consulting firm Prognos & Leibniz-Zentrums für Europäische Wirtschaftsforschung

## 1.11 Innovative but poor implementation

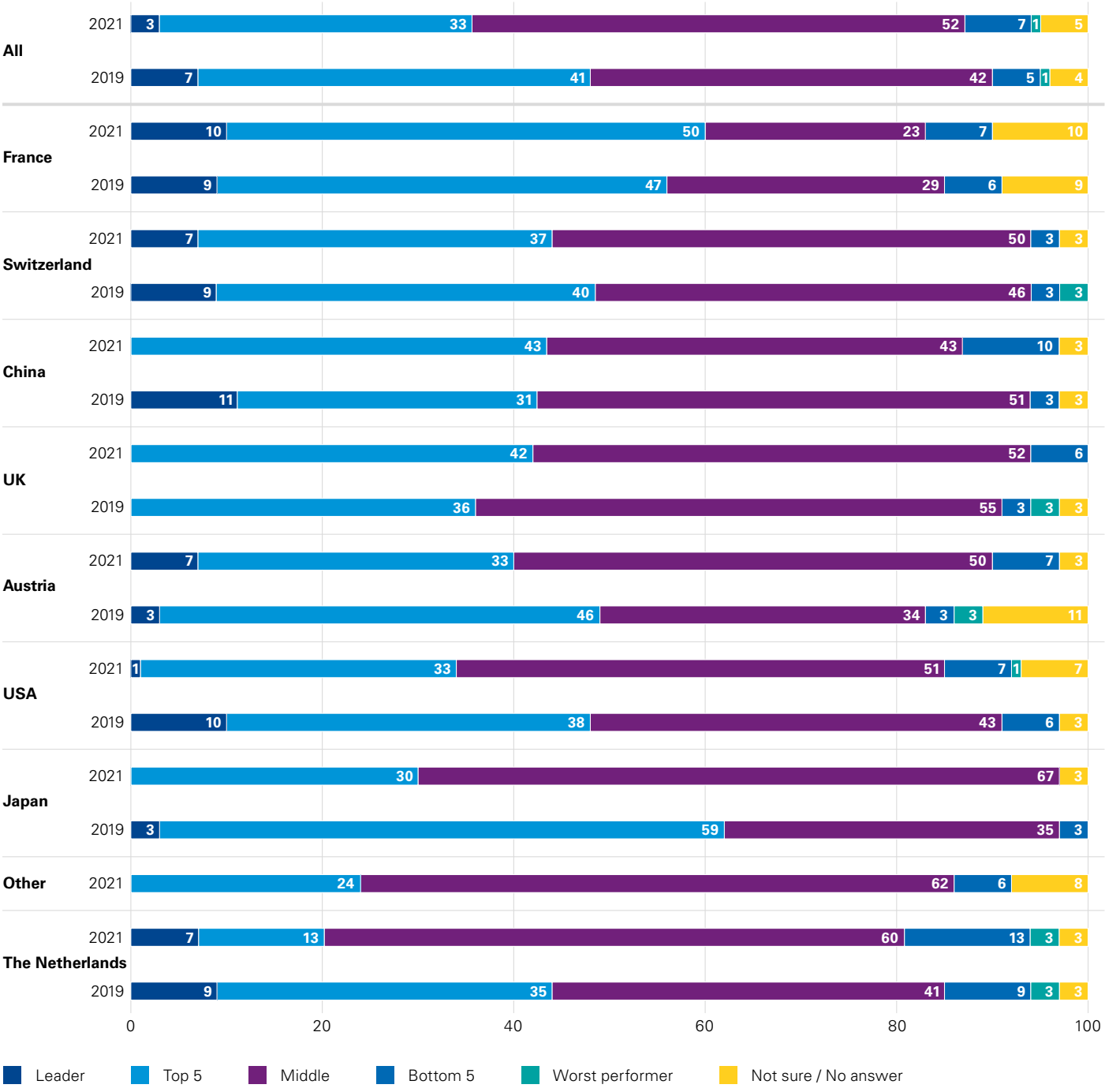
We wanted to know from the interviewed Inbounds whether they perceive Germany to be an environment that promotes innovation. Although Germany continues to achieve top scores with regard to registered patents – an indicator of innovative ability – it is actually losing ground compared to our survey two years ago.

Clearly, international corporations increasingly note obstacles in Germany to the implementation of innovation activities. Two years ago, the proportion of companies that ranked Germany in at least the Top 5 locations in the EU with regards to their ability to innovate was 48%. Now the share has dropped significantly to 36%. There are big differences between the views of Inbounds from different countries. Japanese Inbounds, in particular, stand out from the others with a decrease from 62 percent to 30 percent, and Dutch Inbounds show a decrease from 44 percent to 20 percent, French Inbounds with an increase from 56 percent to 60 percent and British companies with an increase from 36 percent to 42 percent offer a counter-acting, if slight, improvement.

Germany doesn't seem to fail according to Inbounds with regards to innovative creativity. However, a shift towards a rather negative assessment in relation to the incentives that Germany offers to encourage innovation, raises the question as to what obstacles Inbounds have encountered to make them hold this view.

*Figure 31:*

**Assessment of Germany as a location conducive to innovation by surveyed Inbounds (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019)*

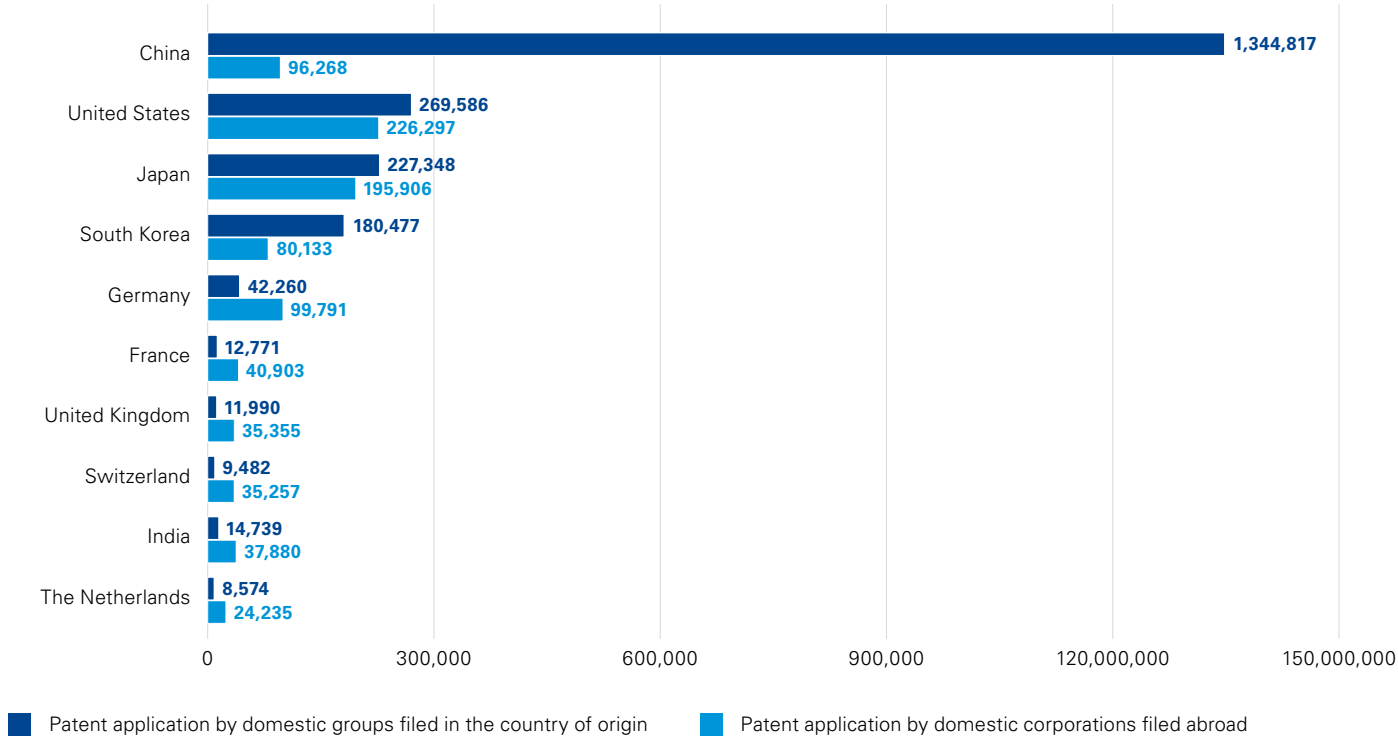
As Figure 32 shows, about 142,000 patent applications were filed by German companies in Germany and abroad. Germany ranks fifth in worldwide patent activity in 2020 after China, the United States, Japan, and South Korea. According to this, the total number of patent applications by German companies is about one tenth of the Chinese level. Of course, when comparing China's patent applications with Germany's, it must be pointed out that China has 15 times as many inhabitants. Nevertheless, these figures make it clear that the international balance of power is shifting with regard to intellectual property and innovation potential of companies and national economies – increasingly to the disadvantage of Europe and in favour of Asia. However, the overall picture also includes the fact that Germany still has great potential to remain a pioneer in some areas in which Germany is traditionally strong: A study by the German Engineering Federation (VDMA), for example, points out that of the 825 start-ups of relevance to mechanical engineering, which develop applications based on artificial intelligence, 133 are based in Germany. This puts Germany in second place behind the USA (243).

Furthermore, according to a study by Bertelsmann, Germany reveals a high level of innovation in the health sector. In the important vaccine technology, Germany is the country with the second most world-class patents. Ten percent of all world-class patents in this field come from Germany. In addition to vaccines, Germany has outstanding expertise in disease research and precision medicine. There is, therefore, no doubt that an abundance of technical know-how exists in Germany. The point is to convert this into marketable product. The potential in Germany is enormous as is, for example, proven by the numerous German technology leaders who have established themselves in the global market, especially in machine, plant, automotive engineering and health care. What is required now, is a culture of experimentation in which, for example, a symbiosis between traditional mechanical engineering and AI and data mining applications can come to the fore.

In the recent past there have been examples that illustrate how Germany – due to political and social despondency – has failed to translate innovative concepts into actual value creation. After

*Figure 32:*

**Patent applications reported by World Intellectual Property Organization (WIPO) in 2020, according to country (numbers refer to patent applications by companies from respective country in country of origin and in foreign countries)**




*Source: World Intellectual Property Indicators 2021, World Intellectual Property Organization, 2021*

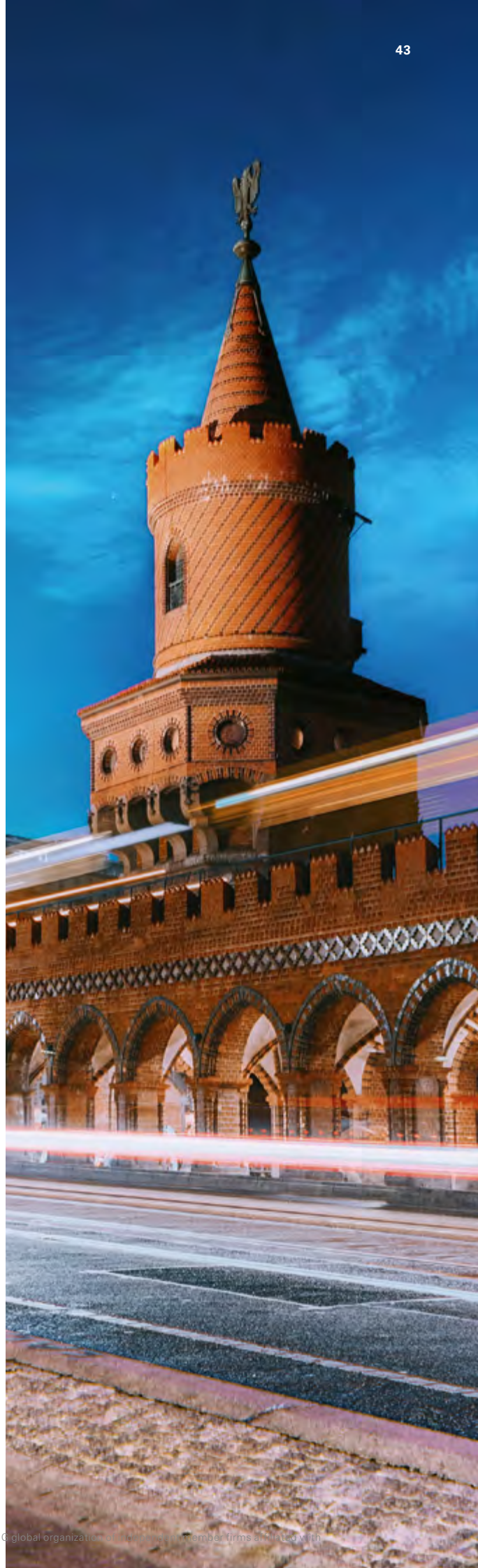
the dot-com bubble burst in Germany at the beginning of the new millennium and the German stock exchange segment Neuer Markt (Nemax50) was shut down, the impression took hold in German politics and society that the Internet economy was completely overhyped, and something from which it was better to keep a financial distance. While Germany subsequently completely slept through the Internet economy, tech giants such as Google, Amazon, Alibaba and Tencent grew in the United States and China. Another example of German slowness to translate innovation into product relates to biotechnology, which has had to deal with a particularly skeptical public. In 1998, after long dispute, what was then Hoechst AG finally received permission to manufacture insulin with biotechnology. The Hessian federal government had refused this permit for 14 years. It was only when German patients simply obtained the genetically engineered preparations from abroad that approval was granted. At this point in time, however, the foreign producers had already taken a lead in the field.

According to the KfW Startup Report 2020, Germany is always at the forefront of modern technologies but always hesitates when it comes to implementing them.[25] On a positive note, as a lesson from the Corona pandemic, the federal government made an additional 10 billion EUR available from March 24, 2021 as a participation fund for future technologies ("future fund"). In particular, startups in the growth phase with high capital needs will benefit from this action. After all, venture capital is essential if Germany wants to finally bridge the gap between idea creation and production of marketable products. However, there is an urgent need to further increase risk capital in the future fund. It is currently the case that promising German tech startups in their growth phase are primarily listed on the American NASDAQ in order to raise funds to cover their financial needs. The success of BioNTech would probably not have been possible if private investors such as Dietmar Hopp had not believed in the eventual success of their products and covered their massive financing requirements.[26]

In addition to the difficulty in accessing risk capital, which is likely to have become even more pronounced during the pandemic, some of the Inbounds in our study who held negative views on the matter may also have encountered an inflexible legal framework. After all, innovative ideas need to be tried and tested in order to correctly assess their risks and potential. Unnecessary legal complexity discourages those wishing to test their products right from the start of the product journey. In addition, it is important to set incentives that ensure that, for example, the best AI researchers do not continue to emigrate. Excellent research and working conditions at German universities, as well as tax incentives for foreign researchers could enable Germany to upgrade itself as a research and development location.

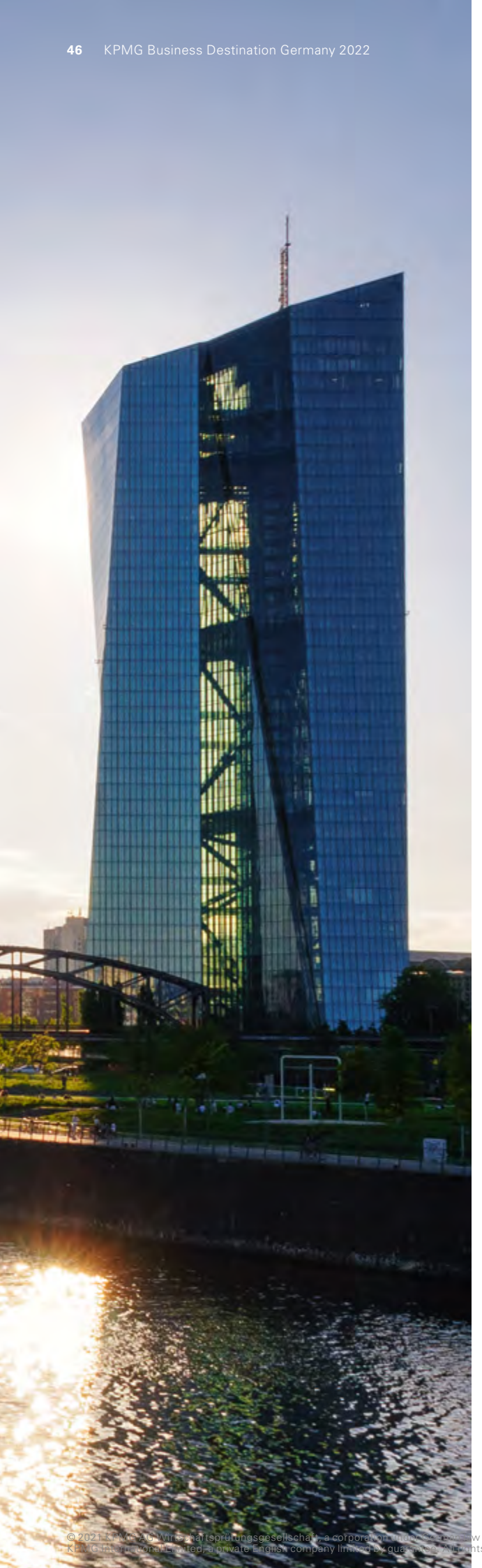
[25] KfW Startup Report 2020

[26] Deutschland braucht ein innovatives Geschäftsmodell, FAZ, August 4, 2021



Chapter 2

# The current economic situation & investment plans of Inbounds in Germany



**Chapter 2:**

## The current economic situation & investment plans of Inbounds in Germany

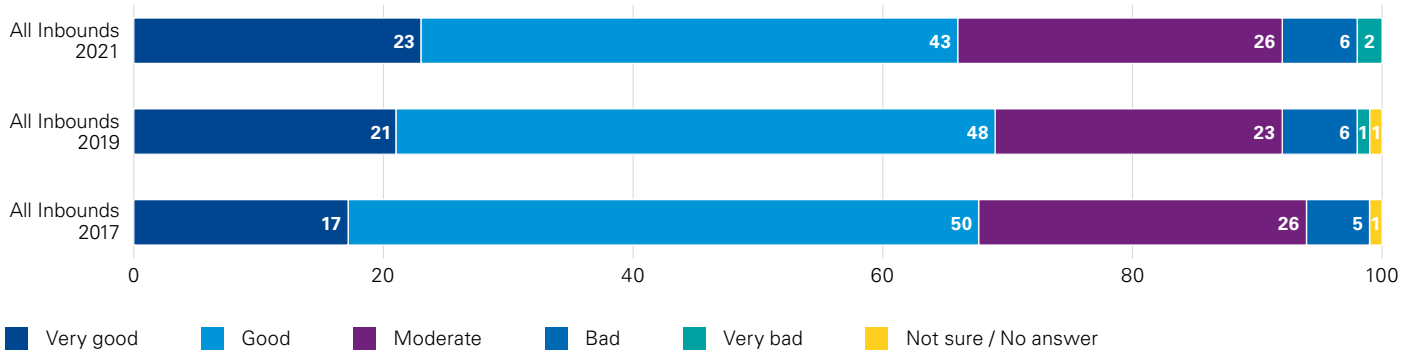
**Key findings:**

- Two thirds of the Inbounds surveyed rate the economic situation in Germany as at least good.
- With a view to the near and medium future, optimism is even more pronounced.
- Expansion investment plans have fallen, whereas M&A and Greenfield investments are expected to grow.
- Germany is preferred as the location for European headquarters, especially by non-EU members.
- The high export share of Inbounds (averaging 35 percent to the entire EU region and a little bit less to non-European markets) underlines the strategic importance of Germany as a location for international corporations.
- Capacity expansion, digitalization and increasing the workforce are top investment priorities.
- A quarter of UK Inbounds and one eighth of US Inbounds increased their investment in Germany as a result of Brexit.

## 2.1 Economic situation and prospects for doing business in Germany

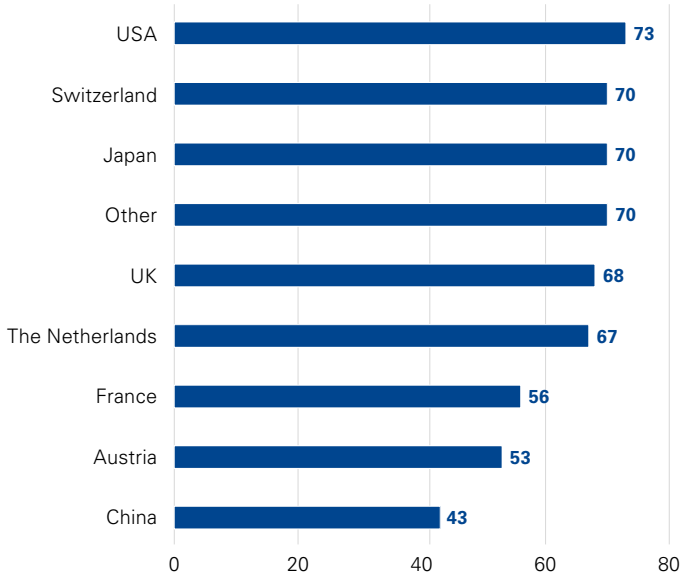
In the meantime, Corona only seems to be having a significant impact on very few Inbounds in Germany. The proportion of those who consider the current economic situation to be at least "good" has decreased marginally compared to 2019 – from 69% to 66% – but the proportion of those who describe their situation as "very good" is slightly up from 21% to 23%. So, two thirds of the subsidiaries of foreign corporations rate their economic situation in Germany as at least "good", even though the pandemic has not yet completely abated. In 2020 only very few economic experts would have predicted such a positive development. The course seems to have been set for a smooth transition to the "New Reality" of the post-Corona era. In addition, the optimistic assessments suggest that the economic ties between Germany and its trading partners are essentially still strong and intact.

*Figure 33:*
**Current economic situation of inbounds in 2021, 2019 and 2017 (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (2021), n=340 (2019), n=529 (2017)*

*Figure 34:*
**Economic situation of owen company in Germany according to share of respondents stating that it is at least "good" (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

There are considerable differences in terms of satisfaction with the current economic situation depending on the Inbounds' countries of origin. US Inbounds are most optimistic about their current situation – 7 percentage points above the average of 66 percent. The group of "other" countries comprises those that are not among the main investor countries in Germany. These include Inbounds from Brazil, Denmark, Finland, Greece, India, Italy, Sweden, Spain and South Korea. 70 percent of this group rated the current economic situation of their company in Germany as at least "good". At the other end of the scale are Chinese Inbounds whose optimism is much less pronounced and only 43% of them consider the current economic situation to be "good".

The fact that Chinese Inbounds view their economic situation with much more skepticism than the rest of the Inbounds is understandable; a comprehensive investment agreement between the EU and China is currently on hold and its ratification will not be forthcoming in the near future.

In addition, foreign trade regulation has been tightened several times by the EU and Germany in recent years. These actions aim to give the Ministry of Economic Affairs a veto right on those international groups taking over German companies in certain critical economic areas (see Chapter 1.7). Of course, the regulation is not explicitly directed against individual countries, but it seems obvious that the proposed new instruments are particularly directed at Chinese investors. In recent years, financially strong Chinese companies and investors have repeatedly made headlines with government-subsidized company acquisitions on the European domestic market. Investment controls are now much stricter and are likely to affect more potential buyer companies than before.

In addition, in the recent past there have been more frequent political discussions about whether certain Chinese companies should be partially excluded from the German and European internal markets. The best-known example was the debate over whether and how Hauwei could participate in setting up the 5G infrastructure in Germany.

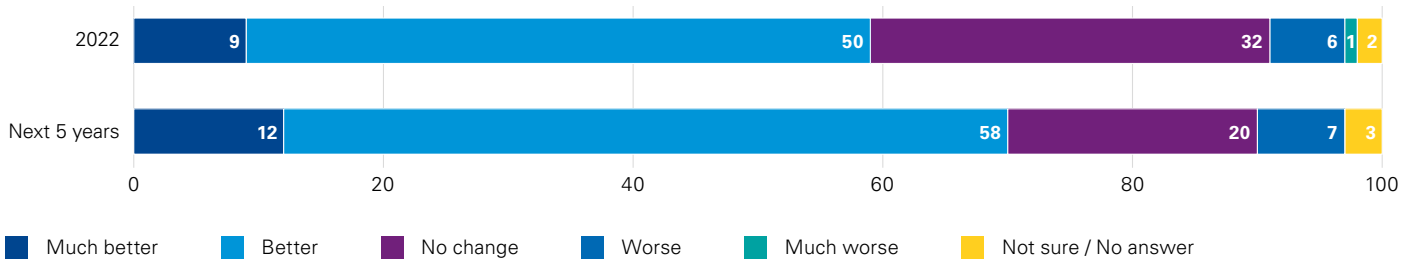
**There is great optimism as the pandemic abates**

In this year's survey, we asked Inbounds for the first time to assess the prospects for the next year (2022) and the next five years, in relation to the current year (2021). We did this to understand whether companies – in anticipation of the pandemic subsiding – assess the future more positively than the present, which they do to a certain degree. Indeed, the further into the future one looks, the greater their optimism. 59% of Inbounds forecast a (significant) improvement in the short term (2022), in the medium term (5 years) it is even higher at 70%. These values are remarkable, especially when taking into consideration that they come on top of the 66% that find the current situation (2021) of their business to be at least "good".

In terms of the near (within 1 year) or medium future (next 5 years), French Inbounds are the most optimistic. 70 percent of them believe that 2022 will bring an improvement compared with 2021, and 77 percent think so for the next five years. As with the assessment of the current situation (43% state at least "good"), the Chinese Inbounds show the greatest reticence in a country comparison. Their view on the short term is "better" for 57%, and 53% for the medium term.

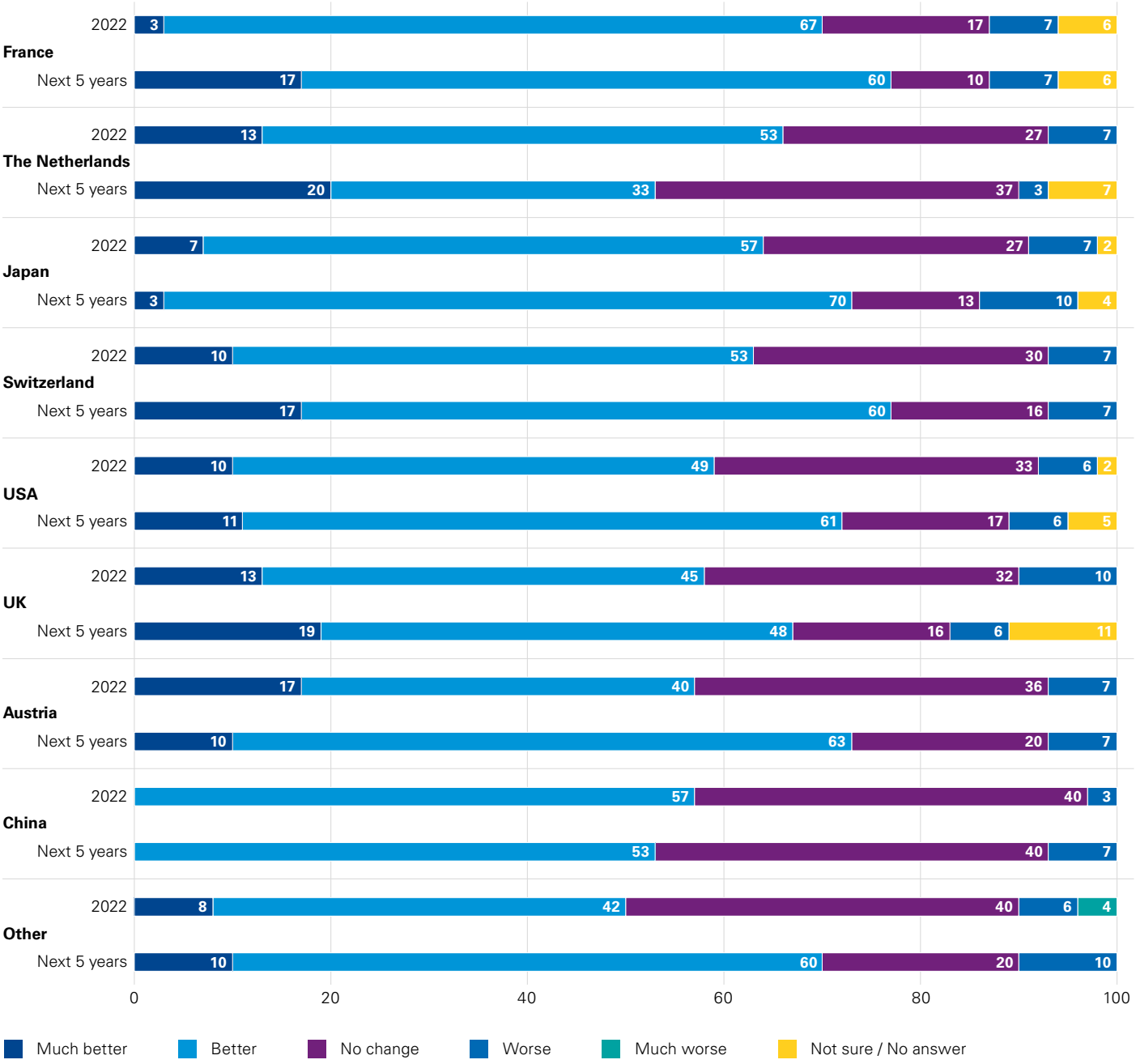
Against this, it is much more difficult to explain the particularly pronounced optimism of Swiss Inbounds. Not only do 70% of them rate the current situation as at least "good", they also look to the future with confidence. 63 percent of them believe that 2022 will at least be "better" than 2021, and 77% even believe this looking at the next 5 years. In our last survey two years ago, it was "only" 71% who were confident about the next few years. Thus, this figure has been improved upon, which is somewhat surprising because shortly before we carried out our survey, a framework agreement between Switzerland and the EU failed at the end of May 2021. The aim of it was to rule business relations between Switzerland and the EU in general, which are currently regulated by a huge number of individual arrangements.

*Figure 35:*
**Prospects for 2022/next 5 years compared to 2021 (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

*Figure 36:*
**Inbounds economic prospects according to country for 2022/next five years compared to 2021 (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

The German-Swiss Chamber of Commerce predicts with the failure to reach terms that for companies in Switzerland, and for those in the EU, market access threatens to become significantly more complex and expensive, since products will have to be certified again, for example, for the respective markets. Although Switzerland will not lose access to the single market, it will become more complicated to enter it. Many Swiss corporations have subsidiaries in Germany and with a trade volume of around 37 billion EUR, Germany is Switzerland's most important trading partner. If from now on the individual arrangements for product categories expire and manufacturers regularly have to go through complicated EU approval processes, it will be expensive and may hamper business. In this respect, the pronounced optimism of Swiss Inbounds raises the question of whether they may not have fully grasped the consequences of the failed regulation or whether economic ties between the Swiss and German economic areas are so strong that even this event cannot affect confidence.

## 2.2 Use of Germany as location for European headquarters

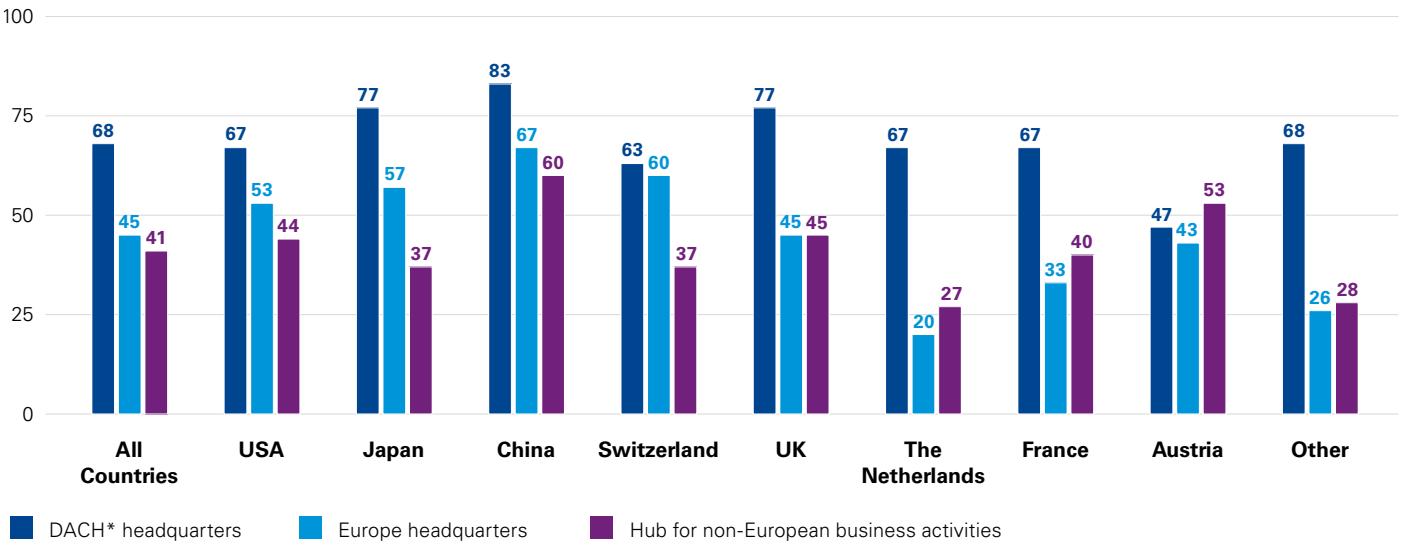
Most of the subsidiaries of foreign corporations in Germany that we surveyed use their location in Germany not just for their activities in Germany but as a basis for their sales in Austria and Switzerland too, i.e. for he German-speaking (DACH) region as a whole. On average, this applies to around three quarters (68 percent) of the Inbounds surveyed, most often to Chinese (83 percent).

In particular, corporations from countries that are not members of the EU – including Switzerland and since 2021 Great Britain – often use their German subsidiary as their European headquarters. Germany offers them access to the entire EU internal market, which is why it makes sense. Mostly it is Chinese (67%), Swiss (60%) and Japanese (57%) groups that use their subsidiary in Germany as their European headquarters. Also, around half of US Inbounds (53%) are used for this purpose. An interesting side note is that in our 2019 survey of the German subsidiaries of British corporations, only 33% stated that they also function as European headquarters. In 2021 this proportion has risen to 45%. This increase may be a consequence of Brexit and the associated difficulties UK companies now have in accessing the EU internal market.

Many of the Inbounds surveyed also control their non-European activities from Germany. Chinese Inbounds (60%), Austrian (53%) and US (44%) are used as hubs for non-European trading activities. The German location as such plays a strategically important role in the structure of many corporations, and is significantly involved in the coordination of cross-border business activities.

On average, the interviewed Inbounds in Germany manage around three (3.3) additional branches in other countries. With regard to the nationality of the parent company, we find that the surveyed British (4.7), French (4.4) and Chinese Inbounds (4.0) have the most subordinate units in other countries.

*Figure 37:*
**Role of Inbounds in Germany for group according to country (figures in percent)**



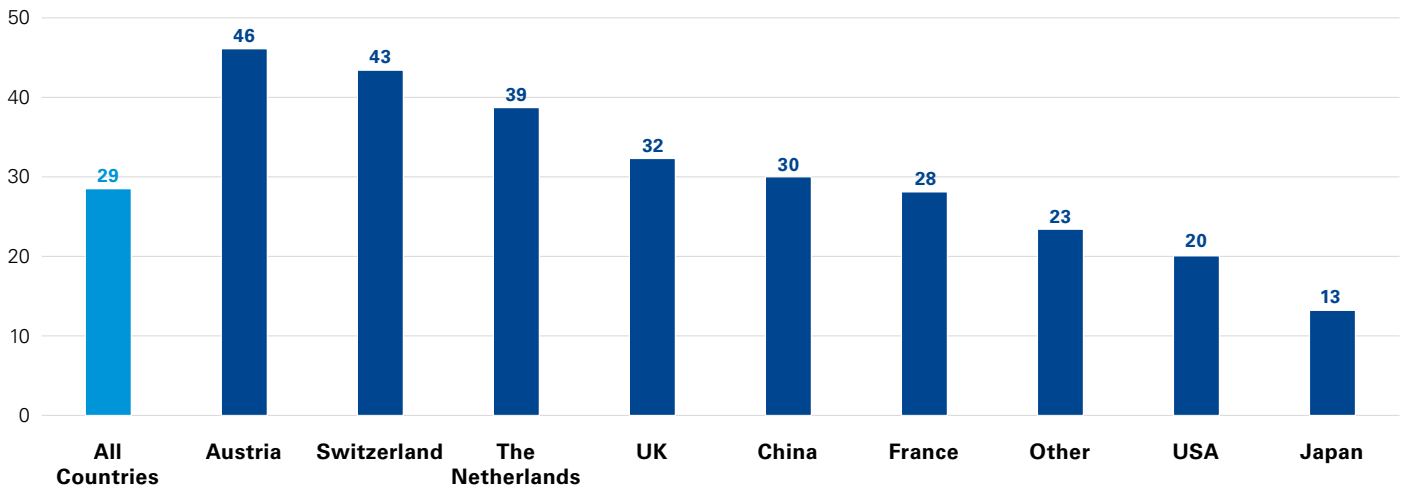

** DACH is an acronym used to address German-speaking countries comprising Germany (D), Austria (A), and Switzerland (CH)*
*Source: KPMG in Germany 2021; n=360*

## 2.3 View of German subsidiaries from group perspective

On average, German subsidiaries of international corporations contribute 29 percent to the total consolidated sales of their global groups. The contribution of the respective Inbound varies significantly, however, depending on the country of origin of the group. The turnover, which Japanese Inbounds in Germany contribute to group turnover is only 13 percent, significantly less than the Austrian (46%), Swiss (43%) and Dutch (39%). It is noticeable that Inbounds from corporate groups that are based on other continents, such as Japanese, American or Chinese, have a smaller share in the group sales from Germany than subsidiaries from European groups. French companies are an exception. Clearly, overseas corporations seek to open locations in Germany only when they are a certain size. Corporations that are regionally closer to Germany, such as Austria, seek to take this step even though they may be smaller in size.

We were also interested in how much independence from their parent company the respective Inbounds had in terms of conducting their own business. 56% describe themselves as rather independent or even very independent. Across all countries of origin it is noticeable that Inbounds with an annual turnover of over 500 million EUR have less independence. Only 9% who fall into this bracket describe themselves as very independent, and 35% as rather independent. In terms of nationality, Chinese Inbounds have the lowest degree of autonomy, with only 43% describing themselves as (somewhat) independent.

*Figure 38:*
**Inbounds in Germany share of group sales according to country (figures in percent)**




*Source: KPMG in Germany 2021; n=360*

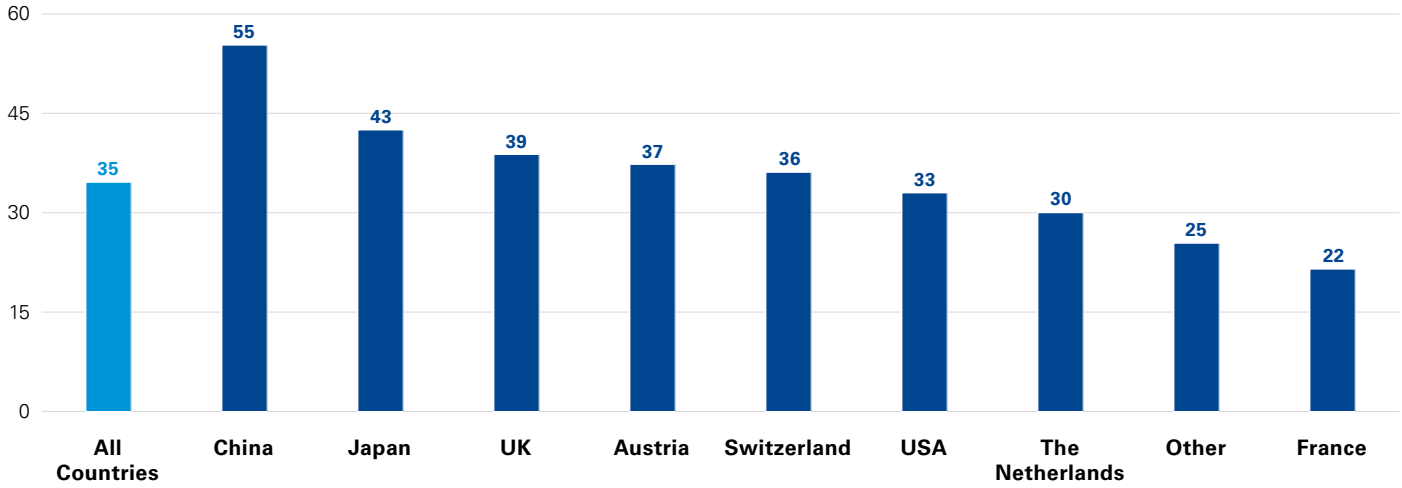
## 2.4 Export quota of Inbounds in Germany

According to our survey results, the export quota of Inbounds in Germany averages around a third (35%). Subsidiaries from Asian countries, in particular, have high export shares: Chinese Inbounds average 55% and Japanese 43%. But companies aligned to a British group also have export quotas of 39%, which is a significant increase compared to 2019 when this share was only 23 percent. This again is an indication that British corporations are having increasingly to relocate their business activities to continental Europe in order to maintain access to the EU internal market following Brexit.

These figures illustrate the relevance of Germany as an export-oriented business location for foreign investors. The export share is obviously particularly high from investors who are not part of the EU, i.e. China, Japan and the UK. However, the export quota of US companies, on the other hand, has fallen by almost 10 percentage points compared to our 2020 edition of Business Destination Germany (at that time it was 41.5 percent). This could be an indication that the tensions regarding customs matters between the EU Commission and the previous US government have put a noticeable dent in the trade in goods between US corporations and the economic bloc of the European Union.

The very large amount of cross-border exports underlines the strategic goal of many international groups in Germany of reaching the entire EU region from Germany, and in some cases non-European markets. Germany is, therefore, very deeply integrated into the entire value chain of many companies.

*Figure 39:*
**Inbounds in Germany export quotas according to group country of origin (figures in percent)**



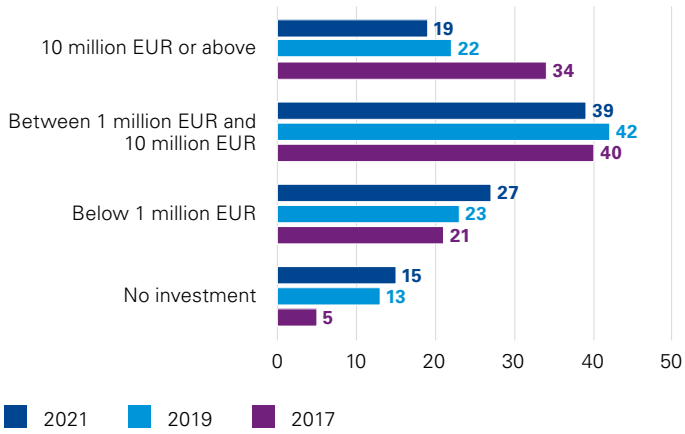

*Source: KPMG in Germany 2021; n=360*

## 2.5 Inbounds investment plans in Germany

As our survey shows, planned investments in Germany are declining overall. In 2017 a third of those surveyed (34%) wanted to invest at least 10 million EUR per year. Two years after that only 22% of companies were planning major projects. Now in 2021 this proportion has fallen ever further to just 19%.

The average planned amount to be invested per year in the coming years was around 8.2 million EUR in 2019; in 2021 it fell to 7.2 million EUR.

*Figure 40:*
**How much does your company plan to invest in Germany per annum in the coming years (figures in percent)**




*Source: KPMG in Germany 2021; n=198 (2021), n=180 (2019) and n=280 (2017) – companies that have provided information*

The propensity to invest in Germany has fallen continuously since our first survey in 2017. The last survey in 2019 was undertaken shortly before the outbreak of the pandemic and the recent survey before the general election in Germany during a time when it was assumed that the main impacts of the pandemic have past. Insofar the repeated deterioration of the investment plans do not seem to be influenced significantly by the pandemic. As a consequence it must be assumed that the attractiveness of Germany as a location for expansion investments has fallen.

As we will see in Chapter 2.6, when asked about their investment plans, the survey participants primarily focused on expansion investment (core business, staff numbers, etc.) in relation to their unit in Germany. Investments of very large sums, such as in M&A deals or the opening of new production sites (Greenfield), are primarily made abroad at group level and were, therefore, not the focus of this question.

This distinction is important because in contrast to the declining planned expansion investment by Inbounds who are already invested in Germany, we have noticed that the volume of entirely new investments through foreign M&A deals in Germany, in particular, is growing massively. The reasons for this include the transformation of central German industries and very favorable financing conditions. In 2021, according to J.P. Morgan and the Bank of America this focus on M&A deals means its volume is likely to exceed the previous record year of 2007.[27]

Greenfield investments also continue to reach a high level (see Chapters 5.5 and 5.6). One reason for the great number of Greenfield investments in Germany over the years is the transformation of numerous German industries, for example, due to the increased importance of sustainability and climate protection. Google, for instance, is investing a billion EUR in data centers in Germany that are expecting to use green electricity. When asked about the reason for the huge investment, Google said it believed Germany was playing a "key role" in the transformation of companies and organizations in terms of types of production methods that are considered sustainable.

**"Here in Germany, valuations are significantly rising for companies in key industries such as SAAS, e-commerce and logistics. Valuations are increasing because these business models are maturing very quickly and have proven to run well under real conditions – especially under the changing customer behavior that the Corona pandemic has caused. However, valuations for early-stage companies are still quite low and deal numbers comparably low because VC investors still prefer investing in safer later stage companies and less risky areas. Venture capital investment is expected to remain robust in Q3 2021, particularly in sectors such as fintech and B2B services. Artificial intelligence, robotics and blockchain-related solutions – including non-fungible tokens – are also likely to be among VC investors' priorities."**

***Tim Dümichen***
*Partner, Tax Services,*
*KPMG in Germany*

[27] Das M&A-Jahr 2021 geht auf Rekordkurs, Börsen-Zeitung, Sept. 9, 2021

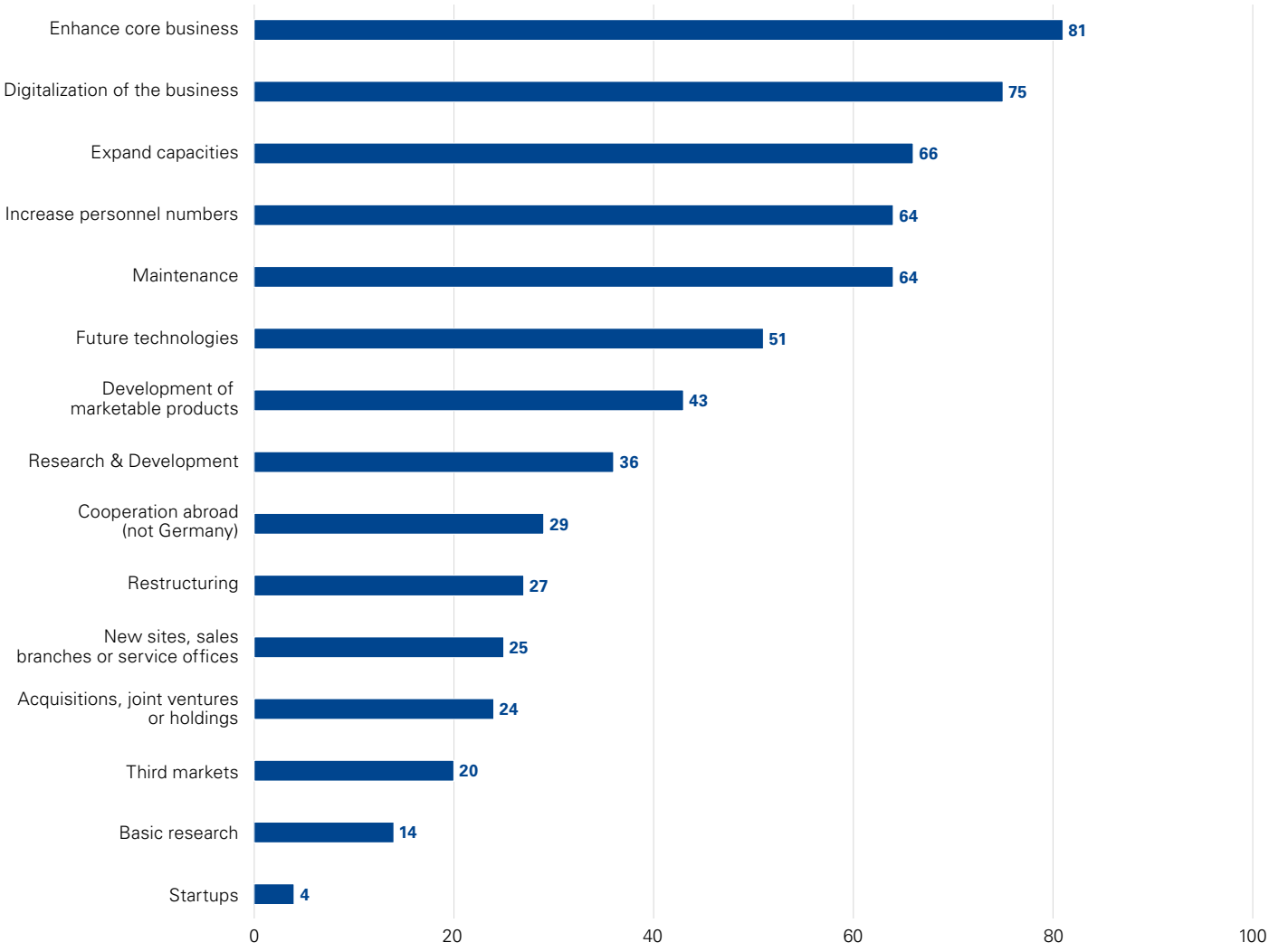
## 2.6 Total focus on digitalization of the business

168 of the 360 Inbounds surveyed who stated a precise annual investment amount, want to use it for the most typical priorities of core business (81%), digitalization of their business (75%), capacity expansion (66%) and for increasing the size of their workforce (64%).

In our 2019 survey, digitalization of the business was only given priority by 52%. Obviously, the awareness of the need for a consistent digitalization strategy grew sharply during the course of the pandemic. Fittingly, the increase in staff is also given high priority by 64 percent of the Inbounds surveyed. After all, the consistent expansion via the digitalization of the business is only possible with a suitably skilled workforce.

Thus, as explained in Chapter 2.5, the investment focus of Inbounds is on expansion investment. The establishment of new locations (25%) or M&A (24%) is rarely mentioned as an investment priority, even by those companies that have stated a specific investment total. Decisions of this kind are, presumably, often made at headquarters in the group's country of origin, so that they may not be fully reflected in the statements of the Germany-based Inbounds.

*Figure 41:*
**Inbounds expected areas of investment in the next 3 years according to frequency of specific response (more than one answer possible, figures in percent)**

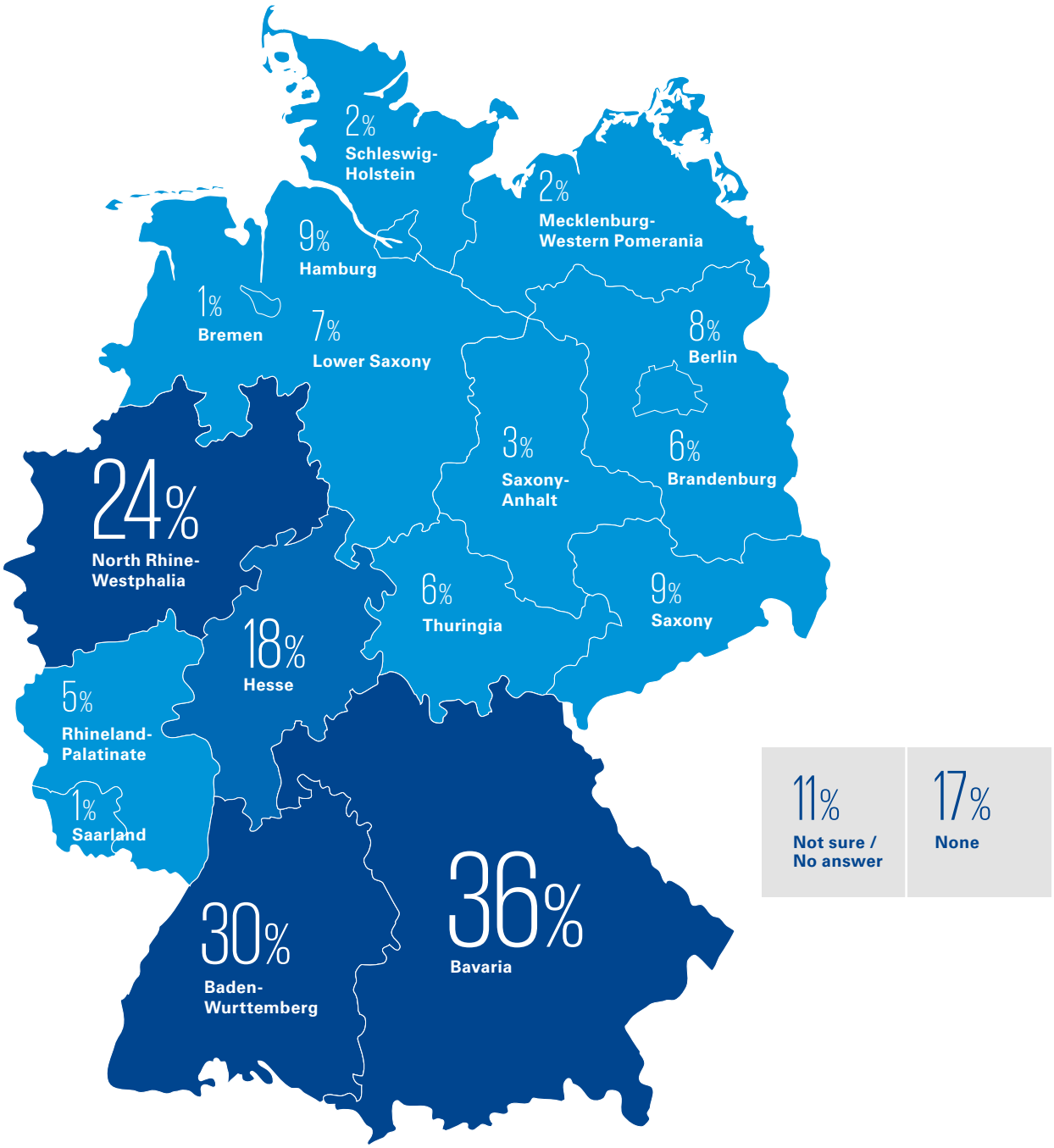



*Source: KPMG in Germany 2021; n=168 (based on Inbounds that have stated a planned investment total)*

## 2.7 Preferred regions in Germany for foreign investors

The study participants provided information about which federal states in the future they could imagine themselves investing in; up to three federal states could be selected. Bavaria is very popular among investors, 36 percent of them chose it as one of the three most popular. This represents an increase of 5 percentage points compared to our 2019 survey. The attractiveness of Baden-Wurttemberg has also increased significantly: 30 percent favor the southern state, an increase of 10 percentage points compared to our last survey. North Rhine-Westphalia (NRW) follows in third place (two years ago it was second) with 24 percent and Hesse with 18 percent.

*Figure 42:*
**Inbounds future investment locations based on Top 3 choices (figures in percent)**



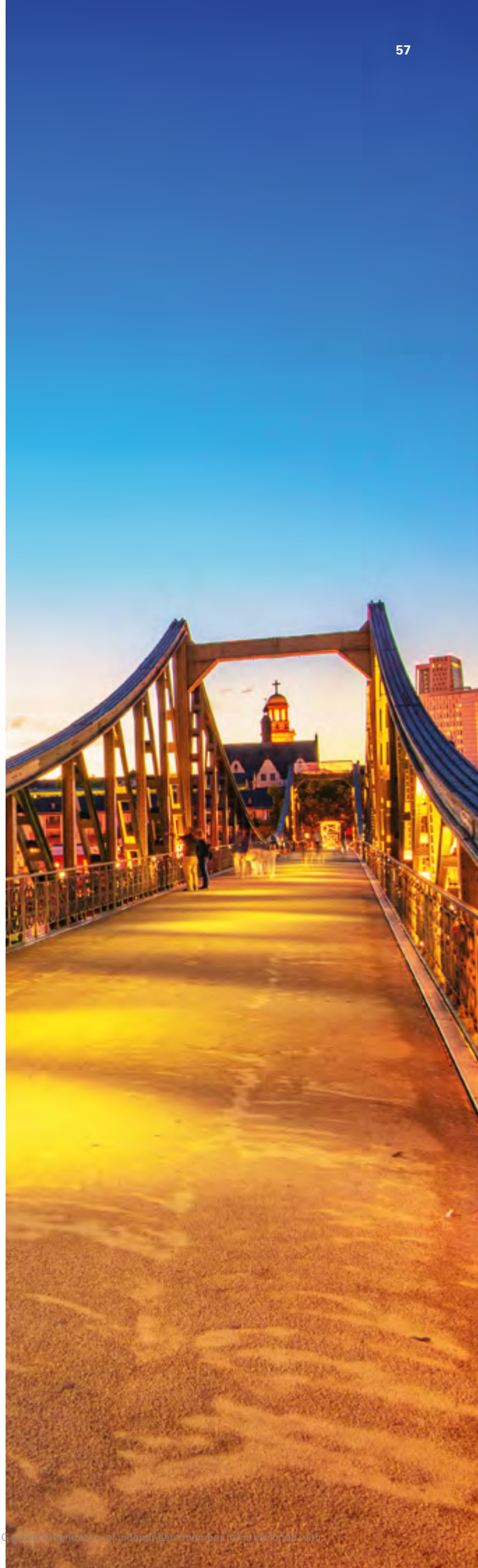

*Source: Business Destination Germany 2020; n=360*

Bavaria is known as an automotive and IT technology powerhouse. Its infrastructure is well developed and it consists mainly of a wide range of mid-sized companies, which operate in various industry sectors. In particular, companies with a parent company in the United Kingdom (58%) could very well imagine investing in this state. Due, to their regional proximity Austrian (40%) and Swiss (37%) Inbounds also value Bavaria.

In Baden-Wurttemberg, too, companies representing British corporations are at the top of those that want to invest there, followed again by the neighboring countries of Switzerland (37%) and Austria (33%).

North Rhine-Westphalia is the most industrialized federal state with by far the largest population. 37 percent of companies from Austria and 33 percent of Dutch companies plan future investments in this state, followed by French firms (30 percent).

As in the past (see Chapter 5.2), states in Eastern Germany are not a primary choice for establishing future locations. Saxony and Berlin are stated as target regions by just 9 and 8 percent of respondents respectively.



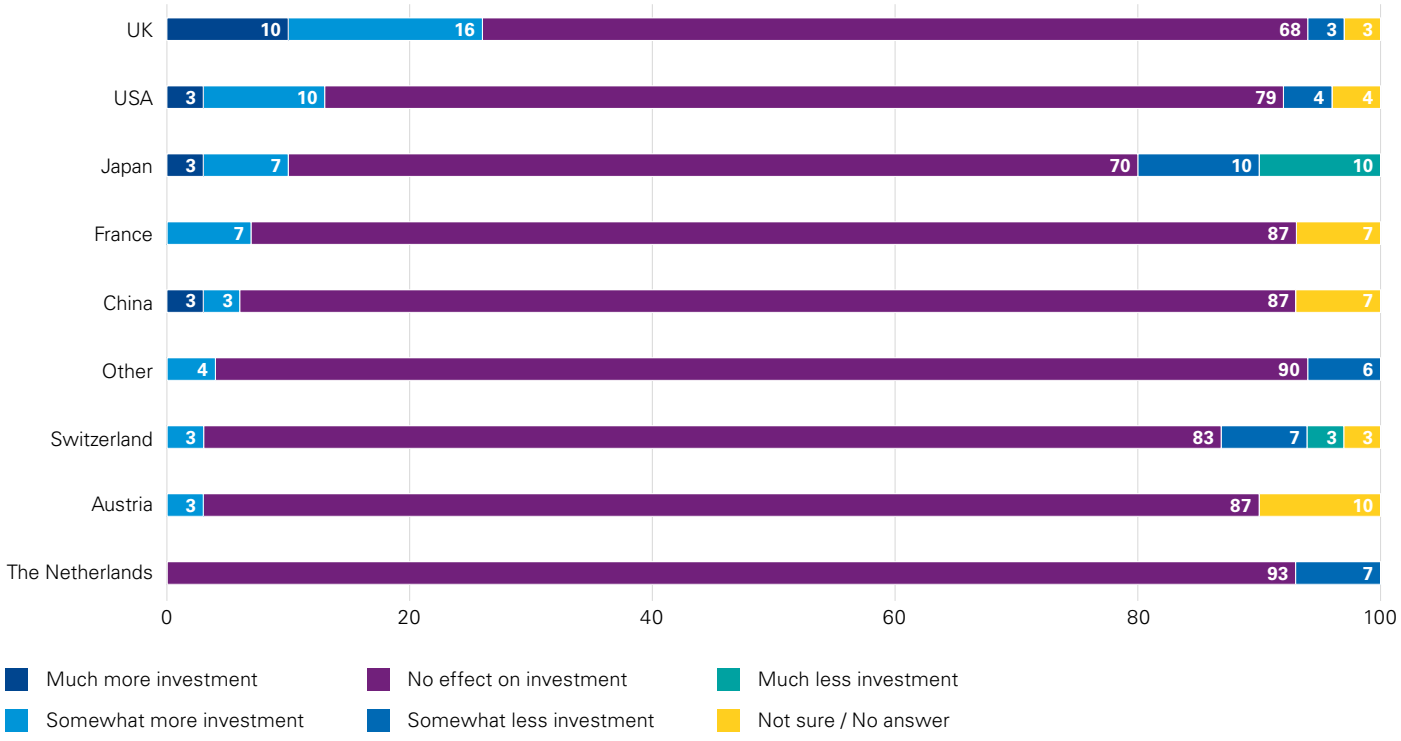
## 2.8 Brexit's effect on investment activity

German-British economic relations have already cooled off following the Brexit referendum. Since the beginning of 2021, the United Kingdom is no longer a member of the European single market. After a transition phase that lasted until the end of 2020, a partnership agreement negotiated between the EU and the United Kingdom came into provisional force on January 1, 2021. With its exit from the EU internal market and the customs union, the UK's Brexit is now finally complete.

We, therefore, wanted to know from the subsidiaries of foreign corporations how Brexit has affected the group's investment activities in Germany.

In fact, over a quarter of the British Inbounds surveyed have already noticed an affect on investment activity in Germany in the first year of their country leaving the EU. 26 percent of them answered in a telephone interview that they had already increased investment activity in Germany. Obviously, it is important for the companies surveyed to relocate business activities to Germany in order to continue to enjoy unfettered access to the EU internal market.

*Figure 43:*
**Brexit's effect on Inbounds group investment activity in Germany according to country (figures in percent)**




*Source: KPMG in Germany 2021; n=360 (All)*

**"On January 1, 2021, the United Kingdom left the European Union. Even with trade agreements all companies are affected by the customs processing of their goods. Necessary registrations, commissioning of a customs broker, as well as adjustments to the shipping document/ IT systems are mandatory in most cases so that the goods do not stop at the border. Furthermore, trade disruptions, driven mainly by the United States, are under review and it looks like that the relationship between the United States and EU will be improved."**

***Gabriel Kurt***
*Partner, Tax, Head of Trade & Customs Germany and EMA, KPMG in Germany*

At least 13 of the US subsidiaries surveyed stated that they had already increased their investment activity in Germany – ranging from small amounts to much bigger sums – as a result of Brexit. Due to the cultural proximity and the traditionally strong political cooperation between the two countries, US corporations have preferred to concentrate on the United Kingdom to organize their European business. However, since the UK's exit from the EU its standing in this regard has been weakened due to its now limited access to the EU internal market.

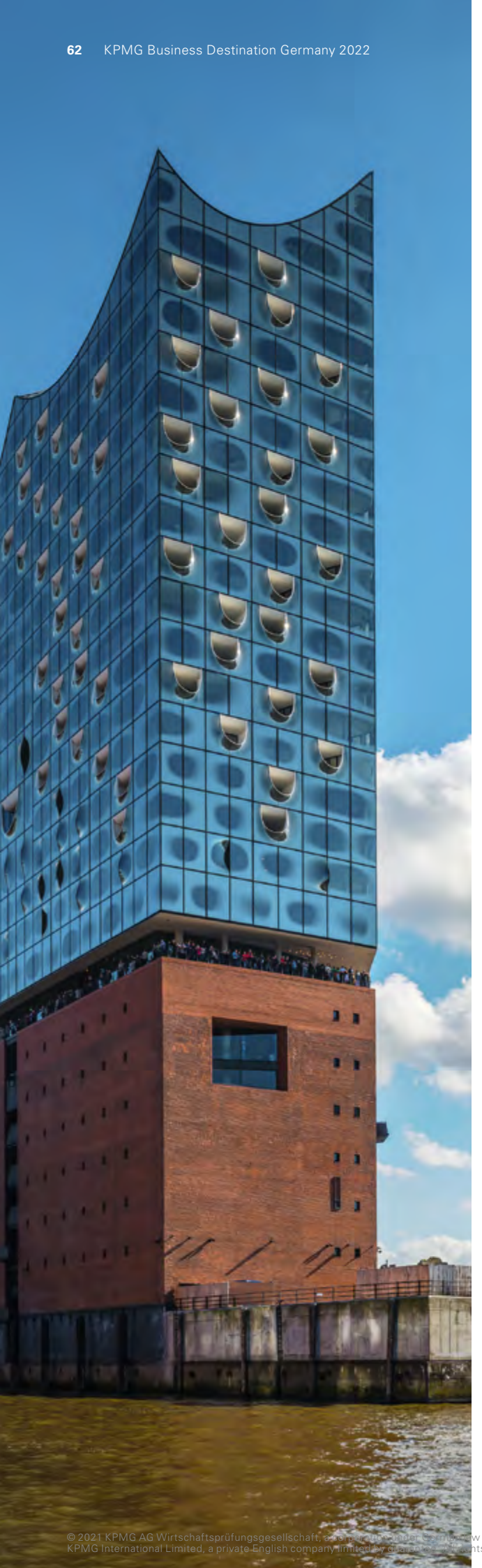
Intel is a recent example of a US company that is adjusting its investment plans for Europe as a result of Brexit. The company, one of the world's largest manufacturers of semiconductors, wants to invest massively in production capacities in Europe in view of the international shortage of semiconductors. As a result, Intel plans to invest up to 95 billion USD in opening and upgrading semiconductor factories in Europe over the next 10 years. Intel's CEO, Pat Gelsinger, made it clear in an interview with the BBC[28] that the UK – had the Brexit not happened – "would have been a site that we would have considered. Post-Brexit … we're looking at EU countries and getting support from the EU." Thus, he clearly rejects the UK as a location in favor of continental Europe, possibly Germany.

A different picture emerges with Japanese Inbounds. A fifth (20%) have reduced their involvement in Germany somewhat or a lot as a result of Brexit, while only 10% have increased their investment in Germany. The reason for this investment change by Japanese companies in Germany could be the new bilateral free trade agreement between Japan and the UK that came into force after the UK left the EU. On the other hand, the ongoing travel restrictions between Japan and the EU caused by the pandemic might mean that Brexit-triggered shifts of their European holding functions from UK to continental Europe may only be delayed but will still occur.

[28] Intel not considering UK chip factory after Brexit, BBC News, October 7, 2021

Chapter 3

# Characteristics of business location Germany



**Chapter 3:**

## Characteristics of business location Germany

**Key findings:**

- Germany with its 83 million inhabitants, a work force of 44.9 million people, a GDP of 3,367 billion EUR in 2020 and an export volume of 1,205 billion EUR in 2020 is the 4th largest economy in the world and the strongest in Europe.
- The transformation of key German industries offers great opportunities – for international investors too.
- 50 billion EUR in funding is available for the industries of the future.

### 3.1 Key economic facts about Germany

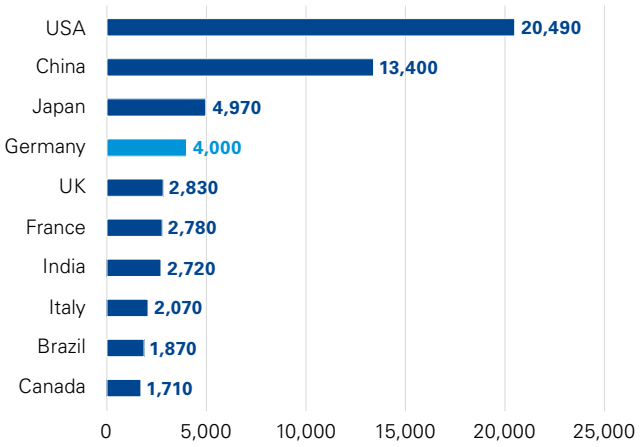
The macroeconomic indicators that follow provide a quick overview of the status of the German economy.

*Figure 44:*
**Germany – Economic Overview (1/2)**

**An economy focused on global growth**

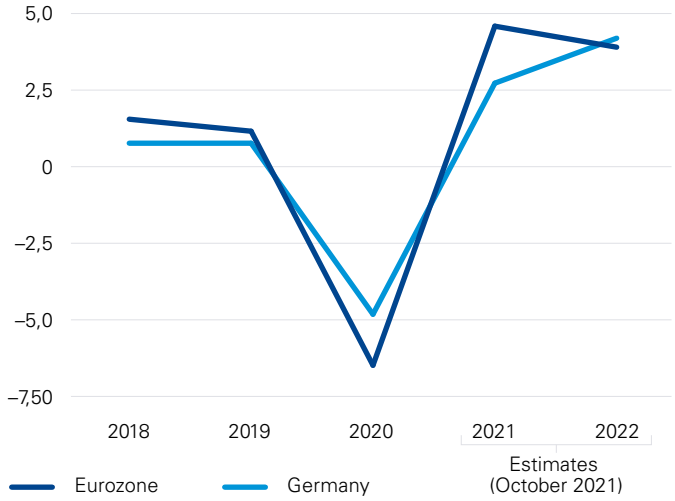
- **4th largest global economy by GDP** and largest market in Europe by GDP and population
- Strong focus on industry and construction with **SMEs being the backbone** of the social market economy and major driving force behind growth and employment
- Foreign direct investment (FDI) flows fell in Germany, by 34 per cent to $36 billion, despite higher cross-border M&As in 2020
- **3rd largest exporter worldwide** after China and the US with leading export goods being machinery, vehicles, chemicals and equipment
- German **exports and imports** increased over the past months due to global recoveries
- Germany exported goods to the value of 104.4 billion EUR and imported goods to the value of 93.8 billion EUR in August 2021. Compared with the same month of the previous year, exports increased by 14.4%, and imports by 18.1% respectively

**Largest economies by real GDP in 2021 (in billion USD)**



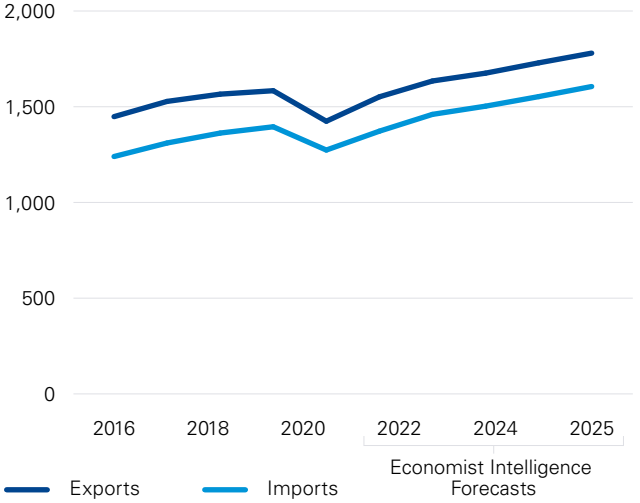

*Source: IMF 2021*

**Real GDP growth (figures in percent)**



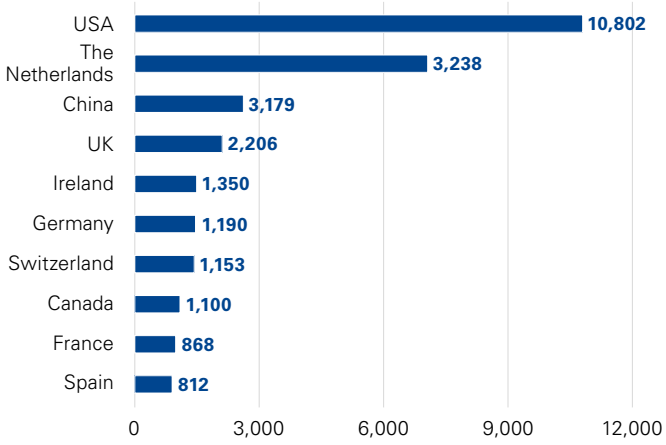

*Source: IMF 2021*

**German foreign trade of goods and services (in billion EUR)**




*Source: EIU, 2021*

**Largest investment destinations in 2020 for FDI inward stock (in billion USD)**



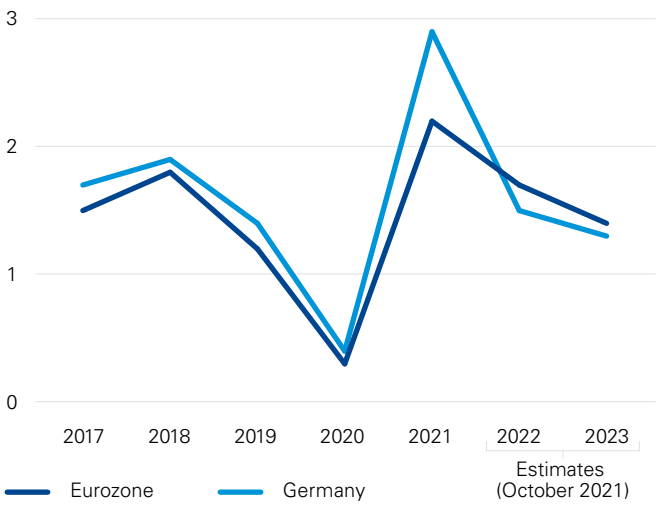

*Source: OECD, 2021*

*Figure 45:*
**Germany – Economic Overview (2/2)**

**A strong foundation promotes competitive advantage**

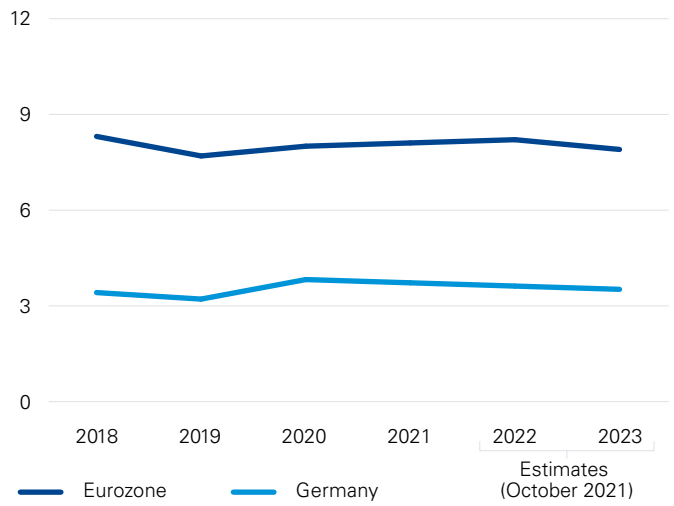
- Eurozone annual **inflation** was 3.0% in August 2021, up from 2.2 % in July 2021. The inflation rate in Germany, measured as the year-on-year change in the consumer price index, was +4.1% in September 2021
- In the EU-27 a total of around 14.5 million citizens were **unemployed** in August 2021. This represents an unemployment rate of 6.8% in the Eurozone. Germany has one of the lowest unemployment rates within the EU-27. 3.6% of the labor force (15- to 74-year-olds) were unemployed in August 2021
- In spite of a cooperative approach between German industry and workers' representatives during wage bargaining, **unit labor costs** increased in Germany more than in the rest of the EU
- Since 2017, **labor productivity** has risen by less on average in Germany than it has in the EU in general

**Annual inflation rate change (figures in percent)**



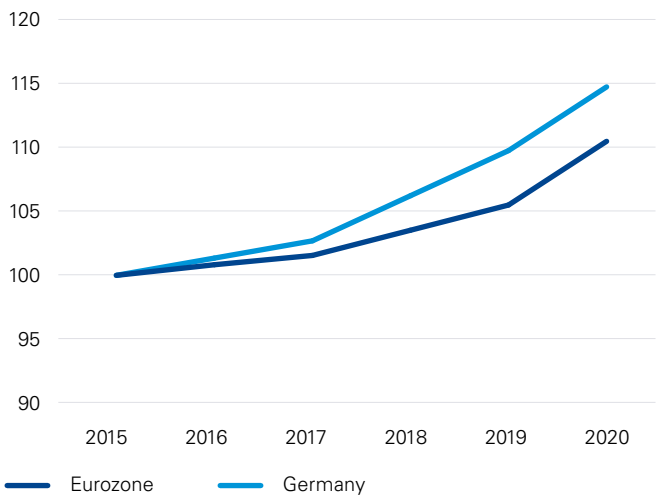

*Source: IMF, 2021*

**Unemployment rate (figures in percent)**



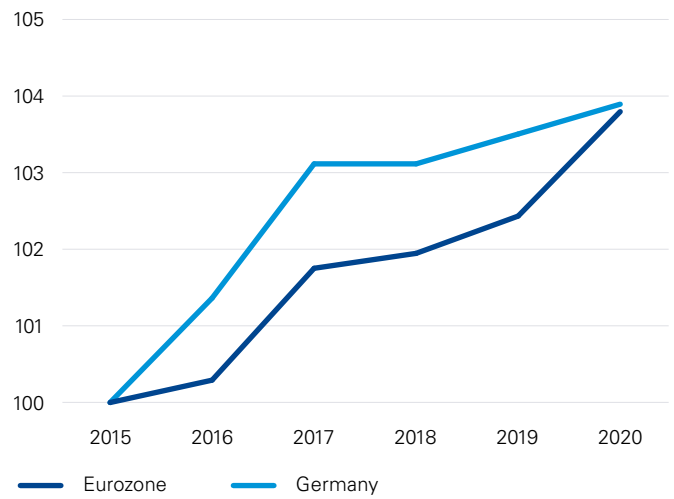

*Source: IMF, 2021*

**Unit labor costs (OECD base 2015=100)**




*Source: OECD, 2021*

**Hourly labor productivity (GDP/hour worked) (OECD base 2015=100)**

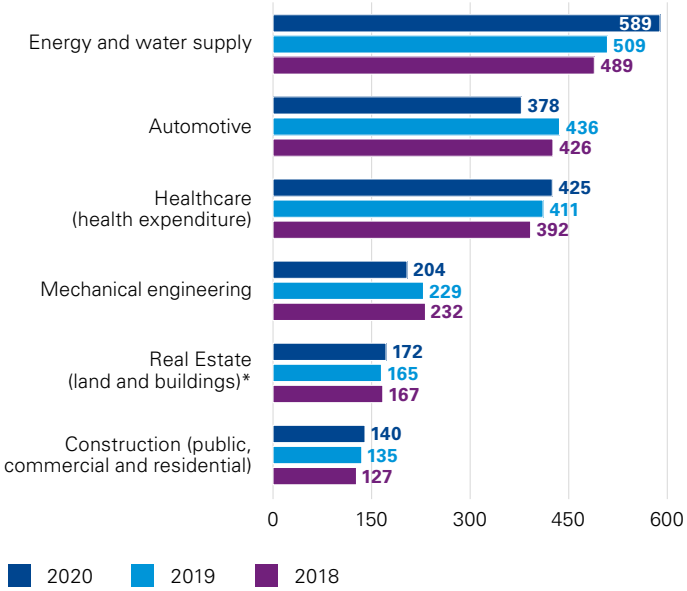



*Source: OECD, 2021*

## 3.2 The transformation of German industries is picking up pace

Digitalization in all areas of life and business processes, the increasing focus on environmental protection and sustainability, and demographic and geopolitical changes are all exerting enormous pressure to adapt on all economies and on the companies within them. In the following section we present the fundamental developments and trends in important German industries. Every change requires investment and potentially opens up new business opportunities for local and international investors alike.

*Figure 46:*
**Sales figures for important industries and markets in Germany 2018–2020 (figures in billion EUR)**




** The Real Estate category includes landlord, broker or intermediary activity in one or more of the following areas: selling, buying, renting real estate or providing other services in connection with real estate*

*Sources: German Federal Office of Statistics; Eurostat; German construction industry ("Das deutsche Baugewerbe")*

### Renewable Energy: turnaround in energy policy and promising hydrogen technology

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". By the government promoting electromobility, the political framework for action is also increasingly expanding into the mobility sector. In this context, renewable energy has a decisive role to play in putting and keeping the world on a sustainable path. It will help 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 onsite and through procurement. However, to make this energy transition a long-term success, storable energy units are needed as an alternative to fossil fuels. The federal government, therefore, announced a national hydrogen strategy in June 2020 and underpinned it with an action plan, funding programs and initiatives.

Transformation is also attracting the notice of newer players, such as asset managers and real estate developers, who are starting to incorporate renewable solutions into their projects. Additionally, German consumers themselves are looking for ways to become 100% renewable in their use of energy and are considering alternative technologies and solutions to address the low-carbon challenge. It is clear that there are a growing number of global corporations who want to be part of, and indeed set the agenda for the German "Energiewende". This trend is reshaping how energy markets will function in the future.

**"For years, the transformation of energy systems and the increasing use of technologies and digitization have determined the agenda of the energy industry. Consumer behavior increasingly determines innovation activity. Growing consumer awareness, smart cities, a sustainable hydrogen economy and electromobility create great opportunities for the energy industry to enter new markets. However, cross-cutting trends such as decarbonization or the electrification of infrastructure are blurring industry boundaries. Germany specifically faces challenges in terms of nuclear and coal fired power generation exits, as well as creating a backup and grid system to secure supply and transport of renewable energies from north to south. Timing and aligned measures will be critical over the next years."**

***Michael Salcher***
*Head of Energy & Natural Resources & Regional Managing Partner East Germany, KPMG in Germany*

**Automotive: customer demand, digitalization and environmental regulations forcing a business model change**

In Germany, the automotive industry is the largest manufacturing sector and by far the most important industry in terms of sales. A complex ecosystem of German and international companies generates sales of around 378 billion EUR and directly employs almost 810,000 people in Germany (2020).

The value chain in the automotive industry is characterized by highly specialized suppliers and solution providers representing a variety of different branches of industry. This includes capital goods and suppliers of materials and parts from among others, the chemical industry, the textile industry, mechanical engineering, the electrical engineering industry and the steel, aluminum and materials industry. Since the automotive industry has been going through a transformation from being solely a hardware manufacturer to also becoming a software provider, the importance of IT services is also steadily growing.

A central operating system with intelligent software is now one of the most important criteria when it comes to buying a new car. The steadily growing number of control units and assistance systems in a car has increased demands on digital infrastructure and requires a rethinking of the electronics concept of a vehicle. In addition, functionalities that are familiar from smartphone use are to be adopted into the car environment. Personalized user profiles, infotainment systems and individually installed apps, plus other software-based functions like "over-the-air updates", i.e. software updates via WLAN or cellular network, will also play a major role in the future, as we move to an era of fully automated and autonomous driving. This development is changing the car market significantly and will have a major impact on the actors involved. It will also require enormous investment.

The steadily growing global competition for customers and market share means automobile producers now face new challenges: the accelerating shift towards electric vehicles, mobility services (Mobility-as-a-Service) and autonomous driving (Mobility Transition) is putting them under great pressure to transform, which at the same time requires extensive effort and money. However, the transformation does open up numerous possibilities for business growth.

Under the premise of creating sustainable mobility there is a need to push to the fore new engines, electrification of the company fleet, Mobility-as-a-Service, micromobility, as well as environmentally-friendly processes and production methods. Above all, it is important to adapt early to changes in customer behavior, regulatory requirements, and technological developments and to implement them with innovative products and service solutions, and by building new ecosystems. In addition, the new mobility of tomorrow should be networked and autonomous.

This paradigm shift in engine technology and the emergence of a new e-mobility ecosystem offers investment opportunities in many areas of the automotive industry. The development of digital business models, sales concepts and software systems, the development and expansion of the charging infrastructure and the research and establishment of new materials, as well as manufacturing and recycling concepts, require enormous investment sums. For international investors transformation offers the opportunity to cooperate with German corporations or with startups and to invest in the entire mobility environment as it expands.

**"There is not one global automotive market anymore – we see a division of the world in various regions such as China, US and Europe. Two dominant factors are present in those regions, namely the customer demand is different (e.g. EV transition) and the regulation (e.g. autonomous driving). The growing influence of industry politics and the availability of resources play a key role. The automotive industry is marked by severe disruption. Customers, investors, but also regulatory requirements and technological developments are the drivers of change. New forms of mobility, digitalization and sustainability create new opportunities for suppliers, OEMs and service providers. For international investors, the potential lies in solutions and cooperation activities that help industry better anticipate customer expectations at an early stage, transform them into innovative product and service solutions and anchor them in the market. The core of the mobility transition also means that innovations are spurred on through cooperation and the entry of companies from outside the industry."**

***Goran Mazar***
*Partner, Head of Automotive,*
*KPMG in Germany*

**Healthcare: demographic challenges and the digitalization push**

Germany, Europe's largest economy, spends around 5,000 EUR a year per inhabitant on health. In 2019, health expenditure in Germany amounted to 411 billion EUR. In 2020, based on existing and updated values, a further increase in health expenditure to 425 billion EUR has been estimated – up 3.5 % on the previous year. An aging society, the increase in life expectancy and medical progress are the main cost drivers. However, it is currently difficult to determine the Corona-related proportion of the estimated health expenditure.

As a high income country, Germany spends a greater share of GDP on health than other comparable countries. Germany's health expenditure accounted for 11.9% of GDP and puts it in 3rd place on the global ranking of the world's largest per capita health spenders. A strong, reliable, and proven health system means that the German healthcare market is attractive to companies from all over the world.

However, in many areas of the healthcare system there is still much more potential for further development to make it even more effective and efficient. The pandemic has also clearly revealed weaknesses in the Germany health system. In an international comparison, as well as in a domestic German industry comparison, the German healthcare system shows a high backlog demand with regard to digitalization. To catch up on this deficit, massive private budgets and the public funding of various digitalization projects is currently being undertaken and that offers foreign investors sustainable investment opportunities in the German healthcare system. Digital transformation also acts as a catalyst for the development of new business models. This will allow for service providers, operators, and the medical technology industry to proactively and successfully shape the new health landscape of the future.

**"The COVID-19 pandemic represents an unprecedented challenge for the healthcare system and the hospital market. Even after the pandemic, economic constraints will not decrease, which gives hospital operators the chance to actively and successfully shape the hospital landscape through transactions and collaborations. Only through cross-sectoral cooperation and the realization of extensive synergies in the primary, secondary and tertiary areas of hospitals can high-quality, local care for patients be ensured in the long term without additional extensive public funds. Digital health applications will thereby increasingly become the new standard of care."**

***Axel Bindewalt***
*Partner, Head of Healthcare,*
*KPMG in Germany*

**Mechanical engineering:**
**Industry 4.0; R&D in new business fields**

Industrial manufacturing is one of the most important sectors of German industry and the country's largest industrial employer. With sales of more than 204 billion EUR and more than one million employees in 2020, the mechanical and plant engineering sector ranked second among all sectors of German industry. In spite of the pandemic-related sharp decline in turnover, Germany has still consolidated its ranking as the 3rd largest machinery producer worldwide. The sector combines future technologies, such as electronics, robotics, 3D printing and software to support industrial manufacturing in its quest to save energy and resources, to make production more effective and to meet regulatory and environmental requirements. Well-trained skilled workers, superior technological know-how, high quality standards in production and an excellent infrastructure for business all create ideal conditions for international investors. Digital transformation, especially, offers far-reaching opportunities due to changing customer needs and newer business models. The experiences from the pandemic with regard to security of supply for companies, plus new regulatory requirements (Supply Chain Act) will lead to a realignments along supply chains and, as a result, offer additional opportunities for international investors.

**"Even before the pandemic, the increasing digitalization of the manufacturing industry and the vision of Industry 4.0 put established business models under continuing review and required new solutions and services. German companies established themselves as leading supplier, as well as a market for virtual systems and extremely efficient production systems. In no other German industry segment are there so many hidden champions and innovative medium-sized companies as there are in the mechanical engineering industry. Their strength is based on building very close customer loyalty and tailoring innovative technologies to specific customer needs. For international investors, collaborative activities, cooperation and joint ventures in R&D, production and marketing create sustainable opportunities to benefit from German know-how, while the German companies open up new markets and areas of application."**

***Ulrich Ackermann***
*Partner, Head of Industrial Manufacturing,*
*M&A Tax, Regional Managing Partner Southwest,*
*KPMG in Germany*

**Real Estate: a safe haven in turbulent times; new remote work environment; ESG and digitalization**

Germany's reputation as a financial safe haven in times of uncertainty in Europe is appealing to investors. It was almost unaffected by the housing crash that hit most of Europe in the 2000s, meaning putting money into property is a solid investment decision. Local forces like availability of housing stock and changing demographics are what mostly affect the market. Since construction rates are low, demand is high and supply is not able to catch up. Mortgage rates are low but they are predicted to rise. Consequently investing right now would be beneficial and in contrast to many European countries, there are no special requirements or restrictions for foreigners interested in buying property in Germany.

The German real estate market as a whole also proved to be very resilient during the Corona pandemic. Its steady growth in 2020 was largely due to the development in the market of private and commercial residential real estate, as well as logistics real estate.

In contrast, major asset classes of non-residential buildings, in particular hotel, retail and office properties, showed mainly declining transaction volumes over the past year. They are unlikely to return to pre-crisis levels in 2021 either. In particular, the effects of home working on the demand for office space cannot yet be fully assessed. There are other negative and positive issues at play. In addition to the question of just how much "remote" work there will be in the future, there is also the issue of reduced demand for space due to decentralized work, and whether education will be in person, in bricks and mortar establishments. However, it is quite possible that companies will use "home office" to reduce real estate costs and that savings will, therefore, be made on a single place of work.

In addition, the pandemic has forced real estate players to really understand the disrupted broader landscape. Technology is changing how office space is being used, and we are likely to see increasingly fluid movement between different locations and flexibility of choice in terms of from which space we wish to conduct our work.

The very positive development on the residential property market continues to be characterized by high demand for living space in Germany's metropolitan areas. In addition to the coveted inner-city locations, the regions surrounding metropolises are also increasingly moving into focus for those seeking accommodation. After the federal election at the end of September 2021, the composition of the coming federal government will be decisive – due to compromises sought in coalition deals – with regard to further regulation of the residential property market (for example, the introduction of a nationwide "rent cap").

**"The real estate industry is packed with potential in today's rapidly changing world, from responsible and sustainable investing to emerging market growth, and from innovative technology solutions to evolving demographics and customer demands. The pandemic has catalyzed and accelerated several ongoing trends: the digitalization and decentralization of work; the transformation of physical retail; and the ecological transformation. The shift towards environmental, social and governance (ESG) considerations is becoming a major task for the real estate industry. Pioneers in ESG transformation can achieve positive returns over the long term, establish themselves in the competition, and strengthen their image and trust, as well as gain a foothold in the new world of work mainly driven by digitalization, demographic change and the dynamic safeguarding of ecological compliance that are becoming central tasks in the office space. These trends are expected to have a critical influence on how real estate markets will fare over the coming years. Understanding their longer-term impacts will be key to future success."**

***Dr. Hans Volkert Volckens***
*Partner, Head of Real Estate,*
*KPMG in Germany*

The country's most important economic centers and real estate markets are Berlin, Cologne, Dusseldorf, Frankfurt, Hamburg, Munich and Stuttgart and their wider metropolitan areas. It is in these seven cities where the most office space is leased, with 50% to 55% of commercial transaction volume being accounted for in these places every year. A highly liquid real estate market means easy entry and exit. The German real estate market is very decentralized with the above stated top locations and a number of liquid markets in secondary cities. The offering is highly diversified (office, retail, industrial, residential, hotel, etc.) and available throughout the country. Germany enjoys a history of price stability and low yield volatility, especially in real estate hubs and is regarded by many institutions as a "safe haven" for investment. A high level of economic, social and political stability means low external risk. The occupier market is characterized by ongoing regional high demand from a wide range of sectors and businesses. From an investor's point of view, the German real estate market is particularly suitable for long-term and risk-averse investment.

**Infrastructure, building & construction: improvement of the poor logistics and digital infrastructures; adapting infrastructure to demographic trends and the new digital environment**

Many international investors praise the infrastructure in Germany and consider it an advantage in location competition. Yet maintaining, expanding and renewing existing infrastructure is a challenging task and requires an investment of billions each year. Changing demographics, ongoing urbanization and an increasing demand for uninterrupted broadband coverage are forcing additional investment in modern transport routes, public transport systems, and as well as in communications and electricity networks. In addition, the "old" imperatives of commercial, residential and industrial building projects are supplemented by other vital civic and social infrastructure projects. The financial restrictions on the public sector and the prospect of cost savings through more efficient management will lead to Public Private Partnership (PPP) projects in the area of public transport infrastructure. The involvement of private investors in infrastructure will continue to gain importance, particularly for the financing of road construction projects.

**"The increasing interconnectedness of transport is leading to new forms of travel. Never before has technological progress driven the development of the transport, building and construction industry so rapidly. The digital transformation of the transport industry and the startup boom of recent years are making the boundaries between transport, mobility and technology more indistinct. The challenges of the future are manifold and range from automation to the use of new drive technologies, lower-emission mobility and increasing transparency in the face of an exponential flood of data, to the testing of new technologies such as augmented reality and blockchain."**

***Dr. Steffen Wagner***
*Partner, Head of Transport & Leisure, KPMG in Germany*

## 3.3 Subsidies and funding for R&D in Germany

### a) Funding of small and medium-sized enterprises (SMEs) based on the German Research Allowance Act

The German Research Allowance Act that was introduced in 2020 is sector, topic and region unspecific, so not only German companies can benefit from the program but Inbounds in Germany too. All unrestricted and restricted taxpayers, as long as they are not exempt from paying taxes, may receive monetary support in the form of a tax deduction – for their eligible projects – that is based on internal personnel costs and external costs. A company may receive funding, regardless of its size, profits and purpose. Only companies facing difficulties fulfilling the EU's General Block Exemption Regulation (GBER) criteria are excluded from funding via this program. The ultimate goal is to support innovation in smaller sized businesses, in order to ensure long-term, sustainable growth for Germany and Europe. SMEs in various industries and markets can apply for funds. Some programs focus on specific niches, while others are rather broader. For the latter, the largest national programs are FZulG (estimated 1.4 billion EUR fund subsidized by law) and ZIM (a 500 million EUR fixed fund).

### a1) Research Allowance Act (FZulG)

On January 1, 2020, a tax research allowance was introduced, which can be claimed by all eligible companies regardless of their profit situation. This tax incentive is an addition to the well-developed project funding landscape and is intended to strengthen Germany as an investment location and stimulate research activities, especially among small and medium-sized companies. The funding relates to research and development projects in the categories of basic research, industrial research and experimental development, and is based on the wage expenditure for researching staff and the contract costs for commissioned projects. On top of this, the costs of the self-researching entrepreneur are taken into account. The funding takes the form of a research allowance and amounts to 25 percent of a maximum assessment base of 2 million EUR. The research allowance will be offset against the next tax assessment and paid out if it exceeds the assessed amount. There is a legal right to the research allowance – provided that all requirements are met.

The Second Corona Tax Aid Act, Section 3 (5) of the Research Allowance Act (FZulG) increased the maximum annual assessment basis from 2 to 4 million EUR for eligible expenses incurred after June 30, 2020 and prior to July 1, 2026. Eligible expenses incurred before July 1, 2020 are against a maximum assessment base of EUR 2 million. If the beneficiary incurs further eligible expenses after June 30, 2020, the maximum assessment base will increase to 4 million EUR for this period, i.e., in 2020 a further eligible expenses amount of up to EUR 2 million can be included in the assessment base.

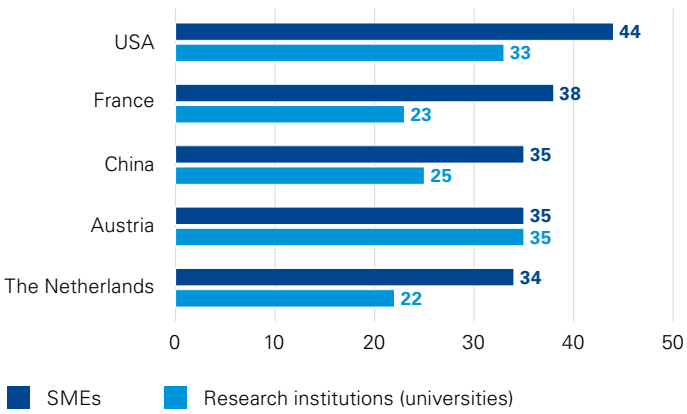
### a2) The ZIM program is particularly relevant for SMEs

The ZIM program (Zentrales Innovationsprogramm Mittelstand) subsidizes research and innovation projects with up to 50% of the project's costs; averaging a payout of 424,000 EUR. The program specifically supports technological innovations for SMEs, and does not target any specific research topics. While firms not based in Germany are ineligible for ZIM, it does allow for a number of cross-border cooperations with international research subsidies, such as "Eureka" and "IraSME", so as to foster and facilitate joint international R&D work. Currently, firms that operate solely in non-EU countries are excluded from these funded joint cooperations due to incompatibilities with their local R&D programs. Some companies, as a result, have set up offices in countries that do have joint funding possibilities in order to overcome these barriers and benefit from German and European subsidies.

International cooperation is highly appreciated by German SMEs. Studies indicate that around 44 percent of all German SMEs participating in ZIM are interested in collaborating with US firms and 35 percent with Chinese companies, which might create impetus for a possible change to the funding structure that will take this into account by making it easier to create funded cooperation with these countries in the future.

Even with single-sided R&D subsidies, engagement with German SMEs can be highly beneficial. 95% of all cooperative networks claim that without ZIM support their project could not have been realized or commercialized. For several companies from non-European countries requiring urgent R&D subsidies, the "Eurostars", or "ESA Business Applications" programs might be viable options. Germany SMEs have a preference for working on future ZIM projects with SMEs (blue) and research institutions (green) from some counties over others, as shown in Figure 47.

*Figure 47:*
**German institutions' preferred countries for project cooperation according to surveyed ZIM participants (figures in percent)**




*Source: RKW Kompetenzentrum, Wirksamkeit der geförderten FuE-Projekte und Kooperationsnetzwerke des Zentralen Innovationsprogramms Mittelstand (ZIM), 2021*

**b) Funding programs for startups**

Although Germany is a country with a successful economy and a growing number of investments in R&D, the German venture capital market is relatively small. This can be considered a serious problem because entrepreneurs, which are drivers of structural change and very important to Germany's economic development, do not only need financing via loans, but also backing with sufficient venture capital.

For this reason, the federal government has set itself the goal of improving legislation and tax rules for venture capital and, thereby, making Germany more attractive to venture capital. There are several funding programs available on the German market offering financial support. They can usually also be applied for by non-European startups, e.g., US entities.

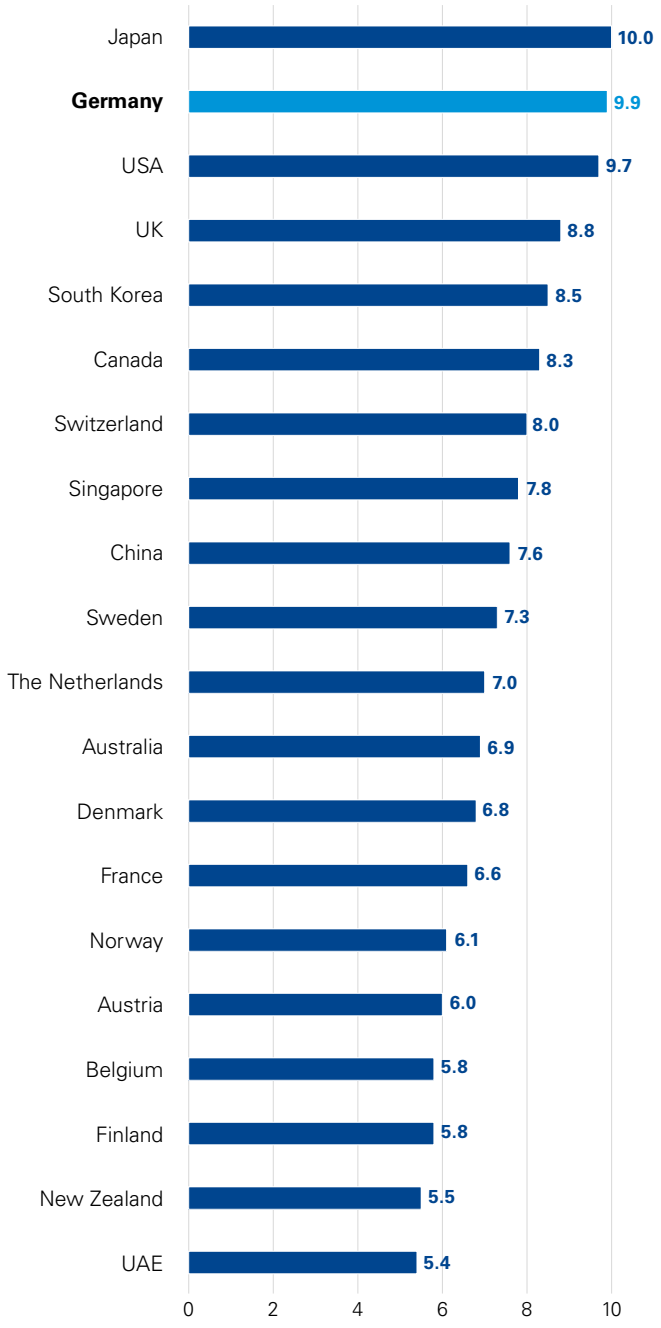
Some of the funding programs focus on companies during their early phase. In these cases, the company should not have been business active for more than five years. Examples of these programs are the "ERP Startup Loan – Startup Money", which provides a maximum of 125,000 EUR with a term of 5 or 10 years. Or the "ERP Startup Loan – Universal", which offers long-term loans of up to 25 million EUR.

Other funding programs are created for firms that have already completed their initial phase and are currently in their growth phase. An example is the "KfW corporate loan" that provides external capital to established companies that have been on the market for at least 5 years. The maximum finance available from this funding program is 25 million EUR with terms of up to 20 years. Another program is called "RUBIN" and is for companies or other entities that focus on innovation and development. A company can receive up to 50% of their project costs in the form of a grant.

Although there are many different funding programs and the requirements for receiving financial aid do vary, they all have one thing in common: they only provide support for innovative companies with a promising business model. It is a prerequisite that a company applying for one of the funding programs must be technology-oriented with a primary focus on a trend in the field of digitalization. Right now, Germany's position in terms of digital transformation is only middling amongst EU countries. This is due to several reasons. For example, 24% of German companies indicate that they do not give high priority to investment in AI and large-scale data analysis, probably due to traditional German risk aversion. The funding programs are an incentive to change this mindset and to generate products and services that can help Germany with its digital transformation.

According to the Best Countries Ranking 2021 of the Top 20 countries for entrepreneurship and startups that is seen as the benchmark in the startups field, Germany is ahead even of the United States.

*Figure 48:*
**Best Countries Ranking 2021 for Entrepreneurship and Startups* (10 is highest)**




** Global survey of 17,326 respondents (informed elites, business decision-makers, general population)*

*Source: US News & World Report; ID 731835*

**c) Funding of pan-European projects in specified fields of business**

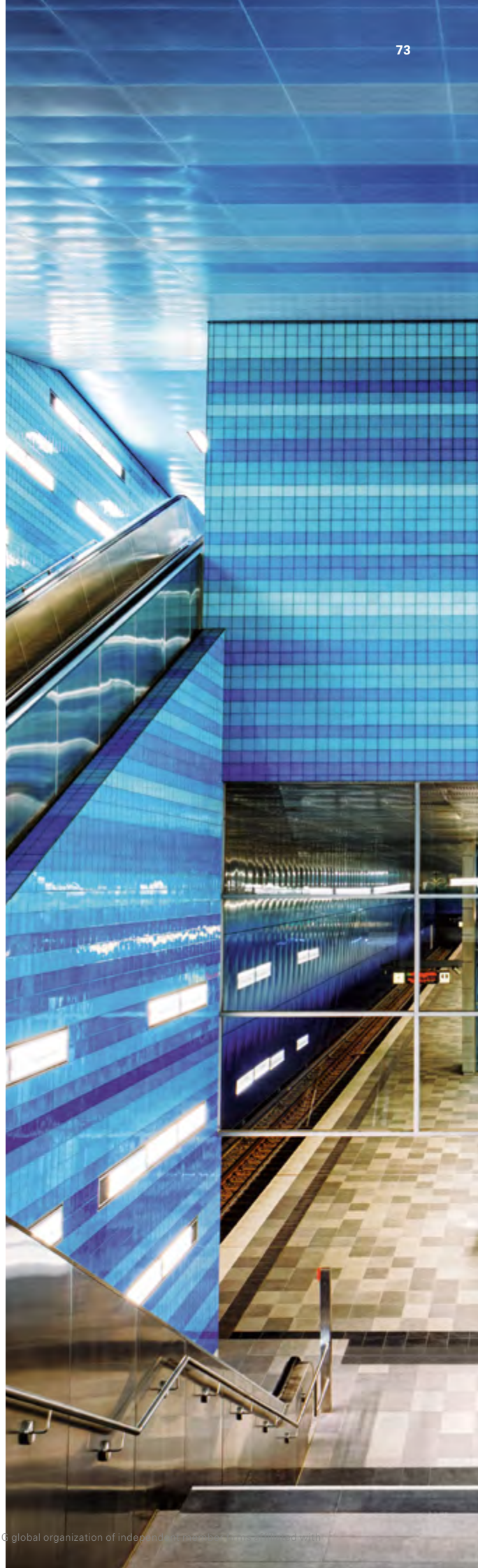
The "Important Project of Common European Interest" (IPCEI) is a significant transnational EU project. It makes a valuable contribution by means of state support to the growth, employment and competitiveness of European industries and economies. An IPCEI project has a number of prerequisites. It must:

- Contribute to the strategic objectives of the European Union.
- Have the involvement of several EU member states.
- Provide its own co-financing from participating companies/ institutions.
- Have a positive spillover effect throughout the EU.
- Have very ambitious research and innovation objectives, i.e., go significantly beyond the latest state-of-the-art elements in the sector with which it is linked.

**The projects are divided into three classes:**

- Research, development and innovation projects.
- Projects where the final product has an industrial application.
- Environmental, energy and transport projects, which may also include infrastructure support.

In an IPCEI, a so-called "integrated" project, several member states are usually involved and each individual component can be connected to a different step on a value chain. What is important is that these individual projects complement each other, and work toward a common European goal. The requirements and basis for eligibility and subsequent approval are outlined in the European Commission's IPCEI Communication. For each partner that is to be funded, an individual grant must be approved for under state aid law.



**The IPCEI Strategic Forum has, in addition to the key technologies of microelectronics, high-performance computing and battery cell production, also identified the following areas for funding:**

### 1. Connected, non-polluting and autonomous vehicles

The European car industry is a global player accounting for 4% of EU GDP and 12 million jobs. The following are the focus for IPCEI support:

- Investing in new generation high-efficiency electric motors, hydrogen storage and fuel cells.
- Investing in new infrastructures like high-power charging stations, vehicle-to-grid charging and hydrogen refueling stations.
- Building an accelerator network and creating a dedicated fund for non-polluting and autonomous vehicles.

### 2. Smart health

Healthcare costs in Europe represent 9.6% of GDP and will more than likely rise. The following are the focus for IPCEI support:

- Creating a European health data space based on a network of federated and GDPR-compliant health databases, within a public-private data governance model.
- Creating an EU investment platform for smart health to support new products and services.
- Stimulating demand and uptake of smart health products and services.
- Building a new European smart health innovation hub to assess and promote smart health solutions.

### 3. Low $CO_2$ emissions industry

Cutting industry emissions can make a major contribution to the EU's climate neutrality by 2050. These industries account for 750 billion EUR annual turnover and 2 million jobs. The following are the focus for IPCEI support:

- Investing in key technologies to reduce $CO_2$ emissions by 95% in core industries.
- Supporting R&D for low $CO_2$ emission industries and scaling up pilot and roll-out projects and developing guidelines and assessments for low $CO_2$ emission technologies.
- Establishing a supportive regulatory framework by creating lead markets through public procurement and product standards, thus ensuring a level global playing field and access to low-carbon energy.

### 4. Hydrogen technologies and systems

These have the potential to replace fossil-based energy with low-emission renewable hydrogen. The following are the focus for IPCEI support:

- Developing a roadmap for a future European hydrogen-based economy.
- Building a supportive regulatory framework by reviewing legislation on renewable energy and developing common standards.
- Supporting R&D investment and building an innovative industrial system through cross-border collaboration and partnerships in Horizon Europe.
- Ensuring safety and public acceptance through realization and standardization.

### 5. Industrial Internet of things (IoT)

IoT has the potential to boost industry productivity, safety and better working conditions. The IoT market is forecast at 80 billion EUR by 2025. It represents one trillion EUR value for the EU economy as a whole. The following are the focus for IPCEI support:

- Building a common, secure and trusted EU industrial IoT and data ecosystem.
- Speeding up the establishment of European cloud infrastructure and developing new generation data exploitation tools and artificial intelligence applications.
- Supporting the rollout of industrial 5G infrastructure.

### 6. Cyber security

Cyber security becomes increasingly important with every new digital advance. It is a global market that exceeds 100 billion EUR. The following are the focus for IPCEI support:

- Coordinating investment and supporting measures for securing 5G.
- Sharing information on obstacles, vulnerability and incidents among member states and industry.
- Focusing on highly critical applications and essential services like electricity, gas, water and transport.
- Establishing a European data space with secure end-to-end communication and data protection solutions.

**Prime examples of IPCEI projects in Germany**

**a) Battery projects**

The European Commission approved a major funding project at the end of 2019 for battery research and innovation that involved seven member states. It is 3.2 billion EUR worth of financing. In January 2021, a second project followed called "European Battery Innovation (Eubatin)". It allows for twelve EU members to support 42 companies in this field with another 2.9 billion EUR. In Germany these funds were used for, amongst others, Tesla´s new battery factories in Germany.[29]

German Economics Minister, Peter Altmaier, described the two major battery cell projects as huge successes that provide critical resources for the battery ecosystem in Germany and Europe. The German government alone is contributing a total of up to three billion EUR to the projects. It accounts for about half of the total EU funding in the two IPCEIs. According to Altmaier, in Germany alone this will trigger investment of 13 billion EUR.[30]

In Germany, eleven companies are now receiving IPCEI funding: ACI Systems, Alumina Systems, BMW, Cellforce Group, ElringKlinger, Liofit, Manz, Northvolt, SGL Carbon, Skeleton Technologies and Tesla. This means that well-known and large

*Table 1:*
**Battery funding for 2.9 billion EUR approved for Tesla and 40 other companies**

| Raw materials/ New materials | Battery cells | Battery systems | Recycling and Sustainability |
|---|---|---|---|
| ACIS | Alumina Systems | ACIS | Borealis |
| Arkema | BMW | Alumina Systems | Enel X |
| Borealis | Cellforce Group | AVL | Engitec |
| Ferroglobe | ElringKlinger | BMW | FIAMM |
| Fluorsid | FCA | Endurance | Fortum |
| Green Energy Storage | Green Energy Storage | Enel X | Hydrometal |
| Hydrometal | InoBat Auto | Energo Aqua | Italmatch Chemicals |
| Italmatch Chemicals | Manz | FCA | Keliber |
| Keliber | Midac | FIAMM | Liofit |
| Prayon | Northvolt | FPT Industrial | Little Electric Cars |
| SGL Carbon | SGL Carbon | Green Energy Storage | Midac |
| Solvay | Skeleton Technologies | InoBat Energy | SGL Carbon |
| Tokai Carbon Group | Sunlight Systems | Manz | Tesla |
| VARTA Micro Innovation | Tesla | Miba eMobility | Valmet Automotive |
| | VARTA Micro Innovation | Midac | ZTS VaV |
| | | Rimac Automobili | |
| | | Rosendahl Nextrom | |
| | | Skeleton Technologies | |
| | | Sunlight Systems | |
| | | Tesla | |
| | | Valmet Automotive | |
| | | Voltlabor | |

*Source: European Commission, 2021*

[29] teslamag UG, Battery funding approved: 2.9 billion EUR for Tesla, BMW and 40 other companies

[30] Handelsblatt, Gigafactory in Brandenburg – Tesla hopes for subsidies, January 26, 2020

international companies are just as much a part of the sustainability strategy as small and medium-sized ones are. The plans range from climate-friendly production of lithium from brine, to improved lithium-ion cells, housing and recycling, machines and processes for cell production, plus a combination of batteries with supercapacitors. The central goal at Tesla is to "develop and realize advanced manufacturing and recycling methods of Li-ion battery cells" at lower cost and with less environmental impact.[31]

According to a Commission statement another 30 companies across the EU are directly part of the new battery IPCEI Eubatin, They are expected to work closely together on a total of 300 projects and with more than 150 external partners.[32]

**b) Cloud projects**

Another pioneer in terms of funding is the US giant Google. The technology company is building a data center in Hanau, near Frankfurt, and a new cloud infrastructure in the Berlin-Brandenburg area through its extensive investment program, which has a budget of one billion EUR.

"Germany has always been a very important country for Google. We opened our second office outside the United States here 20 years ago," Google's Head of Germany, Philipp Justus, told the Frankfurter Allgemeine Zeitung. "It's not with our new investment program alone though that we're showing how important the location will continue to be for us in the future."

The "cloud" revenue pillar is becoming increasingly important for the Internet giant, alongside its main "advertising" business. Currently, Google ranks third with Amazon and Microsoft at the top of the league in cloud revenue. In recent months, Google has signed cooperation agreements with Lufthansa, Deutsche Bank and the mail order company Otto. In terms of personnel, Google has also repositioned itself in the market and poached experienced managers, such as former German SAP CEO, Daniel Holz.

The German government has expressed pride in the relationship. "I am very pleased that Google is betting on Germany as a location," announced Economics Minister Peter Altmaier (CDU). "It's all about green energy and digital infrastructure. The cloud region Frankfurt will grow, a new cloud region Berlin-Brandenburg will emerge. In the future, around 80 percent of the energy consumption of data centers and cloud services will come from renewable energies at any given hour. This shows that green energy has long been a key factor in site selection."

With its cloud infrastructure, Google is indirectly financing solar plants and wind farms to help cover its sustainable electricity requirement via a recently announced supply contract with Engie.

"Many customers have set themselves major sustainability goals and require us to contribute to them as well," said Justus, identifying the catalyst for the sustainability plans associated with its new investment program.

**"The Corona crisis has created a need to reduce costs and to simplify things, but also to transform existing business models, which have often then become cloud-based."**

***Gernot Gutjahr***
*Partner, Head of CIO Advisory,*
*KPMG in Germany*

[31] State of Brandenburg, EU gives the green light for funding for the planned battery factory in Grünheide, January 26, 2020

[32] Federal Ministry for Economic Affairs and Energy, Question to the Federal Government in writing (Question 87) in February 20, 2020

### 3.4 Investment support via German financial packages

Germany launched an economic stimulus package to overcome the effects of the pandemic with a total volume of 130 billion EUR. Funds are primarily targeted at future business trends so that Germany can assert itself against dominant and intensifying international competition. 50 billion EUR will flow into areas such as the hydrogen economy, quantum technologies and artificial intelligence. The most important future sectors that are the particular focus of the funding program are telecommunications, network infrastructure, pharmaceuticals/healthcare and energy/natural resources, as well as transport and automotive.

The Federal Republic of Germany is promoting the further development of digital technologies with investment of around 26.3 billion EUR. The focus of this measure is the digitalization of public institutions (15.3 billion EUR), the expansion of the communication network and infrastructure based on 5G and 6G (7 billion EUR), as well as investment in AI and research into quantum technologies (4 billion EUR).

The Corona pandemic has put the German health system to the test. In order to remedy the problems that have arisen as a result, and to deal with another pandemic should it happen, the pharma/healthcare sectors are being strengthened with an investment of 9.75 billion EUR. Along with investment to comprehensively strengthen the health sector (7 billion EUR), funds will also be allocated to medical products and vaccine development (2 billion EUR).

The shift in the energy/natural resources sector towards climate-friendly technologies is to be accelerated with investment of 14.2 billion EUR. In addition to funding a national hydrogen strategy (9 billion EUR), the development of electromobility (2 billion EUR) and other climate adaptation measures (3 billion EUR) are also being funded. The beneficiaries are cities, municipalities and private stakeholders.

The transport and automotive sector is supported with 6.2 billion EUR. In particular, alternative propulsion technologies and climate-friendly means of transport, and entirely new mobility concepts, are being encouraged with financial incentives. There are funds available for the shipping industry, the replacement of vehicle fleets and a modernization program for aircraft fleets. The funding measures are aimed at existing companies from the shipbuilding and aircraft construction industry, as well as other private investors.

Across all sectors Germany's attractiveness as a location for research and innovation has been boosted by a new law on tax research subsidies. In the years 2021 to 2024, cross-sector research grants amounting to 5.6 billion EUR are on offer. Projects in the field of basic research, industrial research and experimental development are eligible to claim monies. The expenses that a company could claim against tax were limited initially to 2 million EUR per financial year. However, this was subsequently increased for the period from July 1, 2020 to June 30, 2026 to four million EUR per year, as part of a second COVID-19 Tax Aid Act of June 2020. This measure should be particularly attractive for small and medium-sized enterprises with an average annual R&D volume of 260,000 EUR.

### 3.5 The German "Mittelstand" – out of sight small and medium-sized global champions

Due to the innovative strength of small and medium-sized companies with up to 500 employees (SMEs), the term "German Mittelstand" is interpreted internationally as a promise of quality. The structure of the German economy is significantly shaped by this group of companies, which in number comprise around 99 percent of German companies and provide a good 60% of all jobs that are subject to social insurance. The medium-sized structure is an essential characteristic of Germany. Despite the strong anchoring of many medium-sized companies in their regions, many of them are intensely active in global markets. According to the DIHK, more than 50% of medium-sized companies are directly involved in international value chains.

The hallmark of German SMEs is the high density of market leaders, especially those in more rural regions or far away from German metropolises. In comparison, economic activity in centrally governed states – such as France or England – is essentially more concentrated in their capital. In a worldwide comparison, German SMEs have a disproportionately high number of so-called "hidden global champions" who are world economy market leaders in niches without being known to a wider audience. According to government estimates, Germany holds the top position in the world – ahead even of the United States – with 1,400 to 1,600 of these innovative companies. The Mittelstand structure is supported by state governments and fits in with their objective of maintaining and promoting the regional economy through specialized development agencies.

BioNTech from Mainz is a good example of such a hidden champion. Even before the pandemic, it was the global market leader in its niche due to its highly innovative products, although at the time only experts took notice of it. BioNTech's goal was to develop a new method (Messenger-RNA) by which the mode of action of the active ingredient is based on the specific tumor characteristics of the patient in question. The artificially developed mRNA should inform the body's own cells about the appearance of hostile cancer cells in order to produce its own antibodies as a weapon against them. Under pressure because of the Corona pandemic, BioNTech succeeded in transferring this method to the development of vaccines at breathtaking speed. The FAZ recently pointed out that the success, for which BioNtech in particular received media attention, was only possible thanks to an excellent, cross-company, informal network of German medium-sized companies. The development of the

enormous production capacities, as well as the tailor-made delivery of certain preliminary products – such as lipids – was the result of the rapid interlinking of production steps across company boundaries.[33] This example illustrates one element of the success of many German medium-sized companies: enormous flexibility and excellent networking – even across company lines – have made it possible to transfer existing know-how to combat new problems at high speed.

Of the 6,900 family-run companies that contacted the DIHK in 2020 to sell their business for reasons of age, less than half have found a potential successor. The Corona pandemic has exacerbated the problem, as the sale value of the companies was lessened in this phase and the problem with the search for a successor worsened as a consequence. Many senior bosses, therefore, apparently postponed decisions about handing over the company. This is shown by figures from the Chamber of Commerce: The number of consultations on corporate succession fell by 71% between March and October 2020 compared to the same period of the previous year. Every second IHK expects further declines in company succession in their region compared to the previous year.[34] To what extent this will actually lead directly to companies closing down is difficult to predict. Of the senior entrepreneurs who have sought advice since the beginning of the pandemic, at least 20–30 percent[35] are considering giving up their business in view of the problem of finding a successor at the right price.

The attractiveness of individual sectors for investors certainly varies. Even prior to the pandemic, brick-and-mortar retail and hotel and restaurant businesses were less in demand. Only 22 percent of potential company successors who were advised by the Chamber of Industry and Commerce stated an interest in the retail trade and only 14 percent the hotel and catering industry. Given the decline in sales during the pandemic, interest in companies in these industries is likely to continue to decline. Fortunately, industrial companies were at least on 45 percent of potential successors' wish lists in 2019. Corona is unlikely to have changed this, especially since when it comes to electromobility German medium-sized companies can be trusted to have a significant impact on the development of future-oriented technologies.

Even globally successful family businesses often have difficulties handing over their business from one generation to the next. Although the vast majority of these companies are aware that the succession cannot succeed without precise rules and planning, many seem to find it difficult to hand over their company to the next generation. Accordingly, foreign investors do have opportunities to fill this void and take over hidden champions.

**"Major corporations around the world are increasingly looking for characteristics and values that are a long-standing part of the family business DNA: Long-term orientation, a sense of purpose and social responsibility are typical elements of purpose-driven family business leadership. But also family-run companies are increasingly challenged to strengthen these characteristics for their future business success. A growing awareness, especially, of the environmental impact of business, operations, products and services might require a more integrated strategic approach compared to the often more philanthropic traditional understanding of social responsibility."**

***Dr. Vera-Carina Elter***
*Member of the Board, Chief Human Resources Officer and Managing Partner for Family Owned Businesses, KPMG in Germany*

[33] BioNTechs unbekannte Helfer, Frankfurter Allgemeine Zeitung, August 4, 2021

[34] DIHK-Report 2020

[35] The 20–30 percent refers to the survey results of 13 IHKs for which more detailed survey results are available.

## 3.6 German startup scene

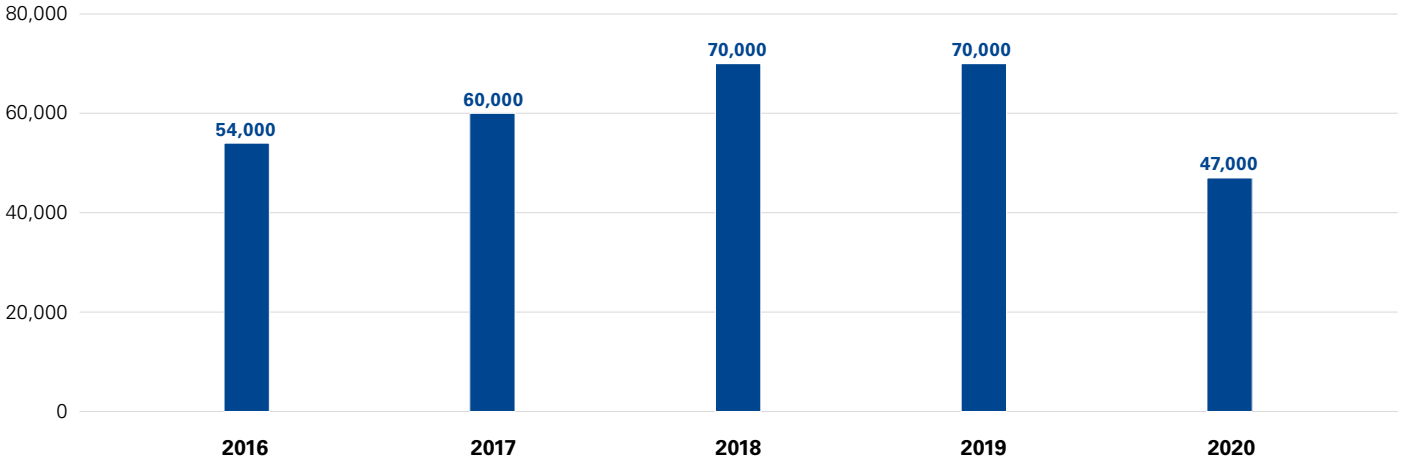
According to the 'KfW Startup Report 2021', the number of startups in Germany has increased dynamically from 54,000 in 2016 to 70,000 startups in 2018, the number remained at this level in 2019. The Corona crisis weighed on the stock of startups in Germany in 2020. The number of innovation or growth-oriented young companies fell to 47,000 in 2020.

The most important sectors for startups in Germany are IT and software development, but also industrial technology and hardware development, e-commerce and online marketplaces. In terms of the number of startups and investments made in them, the most important startup ecosystem in Germany for many years has been Berlin. The capital city is also one of the Top 10 global 'startup ecosystems', with constant movement up the rankings. Other important 'startup hubs' are Brandenburg, the Rhine-Ruhr metropolitan region in North Rhine-Westphalia, Frankfurt, Munich, Stuttgart, Karlsruhe and Hamburg. The Federal Government supports the development of 'startup hubs' through, among other channels, the 'Digital Hub Initiative', which promotes 12 German regions and 16 cities as digital ecosystems.

Frankfurt is strong when it comes to FinTech, for instance, fledgling companies that focus on the analysis of large amounts of data and cyber security. Health and mobility are cited as the most important startup fields for Munich.

The Bavarian juggernaut seems rather unstoppable with regard to its importance to successful startup activity. Internet giant Google is building its new German headquarters in Munich. Google settles where it sees creative potential in terms of talent and innovative nous. The state capital has long been home to tech companies from all over the world. Google's choice of Munich is certainly an expression of sincere faith in a very innovative tech and startup environment. Thanks to its universities that are talent breeding grounds, especially in the technical field, the tech and the startup scene in Munich has gained international appeal. The Munich-based software startup Celonis has recently made it into the ranks of the "unicorns".

*Figure 49:*
**Number of startups in Germany 2016–2020**




*Source: KPMG (based on the KfW Startup Report 2021)*

One reason for the dynamic development of the startup landscape in Germany is likely to be the significantly expanded federal and state funding structures, which are accompanied by a strong increase in international, private sector players in startup financing. While the instruments of the federal states mostly operate in a regional context, they do aim to facilitate more fundamental structural framework conditions for startups. This applies, among other things, to offers of startup financing and consultation, but also to promoting Germany internationally as a startup location. The state funding instruments have been significantly expanded at a federal level, and diversified with regard to the various startup phases, in particular the early, growth and expansion phases. The Federal Office for Migration and Refugees (BAMF) assumes that numerous non-European founders will also be allowed to participate in funding opportunities.

Despite the vibrant startup scene in Germany there has been criticism among founders lately directed at the serious lack of venture capital in Germany. Consequently, every fourth startup thinks about moving abroad, according to the digital association Bitkom. This seems to be the case when startups grow bigger, then they do not get as much capital as they actually need to feed growth. However, the federal government looks to be taking the problem seriously. In March 2021 the future fund was launched, which provides 10 billion EUR to the startup industry. Startups in the growth phase with high capital requirements, in particular, will benefit from this financial backing.

Startups however, do also provide good chances for international investors to secure access to innovations and embed them in their organization.

**"Investors have already put a total of 7.2 billion EUR into emerging startups in Germany in the first months of 2021. Four of the top ten investors in Germany have a foreign background, namely Switzerland or Austria. Moreover, corporate venture capital is gaining importance in Germany, represented by players such as Allianz X and Deutsche Bahn Digital Ventures."**

***Ashkan Kalantary***
*Partner, Deal Advisory, M&A, Venture Services, KPMG in Germany*

Chapter 4

# Germany as a key member of the European Union

Chapter 4:

## Germany as a key member of the European Union

**Key findings:**

- Germany benefits from its membership in the EU but is also by far the largest net financial contributor to the EU.
- High levels of indebtedness among EU member states, additional funds to overcome the Corona crisis, high Target2 balances and Brexit all harbor major risk to the cohesion of the EU.
- There is mutualization of debt for the first time with the issuing of EU bonds.
- The future of the EU has a significant influence on the attractiveness and stability of Germany as a location.
- With its current legislative initiatives (European Climate Law, Environment Action Program 2030 and Carbon Border Adjustment Mechanism) the EU is currently playing the role of global pioneer. These laws must also be transposed into national law by the member state of Germany, and could then have a significant influence on the competitiveness of companies based in Germany, and in consequence on the attractiveness of Germany as a business location.

## 4.1 Development of the European internal market

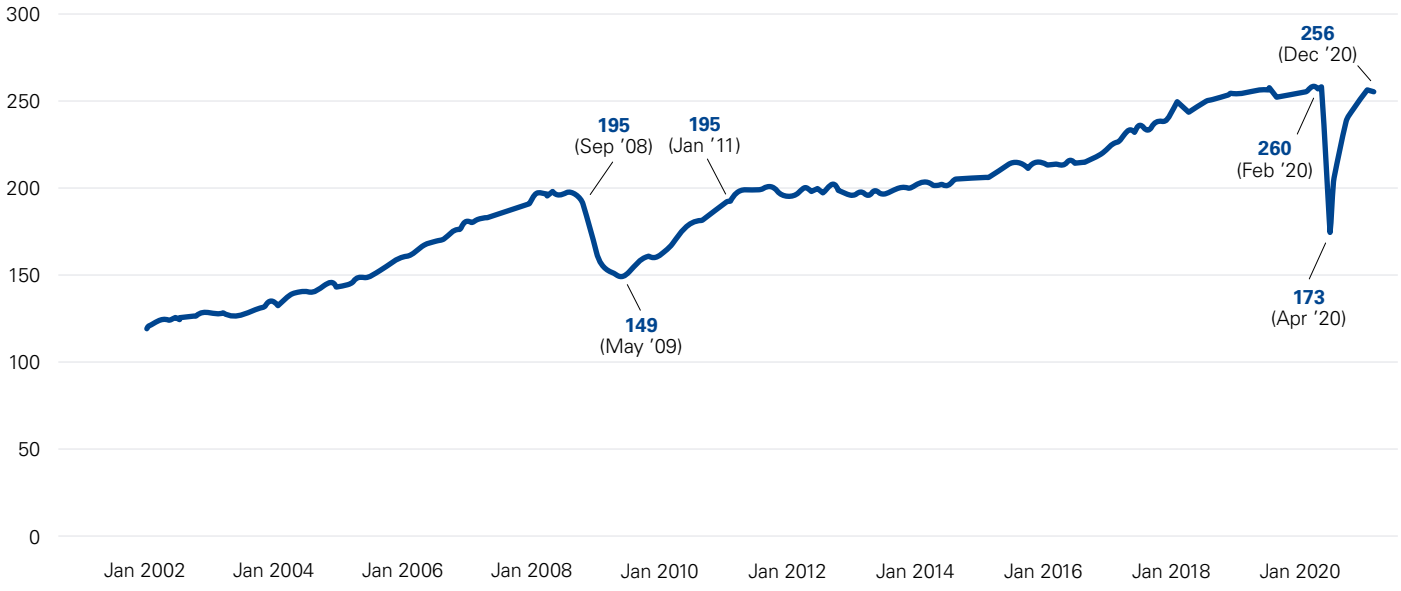
Germany is a key member of the EU and the role and position of Germany as a business location is very much linked to the constitution and future orientation of the EU. In this respect, when considering Germany as a business location one must also include an appreciation of the status of the EU and Germany's role within it.

The European Union is a unique success story with regard to the functionality of the European internal market. Since the introduction of the EUR, monthly trade in goods between the EU member states[36] has more than doubled from 120 billion EUR in January 2002 to 256 EUR in December 2020.

The EU internal market is of very high economic importance for its members. In terms of exports and imports, the EU conducts almost two thirds of its trade in goods within its own borders. In 2020, the share of intra-EU exports in most member states was between 50% and 75%, with Germany at 53%. This underlines the enormous relevance of the European internal market to the trading activities of most of the EU member states.

The importance of the EU to German trading activities becomes particularly clear when one looks at the absolute export volumes of EU countries. In 2020, Germany exported goods worth 638 billion EUR to other EU countries, which accounts for more than 50% of the total of German exports of 1,205 billion EUR. Around 40% of German intra-EU exports went to France, the Netherlands and Poland.

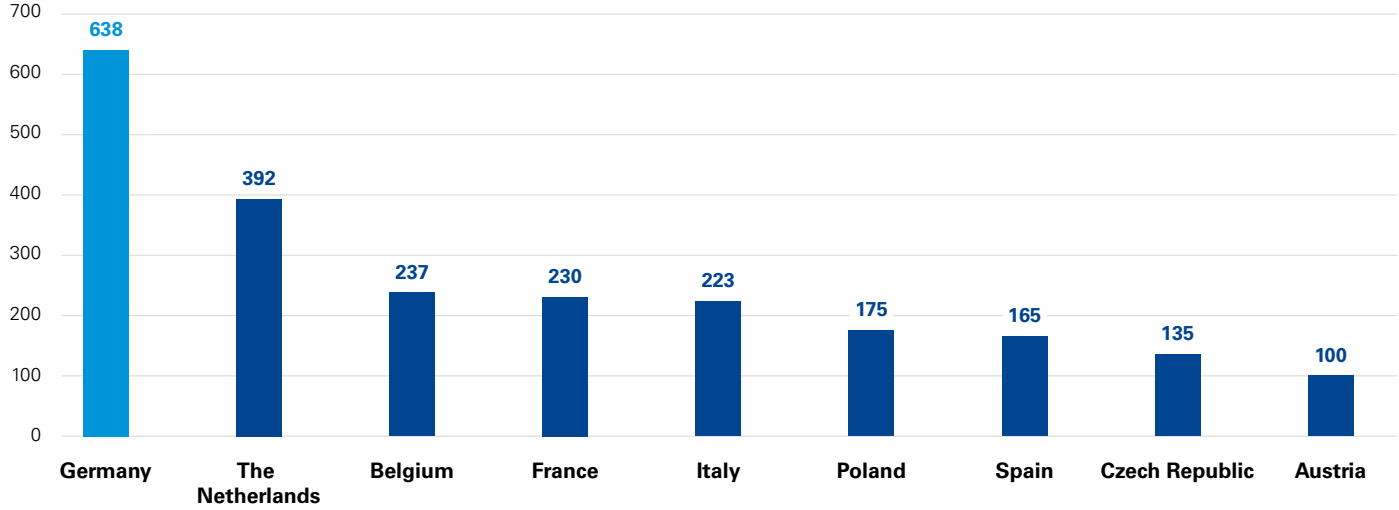
*Figure 50:*
**Intra-EU export of goods between January 2002 and July 2021 (figures in billion EUR, seasonally adjusted data)**




*Source: Eurostat (online data code: ext_st_eu27_2020sitc)*

[36] Eurostat has based the calculation on the current EU-27 states over the entire period in order to establish comparability. This means that states like the UK, that have at times not been EU members before 2021, were not taken into account over the entire period. Conversely, states that are members today, such as Romania, but were not in 2002, were included over the entire period.

*Figure 51:*
**Exports of goods to other EU member states per country in 2020 (figures in billion EUR)**



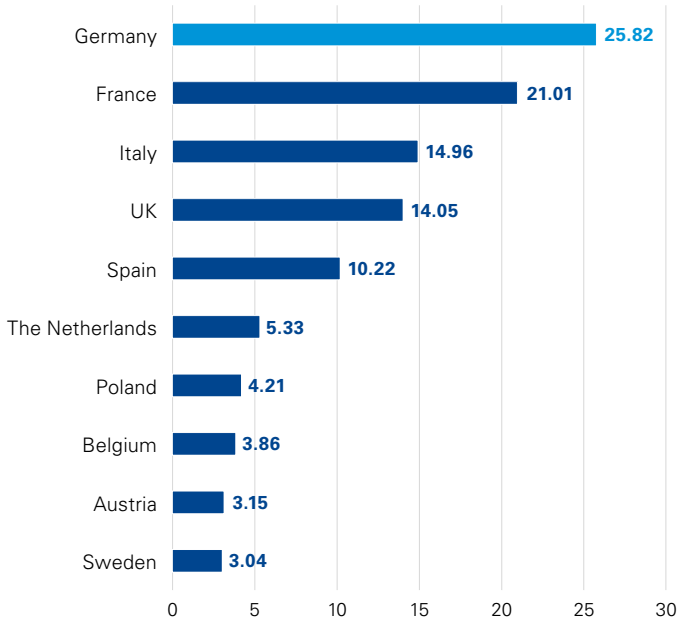

*Source: Eurostat (online data code: DS-057009)*

## 4.2 Financing the EU budget

The EU's sources of income essentially include contributions from member states, import duties on products from third countries, a new levy on non-recyclable plastic packaging and fines for companies that do not comply with EU regulations. The largest contributors to the EU in 2019 were Germany with 25.82 billion EUR and France with 21.01 billion EUR.

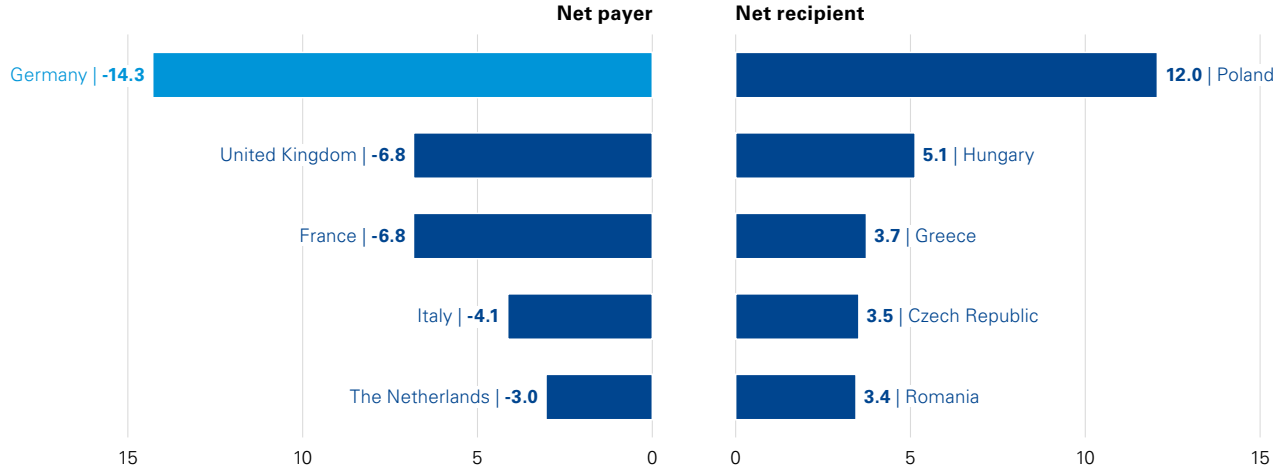
More important than the absolute contributions made to Brussels, however, are the net payments, as these also take into account the financial returns to member states from the EU budget. In terms of net payments, Germany was also first among all EU member states in 2019: its negative budget balance was 14.3 billion EUR. The United Kingdom and France followed (each minus 6.8 billion EUR), Italy (minus 4.1 billion EUR) and the Netherlands (minus 3.0 billion EUR) were next. The net recipients were Poland (plus 12 billion EUR), Hungary (plus 5.1 billion EUR), Greece (plus 3.7 billion EUR), the Czech Republic (plus 3.5 billion EUR) and Romania (plus 3.4 billion EUR).

*Figure 52:*
**Contribution to EU according to selected member state in 2019 (figures in billion EUR)**




*Source: European Commission: EU expenditure and revenue 2014–2020*

*Figure 53:*
**Net EU contributors and recipients in 2019 (figures in billion EUR)**




*Source: European Commission: EU expenditure and revenue 2014–2020*

According to calculations by the German Press Agency, Germany's net payment to the EU is likely to have grown from 14.3 billion EUR to 19.4 billion EUR in 2020. It is anticipated that this trend of larger contribution payments will continue for Germany. According to estimates from the Federal Ministry of Finance, Germany will have to pay an average of 13 billion EUR more into the EU budget every year from 2021 onwards. The exact amount is based on the EU's multi-annual financial framework for the years 2021–2027, in which the discontinuation of the United Kingdom's contribution and increased expenditure to combat the consequences of the Corona pandemic must be redeemed.

Whether there are more advantages or disadvantages associated with EU membership for a state cannot be answered by considering the respective payment balance alone, as numerous other factors have to be taken into account. Germany, thus, enjoys advantages from its high export volume to other EU countries. In summary, it can be said that Germany – despite high contribution payments – as the largest industrialized nation in the EU, benefits particularly from its membership of it. In addition, the European Union promotes political stability and security in its member countries, the free movement of people and forms the basis for the EUR, a key currency.

## 4.3 Rising debt levels of many EU members as a result of fighting the pandemic

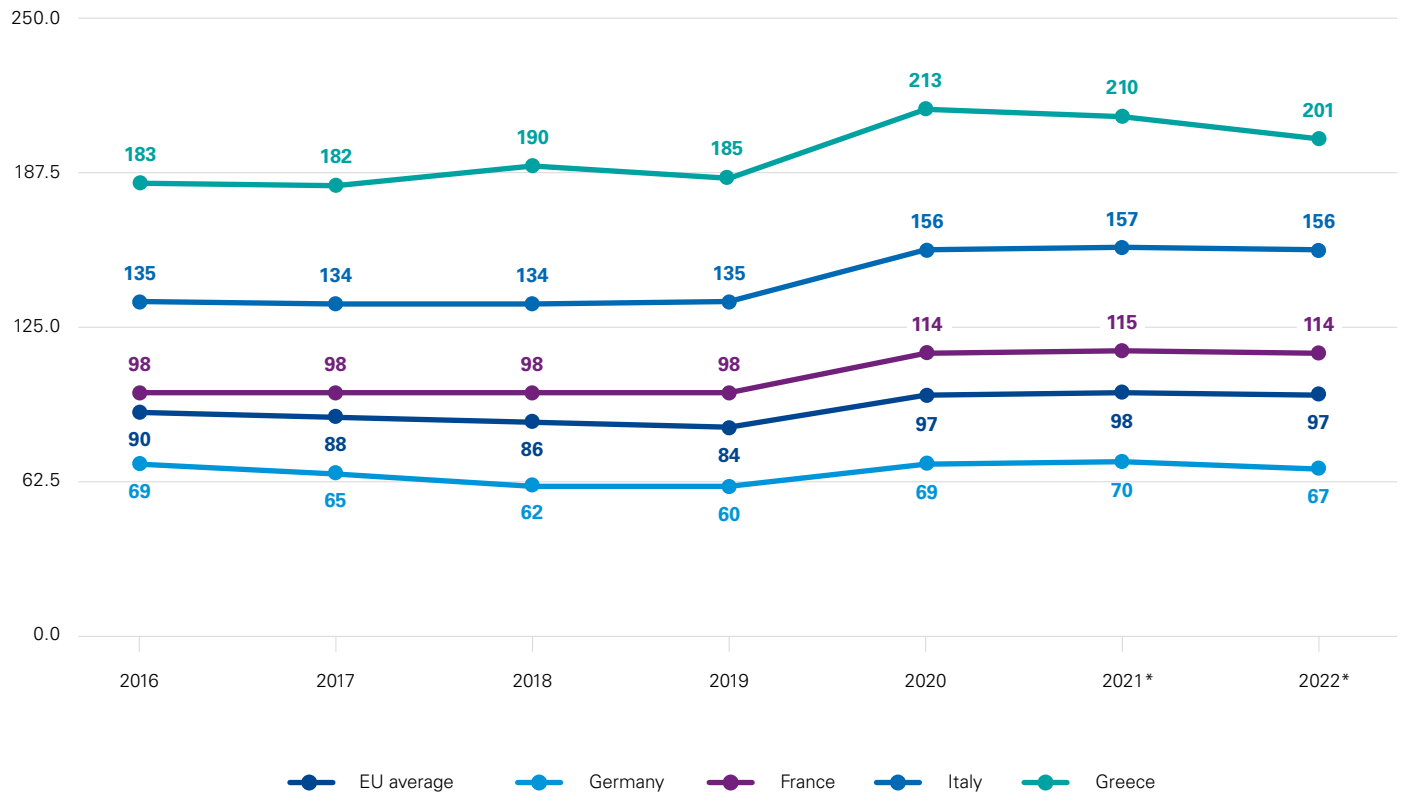
The EU wants to put a record sum of 2,364 billion EUR into economic activity by 2027. In relation to 2020, that is more than 18 percent of EU added value, and about twice the amount that the Corona crisis is likely to cost in added value. The regular budget until 2027 is expected to amount to 1,074 billion EUR. In addition, there is the EU solidarity pact, which has already been adopted that provides for 540 billion EUR in loans to member states guaranteed by the EU, and the reconstruction fund (NextGenerationEU) amounting to 750 billion EUR.

The debt levels of some EU countries – in particular Greece but also Italy – were hardly sustainable even before the Corona crisis. To help in the battle against the costs of the Corona crisis, the EU's debt rules were suspended in 2020 – and will remain so until the end of 2022. It is unclear whether there will be a return to the Maastricht criteria afterwards. Unfortunately, the signs point to a continued heavy increase in national debt.

To finance the NextGenerationEU development instrument (2021–2027), the European Commission will raise money on the financial markets on behalf of the EU, as it has a higher credit rating than many member states. It is anticipated that up to 800 billion EUR will be raised on the capital markets from now until the end of 2026. All EU countries, including Germany, are liable for the bonds. The no-no on common debt, which was in place during the financial crisis, has been broken as a result. For the first time, significant funds are being raised through EU bonds and distributed to member states.

The European Treaties – in their current form – stand in the way not only of debt financing but also of the forthcoming redistribution by the European Union. The contractual assistance clause only covers support from regular budget resources in times of crisis. The joint borrowing could continue to jeopardize the already dwindling acceptance of the EU, especially in northern countries such as Germany, the Netherlands or Denmark. After all, the issuance of joint EU bonds is nothing more than a mutualization of debt, even if it is done for supposedly sensible purposes – namely to combat the consequences of the pandemic. Experience shows that debt constructs devised during the crisis could quickly lead to a permanent debt spiral.

*Figure 54:*
**Selected EU member state yearly gross debt as a percentage of GDP**




** Estimated in April 2021*

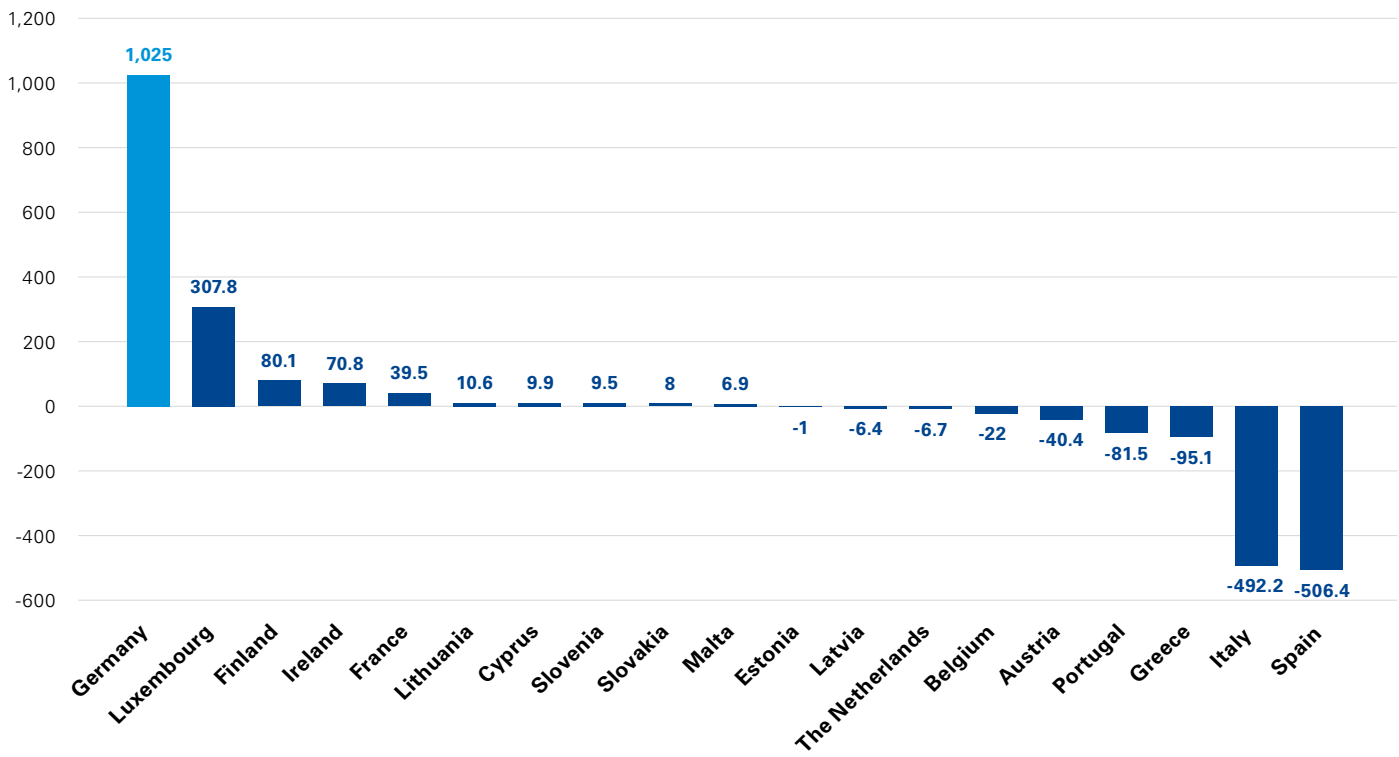
*Source: IMF 2021*

## 4.4 Target2 balances – a "built-in risk transfer" within the Eurozone

Target2 is a system that moves money from one bank to another. Central and commercial banks use it to process payments in EUR. The net cash flow between two countries is recorded in the balance of the national central bank. In order to avoid that each individual central bank in the eurosystem builds up their own balance with each other, all bilateral balances are combined into a single balance at the ECB at day's end. If banks in a country have sent more money than they received, the national central bank has a negative balance, which is an ECB liability. If they receive more money than they sent, it has a positive balance, i.e., a claim against the ECB. In July 2021 the claims of the Deutsche Bundesbank against the European Central Bank (ECB) as part of the Target2 payment system increased again. According to the Bundesbank they amounted to 1,025 billion EUR.

There are three reasons for such cross-border movement of money: to pay for goods, services or financial assets from other countries or when banks lend each other money in order to supply one another with short-term liquidity or for monetary policy when banks counter loans from central banks. According to the ECB, the massive increase in German Target2 balances is due to the eurosystem's high level of securities purchases as a result of the Corona crisis. The ECB is currently on the market with two bond purchase programs. In addition to the program that came into effect in 2015, it has also been buying bonds since spring 2020 as part of the Pandemic Emergency Purchase Program (PEPP), an initiative launched in connection with the Corona crisis. Indeed, the increase in the positive Target2 balances in Germany, Finland, Luxembourg and the Netherlands is closely related to an increase in the ECB's bond portfolio (see Figure 56).

*Figure 55:*
**Eurozone Target2 balances by selected country as of July 2021 (figures in billion EUR)**



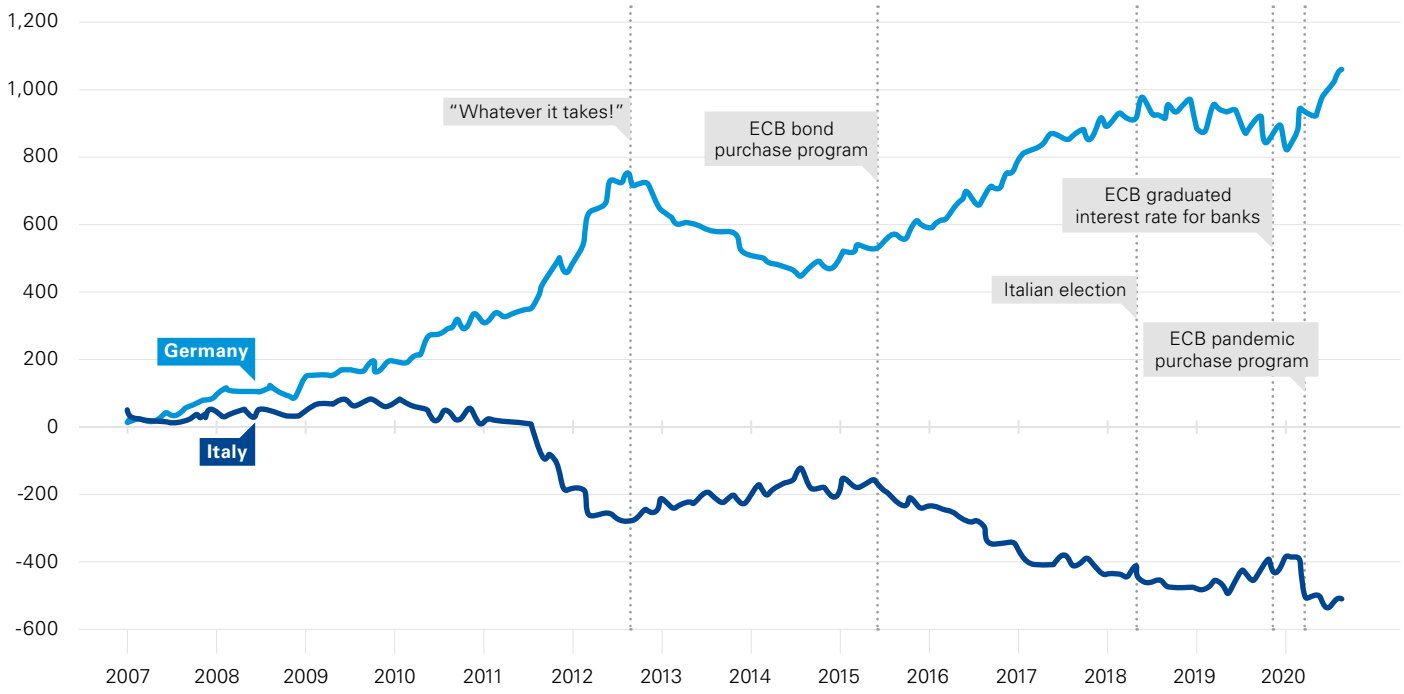

*Source: ECB; ID 233148*

Hans Werner Sinn, the former head of the Munich Ifo Institute, considers the high Target2 balances problematic as they represent a "built-in risk transfer" within the Eurozone. He describes this as a "public overdraft" that the Bundesbank grants to other countries in the EUR area via Target2. This enables companies and citizens in this space to "pay for a net flow of goods, services and assets from Germany".[37] The Target2 system, in tandem with the national central banks, offers the crisis countries the opportunity to create money independently, which is then used by the citizens and companies of these countries to purchase goods and assets in other EUR-based countries.

A high number of lopsided Target2 balances would be problematic, especially if a country were to leave the Eurozone. If a country like Italy with a negative balance left it, the ECB would claim against the relevant central bank, the Banca d'Italia. If the latter were not able to make the payments – in lira – the other central banks would have to pay for the remaining losses on a pro rata basis. The Bundesbank accounts for around 26 percent of the eurosystem's profits or losses. This means that the German taxpayers would then be liable for this share.

A collapse, therefore, of the European Union would damage Germany on several levels. On the one hand because it benefits from the European internal market like no other EU country, but on the other hand because the German state, given the high German Target2 balances for loan defaults in other countries would have to step in and dig deep into its pockets.

*Figure 56:*
**Development of Target2 balances, Germany vs. Italy (figures in billion EUR)**




*Source: boerse.ARD.de, 2020*

[37] Wie gefährlich sind die Target2-Salden für Deutschland? tagesschau.de, September 9, 2020

### 4.5 EU development plan for a New Reality after Corona

On April 23, 2020, EU leaders decided to set up a European development package, which amounts to a total of 2,364 billion EUR and is intended, among other things, to cushion the effects of the crisis. The approved funds will be released for the following purposes:

- Development fund of 750 billion EUR (NextGenerationEU) to enable the EU to cope with the crisis caused by the pandemic. The core of NextGenerationEU is the establishment of a Development and Resilience Facility (672.5 billion EUR), which is available to member states for the immediate management of the economic and social effects of the Corona pandemic.

- For long-term funding of the EU budget from 2021–2027 to the tune of 1,074.3 billion EUR. Among other things, this will support investment in digital change and the transition to a green economy. Furthermore, the investment will favor economies that are more resilient to future crises.

- A 540 billion EUR safety net for workers (SURE instrument), companies and member states.

## 4.6 EU legislative initiatives and their implications for the competitiveness of member states

Legislative initiatives that are being prepared or passed at EU level must also be understood with a view to Germany's competitiveness, as they have to be transposed into national law by the member states. The following legislative initiatives with the potential to greatly influence Germany's competitiveness are currently being discussed in Brussels or have already been passed:

### European Climate Law

With the "European Climate Protection Act", the EU sees itself as a global pioneer and wants to achieve its goal of "climate neutrality" by 2050. At the same time, stricter emission reduction targets for 2030 from 40% to 50%–55% compared to the base year 1990 have been put in place. In order to "jointly achieve" the EU 2050 climate target, necessary measures must be taken at EU and national level, with member states paying attention to "fairness and solidarity" in their dealings with each other (Article 2, paragraph 2).

This proposal for EU regulation is extremely controversial with scientists, among others, because they think it poorly prepared and that it appears to be driven by public pressure. Yet, it is true that the early development of a long-term EU strategy to reduce greenhouse gas emissions increases the pressure on the planning security of companies. However, before setting the goal of climate neutrality by 2050, the EU should be able to assess what serious effects the greenhouse gas savings necessary for this to happen could have on the EU. In view of the Corona crisis, a comprehensive impact assessment would be essential, which is currently not available. In addition, according to the assessment of the Center for European Politics (CEP), EU climate targets could be made more effective and cheaper by expanding the EU emissions trading system (EU ETS) to all sectors, or by creating a separate emissions trading system for sectors not covered by the EU ETS. According to the CEP, this complex and bureaucratic EU regulation, which aims at small-scale individual regulatory measures and subsidies, would be superfluous as it also does not take into account conflict and coordination procedures between the European Commission and member states.

**Environment Action Program (EAP)**

An 8th EU Environment Action Program (Environment Action Program 2030) with a planned life until 2030 is currently under negotiation. Environmental action programs are frameworks for the EU's environmental policy, in which the most important medium- and long-term goals are formulated and laid down in the form of a strategic framework, possibly with concrete actionable measures.

The new plan is intended to be a legally binding instrument to ensure the implementation by member states of the Green Deal and the EU's climate neutrality targets in 2050. A legally binding monitoring framework is to be established specifically for this purpose. For companies, this essentially concerns a largely pollutant-free ("zero-pollution") environment, an unpolluted ("non-toxic") circular economy or a minimization of environmental pollution from production and consumption across all sectors.

**EU Carbon Border Adjustment Mechanism (CBAM)**

The Commission wants to completely cut the free allocation of emission rights and different dates are now being considered for its final abolition. At the same time, it wants to set up a "Carbon Border Adjustment Mechanism" (CBAM) for imports. This is intended to compensate for higher production costs due to climate protection regulation in the EU. It wants to do this by increasing the price of imports to compensate for the elimination of the free allocation.

The relocation of production to countries with less stringent climate regulations can lead to job losses in the EU and to more $CO_2$ emissions (carbon leakage) globally. Therefore, EU companies that currently receive $CO_2$ emission rights free of charge are affected. In abolishing the free allocation and instead using a Carbon Border Adjustment Mechanism, the Commission wants to make imports into the EU more expensive in order to compensate for the competitive disadvantages of European companies in EU markets due to its climate policy.

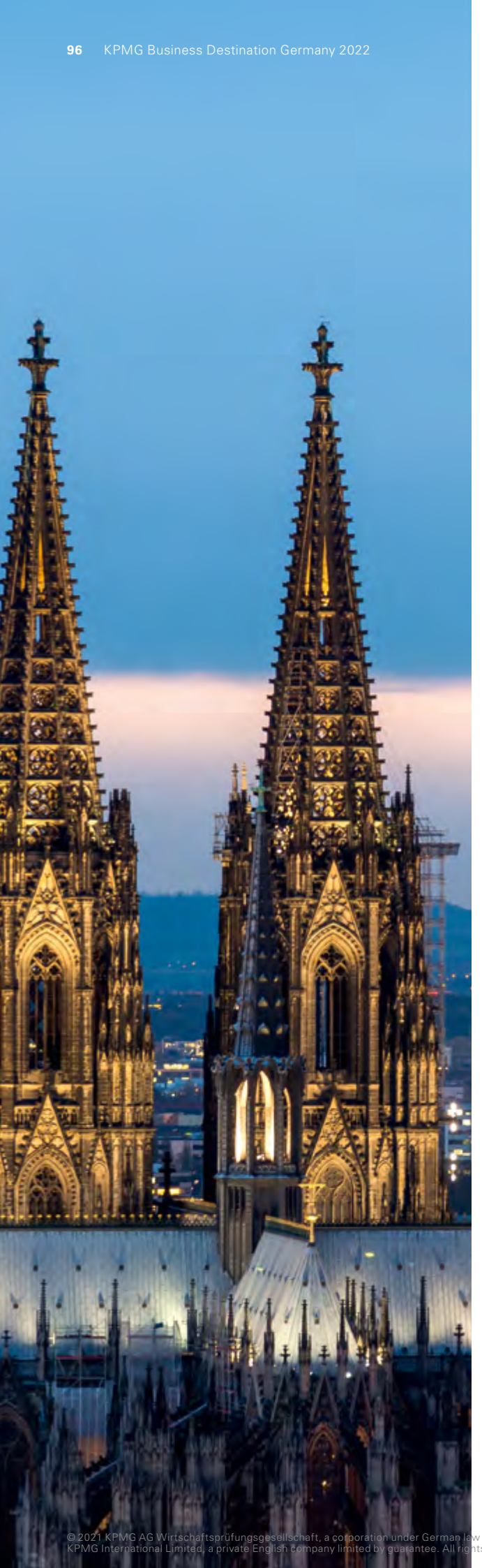
The Center for European Politics (CEP) sees the fact that it does not plan to compensate for the competitive disadvantages of EU exporters as the biggest problem with the EU regulation, which will come from the gradual elimination of the free allocation. As a result, European companies have to reckon with enormous disadvantages in international competition. If the EU Commission does not add a regulation to compensate for the damage suffered by EU exporters, they could migrate their businesses to countries with lower environmental standards. The result would be job losses in the EU and self-defeating higher global $CO_2$ emissions.

**Conclusion – implications of the three EU legislative initiatives**

Regulation and bureaucracy within the EU is already at a very high level and will continue to increase as a result of these regulations. It is understandable that the EU is positioning itself as a pioneer on environment and climate issues. However, this commitment must not be at the expense of the competitiveness of EU-based companies. The EU's strict climate protection regulations – in particular the high and ever increasing cost of emission rights within the framework of the European emissions trading system EU-ETS, as well as the growing bureaucracy due to stricter reporting obligations – lead to massive competitive disadvantages for companies producing in the EU in terms of global competition. This applies to both import competitors in EU markets and exporters in non-EU markets. These competitive disadvantages threaten to lead to a relocation of production to countries with less stringent climate protection regulations. The consequences are both less value added and more job losses in the EU, and even higher global emissions, since production outside Europe is subject to less stringent regulations ("carbon leakage").

Chapter 5

# Foreign investment in Germany



**Chapter 5:**

## Foreign investment in Germany

**Key findings:**

- Around 27,000 Inbounds employ around 3.7 million people and are based all across Germany.
- In Germany Inbounds generate around a quarter of all sales, promote technology transfer and lead to increased competition.
- Germany is one of the most international countries in the world. Stock of German foreign direct investment abroad is at approx. 1,400 billion EUR, which is two and half times as high as foreign direct investment in Germany at approx. 560 billion EUR.
- A foreign direct investment catch-up effect in 2021/22 is expected in Germany after the pandemic-related slump in 2020.

## 5.1 Current state of German companies owned by international investors

There are 26,828 companies[38] recorded in Germany where a foreign entity holds the majority share. Around three quarters of them, namely 20,190, have a European parent company. This number underlines the strength of Germany's involvement in Europe – especially the EU. A total of around 3.7 million people in German Inbounds are employed in the non-financial commercial economy, which corresponds to 12% of all employees. They generated sales of 1,619 billion EUR in 2018 (the most recent year for which data is available). With a view to the actual added value that these companies create in Germany (gross value added at factor costs is a meaningful indicator[39]) Inbounds in the non-financial commercial economy achieved gross value added at factor prices of 344 billion EUR in 2018. According to the Federal Statistical Office, in 2018 Inbounds generated around a quarter (24%) of all sales generated in Germany, and contributed nearly a fifth (19%) to gross value added in Germany.[40] These figures illustrate the relevance of foreign investors to Germany as a business location and its ongoing prosperity. At the same time, the high proportion of sales and gross value added generated by foreign corporations in Germany is surprising, as the proportion of all Inbounds (with the exception of the financial sector) in the total number of companies located in Germany is only one percent. The reason for this is that Inbounds are significantly larger on average than locally-owned German companies.

*Table 2:*
**Business activity of foreign-controlled subsidiaries in Germany 2018**

| Controlling country | Turnover in million EUR | Value added at factor costs in million EUR | Number of employees | Number of subsidiaries |
|---|---|---|---|---|
| USA | 294,536 | 70,735 | 639,069 | 2,675 (10.0%) |
| UK | 196,997 | 40,747 | 344,380 | 3,647 (13.6%) |
| France | 164,570 | 34,805 | 390,488 | 1,213 (4.5%) |
| The Netherlands | 124,635 | 28,841 | 327,495 | 2,582 (9.6%) |
| Switzerland | 121,209 | 33,620 | 446,019 | 3,344 (12.5%) |
| Japan | 83,818 | 17,224 | 160,644 | 1,036 (3.9%) |
| Austria | 54,196 | 12,906 | 181,150 | 1,400 (5.2%) |
| China excl. Hong Kong (SAR), China | 36,889 | 5,575 | 74,709 | 704 (2.7%) |
| Other | 542,355 | 99,656 | 1,133,006 | 10,227 (38.1%) |
| **Totals** | **1,619,205** | **344,109** | **3,696,960** | **26,828 (100%)** |

*Source: Eurostat; Classification of economic activity: Total business economy, except financial and insurance activities*

[38] Since 2018, enterprises have been recorded for the first time according to the EU enterprise definition. This defines the enterprise as the "smallest combination of legal units that forms an organizational unit producing goods and services and [...] has a certain degree of decision-making autonomy. Thus, an enterprise can also consist of several legal units, i.e. the smallest legally independent units that keep accounts for commercial or tax purposes." Until 2017, the terms enterprise and legal unit were used as synonyms. This means, for example, that according to the new definition, two legal units may only be counted as one enterprise if they are organizationally to be regarded as one unit. This explains the decrease in Inbounds reported by the Federal Statistical Office to 26,828 (2018) enterprises compared to 36,187 in 2017.

[39] Value added at factor cost is the value added at market prices minus taxes on production and plus subsidies. Thus, the gross value added at factor cost is free of taxes on production (especially excise taxes) or subsidies.

[40] Federal Statistical Office (Destatis), 2021; Europe: foreign-controlled enterprises


The importance of Inbounds to Germany is constantly growing. According to the Federal Office of Statistics, the 3.7 million employees in Inbounds in 2018 is a rise from 2.2 million in 2009. In the same period of time, sales almost doubled from 883 billion EUR to 1,619 billion EUR. The turnover of all companies subject to tax in Germany – including those from German groups – only increased by around 27% during this period from around 4,900 to 6,770 billion EUR. The gross value added at factor prices of Inbounds has risen by around 60 percent since 2009 – from approx. 213 to 344 billion EUR – in comparison. The gross value added of the German economy as a whole increased by around 27.5 percent[41] in the same period. These figures impressively underline the continued relevance – it is also increasing – of foreign direct investment to the economic well-being of the Federal Republic: Foreign investors are undoubtedly an essential pillar of the German economy.

Inbounds are not only responsible for generating a substantial part of domestic added value, they also play an essential role in technology transfer between countries. In addition, they increase the strength of local competition, which drives local companies to build and create more efficient solutions, to the benefit of their consumers.

The new Tesla plant in Grünheide is such an example of how foreign expertize and the ecosystem of domestic suppliers can stimulate each other. On the one hand, there is the pioneer in the future market of electromobility, whose mission is to revolutionise the automotive market. On the other hand, there are numerous German suppliers whose cutting-edge technology and automotive expertize are possibly enabling Tesla to realize its vision. According to a study by the FH Dortmund University of Applied Sciences and Arts, which was commissioned by the Handelsblatt, around one third of Tesla's Model 3 comes from German suppliers. 40 so-called "hidden champions" were identified in the study as suppliers to Tesla, most of them are located in North Rhine-Westphalia and Baden-Württemberg, more than half are family businesses. Tesla's German suppliers bring statistically around 93 years of experience; the oldest, Möllergroup, based in Bielefeld, was founded as early as 1730. Tesla's establishment in Germany makes their specialist knowledge more accessible, since without them no Model 3 would roll onto the road. Conversely, German companies can also benefit massively from Tesla. From their point of view, Tesla might not just be a customer, but an opportunity to pilot their own innovations in order to gain a foothold in the future market of electromobility.

[41] In 2009, gross value added in Germany was 2,192 billion EUR and in 2018 it was 3,024 billion EUR (Source: Destatis)

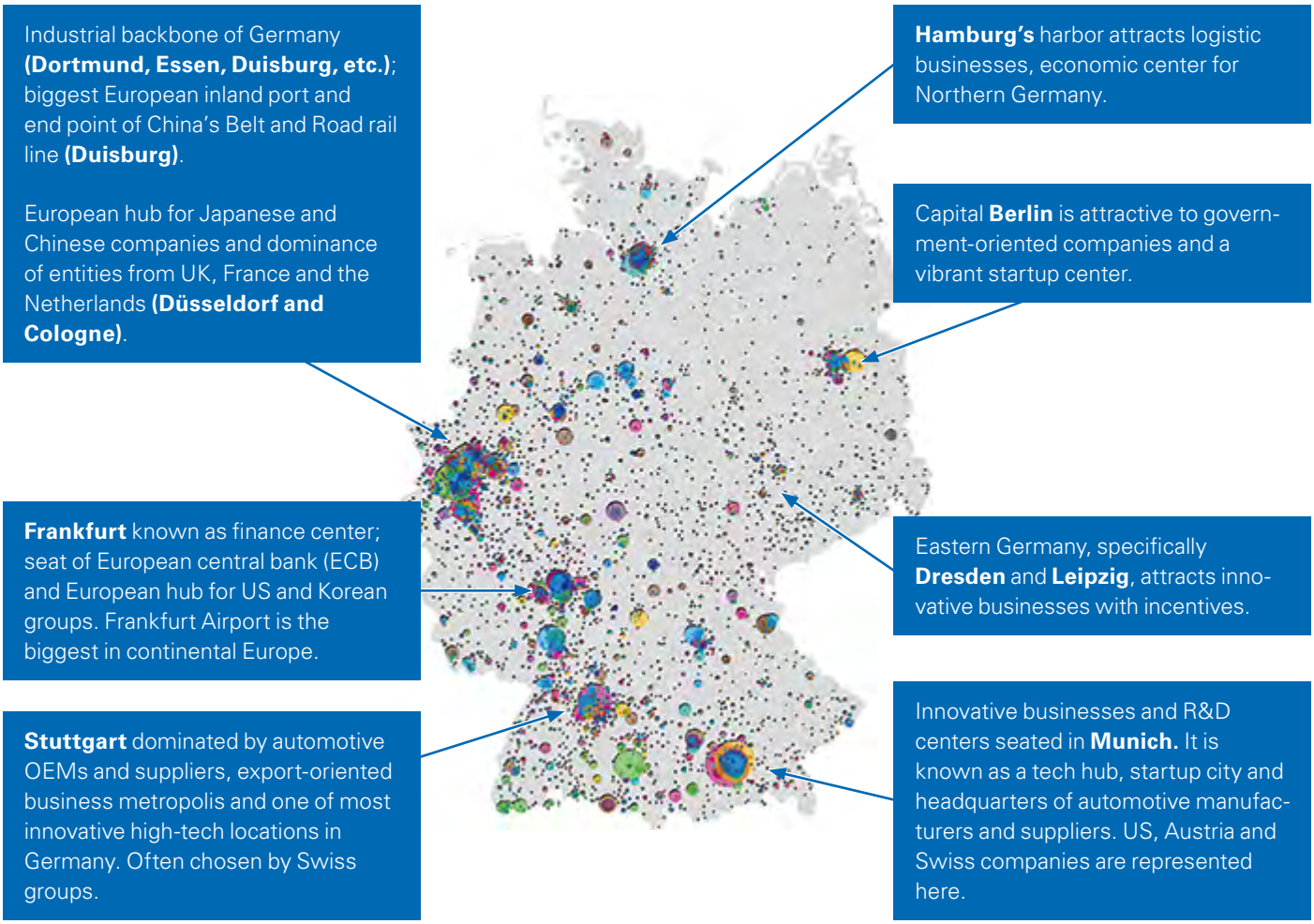
## 5.2 Inbounds distributed over the entire Federal Republic of Germany

In accordance with the German federal system, both in terms of political and economic structure, the subsidiaries of foreign companies are spread across the whole of Germany. This is important to note, as this structure clearly contrasts with centrally governed countries in which the majority of economic value creation takes place around a dominant economic and political center, such as Paris or London. Although the 26,828 subsidiaries of foreign corporations are spread right across Germany, there are still some main hubs with particularly strong economic activity. Figure 57 shows those regions that are particularly popular with international investors by way of the number of employees working in these hubs.

### Key observations:

- In accordance with the **German federal system,** both in terms of political and economic structure, subsidiaries of international groups are **distributed throughout Germany.**
- The figure illustrates which **regions are particularly popular for international investors** based on number of employees working there.
- 30 years after reunification **Eastern Germany** is still underrepresented as regards to international investments despite existing subsidies.

*Figure 57:*
**Where Inbounds are located in Germany**




**Country of origin**

China | UK | France | Japan | The Netherlands | Austria | Switzerland | USA

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

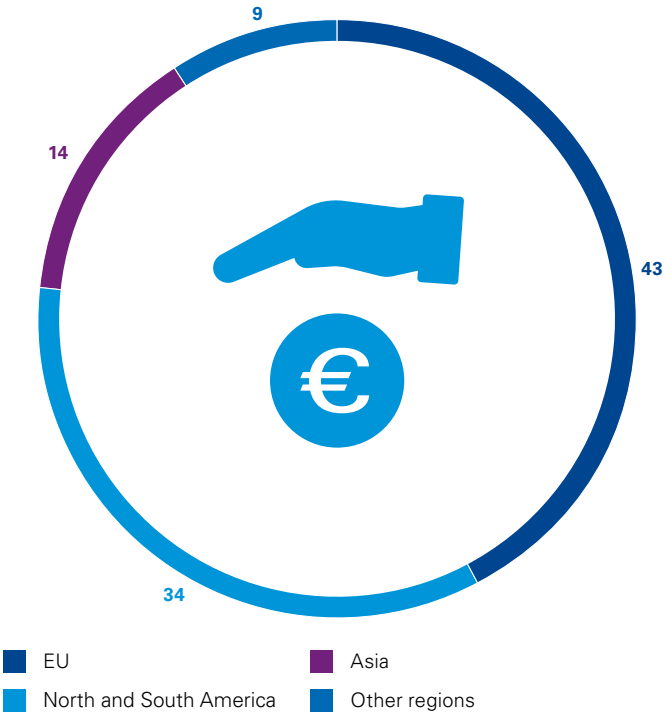
The region around Cologne/Düsseldorf obviously has a special attraction for the settlement of international group subsidiaries. Other larger regional centers are Munich, Stuttgart, Hamburg and Frankfurt. The capital Berlin is the only region in East Germany with a strong showing of Inbounds. Compared to many other European countries, however, the German capital is not a center of (foreign) economic activity. The settlement of Inbounds in Germany reflects the economic strengths of its regions. It is striking that even more than three decades after reunification East Germany is still being neglected in terms of international capital.

## 5.3 Total stock of foreign direct investment (in and out)

German companies have – over decades – built up a consolidated investment portfolio abroad of almost 1½ trillion EUR (as of the end of 2019). This 2019 value is almost twelve times higher than the 1990 level (120 billion EUR). It shows the pace and power with which Germany has globalized its finance over the past 30 years. During the same period – up to the end of 2019 – the 550 billion EUR worth of investment stocks of foreign companies in Germany only equalled about a third of German foreign investment. This fact is mainly down to Germany being a highly taxed country in international comparison, which is reflected in the volume of its investment capital. Nevertheless, the value has increased almost six fold since 1990 (approx. 90 billion EUR).

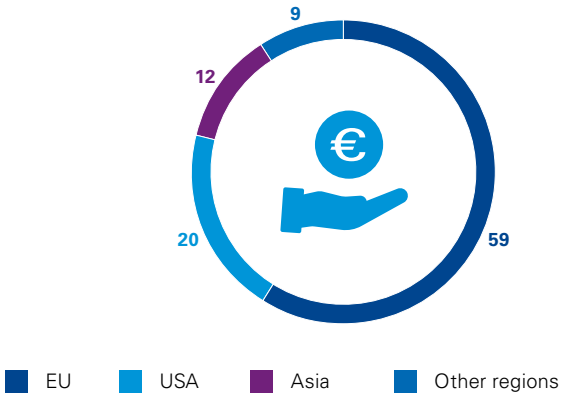
The Bundesbank has calculated that the number of employees in German subsidiaries in other countries doubled from 4 million to just below 8 million between the end of 1999 and the end of 2018. The number of employees at subsidiaries in Germany belonging to foreign corporations has also almost doubled in the same period, increasing from around 2 million to almost 3.7 million.

*Figure 58:*
**German direct foreign investment per region as at end of 2019 (1,372 billion EUR, figures in percent)**




*Source: German Federal Bank monthly report, July 2021*

*Figure 59:*
**Foreign direct investment in Germany as at end of 2019 (556 billion EUR, figures in percent)**




*Source: German Federal Bank monthly report, July 2021*

## 5.4 Slump in foreign direct investment in 2020 with catch-up expected in 2021/22

The intertwining of the world economy has been dynamic in the past decades, not least in the area of direct foreign investment. This fact is also reflected in the number of employees in multinational companies. In the meantime, the global interdependence of national economies is established to such a great extent that it is no longer possible to imagine economic activity that isn't between connected economies. The sustained dynamism – in spite of many fluctuations – of internationalization is an indication that most foreign endeavors pay off for companies. According to a current study commissioned by the Bundesbank[42], internationalization has – for those companies engaged in it – a positive effect generally on productivity, innovation and sales. This has presumably not only made them more competitive but also has done so to the respective industries they represent in general, the upshot has been hopefully that customers have also benefitted. In addition, the employees in an economically internationalized country usually also benefit in the form of higher wages or an increase in available jobs. The danger that takeovers of local companies by foreign companies lead to job losses may prove to be true in individual cases but more often than not the case is the opposite. Indeed, there is also no statistically significant evidence that Geman companies cut jobs after they set up abroad, for example, through extensive outsourcing of activities that were previously carried out in Germany.

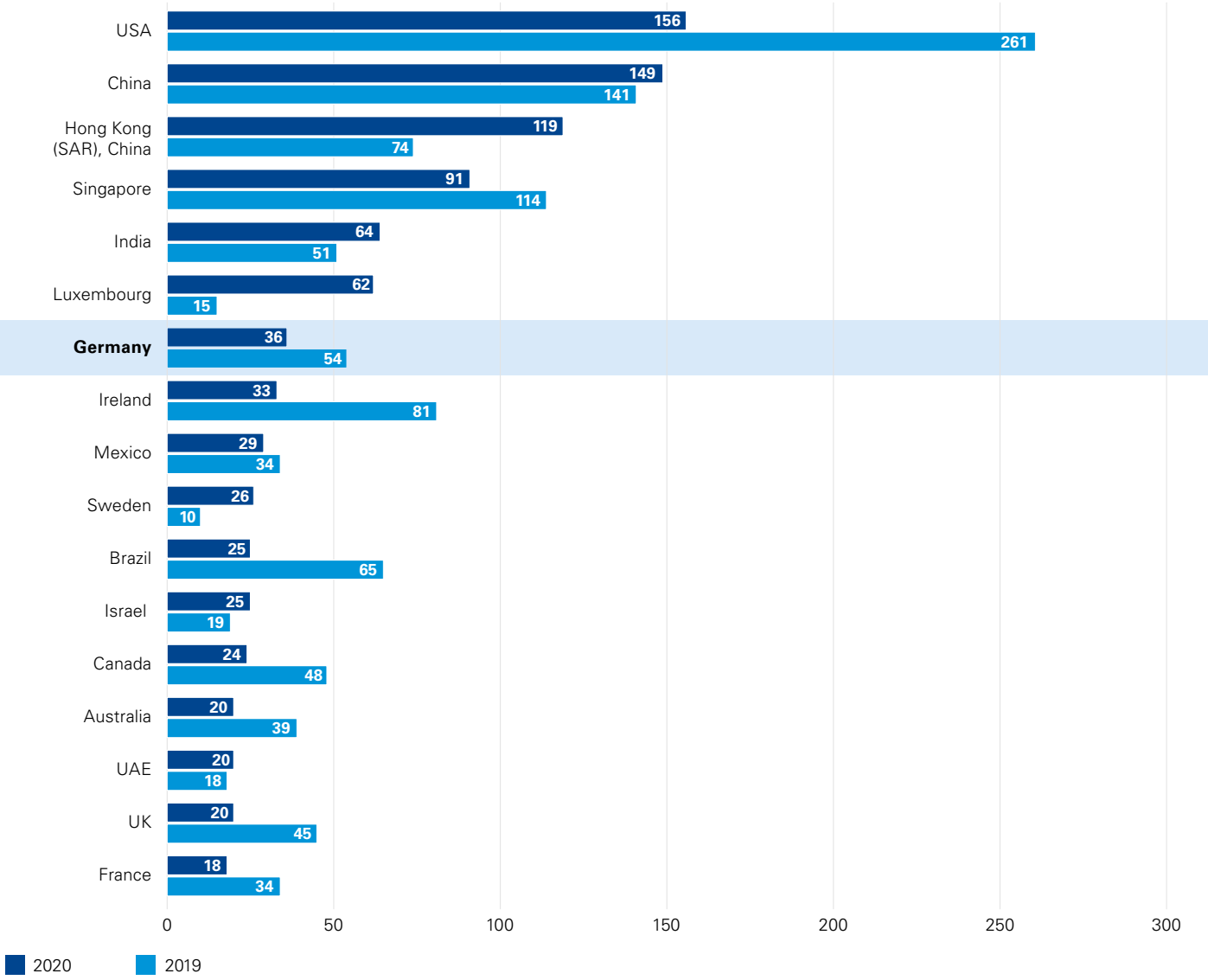
Foreign direct investment refers to all transactions by foreign investors that increase or decrease the local investment portfolio in a target country. Greenfield projects and Merger & Acquisition are, therefore, a facet of this concept. From 2009 on, global recession and the subsequent Corona crisis greatly influenced the growth of foreign investment in European countries. The pandemic stopped the upward trend in this growth.

The volume of foreign direct investment worldwide in 2019 was around 1.5 trillion USD, but according to UNCTAD it fell by around 35% in 2020 to just under one trillion USD. This value is almost 20 percent below the lowest point of 2009, a year of financial crisis. European countries, amongst all industrialized countries, were particularly hard hit, with the flow of foreign direct capital into Europe falling by 80 percent. The inflow of foreign investment capital to Europe was 363 billion USD in 2019, yet it fell to 73 billion USD in 2020. The impact on Europe was extremely serious because the EU's internal market is characterized by strong economic ties between its member states. Shutdowns at European borders, as required during the pandemic, took a heavy toll on intra-European investment activity.

[42] Effects in 2021 on the relevant companies with regard to takeovers of German companies by foreign investors and first-time direct investment in companies abroad by German companies; Deutsche Bundesbank, 2021

Figure 60 shows that Corona did not necesarrily have to lead to a slump in direct investment. Asian countries like China or India, in particular, were able to record positive growth in foreign direct investment capital during the crisis. Massive investment in sectors of digital technologies and business services were able to partially counter the noticeable Corona consequences. As a result, developing countries ("developing economies"), especially Asian, South American and African countries, accounted for around two thirds of worldwide direct investment in 2020.

*Figure 60:*
**FDI inflows for Top 17 host economies in 2019 and 2020 (figures in billion USD)**




*Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)*

The amount of foreign direct investment in Germany fell by a third in 2020 – assuming a value of 54 billion USD in 2019. This points to a great reluctance to invest in the Corona year 2020. The United Kingdom (also Brexit-induced) was hit even worse, with a 55 percent decline in investment flow in 2020, as was France (minus 47%) and the United States (minus 40%). Obviously, foreign investors postponed their investment plans in 2020 in order to first understand the economic course set by the pandemic. At the time of writing this study, forecasts by Oxford Economics indicate that in 2021 we can expect strong growth in foreign direct investment again, at the latest by early 2022. During this time many of the postponed investments are likely to be re-continued, or other types of investment will be made in the new business areas of the future.

## 5.5 Mergers & Acquisitions and Greenfield Investments

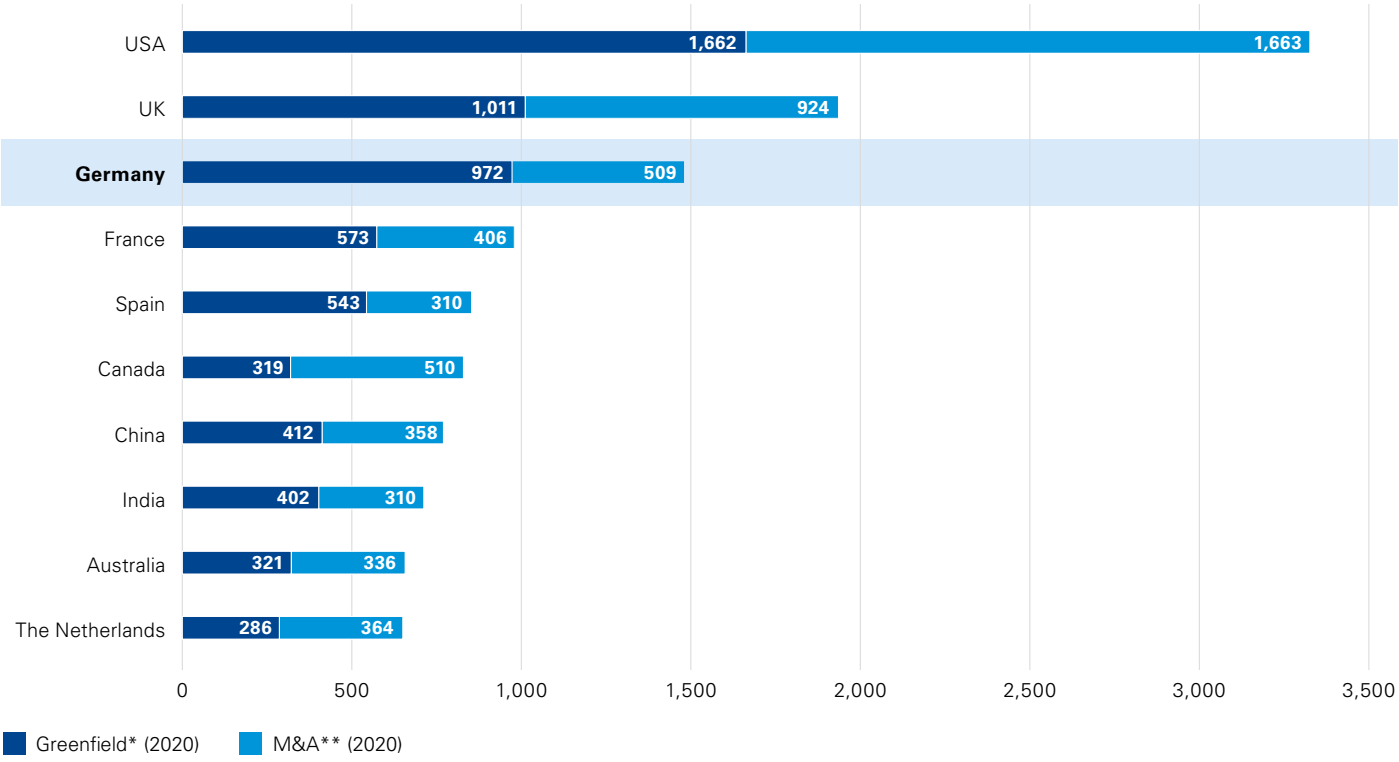
The most important forms of foreign direct investment in Germany are business start ups ("Greenfield investment") and company investments and takeovers (M&A or "Brownfield investment").

A Greenfield investment refers to a type of foreign direct investment in which a company sets up a subsidiary or branch in a foreign country. With a Greenfield investment, the company builds new cross-border facilities (sales office, production or research facilities) from scratch. This is the preferred form of market entry if a company wants to achieve maximum control over its foreign activity. A prime recent example is the construction of a so-called Gigafactory by the American automobile company Tesla in Brandenburg, near Berlin.

Mergers & Acquisitions (M&A) is another option for foreign direct investment. The term refers to the joining of two companies into a legal and economic unit (merger) or the acquisition of parts of the company or the entire company (acquisition). When acquiring a majority stake in a foreign company, the parent company – in contrast to a Greenfield investment – takes over an existing business instead of building it from scratch.

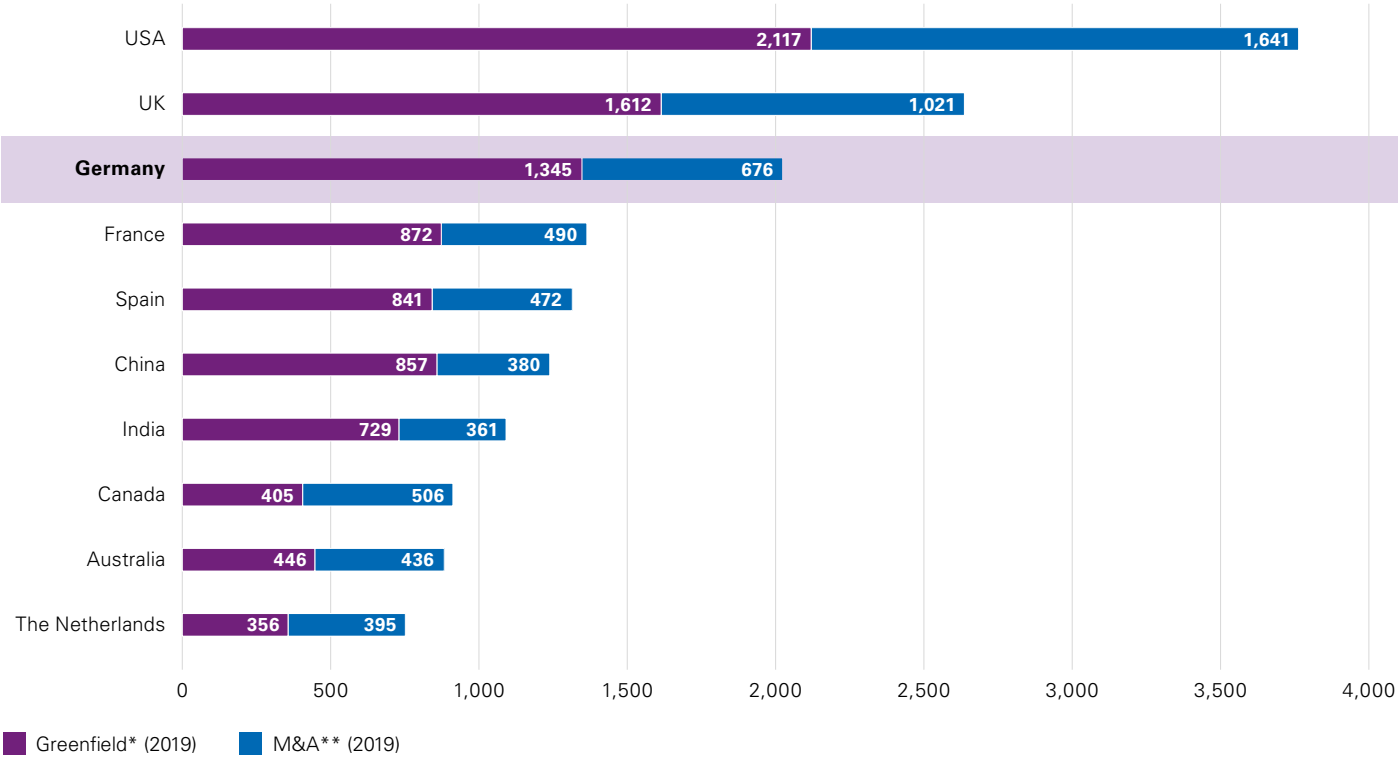
In 2020, a total of 972 Greenfield projects were declared and 509 Mergers & Acquisitions were completed by foreign investors in Germany, which adds up to a total of 1,481 foreign direct investment projects. In 2020, as it had done for the two previous years, Germany ranked third worldwide for this type of investment. The United States continues to hold its own at the top with a combined 3,325 Greenfield projects and M&A deals, followed by Great Britain with 1,935. Compared to 2019, the Corona year 2020 took a toll on the three front-runners in the ranking of direct investments – regardless of whether it was Greenfield or M&A connected.

*Figure 61:*
**Number of Greenfields and M&As in 2020 by destination country**




* *based on Greenfield project declarations (including expansions and joint ventures)*
** *M&A deals which have actually been closed*
*Sources: fDi Markets 2021; Thomson One 2021*

*Figure 62:*
**Number of Greenfields and M&As in 2019 by destination country**

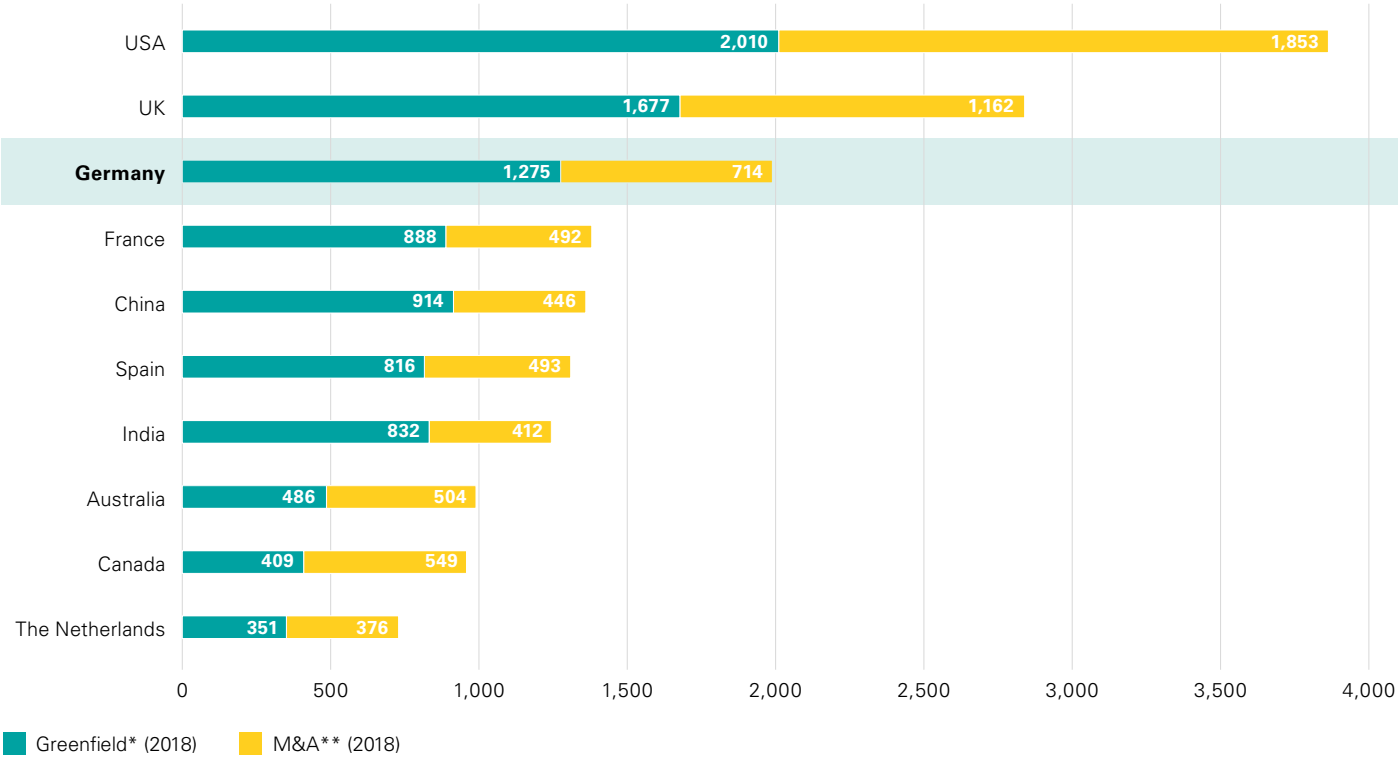



** based on Greenfield project declarations (including expansions and joint ventures)*
*** M&A deals which have actually been closed*
*Sources: fDi Markets 2021, Thomson One 2021 (2019 figures adjusted based on updated data)*

While the change in the total number of projects between 2018 and 2019 in the United States, the United Kingdom and Germany was essentially negligible, the comparison between 2019 and 2020 reveals a devastating decline, especially for Greenfield projects. In the United States their number fell by 21.5 percent and in Germany by around 26.7 percent. In addition to the Corona pandemic, the United Kingdom also had to deal with the turmoil surrounding its separation from the EU (Brexit). Greenfield projects in that country fell by 37.3% in 2020 compared to the previous year, and M&A deals by almost 10 percent.

China has slipped three places to seventh in the 2020 ranking compared to 2018. While 914 foreign investors initiated Greenfield projects in the People's Republic in 2018, the amount has more than halved in 2020 (412). Overall, the decline in M&A deals in 2020 in China (358) was moderate compared to the 2018 level (446). China is reacting and is trying to improve its investment climate by adjusting the regulatory framework. A new law – Foreign Investment Law (FIL) – came into force in China at the beginning of 2020, which aims to fundamentally improve investment conditions for foreign investors. In principle, this law is intended to equate the standing of foreign investors with those of domestic investors.

*Figure 63:*
**Number of Greenfields and M&As in 2018 by destination country**




** based on Greenfield project declarations (including expansions and joint ventures)*
*** M&A deals which have actually been closed*
*Sources: fDi Markets 2021, Thomson One 2021 (2018 figures adjusted based on updated data)*

## 5.6 US companies carry out most Greenfield projects and M&A deals in Germany

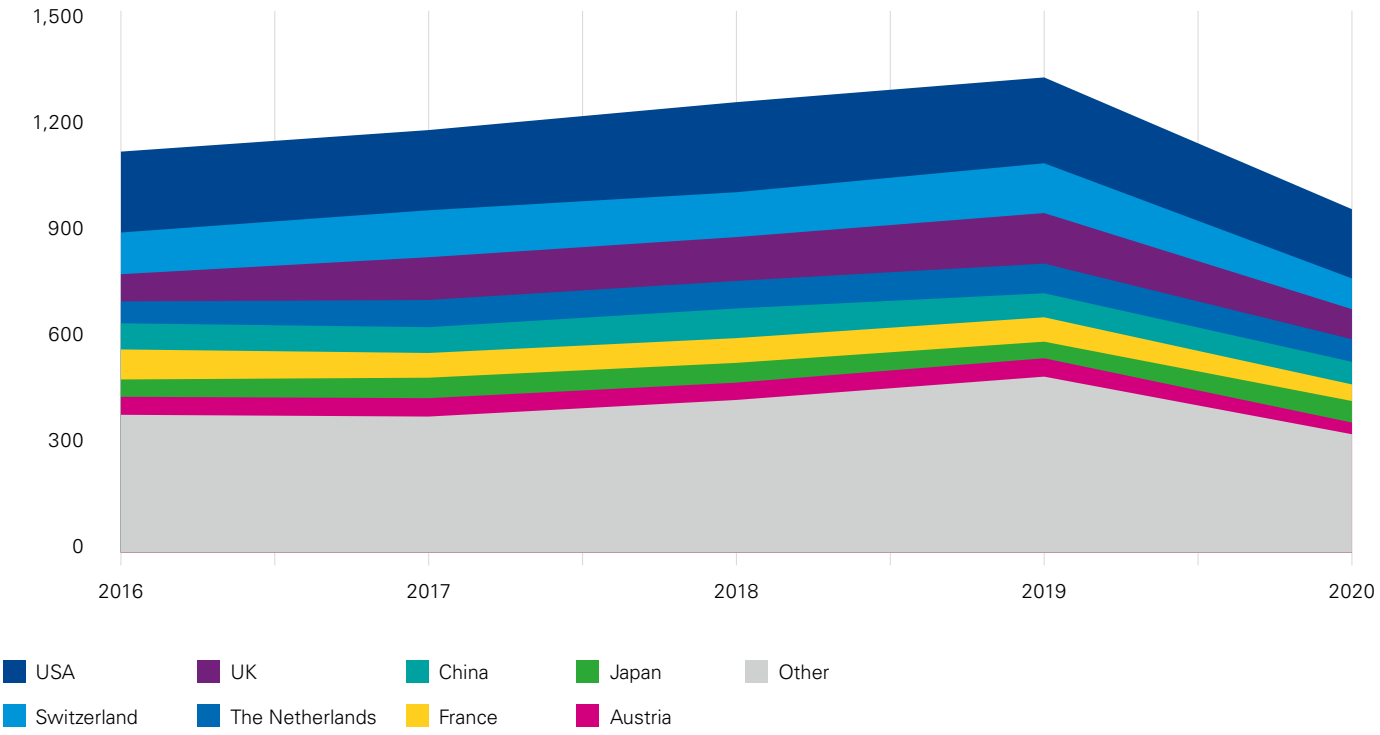
US companies value Germany as a business location a great deal. As per our last study, US corporations are the top investors in Germany with 196 Greenfield projects in 2020, followed by Switzerland with 87 and the United Kingdom with 85. The Netherlands and China follow in fourth and fifth place with 64 each. It is noticeable that the Corona year not only – as discussed in the previous chapter – led to a significant drop in foreign direct investment worldwide, but also in Germany. The number of new Greenfield investments between 2019 and 2020 fell from 1,345 to 972 and that of M&A deals from 676 to 509.

Nevertheless, one should not only look at the sheer quantity of Greenfield deals in order to assess the investment activity of foreign investors in Germany in 2020. The business development agency Germany Trade & Invest (GTAI) has noted a clear trend towards large-scale projects (higher volumes). Two particularly recent and spectacular cases of Greenfield investment underscore this trend and illustrate how diverse investments by foreign corporations can be:

The electric car manufacturer **Tesla** announced the construction of a European Gigafactory in Grünheide in Brandenburg in November 2019. It could create up to 12,000 jobs and produce up to 500,000 vehicles per year. The planned opening date is announced as the beginning of 2022. The planned investment amounts to 5.8 billion EUR, as confirmed by a spokeswoman for the Brandenburg Ministry of Economic Affairs. Tesla boss, Elon Musk, also wants to build the world's largest battery factory on the site. Battery production is not yet included as part of the announced investment volume.

When Elon Musk opens his Gigafactory in Grünheide – a commuting distance from Berlin – not only will jobs be created directly in the capital but an investment of this dimension also has the potential to significantly shape the economic ecosystem around it. For example, Tesla immediately expressed its interest in working with local companies in the future. As a result, a bilateral transfer of knowledge and technology can be assumed, which economists refer to as a "spillover" effect. What this means is that part of Tesla's technological know-how would be transferred to regional business partners. Furthermore, in the last few months it is noticeable how Tesla's main German competitors – in view of its presence in Germany – have reacted to the pressure by switching their model ranges to hybrid and electric models.

*Figure 64:*
**Greenfields* in Germany by acquirer's parent nation 2016–20**

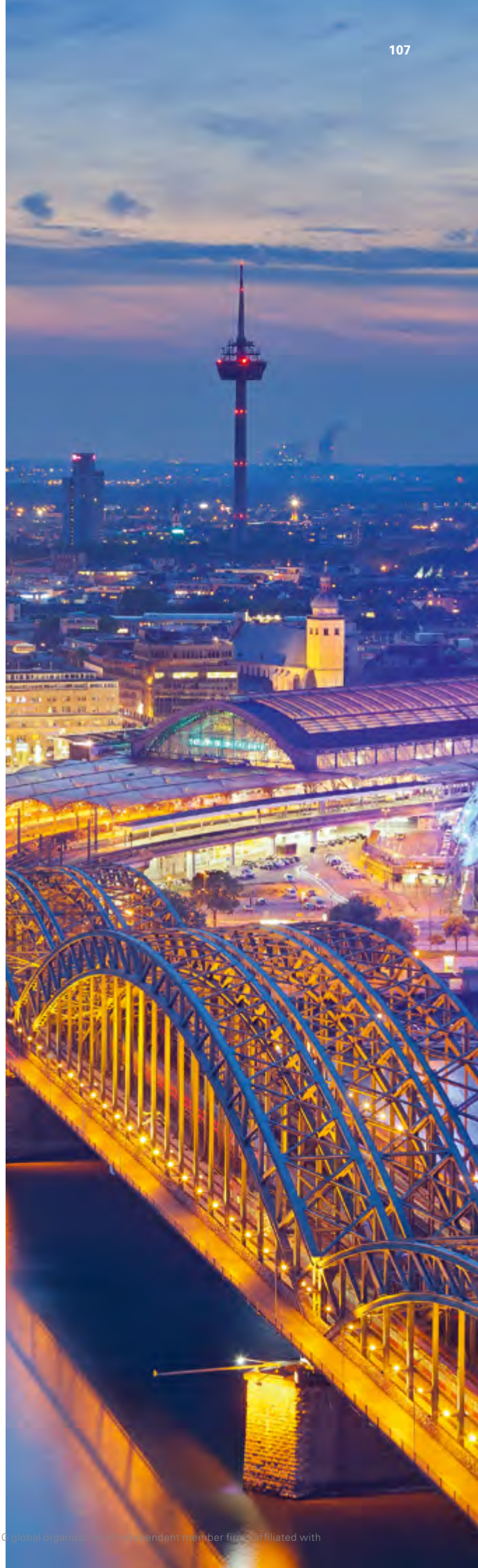



** based on Greenfield project declarations (including expansions and joint ventures)*
*Sources: fDi Markets 2021 (previous year's figures were adjusted based on updated data)*

In addition, being the home of the automotive industry, Germany has succeeded in encouraging the Chinese **SVolt** group to build a battery factory in Saarland. After the German automobile companies initially seemed to have missed the technology shift from combustion to electric, they look to have changed lanes and are moving at great speed. The Handelsblatt is already declaring Germany "more and more the center of electromobility".[43]

300,000 to 500,000 electric cars will be catered for with the SVolt production at its Überherrn location. There is also another location for battery modules and packs in neighboring Heusweiler. The goal is for the first cells to roll off assembly lines as early as 2022. SVolt is entering the European market with these two factories and will be using Germany as a springboard. This announcement is a great win for Saarland. SVolt, a subsidiary of the Chinese car maker Great Wall Motors, will bring two billion EUR and 2,000 jobs to the table in this rather structurally weak, and less championed part of Germany. The state prevailed against competition from 30 other European locations to land the SVolt deal, reports its European boss, Kai-Uwe Wollenhaupt. The Prime Minister of Saarland, Tobias Hans, describes the car as "one of the central pillars of the industrial location that is Saarland", which underlines the importance of these production sites.

These two huge sites make it clear that foreign direct investment – through numerous channels that are directly measurable, such as economic value added, and through those not directly measurable, such as technology transfers – raises domestic productivity to a higher level in the long term. Greenfield investments are, therefore, not only a confirmation of confidence in Germany as a business location but also a welcome strengthening of the capital resources and technological know-how of the German economy.

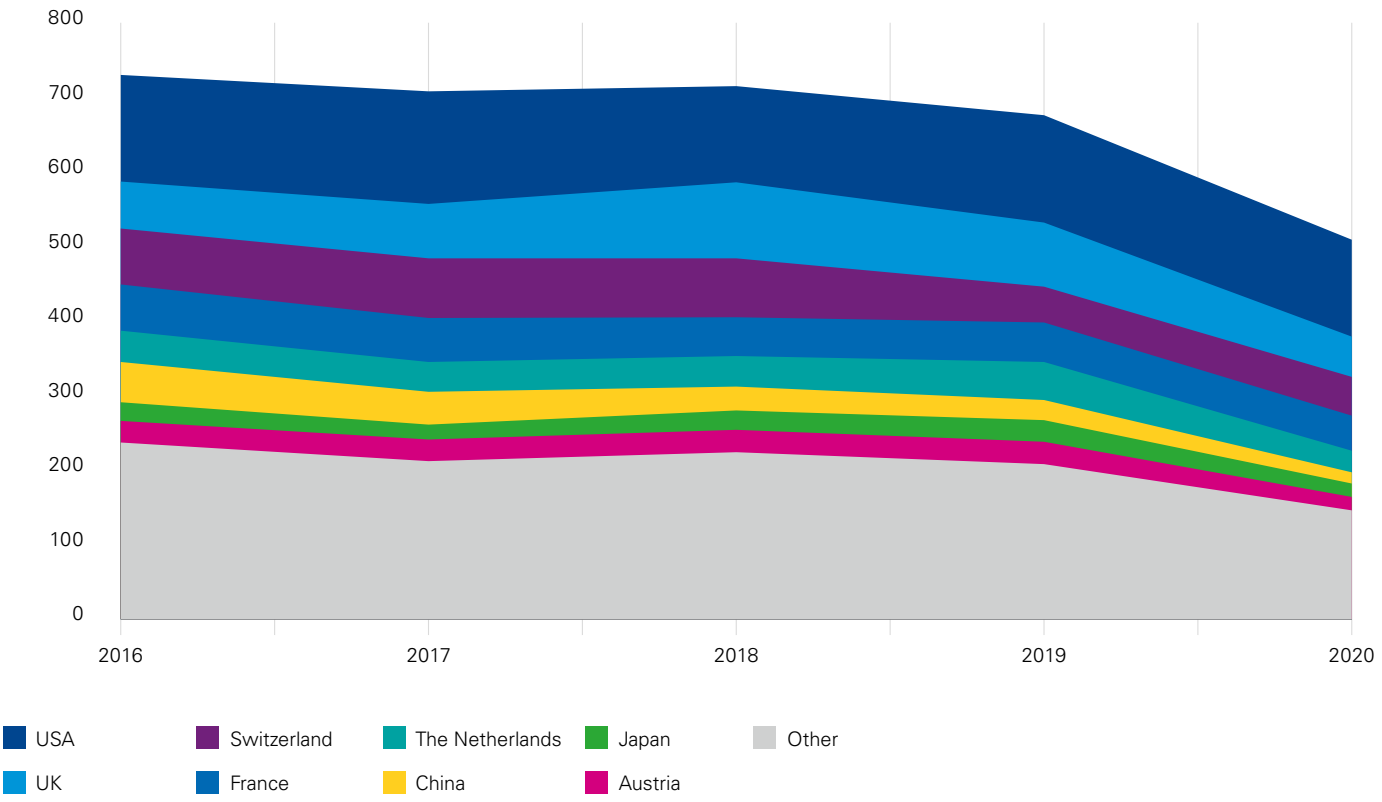


[43] Neue Giga-Fabrik in Deutschland, Handelsblatt, November 18, 2020

Holding the three top places for most M&A deals are the United States (130), the United Kingdom (54) and Switzerland (52), with the latter two swapping positions compared to the Greenfield project ranking. The reduction in M&A deals concluded by Chinese corporations is particularly noticeable. These fell from 54 in 2016 to only 15 in 2020, a decrease that may be related to the tightened foreign trade regulation, which we discussed in Chapter 2.1. As a result, China has slipped from fifth to eighth in the ranking of foreign M&A activities in Germany.

Overall, this type of investment also shows that the number of deals in general has fallen substantially compared to 2019 – from 676 to 509. Lockdowns in most of the world's countries, and the resulting economic uncertainty, have curbed M&A activity. On the other hand, with M&A deals, as with the Greenfields, we are seeing a trend towards higher volume transactions, more so on average than in 2019. Figure 66 shows that the volume of Mergers & Acuqisitions in 2020 was 65 billion USD compared to 59 billion USD in 2019 – this increase is in spite of the reduction in the number of deals.

*Figure 65:*
**M&A deals* in Germany by acquirer's parent nation 2016–2020**

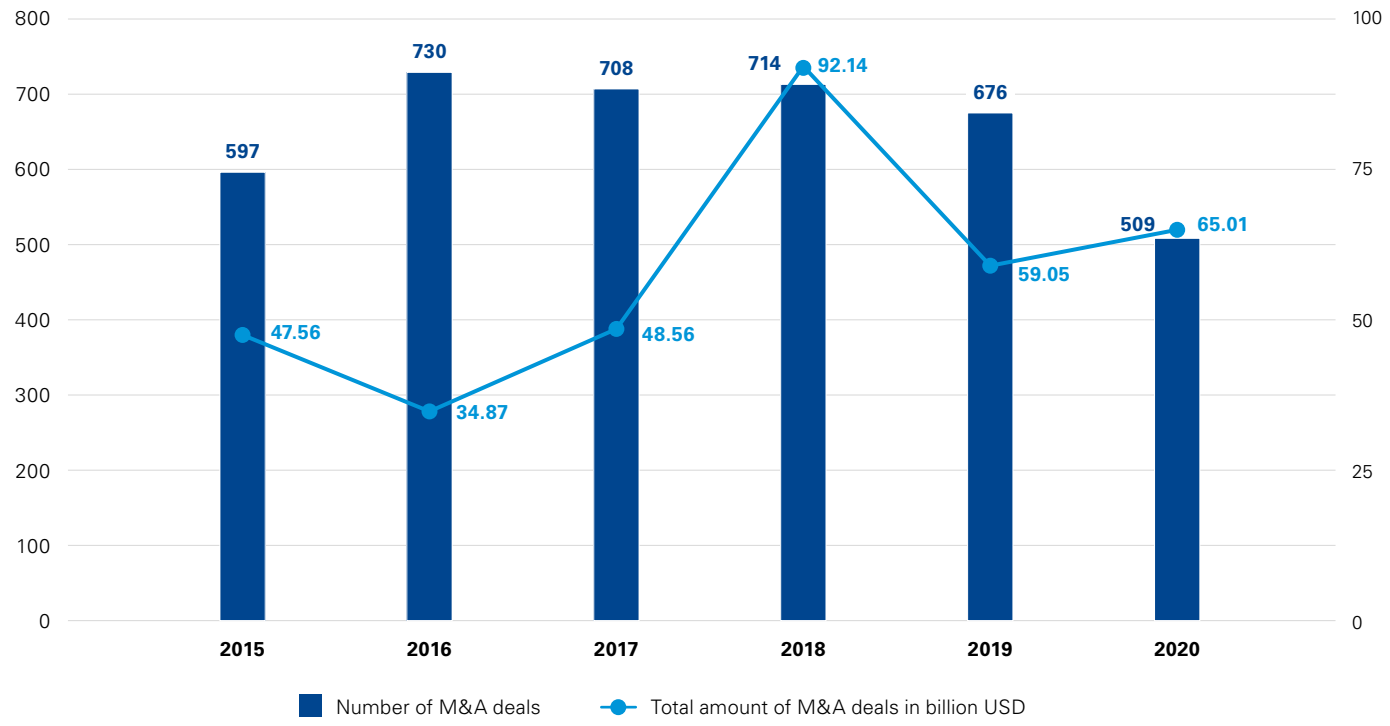



** M&A Deals which have actually been closed*
*Source: Thomson One 2021 (previous year's figures adjusted based on updated data)*

This then suggests that individual international investors have apparently viewed the pandemic as a good time to buy. One thinks, for example, of highly innovative German medical technology companies and the pharmaceutical industry, which were exclusively in the de facto shop window of the world public during the pandemic. Thus, the picture of the effects of the Corona pandemic with regard to the M&A activity of international corporations in Germany in 2020 is a somewhat ambivalent one.

We assume that the noted reduction in Greenfield projects and M&A deals only means a postponement and will be reversed in the coming years. A survey by the Bitkom digital association also supports this assumption. It states that for 8 out of 10 companies, digitalization has gained in importance due to Corona, but almost every third one has, nevertheless, scaled back related investment. An important reason for this was that, due to the lockdown, projects had to be postponed or other priorities were set in order to ensure the very existence of a company during the crisis.

*Figure 66:*
**Number & transaction total of cross-border M&A deals* in Germany**




** based on M&A deals that have actually been closed*
*Source: Thomson One 2021*

When faced with uncertainty, investors tend to postpone potentially promising business opportunities. We, therefore, expect a so-called catch-up in the coming years. Lucrative investment opportunities in Germany – such as Greenfield and M&A deals – have in this regard also been postponed and not canceled.
We expect to see an increasing number of investment projects in 2022. This forecast is also supported by the opinion of renowned experts in M&A transactions, who present further arguments in addition to the Corona catch-up effect.[44] In particular, this includes the size disadvantage of many European corporations compared to American and Asian companies, which is likely to lead to an enormous increase in acquisitions in the near future. Size is particularly important in order to recoup the costs of development more quickly through sales power. In addition, size creates a certain resistance to failure, which is a possibility in any financial venture. Even a merger of heavyweights like BMW and Daimler as a strategic option seems to be on the table according to advisory experts. They consider their individual sales figures to be too low, which could otherwise hinder the development of new technologies. Money for these purposes would be available in the private equity industry. According to a Deutsche Bank expert, 1.6 trillion dollars was waiting to be invested in the first quarter of 2021. This is money that could also be invested in German medium-sized companies, who are looking for buyers because they want to pass their innovative businesses over to the next generation (see Section 3.5).

*Table 3:*
**Major takeovers of German companies by target countries in 2020/21**

| Takeover of … | Industry | Takeover by … | Deal effective as at | Value of deal (in million USD) |
|---|---|---|---|---|
| thyssenkrupp AG – Elevator Technology Business | Manufacture of elevators and conveyors | Consortium: Advent Intern. Corp. (US), Cinven Ltd. UK) | 07/31/2020 | 18,712 |
| Bombardier Transportation GmbH | Rail stock construction | Alstom SA (FR) | 01/29/2021 | 8,200 |
| Bayer AG – Animal Health | Pharma wholesale | Elanco Animal Health Inc (US) | 03/08/2020 | 6,893 |
| BASF SE – Construction Chemicals Business | Production of construction chemical products | Lone Star Funds (US) | 09/30/2020 | 3,511 |
| Axel Springer SE | Publishing | Traviata II S.à r.l. (LUX) | 09/13/2021 | 3,457 |
| AutoScout24, Finanzcheck | E-commerce/ B2B | Hellman & Friedman LLC (US) | 09/10/2021 | 3,222 |
| OSRAM Licht AG | Electr. lamps and luminaires | ams AG (AUT) | 07/09/2020 | 2,740 |
| Uniper SE | Power supply | Fortum Oyj (FIN) | 08/26/2021 | 2,463 |
| Lilium GmbH | Aerospace & Defense | Qell Aquisition Corp. (US) | 08/19/2021 | 2,444 |
| Flender GmbH | Machinery | Carlyle (US) | 08/19/2021 | 2,378 |
| MYR GmbH | Biotechnology | Gilead Sciences, Inc. (US) | 08/12/2021 | 1,752 |
| RIB Software SE | Software development | Schneider Electric SE (FR) | 07/10/2020 | 1,552 |

*Source: Thomson One, 2021*

[44] Das große Fressen, Handelsblatt, July 30, 2021

**"M&A activity in terms of number of deals slowed considerably during the pandemic, however, activity levels picked up speed in the second quarter of 2021. There are different structural reasons why the M&A market will continue to remain strong and vibrant. For 2021 I expect more deals and higher volumes since backlog of deals is high and interest rates are expected to go up starting in 2022. Also, ESG creates a rush for assets in the energy and transportation domain, as well as technological innovations in he healthcare and, more specifically, in the biotechnology space in Germany. will lead to additional transactions."**

***Leif Zierz***
*Managing Partner Deal Advisory,*
*KPMG in Germany*

Chapter 6

# Major investor countries

**Chapter 6:**

## Major investor countries

Germany lies in the heart of Europe and for almost all EU countries it represents the most important or second most important export market. The good and services demand from Germany ensures added value and employment throughout Europe. There are especially close trade links between the economies of highly developed countries. The creation of the European single market in recent decades has established a differentiated international division of labor and in connection with it an intensive exchange of goods.

In 2020, due to the pandemic investment projects in Germany totaled only 1,481, well below the previous year's figure of 2,021. However, there are signs indicating a very powerful recovery in 2021. In particular, the volume of foreign M&A deals in Germany is currently growing on a massive scale. According to J.P. Morgan and the Bank of America, 2021 is likely to exceed the previous record year of 2007. As for Greenfield projects, the numbers seem to be adjusting significantly higher in 2021, even if this forecast cannot currently be backed up with reliable figures.

The United States holds its position as the top investor country in Germany, leading the way with 326 investment projects (Greenfield and Merger & Acquisition Deals[45]) in 2020, followed by Switzerland (139 projects) and the UK (94).

Moreover, the influence of the Asian market on the German economy is shown by the fact that trade with Asia has reached almost double the size of trade with the United States. China is Germany's most important trading partner with goods (exports and imports) worth 212,4 billion EUR traded between them in 2020. In second and third place are The Netherlands with goods traffic of 172,2 billion EUR and the United States with a foreign trade of 171.5 billion EUR.

In the following pages we summarize our findings for each of Germany's eight biggest investor countries: the United States, Japan, China, France, UK, Switzerland, Austria and the Netherlands.

[45] Source: Thomson One 2021, fdi markets 2021 (numbers might be updated by data source)

# USA

**2,675 Inbounds in Germany (10.0% of total)***

**639,069 employees**

**Turnover of 294,536 million EUR**

**Value added at factor costs of 70,735 million EUR****

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

**Input from the survey:**

- The greatest demand for German goods traditionally comes from the USA. In 2020 the value of those goods was 103.8 billion EUR.
- In 2020, Germany was the USA's most important sales market (67.7 billion EUR) in Europe, ahead of the United Kingdom (58.98 billion USD). Worldwide, the most relevant importers of US products are Canada (292.6 billion USD), Mexico (256.6 billion USD), China (106.4 billion USD) and Japan (74.4 billion USD).
- The EU and USA renew transatlantic partnership and end Airbus-Boeing dispute: The punitive tariffs imposed by the USA as a result of the dispute over the subsidization of aircraft manufacturers that has been simmering for a decade and a half will be suspended for five years.
- US Inbounds are bursting with optimism in anticipation of a subsiding pandemic. Almost three quarters (73%) of those surveyed are currently doing at least "good"; the figure is 66% across all countries.
- The further into the future one looks, the greater the confidence: 59% of US Inbounds forecast a (significant) improvement in the short term (2022), and 72% in the medium term (5 years).
- Hesitancy with regard to future investment: Subsidiaries of US groups in Germany are planning investment worth 4 million EUR on average over the next few years; the amount across all countries is 7.2 million EUR.
- Full focus on digitalization of the business (71%) and workforce expansion (73%): US Inbounds who specified a precise annual investment figure want to prioritize these two areas respectively, in addition to their core business (85%). In our 2019 survey, the digitalization of business was only given priority by 52%.
- Germany has top ratings for public safety (83%), political stability (81%) and quality of life (81%); four fifths see Germany as a leader in Europe for these factors (at least Top 5).
- Only 13% see Germany amongst the Top 5 of the EU countries in terms of digital infrastructure, while 36% see Germany in the Bottom 5 or even the worst performer of all.
- According to US Inbounds, Germany urgently needs to increase its attractiveness in terms of its sites for business, only 22% see Germany among the Top 5 locations in the EU for this factor. Perhaps the federal government's funding program agreed upon in 2020, which among other things provides 50 billion EUR for future areas, can bring about a better perception of this factor in the future.
- 13 of the 100 US Inbounds surveyed stated that "a little more" or "much more" investment had been made in Germany as a result of Brexit.

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in the number of US inbounds listed by the Federal Statistical Office from 3,930 (2017) to 2,675 (2018) is, therefore, only of a methodological nature (details: see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| US parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| Amazon.com, Inc. | Amazon Group companies* | Internet retail trade | 29.57 | 12,000 |
| Ford Motor Company | Ford-Werke GmbH | Automobile | 20.31 | 25,844 |
| Exxon Mobil Corp. | ExxonMobile Central Europe | Mineral oil | 9.00 | 3,000 |
| Philip Morris Int. | Philip Morris GmbH | Tobacco products wholesaler | 6.80 | 703 |
| Deere & Company | John Deere GmbH & Co. KG | Agricultural and Forestry machinery | 6.70 | 10,439 |
| Ingram Micro Inc. | Ingram Micro Holding GmbH | Retail | 6.60 | 1,468 |
| The HAVI Group, LP | HAVI Europe Management GmbH & Co. KG | Logistics | 6.20 | 7,539 |
| Walgreens Boots Alliance | Alliance Healthcare Deutschland GmbH | Chemicals & Pharmaceuticals | 4.90 | 2,830 |
| Tech Data Corporation | Tech Data GmbH & Co. oHG | Retail | 4.80 | 1,043 |
| Microsoft Corporation | Microsoft Group companies* | Software development | 4.42 | 2,515 |
| Arrow Electronics, Inc. | Arrow Central Europe GmbH | Semiconductor | 4.20 | 911 |
| ConocoPhillips | JET Tankstellen Deutschland GmbH | Mineral oil processing & wholesale | 4.20 | 244 |
| McDonald's Corporation | McDonald's Deutschland Group companies* | Consumer markets | 3.80 | 61,230 |
| International Business Machines Corporation (IBM) | IBM Deutschland Group companies* | Manufacture of data process-ing systems | 3.80 | 5,514 |
| The Dow Chemical Company | Dow Group companies* | Chemicals & Pharmaceuticals | 3.60 | 3,575 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"Tesla plans to invest around 5 billion EUR in a Greenfield battery factory adjacent to its Giga-factory in Gruenheide near Berlin. The Gigafactory is expecting start of production for Tesla's Model Y in late 2021. These massive investments have been seen as a direct attack on the home turf of German's big 3 auto manufacturers – Daimler, BMW and VW.**

**Tesla's planned '4680 battery factory' is expected to qualify for significant amounts of state aid exceeding 1 billion EUR, and it is the single largest investment in battery production currently being planned in Germany. Elon Musk has stated that the 4680 battery factory will be the largest in the world. Germany is the undisputed top location in Europe for new battery manufacturing facilities, with total planned investments of around 21 billion EUR – almost half of all such invest-ments throughout Europe."**

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

# United Kingdom

**3,647 Inbounds in Germany (13.6% of total)***

**344,380 employees**

**Turnover of 196,997 million EUR**

**Value added at factor costs of 40,747 million EUR****

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

**Input from the survey:**

- German-British economic relations have already cooled since the Brexit referendum. From the beginning of 2021, the United Kingdom has no longer been a member of the European single market. After a transition phase that lasted until the end of 2020, a partnership agreement negotiated between the EU and the United Kingdom came into provisional force on January 1, 2021. With the UK's exit from the EU internal market and customs union, Brexit is finally complete.
- According to Eurostat, the number of UK Inbounds in Germany increased by around 10 percent to 3,647 in 2018 – the last available year of record – compared to the previous year. A possible indication that UK corporations were increasingly investing in Germany in order to maintain access to the EU internal market should a Brexit actually happen after the referendum.
- Exports to the United Kingdom have declined continuously since the Brexit decision. In 2015 they were at 89 billion EUR, following the Brexit vote in 2016 they fell to just 66 billion EUR in 2020. German imports from the United Kingdom were 34.72 billion EUR in 2020. The total trade volume between the two countries in 2020 was, therefore,101.57 billion EUR.
- Over a quarter (26%) of all interviewed Inbounds with a UK mother company made "much more" (10%) or "slightly more" (16%) investment in Germany as a result of Brexit.
- 50% of UK Inbounds rated Germany's digital infrastructure as Bottom 5 or worst performer, making them the harshest critics when compared to the 33% average rating across all Inbounds.
- Inbounds from UK groups seem to have particular difficulties in recruiting suitable personnel. Only 22 percent of them count Germany at least among the Top 5 EU locations when it comes to the availability of specialist and highly qualified workers: the rating across all countries is 37%.
- UK groups are most attracted to the south of the republic. 58% of them chose Bavaria and 42% Baden-Württemberg as amongst the three most popular federal states for future business locations.
- More than a third of the UK Inbounds surveyed want to expand their presence in Germany: 35% of them are planning acquisitions, joint ventures or investments, the figure is only 19% across all countries.
- Participants from UK Inbounds enjoy the quality of life (87% state at least Top 5 amongst EU countries), the public safety (86% at least Top 5) and the political stability (87%) in Germany.

* There has been a change in 2018 in the methodology as to how companies are recorded (EU company definition) (for details, see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| UK parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| BP plc | BP Europa SE | Petroleum products wholesaler | 28.1 | 3,550 |
| Ineos Group | Ineos Group companies* (e.g. INEOS Deutschland Holding GmbH) | Chemicals & Pharmaceuticals | 21.0 | 10,309 |
| Royal Dutch Shell plc | Shell Deutschland Oil GmbH | Mineral oil | 19.5 | 2,867 |
| Vodafone Group Plc | Vodafone Group companies* | Telecommunications | 11.3 | 12,661 |
| Trailstone UK Ltd. | Trailstone GmbH | Energy trade | 8.0 | 21 |
| Rolls-Royce Holdings plc | Rolls-Royce Group companies* | Production of combustion engines and turbines; Aerospace engineering | 5.5 | 10,763 |
| Imperial Brands plc | Imperial Tobacco Holdings, Reemtsma | Tobacco processing | 5.3 | 1,790 |
| Coca-Cola European Partners | Coca-Cola European Partners Deutschland GmbH | Consumer markets | 2.8 | 7,686 |
| Adient Holding Germany Ltd. | Adient Germany Ltd. & Co. KG | Automotive | 2.5 | 5,845 |
| Computacenter plc | Computacenter Holding GmbH | Technology management services | 2.3 | 6,803 |
| Hays International Holdings Ltd. | Hays Groups companies* | Personnel and job placement; Vocational training | 2.1 | 7,250 |
| GlaxoSmithKline plc | GlaxoSmithKline Group companies* | Medical research & development | 2.1 | 3,429 |
| Sky Ltd. | Sky Deutschland Fernsehen GmbH & Co. KG | Subscription TV channel | 2.1 | 1,397 |
| Jaguar Land Rover Ltd. | Jaguar Land Rover Deutschland GmbH | Motor vehicle wholesaler | 1.5 | 318 |
| British American Tobacco plc | British American Tobacco (Germany) GmbH | Tobacco processing | 1.3 | 840 |
| DS Smith plc | DS Smith Group companies* | Corrugated packaging | 1.1 | 2,803 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"Despite of the execution of Brexit in January 2021 the UK and Germany remain important trade partners for each other. It can be noted that UK companies are increasingly establishing operations in Germany as an entry platform to the EU. As such, a total of 630 UK companies have started new businesses in Germany since the UK voted to leave the EU according to the GTAI."**

***Nikolaus Schadeck***
*Partner, Head of Country Practice UK,*
*KPMG in Germany*

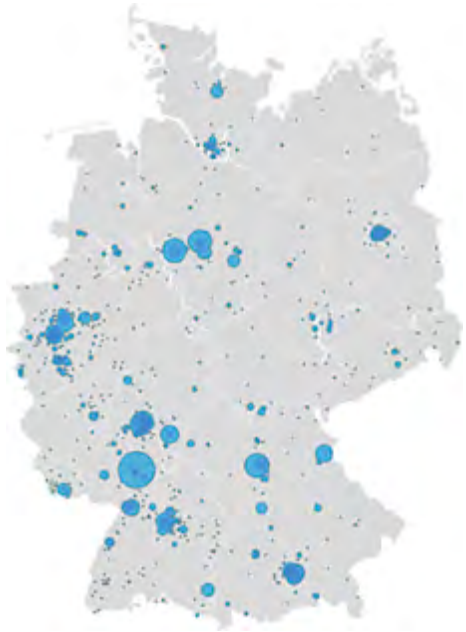
# France

**1,213 Inbounds in Germany (4.5% of total)***

**390,488 employees**

**Turnover of 164,570 million EUR**

**Value added at factor costs of 34,805 million EUR****



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

**Input from the survey:**

- In 2018, German trade with France had a total volume of 147 billion EUR. German goods worth 91 billion EUR were exported to France and French goods worth 56 billion EUR were imported.
- 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 are its most influential members.
- Companies in Germany from French group view the current economic situation rather pessimistically. 47% rate the situation for their global corporate group as "good" or "very good" (all countries is 65%).
- 23% of French groups are making use of German funding programs and 20% are planning to do so at a later point in time (across all countries the values are only 11% and 13%, respectively). 69% of the companies that take advantage of or plan to use funding rely on it for climate protection measures and 46% for both electric vehicles and future communication technologies.
- French subsidiaries perceive Germany as a location in terms of innovation, technology and efficiency much more positively than other countries, In terms of labor productivity exactly four fifths see Germany as at least among the Top 5 in the EU (all countries is 71%), as 53% do for automation of processes (all countries is 45%) and 60% do for innovation capacity (all countries is 36%).
- The German tax system, however, engenders the same irritation with French Inbounds as it does with all other countries. Only 20% of the French companies have Germany in the Top 5 amongst EU countries.

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in FR inbounds listed by the Federal Statistical Office from 2,414 (2017) to 1,213 (2018) is, therefore, only of a methodological nature (details: see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| French parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| TotalEnergies SE | TOTAL Group companies* | Crude oil and natural gas | 16.58 | 5,732 |
| Sanofi S.A. | Sanofi-Aventis Deutschland GmbH | Pharmaceuticals | 4.47 | 8,161 |
| Edenred S.A. | UNION TANK Eckstein GmbH & Co. KG | Mineral oil trade | 4.00 | 367 |
| Sonepar S.A. | Sonepar Deutschland GmbH | Wholesale electronics | 3.42 | 5,919 |
| Compagnie de Saint-Gobain S.A. | Compagnie de Saint-Gobain Group companies* | Building materials | 2.30 | 9,400 |
| Faurecia SE | Faurecia Automotive GmbH | Automotive components | 1.83 | 5,545 |
| Group La Poste | DPD Deutschland GmbH | Parcel delivery service | 1.80 | 10 |
| Renault S.A. | Renault Deutschland AG | Automobile | 1.78 | 411 |
| Air Liquide S.A. | Air Liquide Group companies* | Production of industrial gases | 1.70 | 4,500 |
| Burelle S.A. | Burelle Group companies (e.g. Plastic Omnium GmbH)* | Automotive components | 1.40 | 4,925 |
| Engie S.A. | ENGIE Deutschland GmbH | Electricity generation | 1.11 | 3,860 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"France and Germany are the two strongest economies in Europe and also closely aligned as driving forces of the EU. With more than 1,200 French-owned companies in Germany, the French are the third largest foreign investor in Germany after the US and UK. Many of those French inbounds are active in the service-providing sector, for example Veolia or Europcar, and in the industrial manufacturing sector, for example Airbus, Thales or Air Liquide."**

***Petra Mayran***
*Partner, Head of Country Practice France,*
*KPMG in Germany*

# The Netherlands

**2,582 Inbounds in Germany (9.6% of total)***

**327,635 employees**

**Turnover of 124,635 million EUR**

**Value added at factor costs of 28,841 million EUR****

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

**Input from the survey:**

- The Netherlands is Germany's second most important trading partner in the world after China, even ahead of the USA. As such, the Netherlands is Germany's most important European trading partner.
- The Netherlands and Germany had a combined trade volume of 172,2 billion EUR in 2020. Exports to Germany aggregated 88,3 billion EUR, imports at 84,5 billion EUR, creating a virtually equal trade balance.
- A fifth of total Dutch exports and a quarter of agricultural export products are shipped to Germany.
- Companies with a parent group in the Netherlands usually rate the characteristics of Germany as a business location worse than all other countries.
- The digital infrastructure (only 3% say it is amongst the Top 5 EU countries), the tax system (7%) and the innovation environment (20%) receive the lowest scores from Dutch entities.
- The standard of living in Germany, on the other hand, is evaluated by 77 percent of Dutch interviewees as at least among the Top 5 in Europe. The research landscape (60%) is also perceived as above average in a country comparison.
- Two thirds of Dutch corporations use Germany as a location to organize their DACH activities (67%). The other European (20%) and non-European activities (27%) play a subordinate role for the NL-Inbounds. Logically, their export share is relatively low, only 13% have an export quota above 50 percent. These are probably mainly organized at group level in the Netherlands.
- 83 percent of Dutch Inbounds who already use or plan to use German funding programs (19%) would like to use them primarily for the purpose of expanding future communication technologies.

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in NL-inbounds listed by the Federal Statistical Office from 4,221 (2017) to 2,582 (2018) is, therefore, only of a methodological nature (for details, see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| Dutch parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| TenneT Holding B.V. | TenneT TSO GmbH | Electricity transmission | 19.85 | 2,075 |
| Airbus Group SE | Airbus Group companies* | Aerospace & Defense | 5.70** | 45,568 |
| LyondellBasell Industries N.V. | LyondellBasell Group compa-nies* (e.g. Basell Polyolefine GmbH) | Chemicals & Pharmaceuticals | 4.00 | 2,257 |
| Vion N.V. | Vion Group companies* | Meat products wholesaler | 3.30 | 2,739 |
| Koninklijke Philips N.V. | Philips GmbH | Manufacture of electrical equipment and apparatus | 2.64 | 4,213 |
| Stellantis N.V. | Stellantis Group companies* | Automobile | 2.30 | N/A |
| Randstad N.V. | Randstad Deutschland GmbH & Co. KG | HR services | 2.36 | 2,770 |
| Unilever N.V.*** | Unilever Group companies* | Retail | 1.50 | 1,080 |
| AkzoNobel N.V. | AkzoNobel GmbH | Chemicals | 1.05 | 2,469 |
| Zuivelcoöperatie FrieslandCampina U.A. | FrieslandCampina Germany GmbH | Manufacture and sale of milk and milk products | 1.03 | 1,171 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

*** Majority Shareholder

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"The Dutch-German Innovation Pact was signed in January 2021. The pact is intended to promote innovation in important future areas, such as Industry 4.0, $CO_2$ reduction in industry, economic policy aspects of mobility, the health economy and key technologies."**

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

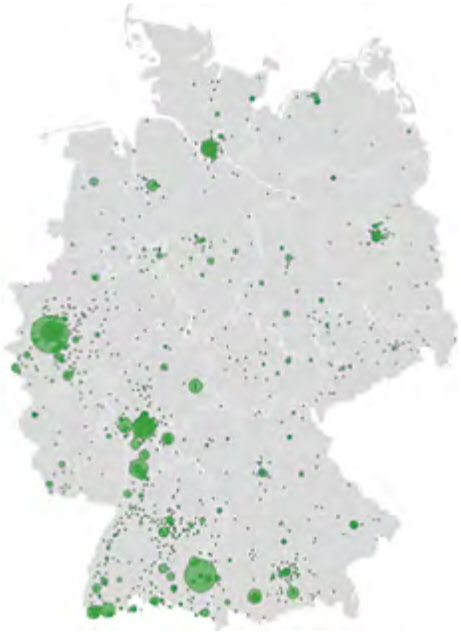
# Switzerland

**3,344 Inbounds in Germany (12.5% of total)***

**446,019 employees**

**Turnover of 121,209 million EUR**

**Value added at factor costs of 33,620 million EUR****



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

**Input from the survey:**

- Switzerland exports more goods across the border to the southwestern German state of Baden-Wuerttemberg than to China. Overall, it exported goods to Germany in 2020 with a value of around 40.4 billion Swiss francs, which is 17.9 percent of total exports.
- The most important export goods were chemical-pharmaceutical products, which were exported to a total of 116.4 billion Swiss francs and made up 38.9 percent of total exports of Switzerland.
- Shortly before we carried out our survey, a proposed framework agreement between Switzerland and the EU failed at the end of May 2021. The aim was to put relations between Switzerland and the EU, which are currently regulated in a number of individual contracts, on a more stable foundation. The Chamber of Commerce predicts that for companies in Switzerland, but also for those in the EU, market access threatens to become significantly more complex and expensive as a result of the failure to reach agreement as, for example, products would have to be certified again for respective markets. Access to the single market will not be lost for Switzerland, but it will become more difficult to deal with.
- Swiss Inbounds rate their current economic situation in Germany as at least good (70%) and 77% predict that in the next five years their economic prospects will continue to improve. In view of the failure of the framework agreement between the EU and Switzerland these values are extremely surprising.
- Subsidiaries from Swiss groups in Germany are mostly (60%) utilized to ensure EU access (European headquarters).
- One third (33%) of Swiss Inbounds is planning larger investment (over 10 million EUR per year), which is the highest proportion in a country comparison (average is 19%). Swiss Inbounds invest in capacity expansions (100%), maintenance (75%) or future technologies (58%).
- 37% of Swiss Inbounds (all countries is 24%) are engaged in German government support programs or planning to be so in the future. Mostly they expect to use the funding for expansion of their communication networks and infrastructures (55%) (e.g., 5G and 6G campus networks for industrial applications), as well as to boost climate protection measures (55%).
- Almost two thirds (63%) of Swiss companies rate the research landscape in Germany as at least one of the Top 5 in Europe, which is the highest value among the countries after Japan (80%).

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in CH Inbounds listed by the Federal Statistical Office from 4,503 (2017) to 3,344 (2018) is, therefore, only of a methodological nature (for details, see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| Swiss parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| Roche Holding AG | Roche Group companies* | Pharmaceuticals | 8.56 | 15,860 |
| Liebherr-International S.A. | Liebherr Group companies* | Manufacture of mobile and crawler cranes | 6.15 | 18,000 |
| Coop-Gruppe Genossenschaft | Coop Group companies* | Luxury food wholesaler | 5.89 | 20,790 |
| Novartis AG | Novartis Deutschland GmbH | Management of companies in pharmaceutical field | 4.35 | 5,958 |
| Walter Frey Holding AG | Emil Frey Automobil Holding Deutschland GmbH | Motor vehicle importer | 4.21 | 4,094 |
| Bauhaus AG | Bauhaus Group companies* | Home improvement chain | 3.90 | N/A |
| Nestlé S.A. | Nestlé Group companies* | Production and distribution of food products | 3.70 | 4,747 |
| ALSO Holding AG | Also Deutschland GmbH | IT/Retail | 3.60 | 1,049 |
| Kuehne+Nagel International AG | Kuehne+Nagel (AG & Co.) KG | Logistics | 3.50 | 11,282 |
| ABB Ltd. | ABB AG | Production of electric motors, generators and transformers | 2.98 | 8,135 |
| COFRA Holding AG | C & A Mode GmbH & Co. KG | Clothing retailer | 2.33 | 13,410 |
| SoftwareONE AG | COMPAREX AG | Consulting and development in IT | 1.42 | 2,405 |
| EuroChem Trading GmbH | EuroChem Agro GmbH | Fertilizers; products for agriculture | 1.21 | 122 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"Switzerland is linked to the EU via more than 100 bilateral agreements. These ensure the export-strong country largely barrier-free access to the European single market. Switzerland is breaking off negotiations with the EU on the conclusion of an institutional framework agreement. The framework agreement would have affected the agreements on the free movement of people, agricultural trade, air and land transport and the elimination of technical barriers of trade. Overall, around half of all Swiss exports go to the EU. The share of EU exports that end up in Switzerland is only 7 percent. The end of the framework agreement further means that the EU will not conclude any new agreements in different areas for the time being. Among other things, this could lead to gaps in the Swiss electricity supply."**

***Volker Zieske***
*Partner, Head of Country Practice Switzerland, KPMG in Germany*

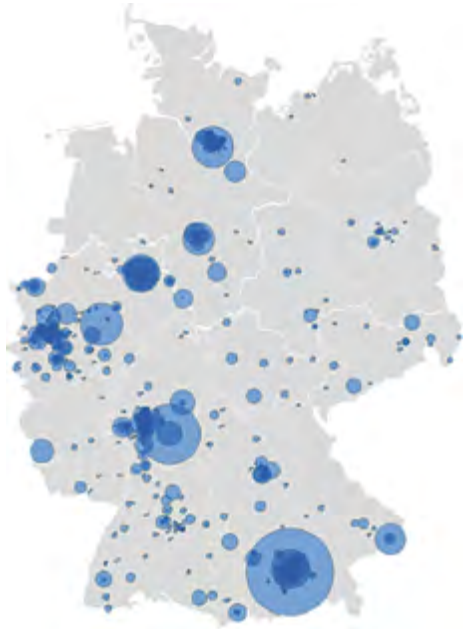
# Japan

**1,036 Inbounds in Germany (3.9% of total)***

**160,644 employees**

**Turnover of 83,818 million EUR**

**Value added at factor costs of 17,224 million EUR****



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

**Input from the survey:**

- Germany is Japan's most important trade partner in Europe, accounting for around 39 billion EUR of bilateral trade in 2020. However, exports from Germany fell sharply in the Corona year – by 16.8 percent. The decline in imports from Japan was also substantial, falling by 14.9 percent to 17.6 billion EUR.
- The free trade agreement between Japan and the EU (JEFTA) came into force in 2019. It removes barriers to imports into Japan and reduces or removes EU tariffs on Japanese products, e.g., cars and spare parts.
- When the UK left the EU on January 1, 2021, a bilateral free trade agreement between Japan and the UK came into force based on the cornerstones defined in JEFTA. It remains to be seen whether the UK can use this agreement to prevent Japanese groups from moving to continental Europe, especially Germany.
- Japanese Inbounds stand out by country comparison with a significantly more positive assessment of their current economic situation: 70% rate it as at least good, 23% as very good. 73% even forecast an improvement in their economic prospects over the next 5 years.
- It is very gratifying that respondents from a high-tech country like Japan particularly value the research landscape in Germany. 80% (all countries is 56%) see it in the Top 5 of the EU or better.
- Japanese groups rely on the tried and tested: they are strongly represented in Hesse and 30% also cite this state as a favorite location for potential new investment.
- Japanese Inbounds are enthusiastic about the quality of life in Germany (86% say at least Top 5) and its political stability (87%).
- 71% of the companies that responded to the survey expect to invest between 1 and 10 million EUR in Germany per year. 80% of them view digitalization of their business as an essential investment area, which is more than who see "safeguarding the core business" (73%) as a priority.
- As in most other countries, the quality of the digital infrastructure is very rarely classified as high – only 17% see Germany amongst the Top 5 of all EU countries.
- Japanese Inbounds' business activities in Germany focus on sales (83%), the provision of services (40%) and production (30%).
- The majority (57%) of the Japanese subsidiaries use Germany to organize their European business (European headquarters) and even more so as DACH headquarters (77%) to coordinate activities in German-speaking countries. Therefore, the export share is relatively high compared to Inbounds of European groups, almost half (46%) of the Japanese Inbounds have an export share of at least 40%.

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in JP inbounds listed by the Federal Statistical Office from 1,159 (2017) to 1,036 (2018) is, therefore, only of a methodological nature. (Details: see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| Japanese parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| Panasonic Corp. | Panasonic Group companies* | Consumer & Industrial elec-tronics wholesaler | 4.03 | 3,184 |
| Fujitsu Limited | Fujitsu Group companies* | Data processing equipment & Software wholesaler | 3.46 | 5,268 |
| TDK Corp. | TDK Group companies* | Electronic components producer | 3.00 | 2,643 |
| DMG MORI Co., Ltd. | DMG MORI Aktiengesellschaft* | Machine tools manufacturer | 2.70 | 7,335 |
| Toyota Motor Corp. | Toyota Group companies* | Automobile & Motorsport | 2.42 | 1,933 |
| Nintendo Co., Ltd. | Nintendo of Europe GmbH | Consumer electronics wholesaler | 2.21 | 833 |
| Hitachi Ltd. Corp. | Hitachi Group companies* | Multinational conglomerate | 1.80 | 1,121 |
| Mazda Motor Corp. | Mazda Group companies* | Automobile | 1.60 | 500 |
| LIXIL Group Corp. | Grohe Holding GmbH | Sanitary fittings | 1.45 | 6,898 |
| Mitsubishi Corp. | Mitsubishi International GmbH | Multinational conglomerate | 1.32 | 105 |

* Individual subsidiaries of the Group in Germany were aggregated

** All sales that were reported by German subsidiaries (consolidated financial statements) of respective Group; that implies that part of these sales were generated abroad but reported by the respective German entity

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"Germany is a major business hub for Japanese companies in Europe. While trade volume between Germany and Japan has increased in the pre-pandemic years, COVID-19 triggered a significant drop. But recovery has started already and the German market is proving stable. And emerging from the difficult Corona period there are major investment opportunities for Japanese companies. In particular for all those Japanese companies which are not yet present in Germany or those who want to strategically grow their German and European business. My prediction is that Germany continues to increase in importance for Japanese groups in Europe. This is due to Brexit but also due to Germany's economic and social stability and the fact that it is the central and key market in the European union."**

***Jörg Grünenberger***
*Partner, Head of Country Practice Japan,*
*KPMG in Germany*

# Austria

**1,400 Inbounds in Germany (5.2% of total)***

**181,150 employees**

**Turnover of 54,196 million EUR**

**Value added at factor costs of 12,906 million EUR****

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

**Input from the survey:**

- The Austrian economy is very closely interlinked with the German one. At 29.2%, Germany is by far the largest buyer of Austrian products and at 34.7% the most important product supplier.
- Austria has more world market leaders than you might think; around 200 hidden champions with an average of 53 million EUR in sales. In relation to the size of the population, the density is comparable to that of Germany.
- Austria's hidden champions are increasingly reaching out to Germany. The sensor component manufacturer ams AG recently took over the traditional German company Osram.
- Austrian Inbounds appear to have been weakened by the pandemic. Only around half assess their current economic situation as good (30%) or very good (23%); across all countries the value is significantly higher at 66%. Nevertheless, optimism is increasing with a view to the next 5 years. 73% assess the prospects for their German branch as at least good but future prospects of the entire group are assessed as significantly more positive (84%).
- Public safety (90%) and quality of life (87%) are two areas where Inbounds from their neighbor hold Germany in high regard.
- As in our 2020 survey, Austrian Inbounds view some factors of Germany as a business location much more critically than other Inbounds. This once again is down to tax system (only 14% see it as at least Top 5, whereas 47% have it Bottom 5) and, for the first time, the digital infrastructure matches the tax system for unpopularity (only 16% have it at least Top 5 and 43% Bottom 5 or even worst performer in the EU).
- Their German subsidiaries are fundamental to the business of the Austrian groups surveyed. 27% of them contribute more than 50% to the group's success and 30% contribute between 21% and 50% to group sales.
- In a country comparison, Austrian Inbounds are planning significantly higher investments than the overall average of Inbounds. 31% of the surveyed Austrian Inbounds (all countries is 19%) plan to invest more than 10 million EUR per year, while 50% (all countries is 39%) want to invest between 1 and 10 million EUR per year.
- In 2021, 43% of companies have adjusted their investment intentions to a more positive position with a view to the next few years, 31% of those who intend to increase investment have adjusted their plans upwards by 20–50%, and around 15% by as much as 50%. Future technologies (57%) and digitalization of the core business (73%) are high on the agenda.
- Austrian Inbounds are engaged with the federal government's funding programs: 17% are already using them and 10% want to do so in the next few months.

* In 2018, there was a change in the methodology as to how companies are recorded (EU company definition). The decrease in JP inbounds listed by the Federal Statistical Office from 1,159 (2017) to 1,036 (2018) is, therefore, only of a methodological nature. (Details: see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| Austrian parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| STRABAG SE | Strabag AG, Germany | Building construction & Civil engineering | 5.75 | 25,386 |
| Andorra Immobilien GmbH (Stumpf Gruppe, Wien) | Exyte AG (formerly: M+W Group GmbH) | Building systems engineering & Plant construction | 3.89 | 5,507 |
| OMV Aktiengesellschaft | OMV Deutschland GmbH | Mineral oil processing | 3.66 | 499 |
| ams AG | OSRAM LICHT AG | Lighting solutions | 3.46 | 24,685 |
| Raiffeisen-Holding NÖ-Wien | COMPAREX AG (vormals: PC-Ware Information Technologies AG) | Technology & Business Service | 2.90 | 2,472 |
| Dr. Helmut Rothenberger Holding GmbH | Rothenberg Group companies* | Mechanical engineering & Real estate | 2.70 | 10,632 |
| SIGNA Holding GmbH | SIGNA Group companies* | Retailer & Real estate | 2.50 | 14,051 |
| Benteler International AG | Benteler Group companies* | Manufacture of parts & acces-sories for motor vehicles | 2.50 | 8,394 |
| ANDRITZ AG | ANDRITZ Group companies* | Mechanical engineering | 1.80 | 7,859 |
| XXXLutz KG | BDSK Handels GmbH & Co. KG | Furniture and home furnishings retailer | 1.68 | 10,500 |
| LSW Privatstiftung | POCO Einrichtungsmärkte GmbH | Furniture and home furnishings retailer | 1.32 | 7,265 |

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Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"In the infrastructure sector, namely the construction business, the close economic ties between Germany and Austria are evident. The best example is the construction group STRABAG SE: the German STRABAG AG, headquartered in Cologne, is 100 percent owned by the Austrian listed STRABAG SE, headquartered in Vienna. Mechanical engineering is also closely networked between Germany and Austria. Uniform technical standards, similar legislation and framework conditions and, of course, the common language form the basis for this close cooperation. At the same time, however, it can be interesting for companies to take advantage of the slight differ-ences between the two countries and to be present in the markets of both countries."**

***Karl Spangler***
*Partner, Head of Country Practice Austria,*
*KPMG in Germany*

# China

**704 Inbounds in Germany (2.7% of total)***

**74,709 employees**

**Turnover of 36,889 million EUR**

**Value added at factor costs of 5,575 million EUR****

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

**Input from the survey:**

- In the goods trade, China is now Germany's most important partner. Overall, the two economies are intertwined with a goods flow worth 212.4 billion EUR (95.9 billion EUR in exports and 116.5 billion EUR in imports).
- On December 30, 2020, the EU and China settled in principle on a comprehensive investment agreement. In particular, the EU's objective was for China to open its markets more to EU investors and to treat EU companies more fairly in competition with state-owned companies. Furthermore, it aims to make subsidies transparent and to prevent forced technology transfers. However, due to political differences, the ratification of the agreement is currently on hold.
- Subsidiaries from Chinese groups view their economic situation in Germany the most pessimistically of all countries. Only 47 percent of the Chinese Inbounds surveyed rate it as at least "good" (all countries is 66%). Apparently, the continuous tightening of the foreign trade regulations and the temporary halt on the investment agreement between China and the EU is having a negative impact on the business climate.
- Chinese Inbounds do not seem to feel well supported, added to the previous point is the skepticism of Chinese Inbounds towards funding for company settlements or expansions, which only 17% rank amongst the Top 5 in the EU (all countries is 24%).
- In a country comparison, Chinese groups more frequently use Germany as a hub for the entire EU, as a European headquarters (67%) and for non-European activities (60%). The export share is, therefore, the highest among the surveyed country groups at 55%.
- Political stability is praised by almost all Chinese respondents: Germany is a leader in these terms for 97% of Chinese Inbounds (at least in the Top 5 of the EU), for almost a third (30%) Germany is even an EU frontrunner.
- Only 53% of Chinese Inbounds surveyed (all countries is 72%) put Germany in at least the Top 5 EU countries in terms of labor productivity. Two years ago the value was 74%.

* There has been a change in 2018 in the methodology as to how companies are recorded (EU company definition) (details: see footnote 38, chapter 5.1).

** Eurostat 2021 (last available year 2018)

**Selected major Inbounds:**

| Chinese parent group | German subsidiary (Group level in Germany) | Company type and/ or Field of operation | 2019 sales of German sub-sidiaries** (in EUR bil.) | Employees in Germany 2019 |
|---|---|---|---|---|
| Midea Group Co., Ltd. | Midea Group companies* (e.g. KUKA AG) | Industrial robots & Automation technology | 3.69 | 14,045 |
| Huawei Technologies Co., Ltd. | Huawei Group companies* | Telecommunications equip-ment & Consumer electronics | 2.94 | 2,408 |
| Lenovo Group Ltd. | Lenovo Group companies* | Computer hardware & electronics | 2.47 | 1,462 |
| Zhejiang Geely Holding (Group) Co., Ltd. | Volvo Car Germany GmbH | Automobile | 2.20 | 153 |
| MLS CO., LTD (MLS) | Ledvance GmbH | Lighting products | 1.61 | 4,881 |
| China National Chemical Corporation Ltd. | KraussMaffei Group* | Machinery for plastics extrusion technology | 1.50 | 5,134 |
| Zhengzhou Coal Mining Machinery Group Co., Ltd. | SEG Automotive Germany GmbH (formerly: Robert Bosch Starter Motors Generators Holding GmbH)* | Automotive parts | 1.36 | 8,000 |
| Anhui Zhongding Sealing Parts Co., Ltd. | Zhongding Europe GmbH | Automotive parts | 0.85 | 7,669 |
| Fosun International Limited | TOM TAILOR Holding SE*** | Clothing | 0.84 | 6,160 |
| Sany Heavy Industry Co., Ltd. | Putzmeister Holding GmbH (SANY Europe GmbH) | Heavy equipment manufacturer | 0.70 | 2,839 |
| Ningbo Jifeng Auto Parts Co., Ltd. | Jiye Auto Parts GmbH (Grammer AG**) | Automotive parts | 0.67 | 14,910 |

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*** Majority Shareholder

Sources: Bundesanzeiger, Annual Reports of the individual Business Groups and the consolidated financial statements

**"China's overseas investment activity has been declining each year since 2016, due to domestic constraints on outbound capital flows and tighter scrutiny of Chinese investments abroad. The COVID-19 pandemic accentuated the fall in China's outbound activity by hindering normal business activity. Germany was by far the largest recipient of Chinese investment, most of which consisted of relatively small transactions. The UK, which ranked third overall, recorded a drop of 77 percent in incoming Chinese investment – the lowest level in nearly ten years."**

***Jack Cheung***
*Partner, Head of Country Practice China,*
*KPMG in Germany*

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