



**U.S.  
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SERVICE**

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Department of Commerce

# Germany Country Commercial Guide



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## Doing Business in Germany

### Market Overview

The German economy is the fourth largest in the world and accounted for one quarter (24.7 percent) of the European Union's GDP in 2021. Germany is also the United States' largest European trading partner and the sixth-largest market for U.S. exports. Its "social market" economy largely follows market principles, but with a considerable degree of government regulation and wide-ranging social welfare programs.

With a population of 83.2 million, Germany is the largest consumer market in the European Union. The significance of the German marketplace goes well beyond its borders. An enormous volume of trade in Germany is conducted at some of the world's largest trade events, such as Medica, Hannover Fair, Automechanika, and the ITB Tourism Show. After being canceled or rescheduled in 2020 and 2021 due to the COVID-19 pandemic, many of these trade fairs are returning as predominantly in-person events in 2022. The volume of trade, number of consumers, and Germany's geographic location at the center of the European Union make it a cornerstone around which many U.S. firms seek to build their European and worldwide expansion strategies.

In 2020 and 2021 Germany weathered the COVID-19 pandemic's devastating economic effects better than any of its EU neighbors thanks in large part to its fiscal space, a large current account surplus (USD 278 billion [EUR 232 billion] in 2020 and USD 300 billion [EUR 266 billion] in 2021), generous economic stimulus packages, and flexible short-term work schemes that kept unemployment at only 5.7 percent in summer 2021. An easing of pandemic restrictions and rebound of the services sector led to 2.8 percent real GDP growth in 2021, but the knock-on effects of the Russian invasion of Ukraine have caused a downward revision in forecasts for 2022. The IMF expects only 2.1 percent real GDP growth in 2022, a 1.7 percentage point downgrade from its previous forecasts in January 2022.

Demographic changes and resulting labor shortages, supply chain bottlenecks, burdensome debt especially on the municipal level, high inflation, and higher energy prices due to the war in Ukraine are factors that could dampen near-term competitiveness.

### Market Challenges

German policy poses relatively few formal barriers to U.S. trade or investment, apart from barriers associated with EU law and regulations. Germany has pressed the EU Commission to reduce regulatory burdens and promote innovation to increase EU Member States' competitiveness. Germany's acceptance of the EU's Common Agricultural Policy and German restrictions on biotech agricultural products pose obstacles for key U.S. products. While not overtly discriminatory, government regulation by virtue of its complexity may offer a degree of protection to established local suppliers. Rigorous application of safety and environmental standards can lead to increased bureaucratic efforts and complicate access to the market for U.S. products. American companies interested in exporting to Germany should make sure they know which standards apply to their product and obtain timely testing and certification. Compliance with German standards is especially relevant to U.S. exporters, as EU-wide standards are often based on existing German standards.

### Market Opportunities

For U.S. companies, the German market – the largest in the EU – continues to be attractive in numerous sectors and remains an important element of any comprehensive export strategy to Europe. While U.S. investors must reckon with a relatively higher cost of doing business in Germany, they can count on high levels of productivity, a highly skilled labor force, quality engineering, good infrastructure, and a location in the center of Europe.

### Market Entry Strategy

The most successful market entrants are those that offer innovative products featuring high quality and modern styling. Germans are responsive to innovative high-tech U.S. products, such as computers, computer software, electronic components, health care and medical devices, synthetic materials, and automotive technology. While Germany possesses an above-average Internet penetration rate within the EU for private households, high-speed internet access for business is only slightly above average. Multi-media, high-tech and service areas offer great potential. Certain

agricultural products also represent good export prospects for U.S. producers. In many cases, price is not the overriding factor for German buyers, but instead quality and reliability.

The German market is decentralized and diverse, with interests and tastes differing from one German region to another. Successful market strategies consider regional differences as part of a strong national market presence. Experienced representation is a major asset to any market strategy, given that the primary competitors for most American products are domestic firms with established presences. U.S. firms can overcome such stiff competition by offering high-quality products and services at competitive prices, and locally based after-sales support. For investors, Germany's relatively high marginal tax rates and complicated tax laws may constitute an obstacle, although deductions, allowances and write-offs help to move effective tax rates to internationally competitive levels.

## **Leading Sectors for U.S. Exports and Investment**

### **Agricultural Sector**

#### **Overview**

In 2021, Germany was the third largest importer and exporter of consumer oriented agricultural products worldwide, and by far the most important European market for foreign producers. The retail market's key characteristics are consolidation, market saturation, strong competition and low prices. Germany is an attractive and cost-efficient location in the center of the EU. While many consumers are very price sensitive, the market also provides many wealthy consumers who follow value-for-money concepts. These consumers are looking for premium quality products and are willing to pay higher prices. Germany still has some of the lowest food prices in Europe, and German citizens spend only about 14 percent of their income on food and beverages. Low food prices are a result of high competition between discounters and the grocery retail sale segment.

#### **Key Market Drivers and Consumption Trends**

Fair trade and organic products have become more important on the German grocery market. Germany is the second largest organic market in the world (behind the United States) and presents good prospects for exporters of organic products.

Berlin is spearheading the trend of sustainable food consumption, and other German cities are following its lead.

An aging population and increased health consciousness of consumers are fueling the demand for health and wellness products, as well as functional food products.

Increasingly high-paced society and the rising number of single households are driving the demand for convenient ready-to-eat meals, desserts, and baking mixes.

Ethnic foods, beauty and super foods, clean label foods, "free from" products (e.g., gluten or lactose free) and locally grown products are further trends that attract more and more German consumers.

An increasing share of consumers view their purchasing decisions as a political or life-style statement (no GMO, only free-range eggs, vegetarian, or vegan diet).

Consumers increasingly require traceability and information about production methods.

Germany remains a price-focused market, but the share of consumers who is willing to pay for quality is increasing in most cities.

COVID-19 related lockdown measures resulted in a new home cooking trend. A recently published Ministry of Agriculture report indicates that 30 percent of Germans are cooking more than before the crisis.

The importance of e-commerce continues to grow. Online supermarkets are flooding the market in Germany's major cities, offering food at prices that strongly compete with those of traditional supermarkets.

## Leading Sub-Sectors

### Tree Nuts

The category of tree nuts includes almonds, pistachios, pecans, hazelnuts, and walnuts. Germany does not produce significant quantities of these products, and supply therefore comes primarily from imports. The United States is the largest supplier of tree nuts to Germany. The leading competitor for the United States in the German tree nut market is Turkey. Many U.S. agricultural associations actively promote their products in Germany, including the Almond Board of California, California Pistachio Commission, and the California Walnut Commission. Most tree nuts are used as ingredients by the food processing sector. Almonds are the top export within this category. Further products with good sales potential include walnuts, pistachios, and pecans.

in million USD	2019	2020	2021	2022 (Estimate)
Total Local Production	0	0	0	0
Total Exports	1,270	1,434	1,332	1,350
Total Imports	3,224	3,594	3,588	3,500
Imports from the US	751	829	760	750
Total Market Size	1,954	2,160	2,256	2,150

Note: Exports primarily represent tree nuts that have been imported into Germany, processed, and re-exported to neighboring countries. Source: Trade Data Monitor LLC query dated April 29, 2022

### Fishery Products

Fish and fishery products enjoy growing popularity in Germany. The German market offers lucrative opportunities for fish and seafood products. Fish consumption is growing as consumers associate fishery products with a healthy diet. The best prospects for U.S. sea food exports are Alaska pollock, salmon, caviar substitutes, hake, cod, dogfish, shrimps, crabs, cuttlefish and squid, sea urchin, catfish, lobster, and scallops. By value, the two most important U.S. fishery export products to Germany are Alaska pollock and salmon.

in million USD	2019	2020	2021	2022 (Estimate)
Total Local Production	2,364	2,438	2,478	2,500
Total Exports	2,631	2,576	2,630	2,650
Total Imports	5,903	5,996	5,827	5,800
Imports from the US	233	225	223	225
Total Market Size	5,636	5,858	5,675	5,650

Source: Trade Data Monitor query dated May 6, 2022, Fish Trade Association

### Wine

Germany is the world's largest importer of wine by volume and third largest by value. In 2020, German wine imports were valued at more than USD 2.9 billion. Italy, France, and Spain are the leading suppliers of wine to Germany with a combined import market share of 79 percent. U.S. wines, together with other "new-world" wines, have developed

an increasingly good reputation for quality in the German market. In 2020, the value of Germany's imports of U.S. wines totaled USD 57 million.

in million liters	2019	2020	2021	2022 (Estimated)
Total Local Production	822	841	845	850
Total Exports	492	471	486	480
Total Imports	1552	1507	1,533	1,500
Imports from the US	32	38	35	35
Total Market Size	1882	1877	1,892	1,870

German production data is only available on a volume basis; therefore, this table is in liters. Sources: German Office of Statistics (German production), Trade Data Monitor LLC query dated April 29, 2022

### **Pet Food**

Germany is one of the leading countries for pet ownership in the world. Germans are willing to pay a premium to properly feed their pets, and interest in specialty health pet food products is growing rapidly. Most pet food is produced domestically, and the EU requires pet food to be derived from meat that can be used for human consumption. Despite the bureaucratic obstacles, opportunities for exporting pet food products to Germany are available given the considerable size of the market.

in million USD	2019	2020	2021	2022 (Estimated)
Total Local Production	3,563	3,950	4,300	4,400
Total Exports	1,819	2,215	2,655	2,700
Total Imports	1,487	1,667	1,878	2,000
Imports from the U.S.	4	5	7	7
Total Market Size	3,231	3,402	3,523	3,700

Source: Trade Data Monitor LLC query dated May 6, 2022, German Pet Supplies Industry Association

### **Resources**

#### *Agricultural Attaché Reports*

Attaché reports provide information on market opportunities, crop conditions, new policy developments and information about Germany's food industry. Some standard reports include: Retail Market Report, Exporter Guide, Food Service Report, and market briefs on wine, sea food, and other select products. Attaché reports can be found at the [Global Agricultural Information Network](#). In recent years, many of the German reports have been consolidated and are submitted as EU reports. We recommend that companies interested in the German market also review the EU reports.

#### *U.S. Agricultural Commodity Associations Active in Germany*

Several U.S. agricultural commodity and other trade associations conduct market development programs in Germany. In some cases, these associations maintain field offices in Germany, while others may have a trade representative or



public relations company representing their interests. Others may cover Germany from elsewhere in Europe or from offices in the United States. The USDA-operated Market Access Program (MAP) and Foreign Market Development Program (FMD) provide a portion of the funding for these associations' market development programs. For further information about the MAP and FMD programs or to know more about which associations are active in Germany, please contact the [Office of Agricultural Affairs](#) at the U.S. Embassy in Berlin.

### *Trade Shows*

In Germany, trade fairs play a key role in presenting new products to the trade or in finding additional buyers and importers. The major international trade fairs are:

- [FRUIT LOGISTICA](#) – The leading show for fruit and vegetables, dried fruits, and nuts. It is held on an annual basis in Berlin. Next show: February 8-10, 2023
- [Biofach](#) – The leading European tradeshow for organic food and non-food products. It is held on an annual basis in Nuremberg. Next show: February 14-17, 2023
- [Interzoo](#) – The world leading pet industry exhibition. It is held every two years in Nuremberg. Next show: May 15-17, 2023
- [Prowein](#) – The leading wine show in Germany. It is held on an annual basis in Dusseldorf. Next show: March 19-21, 2023
- [ANUGA](#) – The world's leading food fair for the retail trade and the food service and catering market. It is held every two years in Cologne. Next show: October 7-11, 2023

## **Aerospace/Defense/Security**

### **Overview**

Total market size = (total local production + imports) – exports

Aerospace & Defense Market in USD millions (The security market is not reflected in the table but in the written paragraph below.)

	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022 estimate</b>
Local Production	45,900	35,408	37,137	37,326
Total Exports	35,343	26,202	26,738	26,874
Total Imports	21,139	17,314	17,826	15,580
Total Market Size	31,696	26,520	27,807	24,303
US Imports = US Market Share	10,353	8,097	8,236	7,198
EUR-USD Exchange Rate	1.1195	1.1422	1.1827	1.05 projected

U.S. aerospace & defense manufacturers produce the highest trade surplus, year after year, of all manufacturing sectors. According to TradeStats Express, a U.S. Department of Commerce-furnished database showing the latest global patterns of U.S. merchandise trade, 2021 U.S. aerospace exports to Germany amounted to USD 8.24 billion. The trade surplus was USD 6.47 billion, representing a 1.4 percent increase from 2020 (USD 6.38 billion). These figures are in stark contrast to the European statistics stating U.S. aerospace imports of USD 2.55 billion. This is due to a different approach in calculating the sale of sub-systems and components. Aerospace & defense is complemented by homeland security & public safety, an industry spanning a cross 15 vertical markets with a projected global turnover of more than USD 550 billion in 2022 (according to Grand View Research, Inc.). Both industries are grappling with



the impact of the coronavirus pandemic but, according to BNP Media's SDM Magazine, the "security segment fared much better than originally expected." This is true for the German market as well where some of the companies had their best year ever. In the aviation segment, it was a different story. Perhaps no other industry has been harder hit overall than aviation, particularly the airline industry. In April 2022, German air traffic was down by 35.8 percent compared to April 2019 and up 499.1 percent compared to April 2021. Domestic air traffic was down 58.1 percent from 2019 and up 372.7 percent from 2021; European traffic was down 28.7 percent from 2019 and up 555.3 percent from 2021; intercontinental traffic was down 38.4 percent from 2019 and up 423.7 percent from 2021. Due to the long order cycles and a significant backlog in aircraft production, aerospace manufacturing suffered a lot less than aviation. In April 2021, the German Aerospace Industries Association (BDLI) reported that the revenues only declined by 24.4 percent, from EUR 41 billion or USD 45,900 billion in 2019 to EUR 31 billion or USD 35.4 billion in 2020. It is noteworthy, that some 8,200 aerospace manufacturing jobs were lost through April 2021 because of COVID-19. In the second half of 2021, the industry was able to initiate a trend reversal and started hiring again. However, the impact of the coronavirus pandemic is ongoing. In July 2022, BDLI reported that the "aerospace industry in Germany again suffered the consequences of the coronavirus crisis in 2021." With sales of EUR 31.4 billion or USD 37.1 billion in the past year, the industry remained at the previous year's low level. Growth expectations did not materialize. A slight rebound is expected in 2022. Another aspect raised by BDLI is the environmental impact of civil aviation. This German association regards the current crisis as a seminal opportunity to advance climate-neutral flying. U.S. manufacturers should be well-positioned to benefit from the trend towards more sustainable aviation and gradual market growth in Western Europe, especially Germany.

Trade shows are significant for making first inroads into the market and Germany has plenty of them. It hosts the world's third-largest trade show for aerospace & defense (ILA Berlin), the world's largest trade show for aircraft cabin interiors (Aircraft Interiors Expo / AIX), and Europe's largest trade show for general aviation (AERO). The major safety & security shows that are relevant for the German market are held in Essen (Security Essen) and Düsseldorf (A+A), but also in London (DSEI) and Paris (Milipol).

All of these are ideal platforms for U.S. companies to meet with potential buyers and partners, either virtually or in person.

### **Leading Sub-Sectors**

Germany has the third-largest aerospace & defense market in Europe, with 2020 revenues at USD 35.4 billion, following the UK at GBP 79 or USD 90.2 billion (including land defense systems) and France at EUR 50.9 billion or USD 58.1 billion. Some three quarters or USD 26.2 billion of German production is exported. France received a fourth of these exports with USD 6.7 billion. To a large degree, these exports are attributable to Airbus intra-company trade as part of their geographically dispersed production model with several major sites in Germany and France. The security market represents a key subsector. According to the Federal Association of the German Security Industry (BDSW), the German homeland security & public safety market amounted to EUR 15.18 billion or USD 17.96 billion in 2021, compared to EUR 17.20 or USD 20.43 billion in 2017 (based on the 2017 EUR-USD annual average exchange of 1.1297).

The latter figure was published at the "Security Essen" trade show in August 2018. The four billion decline seems rather stark considering the strong revenue development in some of the sub-markets since the onset of the coronavirus pandemic in early 2020. It is safe to assume that the industry saw modest but steady growth until then, mostly due to ongoing upgrades of the German internal security and migration enforcement infrastructure and an increased need for security services. Last year, the security services market made up more than half of the overall market and grew by 6.9 percent to EUR 9.85 or USD 11.65 billion from EUR 9.21 or USD 10.52 billion in 2020.

When it comes to the strategic outlook of the German government, the Aerospace sector stands out. The Federal Ministry of Economic Affairs and Climate Action (BMWK) lists aerospace as a key industry with high growth rates and a strong industrial core in Germany. The revised and updated "2020 Technology Strategy of the German Aerospace Industry" builds on BMWK's earlier "Aerospace Strategy", underlining the particular importance of the aerospace sector for Germany as an industrial country both technologically and economically. It was adopted by Germany's new three-party coalition government of the Social Democrats, the Greens, and the Free Democrats in

December 2021. Besides aiming at increased competitiveness, the aerospace sector promises to make significant contributions to overarching societal goals, mainly with regards to the aspirational target of achieving climate neutrality by 2050, developing sustainable aviation fuels (SAFs), reducing the noise footprint, and improving the environmental record of aircraft. Moreover, the BMWK has updated the Aerospace Research Program (LuFo)—a grant program for aerospace research and technology projects—and issued another call for applications in April 2022. In the future, LuFo will put an even bigger emphasis on climate-neutral aviation. With regards to airline subsidies, it's noteworthy that German flag carrier Lufthansa paid back the EUR 9 billion (USD 10,26 billion) in loans and Silent Participations it received under the German government's Economic Stabilization Fund (ESF) in November 2021. Under this condition, ESF has committed to sell its 14.09 percent stake in Deutsche Lufthansa AG by October 2023. Similar measures were taken in France (Air France, KLM), Ireland, Spain, and the UK (IAG: Aer Lingus, British Airways, Iberia, Level, Vueling). These measures mainly helped to stabilize the European air transport industry. While European aviation has been especially hard hit by the coronavirus pandemic last year, it is demonstrating impressive resilience in 2022. According to CAPA, "the continent's capacity recovery has more or less absorbed both the Omicron variant and the war in Ukraine." So far, the impact on aviation could be contained because most European economies are not significantly exposed to Russia and Ukraine. IATA reported in March 2022 that the closure of Ukrainian airspace has put a halt to the "movements by air of roughly 3.3 percent of total air passenger traffic in Europe, and to 0.8 percent of total traffic globally, as per 2021." As mentioned above, aerospace manufacturing is less affected by health and humanitarian crises than aviation and continues to adapt to the compounded challenges quite well, but ultimately it relies on the return of global air transport industry to stable levels. In March 2022, Lufthansa said it could not provide a detailed outlook for 2022 due to the war in Ukraine and the pandemic. At the same time, Lufthansa was sure that air traffic will experience a strong upswing in 2022 and expected significant improvement in operating results for the rest of the year. Best prospects for U.S. exporters exist in the following segments: commercial aircraft, business jets, turboprops, helicopters, UAVs, structures, propulsion systems, subsystems for aerospace vehicles; military aircraft, air defense systems; spacecraft, launch systems, communications systems; access control, identity management, integrated systems, security services.

The main vertical markets for homeland security & public safety in Germany are airport security, smart borders, telecommunications and critical infrastructure, and police modernization.

### *Policy Objectives and Challenges*

U.S. suppliers should be aware of the effects of the U.S. Export Control Reform (ECR) regarding changes to the EAR and ITAR for U.S. aerospace & defense companies. The Commercial Service will continue to support U.S. companies by conducting frequent and active outreach to the Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) in Koblenz, Rhineland-Palatinate, and following the latest aerospace, defense and security-related policy developments and discussions in Germany. On an international level, we will gain insights from organizations, such as the Aerospace and Defense Industries Association of Europe (ASD), the U.S. Aerospace Industries Association (AIA) and Homeland Security Research (HSR) in Washington, D.C. to understand their positions on transatlantic trade issues, and communicate U.S. objectives.

In several recent tenders, the German military and some state police forces have imposed non-ITAR/EAR/PESCO clauses on prospective bidders, asking them to attest that their products do not fall under the respective regimes. This excludes many U.S.-designed and U.S.-made defense-sector goods.

### **Opportunities**

Opportunities include large twin-engine transport helicopters for the German Federal Police; ISR pods for Eurofighter/Typhoons; future maritime mine countermeasures for the German Navy; the Tactical Edge Networking (TEN) / Digitization of Land-based Operations (D-LBO) radio program for the German MOD; Explosives Trace Detectors (ETDs) for the German Federal Police (BPOL). The biggest opportunity is the EUR 100 billion (USD 111 billion) Bundeswehr special fund, announced by Chancellor Scholz in February 22 and approved by the German parliament in June 2022. The announcement was triggered by Russia's invasion of Ukraine, which led Germany to reassess the state of its armed forces. It comes on top of a record defense budget of EUR 50.4 billion (USD 55.9 billion) in 2022 and will be spent over the next five years, bringing Germany closer to the NATO 2% GDP spending

target. The lion's share will go to the German Air Force, with approximately EUR 41 billion (USD 45.5 billion) slated for the procurement of H-47 Chinook heavy transport helicopters, jointly offered by Boeing and Airbus Helicopters, and F-35 Lightning II fighter jets offered by Lockheed Martin. The F-35s will allow Germany to continue in the NATO nuclear deterrence mission without a gap when the Tornados reach the end of their service life in 2030. They are already in service with the UK, the Netherlands, Italy, and others, and thus provide unique potential for cooperation with NATO allies. The German MOD plans to develop a Eurofighter variant to fulfill the electronic warfare role. The Future Combat Air System (FCAS), jointly developed by France, Germany and Spain, will replace the Eurofighter from 2040. Another EUR 20 (USD 22.2 billion) are earmarked for ammunition. Despite the seemingly large amount, it is already being debated if EUR 100 billion will suffice to upgrade the German armed forces or if additional funding is needed to ensure long-term readiness and fulfill assigned missions and tasks. Munich-based ifo researcher Florian Dorn argues that "this one-time special fund will by no means be sufficient to completely make up for the funding shortfall of recent years, to eliminate all deficiencies in the short term, and to sustainably reorganize the Bundeswehr. In addition, more efficient structures would have to be put in place for using those funds." At the same time, the special fund is receiving scrutiny from parts of the Social Democratic Party (SPD), who argue that some of the money should be used on civil projects, reviving the idea of a "peace dividend". An in-depth analysis and forecast on the allocation of the special fund until 2026 is planned for Q3 2022.

## Resources

### *Trade Events*

- [Aviation Forum](#) – general aviation industry, Munich, December 5-6, 2022
- [Security Essen](#) – security industry, Essen, September 20-23, 2022
- [AERO](#) – general aviation, Friedrichshafen, April 19-22, 2023
- [Aircraft Interiors Expo](#) – airline interior cabins, Hamburg, June 6-8, 2023
- [DSEI](#) – defense and security, London, September 12-15, 2023
- [interairport Europe](#) – airport equipment, technology, design and services, Munich, October 10-13, 2023
- [A+A](#) – safety and security solutions, Düsseldorf, October 24-27, 2023
- [ILA Berlin](#), – aerospace, Berlin, June 2024 (exact dates will be announced in Q3 2022)

### *Other Web Resources*

[German Aerospace Industries Association](#) (BDLI)

[German Airport Technology & Equipment](#) (GATE Alliance)

[HANSE-AEROSPACE e.V.](#) (Largest independent association of aerospace suppliers and service providers in Germany)

[ALROUND](#) (Association of aerospace-oriented SMEs in Germany)

German Helicopter Association (DHV) at <http://www.dhv-org.de/>

[Federal Association of the Security Industry](#) (BDSW)

## Advanced Manufacturing

### Overview

Advanced Manufacturing (AM) is the convergence of information and communications technologies with manufacturing processes to drive real-time control of energy, productivity, costs and information across factories and companies. In 2011, it was identified as one of the highest-priority manufacturing technology areas by the Federal German government.

The OPC Foundation (Open Platform Communications) cooperates with the German Mechanical Engineering Industry Association (VDMA). In June 2016, these two parties signed an MOU to build an international standards regime utilizing the OPC UA Machine Vision Companion Specification. This machine protocol has been developed to help all automation companies implement Industry 4.0/IoT with robotics, automation, and machine vision software language with their products. For the interfaces UMATI (universal machine technology interface) has been set up. Both OPC UA and UMATI enable higher-level data processing in a standardized and more secure manner.

### **Policy Objectives and Challenges**

A major challenge for industry and government is the definition of reference architecture and frameworks necessary for interoperability. They are also challenged with how to build confidence around new and innovative approaches to security. In April 2016, the two major international players, the International Internet Consortium (IIC) and the German-led Industry 4.0, agreed to collaborate for the benefit of interoperability of systems from these different domains. Major German trade associations such as the [ZVEI](#) (The German Association for Electrical & Electronic Industry), [VDMA](#) (German Engineering Association), [Bitkom](#) (Federal Association for Information Technology, Telecommunications and New Media) are driving these discussions.

### **Leading Sub-Sectors**

Over the next several years, Advanced Manufacturing is expected to provide excellent export potential for industries such as machine tools/general industrial equipment, robotics, information and communication technology, process control instrumentation as well as electronics industry production equipment, additive manufacturing, advanced materials, and industrial IT. By 2025, 84 percent of German manufacturers plan to invest EUR 10 billion (USD 10.52 billion) annually into smart manufacturing technologies, including the automotive industry at approx. 1.2 billion per year, machinery & equipment and plant engineering and construction at 1.5 billion, electronics and microelectronics industry at approximately 817 million per year, and the metal working industry at 424 million per year. Today, 75 percent of the German companies in most industries have implemented digital solutions, and 15 million employees are directly and indirectly involved in advanced manufacturing industries in Germany.

### **Robotics and Automation**

Germany is the fifth largest robot market in the world with about 22,000 industrial robots currently utilized in various industries, accounting for 6 percent of the global robot installations in 2021. After having reached a peak in 2018 with 27,000 installations, the number of installed robots dropped by 19.5 percent to 22,000 units in 2019. The main industries using robots are motor vehicles with 6,672 installations in 2020, automotive parts (2,998), metal and machinery (2,538), electrical and electronics (1,053), chemical rubber and plastics (997), food (424), logistics, medical and other industry. Please note that this data includes the industrial/commercial use of robotics only.

The Robotics + Automation Association in Germany represents three industry segments: Robotics, machine vision and integrated assembly solutions with combined estimated annual turnover of almost EUR 14.7 billion (USD 15.47 billion) in 2022, which is a 10 percent increase, and would be a return to pre-crisis sales figures of 2019. Service robots (medical robots, logistics robots and field robots) for professional use had a combined turnover of USD 8.5 billion (USD 9.52 billion) in 2019.

With 3,015 million industrial robots operating in factories worldwide, the sector increased by 10 percent in 2020 compared to 2019 with 2.731 million robots. However, experts predict an average increase of 6 percent annually between 2022 and 2024, when the economic situation has recovered more from the effects of the pandemic and the disruption of the supply chains. Indeed, the pandemic has strongly impacted the sector, but also offered a chance for modernization and digitalization.

In terms of robot density (robots' utilization per 10,000 workers), Germany ranks 4<sup>th</sup> in the world with 371 in 2020, behind South Korea (932), Singapore (605), and Japan (390). The USA ranks 7<sup>th</sup> with 255, and China is 9<sup>th</sup> (246).

Future trends in this sector are the utilization of artificial intelligence, human-robot collaboration, digital transformation in production, and service robotics in the commercial and health industry, collaborative robots, and mobile platforms, e.g., AGV's, robot leasing like Robot as a Service – RaaS, not to mention components that make the robot more precise like soft actuators for the gripping technology.

Overall, the global economic crisis related to the COVID-19 pandemic has impacted industrial robot sales between 2019 and 2021, as well as the supply chain disruptions. However, the long-term perspectives remain excellent.

### **Additive Manufacturing and Advanced Materials**

The actual size of the additive manufacturing (AM) market in Europe and Germany is difficult to measure due to varying definitions and the lack of statistics. It is clear, however, that the European AM market is growing. Depending on the European region, the AM market is experiencing 15-20 percent growth annually. Growth expectations in European countries with few AM players are generally higher than in those markets with a well-established AM industry.

Germany is Europe's largest AM market with growth rates of up to 15 percent. A recent study by the European Patent Office reveals that nearly 50 percent of all AM patents registered in Europe originate in Germany. Germany has the largest and most active additive manufacturing market in the EU. About four years ago, only a small number of local firms used AM - mostly for prototyping. Since then, the number of AM users in Germany has nearly doubled. Local companies with AM production prefer in-house AM facilities over external AM services. They use AM for prototyping and proof-of-concept, for the manufacture of small volumes or to make spare parts, or special items for customers. Some companies print single items with unique features, which either cannot be produced otherwise, would be more time-intensive or too costly when produced with traditional methods such as certain forged parts. Moreover, like in the United States, AM has proven to be a problem solver in Germany during the pandemic, overcoming medical production gaps and bridging broken supply chains.

Main drivers in the German AM market are aerospace, medical, transportation and automotive. Over the past few years, the German AM has expanded into new applications, including consumer goods and jewelry. While it is still difficult for company newcomers to find the appropriate AM solution for their company-specific business model, the number of companies in Germany using AM has continued to grow. The increased use of AM during the pandemic drew the attention of non-AM users. While local firms hold back on investments due to the stagnating German economy, demand for AM is expected to grow. The German government forecasts that the local economy will reach pre-pandemic levels by 2023.

With its high-tech market structure, Germany offers a ready playing field for innovative AM. The German AM market hosts mostly small to medium-sized AM companies. The United States is considered a global AM market leader in Germany. Therefore, the German market is highly receptive to U.S. AM technology and materials.

### **German Machine Tool and Precision Tool Market**

The ongoing boom in almost all user industries worldwide has already driven production output to more than EUR 13.2 billion in 2021 (USD 15.61 billion). The COVID-19 pandemic and the recent supply chain disruption has significantly impacted the German machine tool industry, recording a 28 percent drop in production until 2020. However, order intake in the first quarter of 2022 increased by 44% compared to the same period in 2021. Imports from the U.S. have been about EUR 98 million (USD 103.2 million) for machines and equipment in 2020. Capacity utilization stood at about 71 percent in 2021 according to the German machine tool association. German domestic consumption was about EUR 6.2 billion (USD 6.53 billion).

Germany's best prospect import segments within the machine tool industry are laser-, ultra sonic-machines; machine centers; lathes; drilling machines; grinding, honing and lapping machines; gear cutting machines; sawing, cutting-off machines; bending, folding, and straightening machines (incl. presses).

Figures for the German precision tools industry allow an estimated increase of 8.5 percent in 2022 to EUR 10.2 billion (USD 10.73 billion), compared to EUR 9.4 billion (USD 11.11 billion) in 2021.

Current trends include high-performance processes, Industry 4.0, micro processing, direct drives, energy and resource efficiency, composite technology, additive manufacturing, laser beam sources, complete machining and shortening of process chains, industrial software, and others. Worldwide production of machine tools in 2020 fell by 20 percent; in euro terms, to a volume of EUR 58.0 billion (USD 66.25 billion). Challenges in the future could include the shortage of labor and supply chain disruptions. According to a VDMA survey, "92 percent of German machine tool manufacturers were noticeably or seriously affected by supply chain problems in September and December 2021".

The COVID crisis left a serious impact on virtually all markets, but machine tool orders may experience a strong turnaround in 2022, reaching just 8% less than the record year in 2018 with a production of EUR 17 billion (USD 20.07 billion).

### **Sensors and Measuring Technology**

Sensors and measurement technology are another growth subsector. In 2021, the annual turnover of all market players was estimated at EUR 35 billion (USD 41.4 billion). 2,500 companies and institutes employed about 250,000 people. In the first quarter of 2022 we have seen a growth rate of 8 percent, and the second quarter of 2022 is forecasted to experience 6 percent growth. The export quota is 50 percent. Major markets are the following industries: advanced technologies, robotics, automation, automotive, electronics, consumer electronics, security, machinery & equipment, and others. Major competitors include SICK AG, Siemens Sensor Systems, Bosch Sensortec, ifm, and Beckhoff Automation. German industry expects further growth opportunities after COVID-19 and supply chain disruptions that impacted 87% of the members the German Sensor Technology Association, particularly through the industrial automation/internet of things.

### **Opportunities**

Germany's advanced manufacturing companies usually require in-country partners. These partners could be agents and distributors selling to OEMs as final consumers or OEMs as distributors for an exclusively built component. An in-country facility and a membership in one of the German associations is recommended, and system integrators are often the ideal partner for automation and internet of things products and services. Advanced technologies require more IT/OT solutions, platforms that handle the data traffic, and software companies who are specialized in industries to collect all necessary data, visualize the data and save costs in product development and design, reduce energy consumption, assist customers with predictive maintenance and more.

### **Challenges & Barriers**

Germany maintains a highly open and transparent business environment, and there are few formal market access barriers. Probably the greatest challenge to entering the German market is conforming with German electro-technical standards and conformity assessment procedures, which differ markedly from those in the United States. For most electrical components such as plugs and cables, U.S. and European standards are nonaligned. In practice, this means that for most U.S. machinery makers, the additional labor required to assemble machinery for the German market will affect pricing by inflating the price paid by the customer while decreasing the cost competitiveness compared with domestic and other European-made machines. As part of the European Commission's Machinery Directive, machinery sold throughout the EU is required to obtain a CE marking whenever the product is covered by specific product legislation. CE stands for "Conformité Européenne" and is intended to demonstrate compliance with European safety and environmental standards.

The recent supply chain disruptions due to the COVID lockdown in China and the Russia-Ukraine war will also open new opportunities for new suppliers in Germany. The global market strategy will be realigned in Germany.

## **Healthcare and Medical Technology**

### **Overview**

Germany claims the third-largest medical technology market in the world after the United States and Japan and is by far the largest European market, twice the size of the French market and three times as large as those of Italy, the United Kingdom and Spain. The German medical device market is one of the most lucrative healthcare markets worldwide, accounting for roughly USD 35.8 billion annually, or 25.6 percent of the European market total.

The Healthcare/Life Sciences (HCT) industry is a priority for both the EU and Germany as reflected in the [European Regional Development Fund](#) (ERDF – or EFRE, in German) program and [cohesion policy 2021-2027](#), as well as the German Länder implementation and tendering of this program. "[Horizon Europe](#)", a European Incentive Program for Research and Innovation agreed upon by the EU Council and Parliament and retroactively entered into force on January 1, 2021, after final adoption in April 2021, also focuses on health and health-sector-related R&D and

innovation. Projects target conquering cancer, smart health, aging, and digital models of care. All of this aims to increase opportunities for U.S. suppliers to participate in healthcare infrastructure, hospital development projects and to partner with German and EU firms. However, the German healthcare system, because of its decentralized and self-governing structure, is complex and slow in adapting new trends. German health ministry officials are determined to move the German health system into the digital age and have amended the regulatory environment with several laws to mandate progress. This will offer excellent export and partnering opportunities for innovative U.S. health solution providers throughout the health technologies supply chain.

Germany has a strong healthcare system, especially with regards to infrastructure, hospital beds and trained staff. One out of six jobs in Germany are linked to the healthcare sector, which generates an economic footprint of EUR 678.2 billion (USD 798 billion), or roughly 12 percent of Germany's GDP. With EUR 131.2 billion (USD 154.4 billion) generated through foreign sales, HCT contributes 8.3 percent to Germany's total exports (source: BMWK). According to estimates by Fitch Solutions, the expected CAGR of the German medical equipment market for 2020-2025 is 5.1 percent in euro-terms and 6.8 percent in USD-terms. Growth factors include the digitalization of the health economy and tackling the double-digit investment backlog in the hospital market with the funds allocated by the Hospital Future Act. This law was enacted in October 2020 providing EUR 3 billion (USD 3.5 billion) of federal funding and additional EUR 1.3 billion (USD 1.5 billion) of state funding to modernize and digitalize the German hospital system.

### Market Entry and Best Practices

The German market for medical devices is regulated by German and EU directives, standards, and safety regulations. After a one-year delay of the start date of the EU Medical Device Regulation (MDR), which introduced increased testing, certification and compliance requirements, this regulatory framework came into full effect on May 26, 2021. The complementary In Vitro Diagnostic Regulation will be enacted from May 2022. U.S. exporters are well-advised to become informed about MDR and obtain public or private sector counseling and assistance of the possible impact of their market entry plans into Germany. Companies seeking market entry should also carefully map their distribution strategy depending on their target group(s). CE marking is mandatory for selling into Europe.

Entry strategies to be considered are top-down or bottom-up marketing, picking the right partners and ensuring patient- and customer-centric system solutions and support. Most medical equipment imported into Germany is either sold directly through a local subsidiary with a field sales force, through medical distributors with an established distribution network (often on a regional/territorial basis) or through appointed agents or manufacturer representatives. Local representation or market presence is essential when considering differing standards and certifications, warehousing costs, maintenance, accessibility, and local marketing/sales preferences/discussions. An agency agreement is often a cost-effective mechanism to enter the market, but under German law – even if the agent's performance is not satisfactory – it can be difficult and costly to terminate an exclusive arrangement. A representation or distributorship agreement may be more difficult to arrange, but the German associate will, in fact, purchase the product to be sold, thus sharing the market risk. Licensing, partnering with large corporate partners or buying a local firm provide alternatives in times where traditional distributors are bought up by corporates and the market increasingly consolidates. Further information is available in Commerce's Global Markets Healthcare Team's annual [Healthcare Technologies Resource Guide](#).

*The German Medical Equipment Market 2019-2022 (USD billion)*

	2019	2020	2021	2022 (proj.)
Market Size	35.0	36.7	39.2	41.9
Local Production	37.6	40.5	43.3	46.2
Imports	20.2	22.7	24.2	25.9
Exports	22.8	26.5	28.3	30.2



Imports from the U.S.	4.9	6.8	7.3	7.8
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Total Market Size = (Total Local Production + Total Imports) – (Total Exports)

Data Sources: Spectaris Trade Association; BVMED Trade Association; Medtech Europe; Statista (German Federal Statistics Office); Fitch Solutions

General statistics on Germany is available by the [German Federal Statistics Office](#).

### Leading Sub-Sectors

**Medical Technologies (MED):** MED is the key sector of the healthcare industry. All major U.S. suppliers, such as GE Healthcare, Johnson & Johnson, Becton Dickinson, Abbott, Abbvie, Thermo Fisher Scientific, Stryker, Zimmer, 3M, McKesson, Cardinal Health, Henry Schein, to name a few, have subsidiaries in Germany. Within the EU, Germany is the largest importer as well as exporter of medical devices (source: [Medtech Europe, Facts & Figures 2021](#)). U.S. medical device exporters continue to hold a 30 percent share of the German import market. Key industry drivers include the power of innovation, a solid financial basis of the industry (80 percent of which are SMEs) and a vibrant startup scene, all based on a strong German economy and the commitment to a high-quality health system.

**Health IT:** The German Health Ministry and its agency, [Health Innovation Hub](#), are ambitiously implementing the Digital Care Act and digital health solutions, called “DiGA”. DiGA Fast Track is Germany’s path for digital health solutions to get access to the German statutory health system, reaching over 75 million German citizens insured under the mandatory health insurance. The German Health Ministry’s subordinate agency, the Federal Institute for Drugs and Pharmaceuticals, BfArM (German equivalent to the FDA) is taking online applications for DiGAs, and once approved as a medical app, DiGAs can be prescribed by any German physician. DiGA providers will be reimbursed by German insurance funds. Likewise, the telematics infrastructure, including 5G rollout, is being developed at a dramatic pace, and the electronic medical record (in German, ePA) is taking shape. From January 1, 2021 German health insurers are mandated to provide their insured with the ePA; and from July 1, 2021 all statutory health insurance accredited physicians and psychotherapists must be able to read and fill in the ePA. This law also facilitates easier access to patient data for research purposes as healthcare providers transmit their patient records to a centralized government-owned server.

The Hospital Future Act and its funding allow German hospitals to speed digitalization and remain competitive globally. So far, there has been an innovation gap in the German hospital sector because of lacking focus for digitalization among the German health policy makers and hospital management for years and there is still an insufficient number of dedicated digital solution providers. Thus, this market is especially penetrable for U.S. digital solution providers. E-medication is also on its way, with the new paragraph 360 of Germany’s SGB V social law, relating to the Patient Data Protection Act (PDSG). It mandates doctors and dentists to issue prescriptions in digital format from January 1, 2022. The law also makes it clear that even with digital prescriptions, the free choice of pharmacy of the insured remains, and neither health insurance funds nor contract physicians have a right to assign or influence. The digital health ecosystem in Germany will be driven by cloud computing solutions, artificial intelligence (AI), robotics, smart wearables, big data analytics, and the Internet of Medical Things (IoMT). The German Ministry of Health maintains a website on [digitalization in healthcare](#); the German Ministry of Education and Research maintains a website on the [medical informatics initiative](#). As of January 1, 2021, Germany’s BfArM-German Federal Institute for Drugs and Medical Devices is a member of [SNOMED International](#), global standards organization for health terms. With full membership, all German institutions and specialist groups in the healthcare sector wishing to use SNOMED CT in their applications can apply for a free license from BfArM. More information can be found on the [SNOMED website](#).

It is strongly recommended to open an office in Germany or work with a knowledgeable partner to enter the German HealthIT market, which is dominated by some large players in the various segments, i.e. CompuGroup, Deutsche Telekom Healthcare, Siemens Healthineers, i-Solutions, Nexus, Visus, to name a few.

**Dental products:** Germany is Europe’s largest market for dental equipment valued at USD 2.48 billion in 2019. For the first time since 2015, total sales of dental products from 207 mostly medium-sized member companies of the

Association of German Dental Industry (VDDI) decreased to USD 5.7 billion in 2020 (-13.1 percent compared to 2019) and an export share of 60.6 percent with USD 3.5 billion (-16.5 percent compared to 2019). These firms represent 85-90 percent of the German dental market and employ more than 21,290 people. Even though VDDI's numbers constitute a market contraction, the firms that participated in their annually conducted market survey remain optimistic. 59 percent of the survey firms expect exports to increase in 2021 compared to 2020, while 32 percent expect similar numbers and only 9 percent have negative expectations. A similar pattern can be seen with their evaluation of the German market. 51 percent expect sales to increase, while 42 percent anticipate similar sales and only 7 percent think their revenue will decrease. The Federal Dentists Chamber, [BZAEK](#), expects the workforce in the dental industry to increase by 18.6 percent in the period 2010-2030, from 410,000 to 486,000 employees. This includes dentists' offices, dental labs, and trade in dental products. Estimates by Fitch Solutions reveal a forecasted CAGR of 7.6 percent in euro-terms and 9.3 percent in USD-terms for this industry.

U.S. exports to Germany amounted to USD 126 million for dental equipment and supplies, and USD 55.2 million for dental laboratory products in 2020. Over 200 U.S. companies are actively exporting, with heavy weights Henry Schein, Danaher Corporation and Dentsply Sirona holding a direct presence and major market share. The major U.S. dental technology supplier Henry Schein is one of the largest distributors in Germany's dental market, with an annual sales of more than USD 126 million and an estimated 5 percent market share in 2020.

The United States is a technology leader and is competing with Germany in large markets such as China and India. Both the U.S. and Germany have branded for top quality products and innovative technologies and have strong trade ties. Traditionally the leading global trade fair for the dental community, the IDS-International Dental Show in Cologne proves to be an arena where both the U.S. and Germany demonstrate strength and forge further ties in R&D and trade, in view of increasing Chinese competition. Staged biennially, the U.S. dental industry is represented by 170+ U.S. exhibitors in two USA Pavilions and independent exhibits; this number has remained solid over the past ten years with 15-20 percent newcomers at every show, except for the 2020-21 pandemic years.

### **Opportunities**

Germany's healthcare market offers more than just agents and distributors; it has various opportunities along the value supply chain route: Design and research and development collaboration; strategic partnerships; equity partner and investor engagements; mergers and acquisitions; project collaboration, and other types of opportunities for SMEs to grow business and expand in the market. For example, we will assist major U.S. players in the Healthcare Cybersecurity arena gain further visibility and brand awareness in Germany and German-speaking Europe with seminars around cybersecurity and ransomware attacks in hospitals and other medical facilities. Likewise, the U.S. German Digital Health Forum initiated by the U.S. Commercial Service in partnership with a major German digital health platform continues to expand and opens the door to innovative U.S. digital health solution providers and allows them to forge relationships with university hospitals in Germany.

The German government's health informatics funding initiative and the German states' initiatives on healthcare digitization offer opportunities for U.S. firms to engage in Germany. An example would be a procurement for North Rhine-Westphalia's Public Hospitals to re-organize their system and reconstruct and upgrade existing facilities. In a four-year span, U.S. companies will have the opportunity to participate in consortia or as sub-contractors.

The German government's "Medical Informatics" funding scheme as part of the Health Research Framework Program offers an aging society where diseases like cancer, dementia and various cardiovascular, metabolic, and muscular ailments will become more prevalent to improve the exchange of data across different institutions and locations. The aim is that faster diagnoses and treatments will help to cut costs and help individuals receive faster and more precise care.

For more information on procurements you can get involved in, please contact us via our [website](#) to be added to a regular email of tender opportunities, or visit [Tenders Electronic Daily](#) by the EU.

## Resources

### Trade Events

- [Medica](#) – medical equipment and devices, IT solutions, laboratory equipment, physiotherapy and orthopedic technology, disposables and consumables, Dusseldorf, November 14-17, 2022
- [Greater New York Dental Meeting](#) – dental care, New York, November 25-30, 2022
- [DMEA](#), – digital health, Berlin, April 25-27, 2023
- [HIMSS23 Global Health Conference & Exhibition](#) – general healthcare, Chicago, April 17-21, 2023
- [Analytica](#), – laboratory technology, analysis, biotechnology and analytica, Munich, likely summer 2023 (last iteration was June 21-24, 2022)
- [American Hospital Association Leadership Summit](#) – healthcare association, Seattle, July 16-18, 2022
- [American Association for Clinical Chemistry: AACC Annual Meeting](#) – laboratory medicine, Anaheim, July 23-27, 2023.
- [Rehacare](#) – rehabilitation and care, Dusseldorf, September 14-17, 2022
- [The MEDTECH Conference](#) – medical technology, Boston, October 5-7, 2022
- [International Dental Show \(IDS\)](#) – dental care, Cologne, March 14-18, 2023

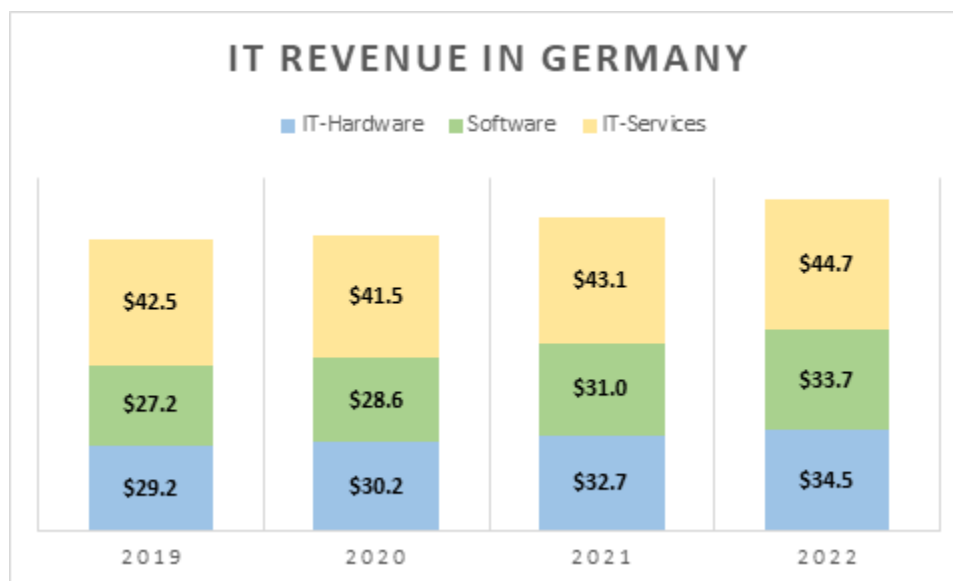
### Government Links

- Federal Institute for [Drugs and Medical Devices](#) (Competent Authority)
- Healthcare Procurement and [Tenders](#)

## Information, Communication & Technology (ICT)

### Overview

Figure 1. IT Revenue in Germany



Source: Adapted from "ITK-Marktzahlen," by Bitkom; ITK-Märkte, EITO, 2022

\*in billion USD, transformed from EUR to USD according to the exchange rate as of 05/15/2022 (1EUR=1.04USD)

Germany has one of the largest ICT markets in the world and the single largest software market in Europe with 95,808 IT companies (software and hardware, as of 2019, source: Statista) and an estimate of 1,124 million employees in 2022. There is strong demand for U.S. products and services across all segments. Key players such as Microsoft, Apple, Dell, Adobe, IBM, Oracle, and SAP have large market shares. There are also many highly specialized SMEs in the market. In 2022 revenue in the different IT subsectors consisted of USD 45.3 billion in IT-Services, USD 34.9 billion in IT-Hardware and USD 34.1 billion in the software subsector. Since 2007, total revenue in the IT sector has increased from USD 76.4 billion to an estimated USD 114.3 billion in 2021. Over recent years, a pattern of continuous growth is visible. Measured in EUR, total revenue is expected to amount to 108.6 billion EUR in 2022, compared to 102.6 billion EUR in 2021.

Germany hosts several key ICT trade shows, making it a premier marketplace for U.S. companies to reach global partners and buyers. U.S. exhibitors have frequently found buyers from Europe, Middle East, Africa, Asia and Latin America at the Hannover Messe, IFA Berlin, IT-SA, Gamescom or Embedded World.

### *Policy Objectives and Challenges*

ICT is a priority sector for the German government. Germany's economic and innovation policy is outlined in the Digital Agenda of the BMWK (Federal Ministry for Economic Affairs and Climate Action). It focuses on digital infrastructure, digital economy, digital workplaces, innovative public administration, digital environments in society, education, research, science, culture and media, security, protection and confidence for society and business.

Policy objectives include cybersecurity, the digitization of the German economy and the expansion of the German broadband network. Challenges include the impact of the EU Digital Single Market, the General Data Protection Regulation (GDPR), the E-privacy Regulation on ICT companies, and the latest cybersecurity policy developments.

The U.S. Commercial Service follows these developments and continues to work with associations and multipliers such as BMWK, Bitkom (Association for Information Technology), BDI (Federation of German Industries), GTAI (Germany Trade and Investment) and AmCham (American Chamber of Commerce) to unearth opportunities and flag policy concerns.

### **Leading Sub-Sectors**

Key segments and topics of interest include cybersecurity, internet of things (IoT), big data, health IT, cloud computing, business IT: ERP, data centers, smart social business platforms, integrated systems, virtual & augmented reality, and digital factory.

### **Opportunities**

- IT Security is the 2<sup>nd</sup> largest in Europe and has had strong growth
- Health IT has experienced strong growth in recent years; experts expect a consolidation process and fundamental changes in the next couple of years
- The Artificial Intelligence market is expected to grow significantly
- Smart Social Business Platforms
- Big Data, such as hardware, infrastructure, services, database and analytics technologies, are all key drivers for a fast digitalization of the German economy
- Enterprise Resource Planning (industry-specific ERP solutions)

### **Trade events**

- [Hannover Messe](#) – Industrial: “Largest industrial trade show in the world. Of interest for U.S. producers of industrial IT solutions”, Hannover, April 17 - 21, 2023
- [Embedded World](#) – Embedded systems, Nuremberg, March 14-16, 2023
- [Gamescom](#) – Interactive games and entertainment, Cologne, likely summer 2023 (last iteration took place August 24-28, 2022)

- [IFA Berlin](#) – Consumer electronics and home appliances, Berlin, September 2-6, 2022
- [it-sa](#) – IT security: Cloud, mobile & cyber security, data & network security, Nuremberg, October 25-27, 2022
- [ISE-Europe](#) – AV and integrated system, Barcelona, January 31 - February 3, 2023
- [Anga Com](#) – Telecommunications, broadband & media, Cologne, May 23-25, 2023

### **Trade Associations**

[Bitkom](#), Federal Association for Information Technology, Telecommunication and New Media

[Bitmi](#), Federal Association for Medium-Sized IT Businesses

[Teletrust](#), IT Security Association Germany

[ECO](#), Association of the Internet Industry

[NIFIS](#), National Initiative for Information- and Internet-Security

[German Games Industry Association](#), Organization that represents the German computer and video games industry

[VATM](#), Association of Telecommunication and Value-Added Service Providers

### **Government Entities**

[Federal Office for Information Security](#), National cyber security authority in Germany

[Federal Network Agency](#), Ensures compliance with the Telecommunications Act (TKG), Postal Act (PostG) and Energy Act (EnWG) and their respective ordinances

## **Energy**

### **Overview**

The energy transition, in Germany known as the "Energiewende", is the country's planned transition from a clear dominance of coal, oil and nuclear to a low-carbon and nuclear-free economy based on the utilization of renewable sources. The ambitious goal is to cut CO2 emissions by 80% and increase the share of renewable energy in total energy consumption to 60% by 2050. Investments in offshore wind, photovoltaics, grid expansion and energy storage projects will be necessary as well as the implementation of a new, smart energy infrastructure that can balance the fluctuating supply of renewable sources. Energy efficiency will play a central role. For decades, Germany has been the global pioneer in applying renewable energy and environmental technologies.

However, Germany has maintained a high degree of oil and natural gas to maintain electricity supply security. The lack of natural resources has led to an energy sector that highly depends on imports. Oil and gas are almost exclusively imported. These dependencies have created two situations of instability. First, global price changes strongly affect German energy importers and end users. Second, market developments depend heavily on Germany's international relations with certain countries, with Russia playing a crucial role. The planned nuclear and coal phase-outs at the same time are set to increase the country's reliance on natural gas, making it increasingly important to continue efforts to diversify gas supply options, including through liquefied natural gas imports.

Although the share of electricity produced from renewable sources fed into the grid has been constantly increasing there have been no remarkable incidents of power interruptions thus far. Commercial and private consumers can rely on a stable, continuous energy supply, for Germany has one of the lowest power interruption rates worldwide.

More than 90,000 companies employ about 245,000 employees and generated approximately USD 408 billion in 2020. Uniper Global Commodities SE, E.ON SE, EnBW Energie Baden Wuerttemberg AG, Statkraft Markets GmbH, and Tnet TSO GmbH are the top 5 energy companies regarding total revenue.

## Energy consumption and generation

**Energy consumption:** Germany is the largest energy consumer in Europe followed by France and the UK. As of 2021, primary energy consumption amounted to 12,193 Petajoule, with more than 75% coming from fossil sources, 16.1% from renewables, and 6.2% from nuclear energy. Energy consumption is still noticeably lower than before the outbreak of COVID 19. Price developments in energy markets also caused a noticeable reduction in consumption. The phase-out of nuclear energy by the end of 2022, the incipient phase-out of coal and the continued promotion of renewable energies have caused changes in the 2021 energy mix. Mineral oil remained the most important source of energy with a share of 32.3%, followed by natural gas with 26.8%. Lignite accounted for 9.2% and hard coal for 8.5%. The contribution of nuclear energy was 6.1%. Renewable energies slightly reduced their share of total energy consumption to 15.9% due to weak wind and at the same time colder weather. Biomass, which accounts for more than 50% of renewable energy, recorded a 3% increase in consumption. Hydroelectric power stations increased by a 4%. Power generation from PV systems increased by 1%. Onshore wind farms saw a 15% drop in power generation and offshore plants fell 1%.

**Energy production:** Domestic energy generation was able to cover 29% of total consumption and increased by 4.9 percent to 3,552 PJ in 2021. The most important domestic energy source is now renewable energy with a share of 54.7%, a decline of 4% compared to 2020. Lignite follows with 32.4%. Domestic natural gas production increased slightly and added 4.6%. The other energy sources reach shares in the low single digits. Hard coal mining stopped in Germany at the end of 2018.

**Electricity production:** A major part of electricity produced and fed into the grid in Germany in 2021 came from conventional energy sources and accounted for 57.6% of total electricity production. Lignite-fired power plants increased their net production to 99 TWh. Net electricity generation from nuclear power was at 65.4 TWh, from gas-fired power plants around 51 TWh and from hard coal-fired power plants at 46.4 TWh. The proportion of electricity produced from renewable energy sources and fed into the grid decreased by 7.6% to 42.4%. Due to weather conditions, the share of renewables in the net electricity generation fell to 45.7 percent, compared to 50.0 percent in 2020. Electricity from wind power amounted to about 113.5 TWh and with a share of 23.1% wind was again the most important source of electricity. German photovoltaic systems generated about 48.4 TWh electricity, about 44.6 TWh of which were fed into the public grid and 3.8 TWh were self-consumed. Hydropower contributed 19.4 TWh to electricity generation. With hardly any change in installed capacity, biomass generated slightly more electricity in 2021 (43 TWh). In total, renewable energy sources produced about 225 TWh in 2021, about 6% below 2020's value.

## Energy policy

The Federal Ministry for Economic Affairs and Climate Action (BMWK) oversees the country's energy policy and supervises the energy sector. The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) is responsible for environmental protection, nature conservation and consumer protection.

Key to Germany's energy policies and politics is the so-called "Energiewende", meaning "energy transition". Germany aims to fulfil all its electricity needs with supplies from renewable sources by 2035, compared to its previous target to abandon fossil fuels by 2045. Germany intends to increase the share of renewables in final consumption to 30% in 2030. It aims to reduce GHG emissions by 65% in 2030 and to reach carbon neutrality by 2045. The policy includes phasing out nuclear power by 2022 and the phase out of coal and lignite will be advanced to 2030.

The two pillars of the "Energiewende" are renewable energy sources and energy efficiency. The legal background is the Renewable Energy Source Act (EEG) that regulates the renewable electricity sector, and the Renewable Energies Heat Act (EEWärmeG) promotes the increase of heat generated from renewable energy in new buildings. Another amendment to the country's Renewable Energy Sources Act has already been prepared. The share of wind or solar power should reach 80% by 2030. By then, Germany's onshore wind energy capacity should double to up to 110 GW, offshore wind energy should reach 30 GW - arithmetically the capacity of 10 nuclear plants - and solar energy would more than triple to 200 GW.



Germany relies heavily on imports of fossil fuels as its domestic resources are largely depleted or their extraction is too costly. Rising European energy prices and the Russia-Ukraine war have led to a permanent shift in Germany's energy and foreign policy. Germany, being Europe's leading economy, needs to become less dependent on Russian gas, but its plans to phase out coal-fired power plants by 2030 and to shut its nuclear power plants by end-2022 have left the country with few options. Accelerated capacity expansion for renewable energy and investments in LNG and hydrogen infrastructure will be the key elements in making the country less dependent on Russian fossil fuel supplies.

The European Climate Law sets a legally binding target of net zero greenhouse gas emissions by 2050. EU Institutions and the Member States are bound to take the necessary measures at EU and national level to meet the target.

[https://ec.europa.eu/clima/eu-action/european-green-deal/european-climate-law\\_de](https://ec.europa.eu/clima/eu-action/european-green-deal/european-climate-law_de)

### **Market entry and best prospects**

Germany is Europe's largest electricity market with an annual power generation of around 625 TWh and a capacity of around 200 GW. More than one thousand market participants are active in the fully liberalized market, with new market actors – who do not own power plants or supplier networks - successfully entering the domestic electricity market. The "Federal Network Agency" (Bundesnetzagentur) is the regulatory office for electricity, gas, telecommunications, post, and railway markets. The agency is also responsible for ensuring non-discriminatory third-party access to power network.

- **Energy infrastructure**

Germany's power grid ranks among the most reliable in the world, despite an increasing share of fluctuating renewable energy sources. The government has made the extension of the grid a priority to maintain this high level of resilience. The German energy transition is creating completely new challenges for the transport of electricity because the power generation structure is changing. Increasingly, electricity is being generated by distributed wind and solar installations, some of them located a long way from the consumers. Not least, the electricity generated by wind turbines and new conventional power stations in the north of Germany must be transported to the major power consumption regions in the west and south.

Hence, major investments in the expansion of the transmission and distribution networks are planned as a result of renewable energy integration and the growing consolidation of Europe's energy markets. New technologies in the energy grid sector – for example superconductors, high-temperature lines and local power transformers – are being tested in pilot projects. ICT solutions provide important information for the safe operation of power grids. Alongside battery storage with solar systems, large-scale storage solutions are playing a growing role in the balancing energy market. Hydrogen also plays an important role thanks to the linking of energy, heat and the mobility sector.

Intelligent networks or "smart grids" allow fluctuating renewable energy power generation and consumption to be optimally managed by allowing a shift from "consumption-oriented generation" to "generation-optimized consumption."

Information and communication-based technologies (ICT) will play a central role in connecting the different parts of the energy system. Intelligent ICT solutions will allow smart grids to efficiently manage power generation, consumption and storage in tandem with so-called "smart meters."

- **Investment in High Voltage Lines and Grid Expansion**

The total length of Germany's transmission grid is around 35,000 kilometers. It transmits power with a maximum voltage of 220 kilovolts (kV) or 380 kV. Most of the power lines use alternating current, but the new transmission lines between northern and southern Germany, planned to be completed by 2025, will use the more efficient high-voltage direct current (HVDC) technology. Currently, just 0.4% of the German transmission grid is laid below ground. In response to public protests against overland powerlines and pylons, new legislation has given priority to underground cables, although this technology is more expensive to install and maintain. According to the Federal Network Agency, around 12,234 km of new power lines are needed to successfully implement the energy transition. Only about 1739 km of the newly planned power grid has already been completed.



Some USD 117.5 billion are needed to expand and upgrade Germany's electricity network by 2050 according to a study commissioned by electricity supplier E.ON. Some USD 34 billion of that amount would be needed by 2030. More solar and wind systems must be integrated into the network, and charging infrastructure for e-mobility, as well as heat pumps and electricity storage systems will need to be expanded. Without these investments, "follow-up costs" of USD 4.4 billion a year could be incurred because of overloaded networks that are not able to absorb renewable-generated electricity.

Transmission system operators (TSOs) keep control power available to maintain stable and reliable supply. Demand for control energy is created when the sum of power generated varies from the actual load. There are four grid operators in Germany: 50 Hertz Transmission, Amprion, TenneT TSO, and TransnetBW.

- **Energy Storage**

The German energy storage market has experienced a massive boost in recent years. Germany is the global leader in energy storage technology for renewable energy systems. While the demand for energy storage is growing across Europe, Germany remains the European lead target market and the first choice for companies seeking to enter this fast-developing industry. The country stands out as a unique market, development platform and export hub. Energy storage systems will play a fundamental role in integrating renewable energy into the energy infrastructure and help maintain grid security by compensating for the enormous increase of fluctuating renewable energies. Germany's geography limits the development of new pumped storage capacity. Hence, new storage technologies and smart grids are needed.

Small and commercial battery systems: Around 1.7 million solar power plants with a total capacity of approximately 45 GWp have been installed in Germany over the past 25 years. Around 1,000,000 are residential rooftop installations with a capacity of smaller than 10 kWp. Every second newly installed residential PV-system is combined with an energy storage system to increase the amount of own-consumed PV electricity. Retrofit storage installations will also be a major driver for improving energy self-sufficiency in private households and commercial operations. Only 8% of rooftop PV systems in Germany are equipped with a battery today – by 2030 it could be well over 80%.

Larger battery systems: To integrate the large amounts of wind and solar energy safely into the existing grid, large battery systems will play an important role in Germany's future energy infrastructure. These are well suited to providing control power to stabilize grid frequency. At present, several demonstration and commercial projects have been put in operation. Companies can find a large pool of potential partners to optimize their technology and move it towards commercialization.

- **The German National Hydrogen Strategy and Hydrogen Exports**

Green hydrogen is key to the country's clean energy future given the fact that Germany has a significant natural gas market. In June 2020, the Federal Government of Germany adopted a National Hydrogen Strategy (NWS). Germany aims to become the "world number one" in clean hydrogen energy technology - with the government investing USD 9.6 billion. USD 7.4 billion will be made available for hydrogen and hydrogen-related projects or instruments. Financial support of another USD 2.1 billion will be provided for international partnerships. Only renewable-based hydrogen is addressed and supported by the national strategy.

The government strategy includes a two-stage plan of action. The first 'ramp-up' phase lays the foundation for a well-functioning domestic hydrogen market through to 2023, which includes the development of the transport and distribution infrastructure for hydrogen and derived products. The second phase will strengthen this market ramp-up and provide a basis for European and international cooperation. The strategy also sets a target for electrolysis capacity. However, this target emphasizes the need for imports as there will be a domestic supply gap. To close the gap the government plans to import RES-based hydrogen from other EU member states, in particular those states that generate hydrogen from offshore wind in the North and Baltic Sea, or PV in southern Europe. Furthermore, cooperation with non-European countries is planned.

The market for hydrogen, related technologies and systems is still under development. The current stage may be described as a ramp-up phase, as many solutions, networks/infrastructure, standards, and norms are still under development. Opportunities for US companies will surely develop, as the market ramp-up evolves.

**Hydrogen Exports to Germany:** There is with no doubt a great potential for green hydrogen exports to Germany. The government expects that around 90 to 110 TWh of hydrogen will be needed by 2030. And there is an even wider range of forecasts for 2050 for Germany from 150 TWh to 550 TWh.

At the end of January 2022, the European Commission has granted state aid approval to the German government to allow the funding of the hydrogen import program, 'H2Global', with USD 960 million. H2Global aims to promote the development of green hydrogen production plants in sunny non-EU countries. The hydrogen produced there will then be imported to the EU. The H2 Global Foundation will purchase green hydrogen abroad via auctions under long-term contracts. The first purchase contracts are to be awarded as early as 2022, with the first deliveries of hydrogen envisaged to arrive in Germany in 2024.

The EU Commission has now confirmed that producers of renewable hydrogen and hydrogen derivatives wishing to participate in the tenders must comply with the greenhouse gas emission reduction target of up to 70% set in the revised Renewable Energy Directive (RED II) for plants with a construction date after January 2021. They must also meet social and environmental sustainability aspects. This will also be included in the procurement criteria for awarding contracts via H2Global. RED II thus indirectly binds producers who manufacture hydrogen in non-EU countries.

Germany and Norway plan to carry out a feasibility study on the construction of a pipeline to transport green hydrogen in 2022. The development of hydrogen collection pipelines in the North Sea would offer advantageous conditions for the transport of green hydrogen on land with an installed capacity of 10 GW.

- **Liquefied Natural Gas**

Germany does not yet have its own regasification terminals for LNG and imports enter through neighboring countries' terminals, especially Belgium and the Netherlands. Only recently, Germany has made unprecedented changes in its energy and security policies following the Russian invasion of Ukraine. The recent decision to invest in LNG infrastructure and to begin the construction of two new LNG facilities has long been overdue. Given the fact that hydrogen will play an increasingly important role in the longer term, the German government has also said they want to make sure any LNG infrastructure is hydrogen compatible.

In addition to two onshore terminals in Wilhelmshaven and Brunsbüttel, the German government plans to lease so-called Floating Storage and Regasification Units (FSRU) in the short term, one of which could be installed as early as this winter (2022/2023). Due to the fallout of Russia's war against Ukraine there is international competition for FSRUs, of which there are currently just under 50 worldwide.

Germany's first, of possible four, floating liquefied natural gas terminal will be operational in Wilhelmshaven by the end of the year and have a capacity of 7.5 bcm per year, equivalent to 8.5% of total German gas demand. The second floating facility would be built in Brunsbüttel, northwest of Hamburg, should be operational next year, and have a capacity of 5 bcm per year. The northern cities of Stade, Rostock, and Hamburg, as well as Eemshaven in the Netherlands were possible locations for the other two FSRUs. On behalf of the German government, RWE has chartered two special ships with which liquefied gas can be imported and fed directly into the German gas grid.

Germany's gas imports totaled 142 bcm in 2021 with about one third being piped Russian gas. The aim is to cut Russian gas supply down to 10% by summer 2024. In March 2022, the U.S. and the EU said that the U.S. would scale up LNG exports to Europe to 50 bcm per year starting in 2023. However, Germany's goal is to generate all of its electricity from renewable sources — such as solar and wind energy — by 2035 and the strategy is to develop more renewable energy than LNG-powered energy. There is potential to export LNG to Germany in the medium run but one questions on how long Germany will commit to import contracts, which typically run from 10 to 25 years.

## Resources

### Trade Events

- [E-world of Energy and Water](#) – energy sector, Essen, May 23-25, 2023

- [Energy Storage and Expo for Decarbonised Industries](#) – industrial and commercial decarbonisation solutions, Duesseldorf, September 20-22, 2022
- [Enlit Europe](#) – power and energy, Frankfurt, November 29-December 1, 2022
- [Hannover Messe](#) – industrial, Hannover, April 17 - 21, 2023
- [The Smarter E Europe and Intersolar](#) – energy transition, Munich, June 14–16, 2023

### Government Links

- BMWK Federal Ministry for Economic Affairs and Climate Action - <https://www.bmwk.de/Redaktion/EN/Dossier/energy-transition.html>
- BMUV Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection - <https://www.bmu.de/en/>
- UBA Federal Environment Agency- <https://www.umweltbundesamt.de/en>
- DENA German Energy Agency – <https://www.dena.de/en/home/>

## Travel & Tourism

### Overview

#### Visitor Statistics from Germany

The United States continues to be a preferred tourism destination for German travelers. Travel and tourism is the second-largest export industry in the United States and the largest service sector export. Every 69 international visits to the U.S. will create one U.S. job, according to the National Travel and Tourism Office's I-94 Visitor Arrivals Monitor/CIC Research Inc., DHS/CBP I-94 COR Record, Statistics Canada, INEGI.

Most German visitors to the United States book their travel through German tour operators and/or travel agencies, thus availing themselves of German consumer travel laws safeguarding their vacation investment. German visitors plan and book early. However, the length of time between booking and travel has shortened considerably since the pandemic. The focus for bookings is strongly on the summer months.

In March 2022 alone, there were 87,609 arrivals from Germany, an increase of 1764% compared to March 2021, making Germany the 4<sup>th</sup> largest overseas market, after Canada, Mexico and the UK and ahead of Brazil. Based on preliminary statistics for April 2022, Germany ranks 3<sup>rd</sup> in Europe (after the UK and France) with 134,973 arrivals, an increase of 2228.7% compared to April 2021. In 2019, there were 2,063,767 arrivals from Germany.

Year to date, January – April 2022, there were 313,821 visitors from Germany to the United States. That is an increase over the same period in 2021 of 1409.5% but a decrease of 45.7% over the first four months of 2019.

The National Travel and Tourism Office estimates that spending by international travelers to the United States in March 2022 reached USD 10.1 billion, an increase of 90% compared to March 2021. In 2021, Germany ranked 11<sup>th</sup> in terms of total U.S. travel and tourism-related exports.

Germans are the number one travelers in the world per capita, and well-known for visiting second and third tier destinations within the United States, not just the major gateways and attractions. Germany will remain a significant source market.

### Leading Sub-Sectors

Leisure travel, business travel, fly-drive and individual packages are the leading sub-sectors for the Travel and Tourism industry. Germany also has an active MICE (meetings, incentives, conferences, and events) industry; however, visas can be a limiting factor for U.S. travel.

Germany's 2,300 travel agencies have seen an uptick as sales continued to grow in April 2022.

## Outlook for Recovery of Travel

There are currently 48 weekly non-stop flight routes from Germany to the United States, many daily. Before the pandemic, there were more than 50 non-stop connections in Summer 2019. Industry sources expect that it will take up to two years for the recovery of the sector.

In 2021, the share of travel expenditure fell from 4.6% in 2019 to 1.8% of total private consumption in Germany.

One in five Germans plans fewer vacations due to price increases, however around 80% are still keen on taking vacations in general. For 65%, safety and flexibility are top priorities when traveling.

## Opportunities

### Training

Training via webinars is still popular at present, with German travel industry partners as well as "armchair travel activities" for consumers, yet both are gradually returning to their original form of in-person sales calls and agent training sessions. The Visit USA Committee Germany e.V. plans to continue its successful series of training opportunities for members to present to German travel industry partners. Contact [office@vusa.travel](mailto:office@vusa.travel) for details on how to sign up.

### Promotion

Germany hosts the world's largest travel show, ITB, making Germany a premier marketplace for U.S. tourism companies to reach their global partners and buyers. There are also a number of regional consumer travel shows such as CMT Stuttgart, f.re.e in Munich and oohh! The LeisureWorlds of Hamburg, and a specialized MICE show, the IMEX in Frankfurt.

### Policy Objectives and Challenges

Policies in the German and European markets for travel to the United States such as flight access, visa waiver, ESTA, immigration issues, and drivers' license issues could potentially cause challenges. Environmental concerns and the need for responsible tourism are trending. The Commercial Service will continue to follow the latest policy developments and discussions in Germany, led by trade organizations such as DRV (German Travel Agents and Tour Operator 52 Association) and VUSA (Visit USA Committee Germany e.V.), and monitor travel related media coverage and report on these to the National Travel and Tourism Office (NTTO).

### Trade Events

- [Oohh! The LeisureWorlds](#) – holiday and leisure, Hamburg, February 8-12, 2023
- [CMT](#) – tourism and leisure, Stuttgart, January 14-22, 2023
- [f.re.e](#) – leisure and travel, Munich, February 22-26, 2023
- [ITB](#) – travel, Berlin, March 7-9, 2023
- [IMEX](#) – meetings and events industry, Frankfurt, May 23-25, 2023

## Resources

Entry and visa regulations information:

[U.S. Embassy and Consulates in Germany](#)

[DHS](#)

Other:

[Official site of the Visit USA Committee Germany](#)

[Brand USA's consumer website in German](#)

## Customs, Regulations and Standards

### Trade Barriers

Germany's regulations and bureaucratic procedures can be a difficult hurdle for companies wishing to enter the market and require close attention by U.S. exporters. Complex safety standards, not normally discriminatory but sometimes rigorously applied, complicate access to the market for many U.S. products. U.S. suppliers are well advised to do their homework thoroughly and make sure they know precisely which standards apply to their product and that they obtain timely testing and certification.

For information on existing trade barriers, please see the National Trade Estimate Report on Foreign Trade Barriers published by USTR. Additional resources: [SBA's Office of International Trade](#) and [Trade and Development Agency](#).

Information on agricultural trade barriers can be found at the following website: [Foreign Agricultural Service](#).

To report existing or new trade barriers and get assistance in removing them, contact the [Trade Compliance Center](#). For information on EU retaliatory tariffs on U.S. goods see the [list](#) on the Department of Commerce website.

### Import Tariffs

When products enter the EU, they need to be declared to customs according to their classification in the Combined Nomenclature (CN). The CN document is updated and published every year, and the latest version can be found on the [European Commission's website](#).

U.S. exporters should consult “The Integrated Tariff of the Community”, referred to as TARIC (Tarif Intégré de la Communauté), to identify the various rules that apply to specific products being imported into the customs territory of the EU. To determine if a license is required for a particular product, check the TARIC.

The TARIC can be searched by country of origin, Harmonized System (HS) Code, and product description on the interactive website of the Directorate-General for Taxation and the Customs Union. The online TARIC is updated daily.

Key Link: [TARIC](#)

Key Link: [German Customs import information](#)

### Import Requirements and Documentation

Please refer to our European Union Country Commercial Guide article on [EU import requirements and documentation](#).

### Labeling and Marking Requirements

Please refer to our [European Union Country Commercial Guide article on EU labeling requirements](#).

### U.S. Export Controls

United States imposes export controls to protect national security interests and promote foreign policy objectives related to dual-use goods and less-sensitive military items through implementation of the [Export Administration Regulations](#) (EAR) (15 CFR Parts 730–774). The Bureau of Industry and Security (BIS) is responsible for regulating, implementing, and enforcing dual-use export controls. Export Administration (EA) is responsible for processing license applications, counseling exporters, and drafting and publishing changes to the EAR; and Export Enforcement (EE) is responsible for compliance monitoring and enforcement of the EAR. BIS works closely with U.S. embassies, foreign governments, industry, and trade associations to ensure that exports from the United States are secure and items subject to the EAR comply with the regulations. BIS officials conduct site visits, known as End-Use Checks (EUCs), globally with end-users, consignees, and/or other parties to transactions involving items subject to the EAR to verify compliance.

An EUC is an on-site verification of a non-U.S. party to a transaction to determine whether the party is a reliable recipient of items subject to the EAR. EUCs are conducted as part of BIS's licensing process, as well as its compliance

program, to determine if items were exported in accordance with a valid BIS authorization or otherwise consistent with the EAR. Specifically, an EUC verifies the *bonafides* of transactions subject to the EAR, to include: confirming the legitimacy and reliability of the end use and end user; monitoring compliance with license conditions; and ensuring items are used, re-exported or transferred (in-country) in accordance with the EAR. These checks might be completed prior to the export of items pursuant to a BIS export license in the form of a Pre-License Check (PLC) or following an export from the U.S. during a Post-Shipment Verification (PSV), regardless of whether or not a BIS license was required.

BIS officials rely on EUCs to safeguard items subject to the EAR from diversion to unauthorized end uses/users and destinations. The verification of a foreign party's reliability facilitates future trade, including pursuant to BIS license reviews. If BIS is unable to verify the reliability of the company or is prevented from accomplishing an EUC, the company may receive, for example, more regulatory scrutiny during license application reviews or be designated on BIS's Unverified List or Entity List, as applicable.

BIS has developed a list of "red flags", or warning signs, and compiled "Know Your Customer" guidance intended to aid exporters in identifying possible violations of the EAR. Both of these resources are publicly available, and their dissemination to industry members is highly encouraged to help promote EAR compliance.

BIS also provides a variety of training sessions to U.S. exporters throughout the year. These sessions range from one to two-day seminars that focus on the basics of exporting to coverage of more advanced, industry specific topics. Interested parties can check a list of upcoming seminars and webinars or reference BIS provided online training. BIS's Export Control Officers (ECOs) located at U.S. embassies and consulates in seven overseas locations also conduct outreach to raise awareness of reexport control requirements with foreign business communities.

BIS and the EAR regulate transactions involving the export of "dual-use" and less-sensitive military items (commodities, software, and technology) as well as some U.S. person activities. For advice and regulatory requirements on items under the export control jurisdiction of other U.S. Government agencies, exporters should consult other U.S. Government agencies. For example, the U.S. Department of State's Directorate of Defense Trade Controls has authority over the defense articles and services that are not subject to the EAR. A list of other agencies involved in export control can be found on the BIS website and in Supplement No. 3 to Part 730 of the EAR.

The EAR is available on the BIS website and on the e-CFR (Electronic Code of Federal Regulations) and is updated as needed.

The Consolidated Screening List (CSL) is a list of parties for which the United States Government maintains restrictions on certain exports, reexports or transfers of items. The CSL consolidates eleven export screening lists of the Departments of Commerce, State, and the Treasury into a single data feed as an aid to industry in conducting electronic screens of parties to regulated transactions. Exporters should determine the export requirements specific to their proposed transaction by classifying their items prior to export, and reviewing the EAR's requirements specific to the item(s) and the proposed end use and end user, as well as consulting the CSL to determine if any parties to the transaction may be subject to specific license requirements.

Germany participates in all four multilateral export control regimes (i.e., the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, and the Wassenaar Arrangement). All items listed by those regimes are subject to export control in Germany. Germany implements the European Union (EU) Dual-Use Export Control Regulation and Control List. The EU Dual-Use Regulation 428/2009 has been superseded, effective September 9, 2021, by EU Regulation 2021/821, which, among other amendments, enhances controls for cyber-surveillance items, creates a framework for member states to review emerging technologies, and expands the scope of brokering controls. The new regulation also creates additional general export authorizations for intra-EU exports of certain commodities and technology, as well as for certain encryption items. View Regulation 2021/821 and Regulation 428/2009. With the exception of certain defense articles falling under the licensing jurisdiction of the Federal Ministry for Economic Affairs and Energy (BMWi), Germany's Export Licensing Authority is the Federal Office for Economics and Export Control (BAFA). Find more information about BAFA and Germany's export control system and BAFA's Export Licensing System (ELAN-K2).

### BIS Counseling Desks:

- (202) 482-4811 - Outreach and Educational Services Division (located in Washington, DC – open Monday-Friday, 8:30 am-5:00 pm ET)
- (949) 660-0144 - Western Regional Office (located in Irvine, CA – open Monday-Friday, 8:00 am-5:00 pm PT)
- (408) 998-8806 - Northern California branch (located in San Jose, CA – open Monday-Friday, 8:00 am-5:00 pm PT)
- E-mail your inquiry to the Export Counseling Division of the Office of Exporter Services at [ECDOEXS@bis.doc.gov](mailto:ECDOEXS@bis.doc.gov).

### BIS Export Control Office Germany

Tel: (+49) 69-75350

### Temporary Entry

Please refer to our European Union Country Commercial Guide article on [temporary entry](#).

### Prohibited and Restricted Imports

Please refer to our European Union Country Commercial Guide article on [prohibited and restricted imports](#).

### Customs Regulations

Please refer to our European Union Country Commercial Guide article on [customs regulations](#).

### Standards for Trade

Please refer to our European Union Country Commercial Guide article on [EU legislation and CE Marking](#).

### Contact Information

Please see the contact info for the [Standards Attaché to the EU](#).

### Use ePing to review proposed technical regulations and conformity assessment procedures

The ePing SPS&TBT platform (<https://epingalert.org/>), or “ePing”, provides access to notifications made by WTO Members under the Agreements on Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT), distributed by the WTO from January 16, 1995 to present. ePing is available to all stakeholders free of charge and does not require registration unless the user wishes to receive customized e-mail alerts. Use it to browse notifications on past as well as new draft and updated product regulations, food safety and animal and plant health standards and regulations, find information on trade concerns discussed in the WTO SPS and TBT Committees, locate information on SPS/TBT Enquiry Points and notification authorities, and to follow and review current and past notifications concerning regulatory actions on products, packaging, labeling, food safety and animal and plant health measures in markets of interest.



Notify U.S., operated and maintained by the National Institute of Standards and Technology (NIST) since 2003 to distribute and provide access to notifications (and associated draft texts) made under the WTO TBT Agreement for US stakeholders, has reached its end of life. Per obligation under the TBT Agreement, each WTO Member operates a national TBT (and an SPS) Enquiry Point. National TBT Enquiry Points are authorized to accept comments and official communications from other national TBT Enquiry Points, which are NOT part of the WTO or the WTO Secretariat. All comment submissions from U.S. stakeholders, including businesses, trade associations, U.S. domiciled standards development organizations and conformity assessment bodies, consumers, or U.S. government agencies on notifications to the WTO TBT Committee should be sent directly to the USA WTO TBT Inquiry Point. Refer to the comment guidance at <https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> for further information.

## **Trade Agreements**

For a list of trade agreements between the European Union and other countries in the world, as well as concise explanations of these agreements, please consult [EU Trade Agreements](#). The EU and U.S. do not have a trade agreement in place, but for a summary of the overall trade relationship, please consult [EU trade relations with the United States](#).

## **Licensing Requirements for Professional Services**

Please refer to our European Union Country Commercial Guide article on [EU licensing requirements for professional services](#).

## **Selling U.S. Products and Services**

### **Distribution & Sales Channels**

#### **Using an Agent or Distributor**

Please refer to our European Union Country Commercial Guide article on [using an agent or distributor](#).

#### **Establishing an Office**

Anyone can open an office in Germany – irrespective of nationality or place of residence. There is no specific investment legislation in Germany, nor is there a minimum percentage of German shareholdings required for foreigners. Investors can choose the most suitable legal form, i.e., a corporation, a partnership or conduct business via a German branch office.

Foreign companies with a head office and registered business operations outside of Germany can establish a German branch office. This business form is suitable for a foreign company wishing to establish a presence in Germany for the purpose of initiating business and maintaining contacts with business partners.

For more details see information from Germany Trade and Invest: [Establishing a Company](#).

For further information, please refer to the U.S. Department of State's [Investment Climate Statements](#), which include information on investment and business environments in foreign economies pertinent to establishing and operating an office and to hiring employees.

## **Franchising**

U.S. businesses looking to franchise within the European Union will likely find that the market is quite robust and friendly to franchise systems in general. There are several laws that govern the operation of franchises within the European Union, but these laws are fairly broad and generally do not constrain the competitive position of U.S. businesses. The potential franchisor should take care to look not only at EU regulations, but also at local laws

concerning franchising. More information on legislation relating to franchising can be found on the website of the [European Franchise Federation](#).

### *German Franchising Market*

Key to a successful market entry is finding the right partner with which to develop the market. Multi-brand franchising is still relatively unknown in Germany, but according to the [German Franchise Association](#) it will become more important in the future. Individuals/companies already in the franchise market have the expertise and financial connections to pave the way. Reaching out to these active players can greatly ease the access into Germany and provide local knowledge of the market. This can be achieved through cooperation with the industry/trade associations, franchise consultants, brokers and media channels reaching out to the appropriate industry audience. Individuals/companies already in the franchise market can also help create brand awareness that minimizes the risk for the potential investor. German business partners prefer to talk directly to the owner, not the manager. German business partners are cautious investors and prefer to see new concepts tested and proven successful in Germany before investing in them, even if a business has already been successful in its home or neighboring country. U.S. franchisors are advised to first set up a subsidiary as a corporate pilot with a German partner and then start franchising.

Germany's population and industry are decentralized and there is no one single predominant business center. It is common in Germany for franchisors (and many other business sectors) to divide the country into regions and then appoint area developers to oversee a group of franchisees. Successful market strategies consider regional differences as part of a strong national market presence.

There are many options for advertising on the German market. A selection of franchise focused sites/media include:

Magazines:

- FRANCHISEConnect: [www.avr-werbeagentur.de](http://www.avr-werbeagentur.de)
- franchiseErfolge: [www.unternehmergeverlag.de](http://www.unternehmergeverlag.de)

Online Platforms:

- Deutsche Unternehmerboerse <https://www.dub.de/> (in German) – print and online, site advertising investment possibilities
- Franchise Pool International (FPI) [www.franchisepool.org](http://www.franchisepool.org) (in English and German) – consultant pool with listing of franchises
- FranchisePORTAL [www.franchiseportal.de](http://www.franchiseportal.de) (in German) – virtual franchise fair with listing of available franchises
- Punkt Franchise (in English and German) <https://www.punktfranchise.de> – virtual franchise fair with listing of available franchises

Franchise Trade Events in Germany:

- [Franchise Expo Frankfurt](#) – conference and exhibition for the franchise industry, Frankfurt, November 10-12, 2022
- [EXPO REAL](#) – Europe's largest real estate and investment trade fair, Munich, October 4-6, 2022

### **Direct Marketing**

Most German companies use direct marketing to sell their products and services. The most frequently used formats are email and online marketing, telephone marketing, and direct mail. It is important to know the pitfalls of using direct marketing as a selling tool in Germany. Data protection and privacy laws are stringent, and consumer protection guidelines and competitive advertising are also highly regulated. Companies should consult with a lawyer before raising, storing, or processing any sort of data in Germany. Other potential challenges regard the laws pertaining to unfair competition and rebates.

## Joint Ventures/Licensing

Dealing with joint ventures is challenging under German competition law. In Germany, joint venture legislation falls under the purview of the Federal Cartel Office ([Bundeskartellamt](#)). The law requires that a joint venture must exercise “genuine entrepreneurial” activities. Under German law, this means:

- Organizations which merely carry out auxiliary functions such as purchasing or distribution on behalf of the parents are not considered joint ventures; and
- JVs must have at their disposal sufficient assets and personnel to carry out their activities.

The Bundeskartellamt is required to prohibit a merger if it is "expected to create or strengthen a dominant position." Market dominance is defined as an undertaking which either has no competitors or is not exposed to any substantial competition or has a paramount market position in relation to its competitors.

### *Licensing*

German antitrust law does not, in the absence of a dominant market position, restrict the owner’s freedom to use her/his industrial property rights, including the exploitation of a patented innovation.

## Express Delivery

Most international express delivery companies are active in Germany. Large players include DHL and Hermes (both headquartered in Germany), FedEx and UPS. These companies ship domestically and internationally, provide a wide range of delivery options and prices and have grown significantly because of e-commerce. The German express delivery industry shipped more than 4 billion packages in 2021. An increasing number of companies incl. Amazon, Flink and Decathlon (sporting goods retailer) offer same day deliveries in large metropolitan areas.

## Due Diligence

Product safety testing and certification is mandatory for the EU market. U.S. manufacturers and sellers of goods have to perform due diligence in accordance with mandatory EU legislation prior to exporting.

Companies interested in taking over German firms should always conduct their [own due diligence](#) before entering business ventures. One of the U.S. Commercial Service’s programs, the [International Company Profile \(ICP\)](#), has been designed to support due diligence processes. All major consulting companies offer due diligence services, and most large U.S. accounting or consulting firms have subsidiaries in Germany.

## eCommerce

Germany has one of the largest e-commerce markets in Europe. The number of e-commerce consumers, internet penetration and average amount spent per year is above the European average. In 2021, total sales amounted to USD 127.5 billion, which translates to a 24 percent growth compared to 2020. It is expected that the online population in Germany will increase from 62.4 million in 2020 up to 68.4 million in 2025. E-commerce penetration in 2021 reached 77 percent in the German market. As a result of strict COVID lockdown measures throughout 2020 and 2021, many German consumers have increased their online purchases and bought goods like groceries and sanitary items online for the very first time. Key reasons for consumers to shop online include home delivery (69 percent of online shoppers in Germany agree), 24/7 availability (64 percent), and convenience (60 percent).

German consumers are rather risk-averse and expect high quality products. Websites and online stores are expected to be in German language.

Smartphone penetration in Germany lies at 80 percent, with a social media penetration of 53 percent. The role of social media platforms such as Facebook, YouTube or Instagram continues to be of high importance.

## Popular e-Commerce Sites

The most popular online retailers in Germany in 2020 were amazon.de (net sales of USD 15.8 billion), otto.de (USD 5.3 billion), zalando.de (USD 2.2 billion), mediamarkt.de (USD 1.7 billion), and lidl.de (USD 1.2 billion). Combined, those five online retailers share 47 percent of the German E-Commerce market.

## Product Categories

The most popular products purchased online include clothing (76 percent of online shoppers), shoes (73 percent), food & drinks (69 percent), consumer electronics (61 percent), books/movies/games (58 percent) and healthcare products (56 percent). It is further expected that toys and “Do it Yourself” (DIY) products will play an increasingly crucial role by 2025. Consumers are most price-sensitive in the clothing and food industries, whereas luxury product sales are most common for smartphones and shoes.

## Online Payment

When it comes to payment, the most common methods are purchase on invoice, PayPal, direct debit and credit cards. Many websites accept bank transfers or invoice/buy now, pay later. Online customers have the right to cancel orders and return goods or services within 14 days, for any reason and with no justification. As a result, Germany is known for its high return rate, particularly in the fashion industry, where 32 percent of products purchased were returned in 2021.

## Mobile e-Commerce

The strong e-commerce market in Germany can be attributed to the considerable proportion of the population who owns smartphones (81 percent). In 2021, 59 percent of online purchases were made via smartphone. This growth is likely to continue as retailers improve their mobile websites and provide more convenient ways of shopping on mobile devices.

## Selling Factors & Techniques

### Overview

Success in the German market, as elsewhere around the world, requires long-term commitment to market development and sales backup, especially if U.S. companies are to overcome the geographic handicap with respect to European competitors. Germans at times perceive U.S. suppliers as tending to process a U.S. domestic order before taking care of an export sale or being quick to bypass a local distributor to deal directly with its customer. Some German entrepreneurs with selective experience with U.S. companies are skeptical about their long-term commitment and after-sales support. U.S. firms entering Germany today are generally aware of the factors that make for a successful export relationship and are ready to establish a credible support network. However, U.S. firms should be ready to address any lingering doubts from prospective German clients/partners.

### Trade Promotion and Advertising

#### *Trade Fairs*

Few countries in the world can match Germany when it comes to leading international trade fairs. Such a reputation should be no surprise given that the trade fair concept was born in Germany during the Middle Ages. Today, Germany hosts a major world-class trade event in virtually every industry sector, attracting buyers from around the world. Trade fairs thrive in Germany because they are true business events where contracts are negotiated, and deals are consummated. U.S. exhibitors at German fairs should be prepared to take full advantage of the business opportunities presented at these events. While U.S. exhibitors and visitors can conclude transactions, all attendees can use major German trade fairs to conduct market research, see what their worldwide competition is doing, and test pricing strategies. Finally, German fairs attract buyers from throughout the world, allowing U.S. exhibitors to conduct

business here with buyers from across Europe, Asia, Africa, Latin America, the Middle East, as well as with other U.S. companies.

German trade fairs, in general, attract impressive numbers of visitors and exhibitors. This reality confirms the conviction that there is no other venue where an American company can get so much product exposure for its marketing dollar. Trade fairs also provide a U.S. company interested in entering Germany with the opportunity to research its market and the potential of its product properly before making a business decision.

Many German Trade Fairs were cancelled or postponed in 2020 and 2021 because of the COVID pandemic. However, many of these trade fairs have returned in 2022, predominantly in-person events supplemented by some virtual elements.

### **Advertising**

In addition to exhibiting at major German trade fairs, advertising plays a central role in most companies' broad-based marketing programs. Regulation of advertising in Germany is a mix between basic rules and voluntary guidelines developed by the major industry associations. The "Law Against Unfair Competition" established legal rules at the beginning of the 20<sup>th</sup> Century. Although it has been modified over time, this law continues to be valid today. The law allows suits to be brought if advertising "violates accepted mores."

Many advertising practices that are common in the United States, such as offering premiums, are not allowed in Germany. Any planned advertising campaigns should be discussed with a potential business partner or an advertising agency in Germany.

### **General EU Legislation**

Please refer to our European Union Country Commercial Guide article on [selling factors and techniques](#).

### **Pricing**

German customers are often very price sensitive. Consequently, price is an important competitive factor, but quality, timely delivery and service remain equally important, especially in B2B relations

### **Sales Service/Customer Support**

#### **Germany**

The German commercial customer expects to be able to pick up the telephone, talk to his or her dealer and have replacement parts or service work immediately available. American exporters should avoid appointing distributors with impossibly large geographic areas, without firm commitments regarding parts inventories or service capabilities, and without agreements on dealer mark-ups.

#### **EU Legislation**

Please refer to our European Union Country Commercial Guide article on [consumer issues](#).

### **Local Professional Services**

Business service providers active in Germany can be viewed on the website maintained by [the Commercial Service at the U.S. Embassy in Germany](#).

### **Major German Business Associations**

[Bundesverband der Deutschen Industrie](#) (BDI)

(Federation of German Industries)

[Deutscher Industrie und Handelskammertag](#) (DIHK)

(Federation of German Chambers of Industry and Commerce)

[Bundesverband Grosshandel, Aussenhandel, Dienstleistungen](#)

(Federation of German Wholesale, Foreign Trade and Services)

[Verband Deutscher Maschinen- und Anlagenbau](#) (VDMA)  
(German Association of Machinery and Plant Manufacturers)

[Centralvereinigung Deutscher Wirtschaftsverbände fuer Handelsvermittlung und Vertrieb](#) (CDH)  
(National Association of German Commercial Agencies and Distributors)

For industry-specific business associations, please visit our leading sectors section, which lists key contacts and resources by industry sector.

### **Limitations on Selling U.S. Products and Services**

We are not aware of any limitations on manufacturing or service sectors that prohibit non-Germans from owning or selling these businesses in Germany.

### **Trade Financing**

**Methods of Payment:** Most import transactions by German customers, especially those involving large German distributors, take place under seller-buyer terms, such as the common 30/60/90-day accounts, or payment against documents. The electronic funds transfer (EFT, equivalent to SWIFT or wire transfers) is the most popular payment mechanism by which German importers remit payment to their U.S. suppliers and is the fastest and cheapest way to transfer funds. Current technology makes online transfers reasonably secure and transparent.

The letter of credit is still used in some industry sectors but now covers a fraction of total imports, largely due to its cost and time requirements as well as the ease in obtaining credit ratings in Germany, which increases transparency and transactional safety. L/C's for payments under USD 5,000 are almost unknown in Germany. U.S. exporters may also encounter Bills of Exchange (Wechsel), usually payable within two or three months, however this antiquated payment mechanism is also passing from the scene. Cash-in-advance is also rare in German import payment.

Both private and public credit insurance are available in Germany. Euler Hermes (German), Coface (French) and Atradius (Dutch) are among the private providers (which also offer ranking and scoring services), and the main public insurer is the Staatliche Kreditversicherung (Hermes-Bürgschaften), which is administered by Euler Hermes and is used to cover German exports to countries with high political and country risk.

Overall, German firms continue to enjoy a relatively good reputation for their payment practices and management of credit. However, default risks in Germany vary from region to region and industry to industry. The U.S. Commercial Service Germany offers the International Company Profile as a tool to help evaluate the creditworthiness of potential customers or partners and recommends that U.S. exporters consider normal, prudent credit practices in Germany in all transactions.

The Export-Import Bank of the United States (Ex-Im Bank) is the official export credit agency of the United States. The Ex-Im Bank's mission is to assist in financing exports of U.S. goods and services to international markets. The Ex-Im Bank enables U.S. companies – large and small – to turn export opportunities into real sales that help to maintain and create U.S. jobs and contribute to a stronger national economy. The Ex-Im Bank does not compete with private-sector lenders but instead provides export-financing products that fill gaps in trade financing. The bank assumes credit and country risks the private sector is unable or unwilling to accept and helps level the playing field for U.S. firms by matching the financing that other governments provide to their exporters. The Ex-Im Bank provides working capital guarantees (pre-export financing), export credit insurance, loan guarantees, and direct loans (buyer financing), primarily focusing on developing markets worldwide.

For more information about the methods of payment or other trade finance options, please read the [Trade Finance Guide](#).

**Banking Systems:** Germany has a non-discriminatory, well-developed financial services infrastructure. Although corporate financing via capital markets is on the rise, Germany's financial system remains mostly bank-based, with bank loans serving as the predominant form of funding for firms, particularly the small- and medium-sized enterprises of Germany's famed Mittelstand.

Germany's universal banking system allows the country's more than 1,679 banks and savings banks and total network of 25,800 branches to take deposits and make loans to customers as well as to trade in securities. There are no reports of a shortage of credit in the German economy. Credit is available at market-determined rates to both domestic and foreign investors, and a variety of credit instruments are available. The traditional German system of cross-shareholding among banks and industry, as well as a high rate of bank borrowing relative to equity financing, allowed German banks to exert substantial influence on industry in the past.

Key Link: [The German Bankers' Association](#)

Key Link: [Federal Financial Supervisory Authority](#)

Germany has a modern banking sector, but it is considered "over-banked," as evidenced by ongoing consolidation and low profit margins. The country's so-called "three-pillar" banking system is made up of private commercial banks, cooperative banks, and public banks (savings banks or Sparkassen, and the regional state-owned banks, or Landesbanken). German banks' profitability is increasingly under pressure given very low interest rates, high-cost structures, growing competition from FinTechs, and increasing compliance costs as a result of new regulation and supervision. German banks have seen their interest margin narrow during the negative interest rate period that began in 2014. Banks are currently discouraging customers by charging negative rates to a growing number of depositors – corporates and private retail clients alike (depending on the bank on deposits exceeding EUR 50,000 or EUR 100,000) – and have substantially increased fees for banking services and accounts to compensate for interest rate earnings losses.

Private banks control roughly 40 percent of the market, while publicly owned savings banks partially linked to state and local governments account for 50 percent of banking transactions, and cooperative banks make up the balance. All three types of banks offer a full range of services to their customers. A state-owned bank, KfW, provides special credit services, including the financing of homeowner mortgages, guarantees to small- and medium-sized businesses, financing for projects in disadvantaged regions in Germany, and export financing for projects in developing countries.

The private bank sector is dominated by the universal banks Deutsche Bank (Germany's largest bank by balance sheet total) and Commerzbank (fourth-largest bank), with balance sheets of EUR 1.3 trillion and EUR 473.0 billion respectively (2021 figures). Commerzbank received EUR 18 billion in financial assistance from the federal government in 2009, for which the government took a 25 percent stake in the bank (now reduced to 15.6 percent). Merger talks between Deutsche Bank and Commerzbank failed in 2019. The second largest of the top ten German banks is DZ Bank, the central institution of the Cooperative Finance Group (after its merger with WGZ Bank in July 2016), followed by KfW, Commerzbank, LBBW, and German branches of large international banks (UniCredit Bank, HVB, or ING-DiBa), and regional state-owned banks (LBBW, Bayern LB, Helaba, NordLB). Germany's regional state-owned banks were among the hardest hit by the global financial crisis and continue to face major challenges to their business models. The federal government is still in the process of winding down several so-called "bad banks" composed of toxic assets of failed banks WestLB (now Portigon AG) and Hypo Real Estate. All German banks have weathered the COVID-19 pandemic well thanks to cheap central bank liquidity regulatory easing, and moratoria on corporate insolvency laws.

Most major U.S. banks are represented in the German market, principally but not exclusively in the city of Frankfurt am Main, Germany's main financial center. Following the UK's exit from the EU, many U.S. banks chose Frankfurt as their EU headquarters. A large number of German banks, including some of the partially state-owned regional banks, similarly maintain subsidiaries, branches, and/or representative offices in the United States.

Practices regarding finance, availability of capital, and schedules of payment are comparable to those that prevail in the United States. There are no restrictions or barriers on the movement of capital, foreign exchange earnings, or dividends.

To learn more about German financing system, access Department of State [Investment Climate Statement](#) website.

**Foreign Exchange Controls:** The German government imposes no forms of controls on the purchase or sale of foreign currencies.



### **U.S. Banks and Local Correspondent Banks:**

Bank of America

Neue Mainzer Straße 52, 60311 Frankfurt am Main, Germany

Phone: +49 69 589910

BNY Mellon

Messe Turm, Friedrich-Ebert-Anlage 49, 60308 Frankfurt am Main, Germany

Phone: +49 69 12014 1025

Citigroup Global Markets Germany

Reuterweg 16, 60323 Frankfurt am Main, Germany

Phone: +49-69-13660

JP Morgan AG

Taunus Turm, Taunustor 1, 60310 Frankfurt am Main, Germany

Phone: +49.69.7124.1601

Goldman Sachs

Taunusanlage 9-10, 603329, Frankfurt am Main, Germany

Phone: +49-69-7532 1000

Morgan Stanley

Grosse Gallusstrasse 18, 60312, Frankfurt am Main, Germany

Phone: +49-69-2166-0

Silicon Valley Bank

Guiollettstraße 48, 60325 Frankfurt am Main, Germany

Phone: +49-69-7158-950

State Street Bank International GmbH

Solmsstraße 83, 60486 Frankfurt am Main, Germany

Phone: +49 -69-6677-45000

Wells Fargo

An der Hauptwache 7, 60313 Frankfurt am Main, Germany

Phone: +49-69-2980-2700

### **Protecting Intellectual Property**

In any foreign market, companies should consider several general principles for effective protection of their intellectual property. For background, please refer to our resources on [Protecting Intellectual Property](#) and [Stopfakes.gov](#).

Several general principles are important for effective protection of intellectual property (“IP”) rights in Germany. First, it is important to have an overall strategy to protect your IP. Second, IP may be protected differently in Germany than in the United States. Third, rights must be registered and enforced in Germany under local laws. For example, your United States [trademark](#) registrations, [design or utility patent](#) titles will not protect you in Germany without further administrative procedures in the corresponding regional (EU) or local levels.

Most [copyrighted works](#) created in the United States will be automatically protected in Germany from the moment of creation or publication according to international agreements. However, the extension of protection will vary according to the laws of Germany and of the EU. Protection against unauthorized use will vary depending on the national laws of each country.

Obtaining a utility patent in EU Member States is based on a first-to-file system, i.e. the first person or entity to register the patent becomes the title holder. Similarly, most trademark and design rights – similar to a design patent – are based on a first-to-file registration system. So, you should consider how to obtain patent, design, or trademark protection before introducing your products or services into the German market. Better yet, you should consider having an IP strategy for the whole world even before making your intellectual property public in any country, to ensure that you do not lose the right outside the United States.

Further, keep in mind that trademark and design titles can be obtained for the whole of the EU, at the European Union Intellectual Property Office – EUIPO. Individual titles for Germany can also be obtained at the corresponding IP office. Similarly, a bundle of patent titles can be obtained for various countries through a simplified process at the [European Patent Office](#); an individual patent title can be directly obtained from the [German Patent and Trade Mark Office](#). There are also other international registration systems like the [Patent Cooperation Treaty](#) for patents or the [Madrid Protocol](#) for trademarks, that could be useful to facilitate the protection of your IP in many countries of the world, including Germany.

For more information on EU-wide matters regarding IP, please refer to European Union Country Commercial Guide article on [protecting intellectual property](#).

For more information on the protection and enforcement of intellectual property rights in foreign economies, please see the Department of State's [Investment Climate Statements](#).

## **Selling to the Public Sector**

### **Selling to the Government**

Selling to German government entities is not an easy process. German government procurement is formally non-discriminatory and compliant with the WTO Government Procurement Agreement (GPA) and EU-wide legislation under the EU Public Procurement Directives. That said, it is a major challenge to compete head-to-head with major German or other EU suppliers who have established long-term ties with purchasing entities. For information on EU procurement, please refer to the article on in the Country Commercial Guide for the [European Union – Selling to the Public Sector](#).

U.S. companies bidding on Government tenders may qualify for U.S. Government advocacy. A unit of the U.S. Commerce Department's International Trade Administration, the Advocacy Center coordinates U.S. Government interagency advocacy efforts on behalf of U.S. exporters bidding on public sector contracts with international governments and government agencies. The Advocacy Center works closely with our network of the U.S. Commercial Service worldwide and inter-agency partners to ensure that exporters of U.S. products and services have the best possible chance of winning government contracts. Advocacy assistance can take many forms but often involves the U.S. Embassy or other U.S. Government agencies expressing support for the U.S. bidders directly to the foreign government. Consult [Advocacy for Foreign Government Contracts](#) for additional information.

### **Financing of Projects**

Germany possesses the financial framework and institutions to support the development of large infrastructure projects. However, the volume of project finance operations has been relatively modest in Germany in comparison to that of other EU countries, particularly the U.K. and France. Although the relatively high debt levels of the German federal government and local authorities would seem to favor this type of financing, difficult economic conditions have also limited anticipated rates of return for potential project finance developers. Other inhibiting factors are Germany's complex juridical and federal frameworks, which make project-financed works harder to structure than in other countries. Low interest rates and returns on savings have contributed to an improved investment climate. One area that has attracted project finance, including that involving a few U.S. developers and investors, is alternative energy production. Clean and renewable energy projects have gained prominence in Germany, particularly since the decision in 2011 to accelerate the phase-out of nuclear energy by 2022, the decision

in June 2020 to end coal power generation in Germany by 2038 at the latest, and pressure to reduce reliance on Russian energy following the invasion of Ukraine.

The principal German institutions active in facilitating project finance deals are the state-owned [KfW Bank Group](#) (which plays a major role in most industries), commercial banks such as Commerzbank, and several of the publicly-owned savings banks controlled by state and local governments and state development banks ("Förderbanken", in German), such as WIBank in Hesse, NRW Bank in North Rhine-Westphalia, LFA Förderbank Bayern, Investitionsbank Berlin (IBB), among others. The KfW Group includes KfW IPEX-Bank, which supports a consortium with German members to design and finance infrastructure projects in Germany and overseas, and KfW Capital, launched in October 2018 to develop the VC and VD funding landscape in Germany and Europe. Another group member, KfW Development Bank, helps municipalities finance infrastructure. German insurers are pressing for regulatory changes to enable them to finance infrastructure projects.

Key Link: [European Bank for Reconstruction and Development](#) (EBRD)

Key Link: [U.S. Commercial Service Liaison Office to the EBRD](#)

## **Business Travel**

### **Business Customs**

Punctuality is an important part of German business culture. The norm is to arrive about five minutes early to an appointment. If you show up more than five minutes after the appointed time, you would be perceived as late, and more than fifteen minutes are considered impolite. However, if there is a delay, you can always call ahead and explain the situation. Germans generally act and communicate in a direct and structured way; they want things to be done as efficiently as possible. It is not about being rude, but this behavior can include honest and constructive criticism. It also means to them that they value your time as much as theirs.

Appointments are made for most matters. The usual times for business appointments are between 9:00am - 12:00pm or between 2:00pm - 5:00pm. You should avoid scheduling on Friday afternoons as some offices might already be closed during that time.

Addressing people: We advise clients to respect formal introductions and the use of official titles, for example: Dr., Prof., Ing., among others. Your professionalism will be highly valued. In general, acting in a formal way is important, particularly at first, but following the examples of others is a good rule. After several meetings, they might prefer a more informal interaction, but this varies depending on the people and the company so, it is polite to remain formal in tone unless they invite you to do otherwise.

Business attire is generally formal and conservative. This means suits (not necessarily with tie) for men and suits or conservative dresses for women.

First approach: A greeting usually consists of a smile (even when covered by a mouth and nose covering) and 'elbow bumps' or 'fist bumps' which have largely replaced handshakes as hygiene controls came into place due to the pandemic. Do not greet with a hug nor a kiss on the cheek, as in other European cultures. Allowing for adequate personal space is important throughout the meeting. The question "Wie geht es Ihnen?" ["How are you?"] is used as a literal question and a literal answer is appropriate. The common English usage of it simply as a formality or greeting feels strange to most Germans. Not replying in the expected way or moving on without waiting for an answer could therefore be considered superficial and impolite.

Giving compliments is not common and can cause embarrassment. The same can be said about giving gifts, which may even be viewed as inappropriate. Only after negotiations or agreements, a small gift may be acceptable. The gift should not be overly expensive, but of good quality.

## Travel Advisory

The State Department has advised to exercise increased caution in Germany due to *terrorism*, both local and foreign. In the past years, the risk of terror incidents in European countries has increased. Germany's open borders with its European neighbors allow for the possibility of terrorist groups entering and exiting the country with a nonymity.

For the latest security information, Americans traveling abroad should regularly monitor the [State Department's website](#), where the current Worldwide Caution Public Announcement, Travel Warnings and Public Announcements can be found.

Up-to-date information on security can also be obtained by calling +1-888-407-4747 toll free in the United States, or, for callers outside the United States and Canada, a regular toll line at +1-317-472-2328. These numbers are available 8:00am - 8:00pm; Eastern Time, Monday through Friday (except U.S. federal holidays).

Read the:

[State Department consular information sheet for Germany](#)

[Department of State: Travel to Germany](#)

[Department of State Visa Website](#)

[Center for Disease Control and Prevention](#)

[CDC on Germany](#)

## Visa requirements

You do not require a visa for tourist or business stays up to 90 days within the Schengen Group of countries as a U.S. citizen. This includes Germany. The time of the visit should not exceed 90 days and the visitor must leave the country after this period. A passport that is valid for at least three months beyond the stay is required.

Further information on entry visa and passport requirements may be obtained from the [German Embassy](#) at 4645 Reservoir Road N.W., Washington, D.C. 20007, telephone +1-202-298-4000, or the [German Consulates General](#) in Atlanta, Boston, Chicago, Houston, Los Angeles, Miami, New York, or San Francisco and on the Internet.

For inquiries outside the United States, see the list of German Embassies and Consulates on the Federal Foreign Office's website: [Bilateral Relations and German missions](#).

Please review the E.U. travel restrictions which are now in place as a result of the global health crisis. You can find information and updates on the website of the [European Commission](#).

## COVID Vaccination for Entry

In COVID-19, Travelers should check for updated entry requirements concerning COVID-19 Vaccination. Latest information can be found on the home page of the German state department. (<https://www.auswaertiges-amt.de/en/coronavirus/2317268>)

## Currency

In Germany and other countries within the Eurozone, the Euro [EUR/€] is the used currency.

Exchange rate from EUR to USD (as of January 1<sup>st</sup>)

Year	2016	2017	2018	2019	2020	2021	2022
EXR	1.0834	1.0795	1.2420	1.1444	1.1093	1.2136	1.1374

See the [Euro foreign exchange reference rates](#) for continuously updated exchange rates.

- Because of high currency-exchange fees, travelers should consider converting their currency before traveling

- Banks, credit unions, online bureaus, and currency converters provide convenient and often inexpensive currency exchange services.
- Once on foreign soil, the best means to convert currency is to use a foreign ATM or identify if your bank has ATMs or banking affiliates nearby.
- Many credit and debit card issuers allow users to purchase with no foreign transaction fees.

Unlike in the United States, many restaurants and vendors in Germany do not accept card payment, so remember to always carry some cash. In addition, some credit cards, such as American Express (among others), may not be accepted at certain shops.

### **Telecommunications/Electronics**

Mobile phones are based on GSM 800 and 1600 MHz standards. UMTS/IMT 2000 frequencies are 1900 to 2170 MHz.

Cell or mobile phones [“Handy”, in German] are commonly used. Germany and most of Europe use GSM networks, which some U.S. carriers also use. Most U.S. carriers have international travel packages that include texting, calling and data for better rates rather than roaming without a plan.

Internet is widely accessible in Germany, WI-FI is available in most hotels, some public spaces, restaurants, cafes, etc.

Power sockets are Type F, also known as “Schuko”, and Type C. These sockets are used in most of Europe and parts of Africa, Asia, and South America. The standard voltage is 230V with a standard frequency of 50Hz.

### **Transportation**

Travel by plane, train, bus or car meets international standards, but prices exceed U.S. averages. The number of in-country flights has been picking up and the train stations that dot the country provide sufficient access to nearly all cities. Nevertheless, cars are a very popular means of transportation, and Germany’s famous highway system is extensive.

Geographic distances are relatively short when compared to the United States, but as Germany is much more densely populated than its European neighbors, it may take a little longer to travel the same distance in Germany than it would take in France or Scandinavia.

Within cities, public transportation as well as private cars, taxis, e-scooters, shared bikes and services like Uber are used (although not available in every city and at every hour). The public transit system which includes trains, trams and buses is generally very reliable and most locations have extensive connections and routes. The [Deutsche Bahn](#) website is the easiest way to navigate means of public transit as well as long distance trains. Google Maps, and other such search engine maps, often offer public transit options when searching for directions and show where the closest stops/stations are.

### **Language**

German is the official language. In larger towns and cities, many people can communicate in English, particularly in business settings. German is also an official language in the neighboring countries Austria, Liechtenstein, and Switzerland.

### **Health**

Good medical care is widely available. Doctors and hospitals may expect immediate payment in cash for health services from tourists and persons with no permanent address in Germany. Most doctors, hospitals and pharmacies do not accept credit cards.

The Department of State strongly urges Americans to consult with their medical insurance company prior to traveling abroad to confirm whether their policy applies overseas and if it will cover emergency expenses, such as a medical evacuation. U.S. medical insurance plans seldom cover health costs incurred outside the United States unless

supplemental coverage is purchased. Therefore, the State Department recommends supplemental insurance to cover any medical issues including evacuation.

The State Department recommends being up to date on all vaccinations recommended by the U.S. Center for Disease Control and Prevention.

If traveling with prescription medication, check with German government regulations if the medication is legal in Germany, as it could cause issues in German customs. Information concerning entry with prescription medication can be found on the following page ([https://www.zoll.de/EN/Private-individuals/Travel/Entering-Germany/Restrictions/Medicinal-products-and-narcotics/medicinal-products-and-narcotics\\_node.html](https://www.zoll.de/EN/Private-individuals/Travel/Entering-Germany/Restrictions/Medicinal-products-and-narcotics/medicinal-products-and-narcotics_node.html))

The situation with COVID-19 can change rapidly. Travelers must keep a breast of any [Coronavirus Entry Regulations](#) when visiting Germany. You may need to complete a [Digital Registration on Entry](#) if you are arriving from a risk area.

#### **Local time, business hours, and holidays:**

Central European Time (CET): UTC/GMT +1 hour

Central European Summer Time (CEST): UTC/GMT +2 hours

There are many [national holidays](#), some of which fall on different days depending on the year. German school holidays vary by state and year.

Business hours vary, but generally begin around **8am - 9am** and end around **4pm - 5pm**. Most businesses are closed on Sundays including most supermarkets and pharmacies.

#### **Temporary Entry of Materials and Personal Belongings**

When bringing professional equipment such as electronic goods, cameras, and musical instruments into Germany, we strongly recommend that you first contact the consulate or embassy in your area for customs information. You might also want to consider purchasing an ATA Carnet. The ATA Carnet, which allows for the temporary, duty-free entry of goods into over 50 countries, is issued by the United States Council for International Business by a appointment of [the U.S. Customs Service](#).

More details on entry and exit restrictions of goods for individuals and businesses can be found on the website of the [German customs office](#).

### **Investment Climate Statement (ICS)**

The U.S. Department of State's [Investment Climate Statements](#) provide information on the business climates of more than 170 economies and are prepared by economic officers stationed in embassies and posts around the world. They analyze a variety of economies that are or could be markets for U.S. businesses. The Investment Climate Statements are also references for working with partner governments to create enabling business environments that are not only economically sound, but address issues of labor, human rights, responsible business conduct, and steps taken to combat corruption. The reports cover topics including Openness to Investment, Legal and Regulatory Systems, Protection of Real and Intellectual Property Rights, Financial Sector, State-Owned Enterprises, Responsible Business Conduct, and Corruption.

#### **Executive Summary**

As Europe's largest economy, Germany is a major destination for foreign direct investment (FDI) and has accumulated a vast stock of FDI over time. Germany is consistently ranked as one of the most attractive investment destinations based on its stable legal environment, reliable infrastructure, highly skilled workforce, and world-class research and development.

An EU member state with a well-developed financial sector, Germany welcomes foreign portfolio investment and has an effective regulatory system. Capital markets and portfolio investments operate freely with no discrimination

between German and foreign firms. Germany has a very open economy, routinely ranking among the top countries in the world for exports and inward and outward foreign direct investment.

Foreign investment in Germany mainly originates from other European countries, the United States, and Japan, although FDI from emerging economies (and China) has grown in recent years. The United States is the leading source of non-European FDI in Germany. In 2020, total U.S. FDI in Germany was \$162 billion. The key U.S. FDI sectors include chemicals (\$8.7 billion), machinery (\$6.5 billion), finance (\$13.2 billion), and professional, scientific, and technical services (\$10.1 billion). From 2019 to 2020, the industry sector “chemicals” grew significantly from \$4.8 billion to \$8.7 billion. Historically, machinery, information technology, finance, holding companies (nonbank), and professional, scientific, and technical services have dominated U.S. FDI in Germany.

German legal, regulatory, and accounting systems can be complex but are generally transparent and consistent with developed-market norms. Businesses operate within a well-regulated, albeit relatively high-cost, environment. Foreign and domestic investors are treated equally when it comes to investment incentives or the establishment and protection of real and intellectual property. Germany’s well-established enforcement laws and official enforcement services ensure investors can assert their rights. German courts are fully available to foreign investors in an investment dispute. New investors should ensure they have the necessary legal expertise, either in-house or outside counsel, to meet all national and EU regulations.

The German government continues to strengthen provisions for national security screening of inward investment in reaction to an increasing number of high-risk acquisitions of German companies by foreign investors, particularly from China, in recent years. German authorities screen acquisitions by foreign entities acquiring more than 10 percent of voting rights of German companies in critical sectors, including health care, artificial intelligence, autonomous vehicles, specialized robots, semiconductors, additive manufacturing, and quantum technology, among others. Foreign investors who seek to acquire at least 10 percent of voting rights of a German company in one of those fields are required to notify the government and potentially become subject to an investment review. Furthermore, acquisitions by foreign government-owned or -funded entities will now trigger a review.

German authorities are committed to fighting money laundering and corruption. The government promotes responsible business conduct and German SMEs are aware of the need for due diligence.

MEs are aware of the need for due diligence.

[2022 Investment Climate Statement Germany \(full report\)](#)

## Political Environment

For background information on the political and economic environment of the country, please click on the link to the U.S. Department of State [Countries & Areas](#) Website.