

# The Digital Economy in Germany

ISSUE 2025

Germany aims to consolidate its position as Europe's leading digital growth nation. Advances in automation, AI, smart manufacturing, and blockchain are driving this transformation. The country's ICT market remains one of the largest globally.

In 2025, Germany's Information and Communication Technology (ICT) market is projected to generate EUR 232.8 billion. This represents a 4.6 percent annual increase, making it the fourth-largest ICT market worldwide (4.1 percent global share). The IT sector is the main growth driver, with significant investments in IT equipment, services, and software. In 2022, there were around 100,000 ICT companies including 85,293 small businesses, 13,687 medium-sized companies and 410 large enterprises. By 2025, these companies are expected to employ 1.4 million ICT professionals – making ICT Germany's largest employment sector.

The DIHK Digitalization Survey 2023 shows that German companies are making steady progress. Many companies recognize the potential of digital technologies for flexibility and efficiency but struggle with rapid technological advancements, limited time and financial resources as well as external issues including IT talent shortages, regulations, and cybersecurity risks. Despite these challenges, businesses continue to invest in digital solutions to make their processes more flexible, reduce costs and meet customer needs. According to bitkom, 75 percent of companies in Germany are looking at AI, with one in five companies already using it. Over one third of companies are currently assessing AI deployment. Demand for digital solutions is high. The ongoing digital transformation is creating significant need for ICT services and products. With 69 percent of companies already planning to increase or maintain digital investments in the past year, market opportunities for ICT companies are growing. The projected ICT sector growth and the increasing number of businesses adopting digital technologies makes Germany an attractive location for ICT companies to establish offices and directly engage with the market.

## Market Potential in Germany's Digital Economy

**1.4 million**  
people in ICT  
workforce in 2025

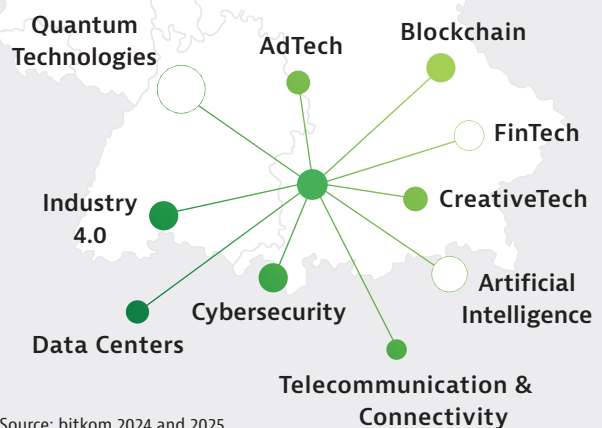
**4.6%**  
ICT revenue growth  
forecast 2025

**EUR 232.8  
billion**  
forecast turnover  
in 2025

**No. 4**  
global ICT market

**69%**  
of German  
companies increasing  
ICT investment

## Growth Industry Sectors



Source: bitkom 2024 and 2025

MARKET OPPORTUNITIES

Digital Economy Markets

Germany's digital transformation is giving rise to new delivery models that require big data and cloud-based solutions while navigating increased risk and threats online. This is creating market opportunities in a number of digital economy sectors.

Data centers have to date been concentrated in the Frankfurt Rhine-Main region, the largest data center location in Germany. Over 30 percent of total server room and data center capacity is located here. The region also has a share of over 60 percent of colocation market capacity. The Berlin-Brandenburg region has become the second largest location in Germany in recent years. Between 2017 and 2023, data center capacity has more than tripled. Other major locations in Germany are the greater Munich area, Cologne-Düsseldorf and the Hamburg metropolitan region. According to analyses by Hintemann/Grass, there are currently plans for new data centers that will more than double capacity.

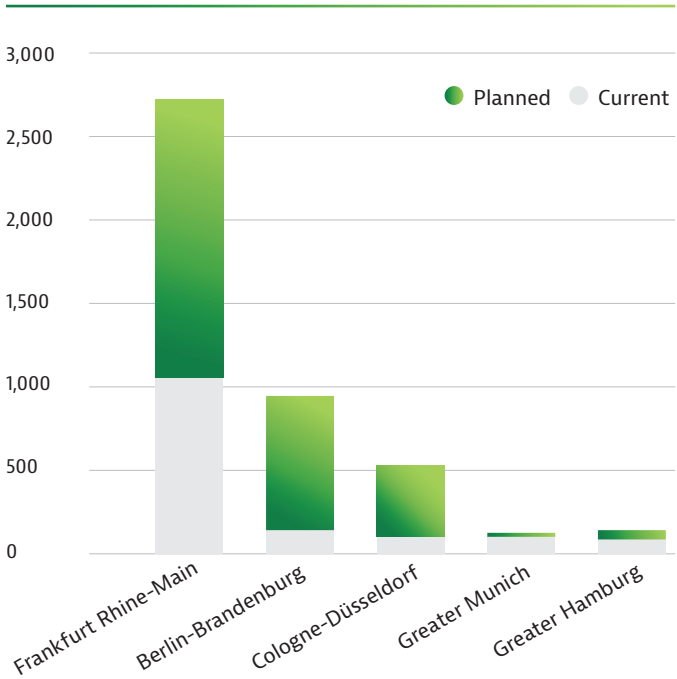
This growth will primarily be realized in the area surrounding Frankfurt Rhine-Main. Of the planned additional data center capacity totaling 1,700 megawatts, over 1,300 megawatts are planned outside the city limits of Frankfurt. Until recently, there were only a few data centers in the Berlin-Brandenburg region. The colocation market in particular was barely developed. This has changed rapidly in the last three years. Data center capacities are expected to increase more than fivefold in the coming years. Berlin-Brandenburg already occupies sixth place in Europe after the FLAP (Frankfurt, London, Amsterdam and Paris) markets and Dublin. The Berlin-Brandenburg capital region is also becoming increasingly interesting for international tech companies.

Cybersecurity Demand Growing

Increased awareness of emerging threats and the move to digital business strategies are driving cybersecurity demand and a corresponding rise in international enterprise security spending. The ongoing digitalization of German industry, the rise of smart and autonomous driving concepts and secure online data management are also driving security demand increased spending in the areas of data security tools. Germany's cybersecurity market benefits directly from this increasing demand and development, both domestically and internationally. Spending on cyber security per employee in Germany is lower than in neighboring countries and other industrialized nations. Germany is still catching up in terms of digitalization and awareness of IT security precautions goes hand in hand with this. Cloud security solutions now enjoy broad acceptance in Germany, with large enterprises and SMEs turning to cloud-based security solutions to increase employee mobility levels and reduce total cost of ownership.

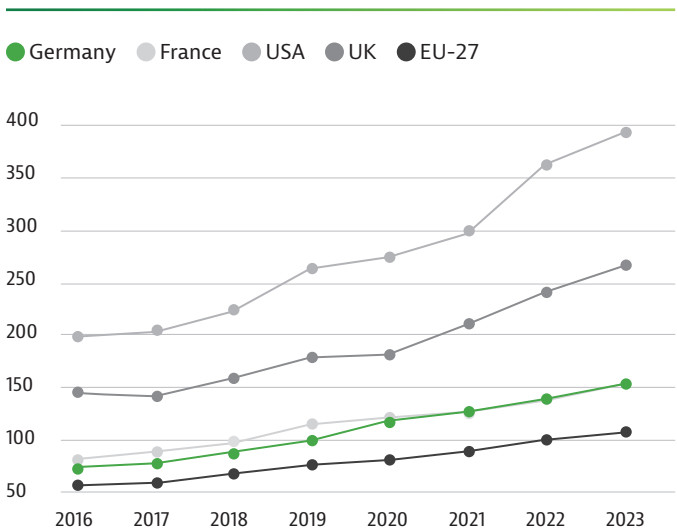
Current and Planned IT Connected Load by Region (Data Centers)

in megawatts



Sources: Ralph Hintemann/Monika Grass 2024; GTAI 2024

Average Expenditure for Cybersecurity/Employee in EUR



Sources: Statista Market Insights 2024; GTAI 2024

FinTech Hotspot Germany

Germany is a FinTech hotspot in Europe. The market comprises 950 companies and has grown by almost 200 percent over the past ten years. Some 75 percent of the German population use FinTech services – making the market particularly attractive to FinTech service providers. The 3.5 million small and medium-sized enterprises (SMEs) in Germany also offer enormous digitalization potential. The willingness to collaborate between traditional financial service providers and FinTechs is high; providing shared access to important resources and customers. The German FinTech market has matured as it has been one of the most funded start-up sectors for years. With 1.1 billion USD of investments in 2023, Germany recorded one of the highest investment volumes in Europe. Most investments flowed into banking, payment, and insurance. Compared to other European countries, investments in Germany are more focused on late-stage financing, making German FinTechs on average larger and more revenue-generating than the average start-up. Although the largest companies operate in the B2C sector, two thirds of FinTech revenue are generated by B2B business models. There is growing demand for FinTech solutions among SMEs – especially for the digitalization of internal financial processes and payment options. There is also increasing demand for Banking-as-a-Service, Open Finance, cybersecurity, and sustainable financing solutions. Blockchain remains a key technology. The Federal Financial Supervisory Authority (BaFin) ensures a supportive regulatory environment.

Blockchain Market Growing

The German blockchain market comprises over 500 companies, of which 25 percent operate in the cryptocurrency and finance sectors. By 2025, the market for digital assets in Germany is expected to reach USD 1.9 billion, representing 13 percent of the European market. Despite global investment declines in blockchain, venture financing in Germany increased to USD 355 million in 2023. Between 2022 and 2023, the majority of blockchain venture financing flowed into sector-agnostic business models. This is reflected by the diverse sectors where blockchain technology is already being used in Germany – from manufacturing and the chemical industry to the automotive industry. There are also numerous use cases for accounting, finance, logistics, and cybersecurity. The number of companies using or planning to use blockchain is steadily increasing, with large companies among the front-runners. However, the SME sector – with its numerous cooperation partners – also holds great potential for benefiting from blockchain usage, particularly through smart contracts. Germany offers a favorable regulatory environment with laws such as the Electronic Securities Act and licenses for crypto custody businesses which contribute greatly to the acceptance and use of blockchain technologies. Moreover, Germany has a strong blockchain infrastructure, including the second-largest number of Bitcoin nodes worldwide. Its blockchain-friendliness makes Germany a leading location for blockchain technologies within Europe.

Generative AI Business Potential

Improve efficiency and productivity	67%
Reduce costs	41%
Encourage innovation and growth	33%
Improve existing products and services	29%
Increase speed and/or ease of developing new systems/software	26%
Increase revenue	25%
Shift workers from lower to higher value tasks	19%
Enhance relationships with clients/customers	18%
Uncover new ideas and insights	17%
Detect fraud and manage risk	11%

Source: Deloitte 2024

Artificial Intelligence Leader

Artificial intelligence (AI) continues to transform the global tech landscape. The AI industry in Germany is experiencing significant growth and transformation. By 2030, the market is expected to be valued at almost EUR 30 billion. Germany is well known for its strong academic research in AI, with several universities and research institutes recognized internationally.

German companies are among the leaders in Europe in applying AI technologies. Some 78 percent of Germans industrial companies are convinced that the use of AI will be decisive for international competitiveness. Artificial intelligence is considered by 70 percent to be the most important technology for future proofing German industry. Artificial intelligence offers vast potential for productivity increases and growth – crucial for maintaining Germany’s traditional strengths amidst digital transformation. Germany is already a global leader in AI research and use cases in the manufacturing and health sectors. Significant potential is also seen in energy management and analytics (i.e. predictive maintenance and performance optimization). German industry also reports further growth in warehouse management, machine configuration and robotics application scenarios.

Both “cloud AI” (processing data centrally) and “Edge AI” (processing data directly at or near the data source) offer business opportunities for international market entrants. Proximity to key industries – including the automotive, medical technology and electronics sectors – provides ample opportunity to bring AI technologies into use more quickly. Companies in Germany can position themselves as problem solvers for complex technical challenges. The deep domain knowledge of German industry is a data treasure for a bright AI future in Germany.

## AdTech Transforming Sector

Germany's advertising industry is undergoing a significant digital transformation, with half of German companies now utilizing digital marketing channels. In 2023, the advertising market grew by 1.5 percent to around EUR 48.8 billion – contributing 1.2 percent to Gross domestic product (GDP) and supporting 900,000 jobs. As Europe's largest economy and the fourth largest globally, Germany offers a high purchasing power consumer base, making it an attractive target for advertisers. With high internet penetration levels and a significant number of regular online users, Germany provides ample opportunities for AdTech solutions. One of the largest in Europe, the German advertising market is seeing substantial investment in digital advertising technologies. German consumers are tech-savvy and open to new digital advertising formats, with increasing acceptance and use of e-commerce and digital media.

By the end of 2023, some 71 percent of German households had smart TVs and online media usage is rising, with Germans spending three to six hours online daily. Major advertisers with significant brand desirability budgets include companies like Procter & Gamble, Ferrero, Lidl, Amazon, and Rewe. Grocery stores, publishers and online services are the top sectors for advertising expenditure. Germany hosts leading AdTech companies like Adjust, Awin, Applift, Remerge, and CrossEngage, primarily based in Berlin, the industry hotspot. The presence of these companies makes it easier to find skilled employees in the field. Additionally, the General Data Protection Regulation (GDPR) has also proven beneficial for advertisers, ensuring cleaner and more reliable data. This regulatory environment provides a competitive edge for AdTech companies operating within Germany.

## Quantum Computing Evolving

The quantum computing industry in Germany is rapidly evolving, with significant advancements and investments taking place. The German government is heavily investing in quantum technologies, with over USD 2 billion allocated to support sectoral development till 2025. This includes funding for research, development and the establishment of new expertise. Germany is home to several world-class research institutions such as the Fraunhofer-Gesellschaft and the Max-Planck-Gesellschaft, which are at the forefront of quantum research. The DLR Quantum Computing Initiative funded by the Federal Ministry for Economic Affairs and Climate Action supports the go2market of quantum hardware and software companies through its two innovation centers. In 2024, the first two quantum computers were put into operation.

In the commercial world, a number of German quantum computing startups have also come into being. These companies develop ideas on how best to utilize quantum mechanics in order to solve real-world problems – ranging from optimization solutions to post-quantum cryptography use. Quantum



## Digital Hub Initiative

A network for digital Germany. Twenty-five digital hubs. One digital ecosystem for all.

Twenty-five digital hubs spread across Germany provide a network to promote knowledge transfer and technological innovation among start-ups and innovators.

The country's 25 digital hubs provide digital services for finding start-up partners, promoting knowledge transfer, identifying support programs and expertise in an array of digital, tech and industry sectors.

By bringing together large businesses and SMEs with innovators from the worlds of tech and science, the Digital Hub Initiative has helped create a digital start-up ecosystem with a truly global footprint.

computing technologies in Germany are being applied across a number of sectors including energy, finance, healthcare, pharmaceuticals, cybersecurity, logistics, manufacturing, and aerospace. This broad range of applications demonstrates the versatility and potential impact of quantum technologies. Germany is also attracting international partnerships. IBM opened its first quantum data center outside the United States in Ehningen, Stuttgart, highlighting Germany's strategic importance in the global quantum landscape.

## Telecommunications and Connectivity

The German telecommunications and connectivity sectors are central pillars of the country's digital transformation and innovation. With market volume of around EUR 60 billion in 2023, Germany is the largest telecommunications market in Europe. The sector comprises 3,708 companies, employs around 155,200 people and shows stable development with a forecast growth rate of 1.8 percent for 2025. In 2023, the industry invested around EUR 13.6 billion in network expansion and new technologies including 5G and private networks. The start-up scene is also lively, with most investments currently being made in software solutions for network management, IoT connectivity and cybersecurity applications. Germany also has a strong network of research institutions in the field of telecommunications and connectivity, led by the Fraunhofer Institutes and the German Aerospace Center.

# Digital Economy Sectors

## Booming CreativeTech Scene

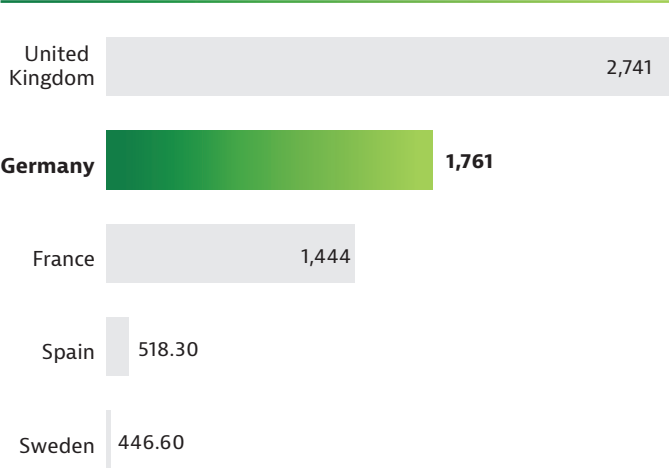
Germany has a rich history in the creative industries, with a strong presence in both the movie and music sectors. Digital companies in the creative industries, known as “CreativeTech,” find favorable conditions to thrive in Germany. In 2021, the music industry generated revenue of EUR 6.1 billion, while the film industry brought in EUR 8.6 billion. In 2022, Germany was home to over 14 million recreational and 69,000 professional musicians. There were 1.4 million people enrolled in recreational music courses across 934 music schools, and the country boasts 24 pure music universities and 89 universities with music faculties. High demand for musical instruments and equipment is driven by millions of musicians eager to create music. Live music events generated EUR 1.7 billion in 2022, with 130 orchestras performing over 9,000 concerts annually and attracting more than five million visitors.

The film industry in Germany is also in good health, with over 20,000 companies employing around 119,000 professionals. Germans watch an average of 328 minutes of television per day, with 51.8 percent of this time spent on private channels. The RTL group holds the largest market share (22 percent), followed by ProSiebenSat1 (17.8 percent). Streaming is on the rise, with 34 percent of Germans using video streaming daily and another 30 percent at least once a week. According to the recent Simon-Kucher & Partners “Global Streaming Study 2024,” some 60 percent of Germans watch streaming services using subscription services, followed by 26 percent for free online services and 5 percent and 4 percent respectively for pay-for-view and digital purchases respectively. YouTube is the most popular platform, followed by public TV station offerings, Netflix, Amazon Prime, and Disney+. Germany’s strong music tech ecosystem includes major players like Ableton, Native Instruments, and Magix – all headquartered in the country. This, combined with the presence of leading electronic music artists, fosters innovation in the sector.

Podcasts are also gaining popularity, with 29 percent of Germans listening to them monthly in 2021. The podcast advertising market is expected to grow significantly, with revenues projected to reach EUR 156 million by 2023. Germany’s highly skilled workforce, renowned for its engineering excellence, is another major draw for CreativeTech companies. The rise of non-linear television and social TV, where viewers use mobile devices to interact with content, presents new opportunities for advertisers. Original content production, driven by local storylines and European directives, is crucial for streaming providers to differentiate their offerings. The trend towards local productions is supported by a European directive requiring streaming providers to have 30 percent European content in their catalogues, leading to significant investments in European original and co-productions.

## Digital Music Revenue in Europe 2024

in EUR million



Sources: Statista 2024; Statista Digital Market Insights 2024

## Forecast Film Industry Revenue 2020-2024

in EUR billion



Sources: Statista 2024; Federal Statistical Office, PwC 2024

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## Contact

**Marc Rohr**

**Investor Consulting**

Digital & Service Industries

[marc.rohr@gtai.de](mailto:marc.rohr@gtai.de)



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T +49 30 200 099 0, [invest@gtai.de](mailto:invest@gtai.de)

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