

Venture capital – market trends in 2025

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Start-ups drive innovation and new business models that are critical for future prosperity and competitiveness. They need suitable funding to do this. However, what technological developments will make important contributions in the future is obviously subject to great uncertainty. Professional venture capital investors have in-depth technology and industry knowledge, invest to generate returns and therefore play a key role in the allocation of innovation and growth capital.

Investment activity and sentiment among German investors show that besides technological potential, the economic, social and policy environment is also important for funding trends in the German venture capital market. Expectations around growth opportunities in the various technological areas are currently drifting apart. Some trends are particularly striking:

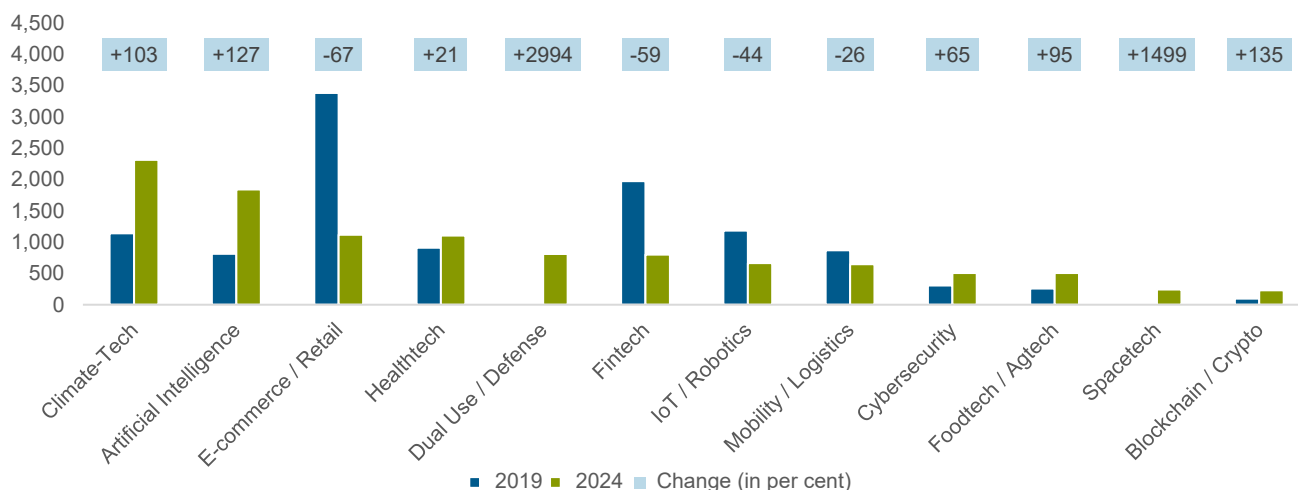
- As a result of rapid technological progress, artificial intelligence has received a strong inflow of investment in recent years that is likely to continue in 2025 as well.
- Investors also see major growth opportunities in cybersecurity and dual use technologies due to the current geopolitical market environment.
- In the course of the green transformation, climate tech evolved into the technological area with the highest deal volume in the German venture capital market in 2024 but growth expectations for 2025 are more muted than three years ago.

– Low growth opportunities are expected for 2025 in the areas of mobility / logistics, foodtech / agtech and e-commerce. The latter was the largest market in 2019 and is now showing signs of market saturation.

The German venture capital (VC) market sent out positive signs again in 2024. The deal volume grew by 4% on the previous year to around EUR 7.4 billion. After a global boom in 2021 followed by a consolidation phase, the volume of investment in German start-ups is now approaching the level of 2019 again, prior to the outbreak of the pandemic. Business sentiment among German VC investors also recovered significantly in 2024 and was close to its historic average again at the end of the year.¹ For start-ups, that means easier access to capital to fund their innovation and growth activities. By developing technologies and disruptive business models, they are strengthening Germany's growth and competitiveness as a business location. However, what specific technological developments will make an important contribution in the future is obviously fraught with great uncertainty.

Professional venture capital investors play an important role in the allocation of innovation and growth capital. They are experts in their market segments, have in-depth industry knowledge and invest their funds to generate returns. In this way, the venture capital ecosystem promotes innovation and growth as elements of the market as a process of discovery. Funding trends in the VC market therefore also act as an indicator for measuring what technologies will be of importance in the medium term.

Figure 1: Funding trends in the German VC market



Deal volume in EUR millions and development from 2019 to 2024 in key technological areas

Note: Individual businesses can operate in various technological areas so that their funding rounds are counted multiple times.

Sources: Dealroom.co, KfW Research.

Funding trends are determined by technological potential and market environment

Technological innovation as a basis of investor interest – the example of artificial intelligence

The first precondition for initiating funding activity is technological developments that provide a basis for start-ups to disrupt existing or create new markets. In this context, the presumably most impressive example currently is the field of artificial intelligence (AI), where the rapid development and dissemination of generative AI and large language models has generated growing investor interest since 2022. In 2024, AI start-ups raised around EUR 1.8 billion in the German VC market, making this technological field the second most important in terms of deal volume (Figure 1). The most recent manifestation of the rapid technological development in the field of AI all over the world was the market entry in January 2025 of a Chinese start-up that demonstrated new efficiency and cost-effectiveness potentials in AI models. This highlights the intense international competition for AI start-ups. The market entry could prompt start-ups and investors to re-evaluate the situation in the short term, possibly resulting in reluctance to close financing deals. In the medium to long term, technological improvements are likely to be adapted by market players and contribute to the growth of the AI sector.

Societal and economic conditions are crucial for the development of markets

Besides the technological potential, societal, regulatory and economic conditions play an important role for the growth opportunities provided by individual technological domains. This is evident in the field of climate tech, in which technological innovations combine with the urgent societal need for the transformation to a climate-neutral economy. Furthermore, in the past years economic-policy initiatives such as those that build on the Paris Climate Agreement and accompanying policy measures have led to high demand in many countries.² In this setting, the field of climate tech has evolved into the technological area with the highest volume of investment in the German VC market – around EUR 2.3 billion in 2024.

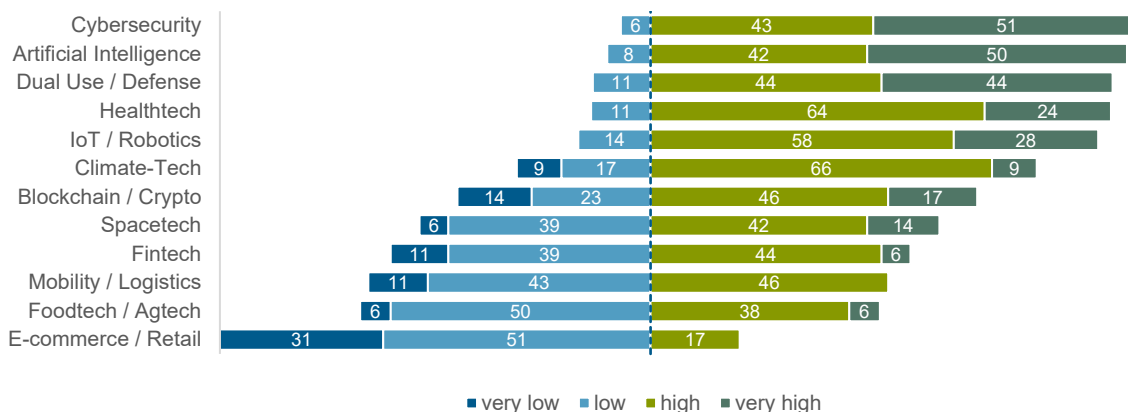
Health tech has traditionally been an important technological area for the VC market, in which demand for innovative healthcare solutions, reinforced by the COVID-19 pandemic and demographic change as well as digitalisation in the health sector, continues to offer promising growth opportunities today. German start-ups also raised more than EUR 1 billion in this area in 2024.

Another development that has shaped the market environment in the past years has been the global escalation of geopolitical conflicts. Under this influence, the dual use / defence area, which has traditionally received only very little attention in venture capital finance in Germany and Europe, has recently become the target of VC investments more often. This development was most recently reflected in the initiation of a EUR 1 billion VC fund for the financing of relevant technologies by NATO member states in 2024. In Germany, the investment volume in that area totalled just over EUR 800 million in 2024. Demand for cybersecurity technologies for the protection of IT systems, networks and data has also grown in this market segment in recent years.³

The area of space tech is also a relatively young technological area for the German VC market. The privatisation and commercialisation of international space travel increasingly offers market opportunities for German start-ups here. Thus, German space tech start-ups raised more than EUR 100 million for the first time in 2023 and raised EUR 240 million in 2024.

Figure 2: Cybersecurity and AI have the highest growth expectations for 2025 among German VC investors

How do you view the growth opportunities of the following sectors for the coming year 2025?



Note: N=36.

Sources: German Venture Capital Barometer (GVCB) Q4 2024, KfW Research.

Technology life cycle and market maturity are reflected in investment trends

In addition, the technology life cycle and the degrees of maturity of individual technological domains are crucial for the investment momentum in the VC market. Phases of innovation, market maturity and consolidation alternate here. A good example is the e-commerce sector, which for many years was regarded as one of the most important and dynamic areas for venture capital investment. In recent years, however, the e-commerce market appears to have moved into a more mature phase, which has led to a decline in investment momentum. To be sure, more than EUR 1 billion was invested here again in 2024 but that was the sharpest drop among the technological areas under consideration here compared with the investment volume in 2019.

Outlook for 2025: Growth expectations of German VC investors

The overview of investor sentiment in the German VC market can provide insight into the expected development of venture capital finance in various technological areas. In the supplementary survey conducted under the German Venture Capital Barometer for the fourth quarter of 2024, German investors expressed particularly high growth expectations for 2025 for the technological area of cybersecurity (Figure 2). More than half the investors surveyed expect very high growth opportunities here. The euphoria around artificial intelligence does not seem to have worn off either. It is true that in 2024 some market actors for the first time voiced scepticism about the valuations and future growth opportunities of AI start-ups given the high volume invested around the world in businesses whose economic success is still uncertain.⁴ However, German VC investors broadly expect high or very high growth opportunities in this technological area for 2025 as well. Indeed, investors' growth expectations around AI have increased yet again since 2022 (Figure 3). Investors also believe that the technological area of dual use / defence, which is still new to the German VC market, is likely to have good growth opportunities in 2025 and therefore experience a further inflow of investment. Financing is also likely to develop strongly in the health tech area, which is already important for overall investment activity. Investors' growth expectations in this area have consistently been on a high level here since 2022.

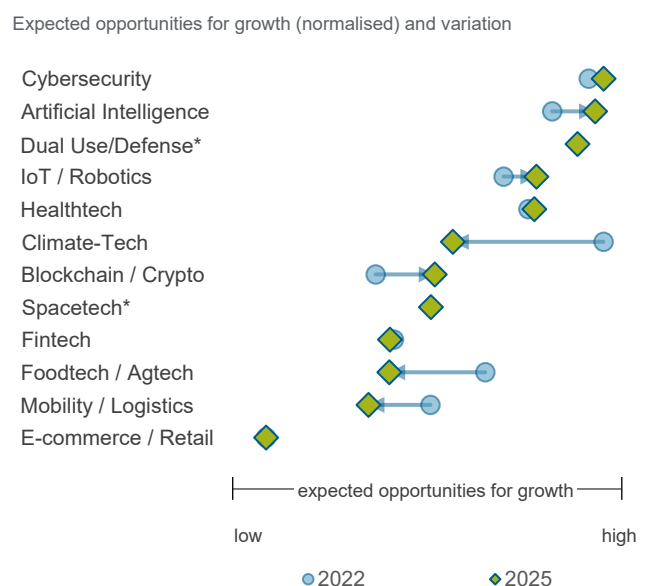
For the technological areas of mobility/logistics, foodtech / agtech and e-commerce, on the other hand, the majority of investors see low growth opportunities (Figure 2). Their expectations have declined particularly for foodtech / agtech and mobility / logistics since 2022. In the area of e-commerce, investor sentiment indicated that the market was approaching saturation already in 2022 (Figure 3), which also reflects the development of investments effectively undertaken in this area since 2019.

In the technological domain of IoT / robotics, the investment volume was on the decline in 2024 compared with 2019. For 2025, however, investors believe this domain has relatively good growth opportunities. The gap between the recent development of the market volume and the development of growth expectations has widened furthest in the area of

climate tech. In 2022, German investors regarded this technological domain as having the largest growth opportunities (Figure 3), which was confirmed by strong growth in VC investment in recent years. Among the technological areas, investors now have only medium-level expectations for climate tech for 2025. For one thing, this could signal a degree of market saturation. As many start-ups became active in this area and received funding in the past years, it has become more difficult for individual actors to set themselves apart and gain significant market shares. For another, the economic environment may have changed in unwanted ways. The debate around an unsatisfactory level of economic-policy ambition and lower priority given by many states to climate targets for the future may have negatively influenced expectations around future growth opportunities.⁵

Finally, a significant increase in investors' growth expectations can be seen with regard to blockchain / crypto assets (Figure 3). This may reflect expectations for more favourable market conditions from deregulation, which is currently emerging in the US in particular.

Figure 3: Expectations around growth opportunities have shifted since 2022



Note: *no values available for 2022.
Source: GVCB Q3 2022 and Q4 2024, KfW Research.

The German Venture Capital Barometer
The German Venture Capital Barometer is based on a quarterly survey of the members of the German Private Equity and Venture Capital Association (Bundesverband Deutscher Kapitalbeteiligungsgesellschaften), the member investors of the Deutsche Börse Venture Network (since the 2nd quarter of 2021) and further private equity companies with registered offices in Germany. The primary focus of the barometer is on surveying business sentiment in the German venture capital market. In addition, investors are also asked supplementary questions on various topics of interest.

¹ Viète, S. and Metzger, G. (2024), [KfW Venture Capital Dashboard Q4 2024](#), KfW Research; Metzger, G. (2024), German Venture Capital Barometer 4th quarter 2024, KfW Research.

² Viète, S. and Schwartz, M. (2023), [Wagniskapital für Net Zero: Potenziale und Herausforderungen](#) (Venture capital for net zero: potentials and challenges – in German), Focus on Economics No. 429, KfW Research.

³ Metzger, G. (2022), [Trends in Market: Krieg wirkt sich auf Investorenerwartungen aus](#) (War affects investor expectations – in German), Focus on Economics No. 391, KfW Research.

⁴ Cahn, David (2024), [AI's \\$600B Question](#), Sequoia; Goldman Sachs Exchanges (2024), [A skeptical look at AI investment](#).

⁵ OECD (2024), [The Climate Action Monitor 2024](#), OECD Publishing, Paris.