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German startup ecosystem – punching below its weight

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Startups are vital for a competitive and innovative economy. They bring new, potentially disruptive and productivity-enhancing solutions and technologies to the market, thereby challenging established firms and fostering competition. Europe has a vibrant startup ecosystem, but it struggles to scale innovative companies due to fragmented markets and a lower penetration of venture capital (VC).

Germany's startup scene is showing signs of growth, currently counting over 21,000 ventures (looking at incorporated businesses only). But three years of economic stagnation have left their mark. After a record year in 2021, startup creation has slowed. While it began to recover in 2024, with 2,845 new startups being founded (+7% yoy), insolvencies remained elevated. Software is the leading sector for startup creation, driven by growing demand for AI and efficiency-raising solutions. Startups often originate from universities and tend to cluster in certain areas, with Munich and Berlin being the main hubs.

VC market in Germany still lags the country's innovation potential. Funding is a key concern for growth-oriented startups. Government support is the most important external funding source, used by almost half of startups in 2024. Only 19% of startups are financed by venture capital, even though almost twice as many would like to secure it. The German VC market has grown significantly, but its volumes continue to be underwhelming with annual new VC investments of 0.18% of GDP. This is considerably less than in other similarly innovative economies like France (0.25%), Denmark and Finland (each about 0.3%), let alone the US (0.65%).

The new government aims to strengthen the startup system with streamlined processes for company formation, regulatory sandboxes, and improved employee stock participation. Moreover, the funding environment shall be boosted through a EUR 100 bn "Deutschlandfonds" and the doubling of the WIN initiative to EUR 25 bn. Both programmes are geared towards relying mainly on private investment.

Outlook – on a long way towards a startup nation. Going forward, Germany can build on its excellent research institutions and an increasingly experienced startup ecosystem. The rebounding economy and the government's initiatives, if fully implemented, will provide additional tailwinds. However, the outlook for the exit market, especially IPOs, continues to be uncertain. Furthermore, efforts to remove hurdles to the EU single market and truly make progress with the capital markets union will remain crucial for the long-term success of the European startup environment.

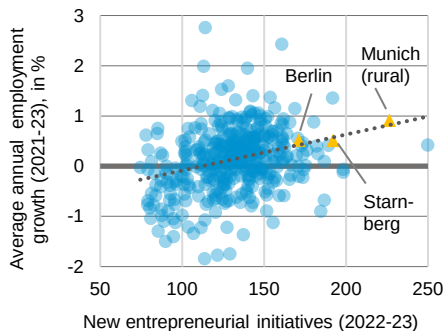


German startup ecosystem – punching below its weight

Startups are vital for a competitive and innovative economy

German districts: More new companies go along with stronger job growth

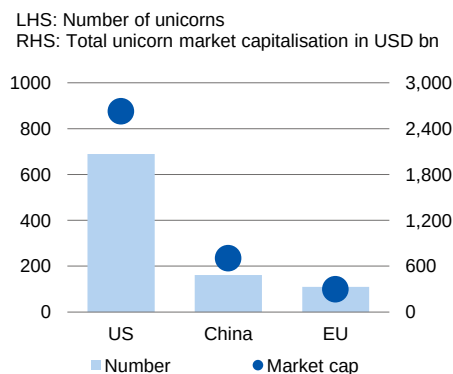
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Sources: Institut für Mittelstandsforschung Bonn, Bundesagentur für Arbeit, Deutsche Bank Research

Most unicorns are in the US

2



As of December 31, 2024

Sources: CB Insights, Deutsche Bank Research

Startups play a central role in current efforts to strengthen European competitiveness and reduce critical dependencies on advanced technologies. Established firms often centre their research and innovation around mature technologies with limited potential for breakthroughs (so-called “middle technology trap”¹). By contrast, startups typically work on innovative, disruptive, and potentially productivity-enhancing solutions. Economic studies suggest that venture capital (VC) investments, a typical way of startup financing, generate roughly three times the innovation output (in terms of patent filing) compared to traditional companies’ R&D spending.² Moreover, startups bring new ideas and technologies to the market and create new business models. This often challenges established companies to reinvent themselves, thereby stimulating competition and further innovation. In addition, new firms are a key driver of job growth (Chart 1).³

Europe boasts a vibrant startup ecosystem, underpinned by robust fundamental research and highly skilled professionals. But even though the ecosystem has grown, it has shown some difficulties when it comes to scaling innovative companies. This is exemplified by the much smaller number of unicorns compared to the US, i.e., unlisted startups with a valuation of over USD 1 bn (Chart 2). Furthermore, over the last decade, around 6% of startups⁴ and almost 30% of unicorns⁵ have relocated from Europe, mostly heading to the US.⁶ Fragmented markets and lower levels of VC make it more difficult for young European firms to scale up than for their US peers. A new push by the European Investment Bank (EIB) highlights policymakers’ growing sense of urgency in this area: the EIB recently unveiled a plan, “TechEU”, to make EUR 70 bn and more in debt and equity capital available for startups in the EU.

This report takes a closer look specifically at the German startup landscape, its growth dynamics and funding conditions. It shows how startups can build on an increasingly experienced ecosystem but continue to face challenges, and highlights policy initiatives aimed at further strengthening the environment for startups.

German startup ecosystem – back on a growth trajectory?

There are currently over 21,000 startups active in Germany.⁷ However, the absence of a common definition makes it difficult to accurately capture the extent of the ecosystem. Usually, startups are characterised as young firms that have an innovative business model and high growth potential. The last two attributes distinguish startups from other newly founded companies with conventional business models (e.g. hair salon, architectural office). Thus, startups constitute only a small fraction of newly formed enterprises, estimated at around 3-6%.⁸

¹ Fuest, Clemens, et al. (2024). EU innovation policy. How to escape the middle technology trap. April 10.

² KfW (2024). Zukunftsfonds. Statusbericht 2024. December 17.

³ Bundesverband Deutsche Startups and Stepstone Group (2024). Internationale Talente als Wachstumsfaktor. Skalierung von Startups und Scaleups. November 18.

⁴ Weik, Stefan (2025). Der Start-up-Exodus. Warum Europas innovativste Start-ups nach Amerika fliehen. In: ifo Schnelldienst 5/2025. May 15.

⁵ Testa, Guiseppina, et al. (2022). In search of EU unicorns – What do we know about them? EU JRC technical report. February 25.

⁶ See Walther, Ursula (2024). Strong risk capital markets. Vital for unlocking green & digital innovations. Deutsche Bank Research, EU Monitor. January 29.

⁷ According to data from startupdetector

⁸ KfW (2025). Start-ups: Leicht gesagt, aber schwer zu fassen. January 20.

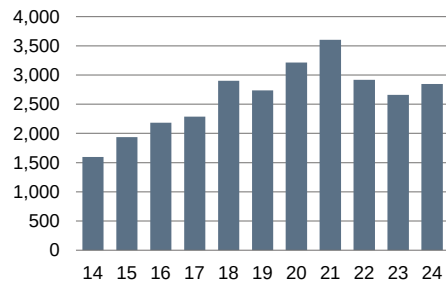


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German startup creation - on the rise again?

3

New startups

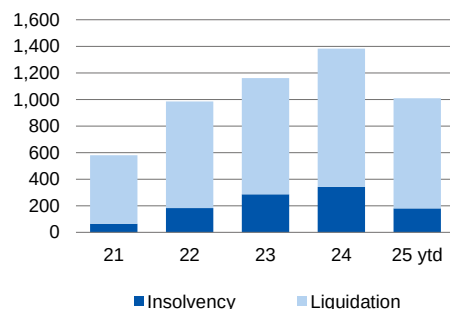


Sources: startupdetector, Deutsche Bank Research

Insolvencies and liquidations have grown given difficult macroeconomic backdrop

4

Startups up to 10 years old

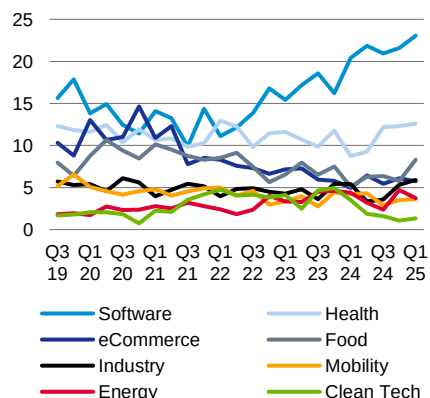


Sources: startupdetector, Deutsche Bank Research

AI boom drives startup creation in the software sector

5

Composition of new startups by industry, share in %, selected sectors



Sources: startupdetector, Deutsche Bank Research

In this section, unless otherwise noted, we look at startups that are less than 10 years old, develop an innovative product and/or have high growth potential, and are registered as corporations (incl. AG and GmbH).⁹ This legal form is often chosen by startups which aim to scale and attract venture capital. However, many startups are also founded as partnerships or sole proprietorships, meaning that our rather narrow definition tends to underestimate the overall size of the German startup system.

Startup creation. Three years of economic stagnation have left their mark on German startup dynamics. After a record year in 2021, startup creation slowed (Chart 3), mainly due to rising inflation and higher interest rates that resulted in a more cautious investment environment. Restrained consumers and corporate clients probably made it additionally difficult for startups to generate revenues. Recent numbers show a mixed picture. On the one hand, 2,845 startups were founded in 2024, 7% more than in the prior year. Also, 2025 saw the best Q1 since 2022 with a total of 746 newly created startups. On the other hand, the number of insolvencies and liquidations has steadily risen since 2021 and remained elevated in the first few months of this year (Chart 4).

Startup creation activity is hard to compare internationally due to a lack of consistent data. However, the broader business creation rate, at 9% on average over 2022-24, is relatively low in Germany versus the Netherlands (13%), the UK (13%) or the US (24%).¹⁰

Job creation. German startups had around 522,000 employees in 2024.¹¹ This represents an increase of 26% compared to 2020, while total employment in Germany only grew by 2.7% during the same period. However, German startups account for no more than 1.1% of the total workforce. This is much less than, for example, in Sweden (2.1%), the UK (2.2%), Israel (5.4%) or the US (8.4%).¹² It is mainly due to structural reasons which make it difficult for startups to scale up – like a shortage of skilled workers, rigid labour laws and insufficient VC financing.

AI boom drives startup creation in the software sector. Software is currently the sector in Germany which is producing the most startups by far (Chart 5). In the first quarter of this year, 172 software firms were established, making up nearly a quarter of all new startups. This was driven by surging demand for artificial intelligence (AI) and other efficiency-enhancing digital solutions. Since the launch of ChatGPT in November 2022, AI has surpassed green tech as key theme for new startup activity (Chart 6). At the same time, sectors like e-commerce and food saw fewer company formations following a pandemic-related peak. These were also the sectors with the most insolvencies during the last two-and-a-half years.

Unsurprisingly, around two-thirds of *all* startups have a digital business model (Chart 7). In most cases, they offer software-as-a-service, operate an online platform, or develop software. Another 23% of startups are developing new technologies, building on Germany's engineering strength. Over the last four years, the share of business-to-business models has risen again (from 53% in 2021 to 61% in 2024), thereby reversing the pandemic-driven trend towards business-to-consumer models.¹³

⁹ Definition by startupdetector.

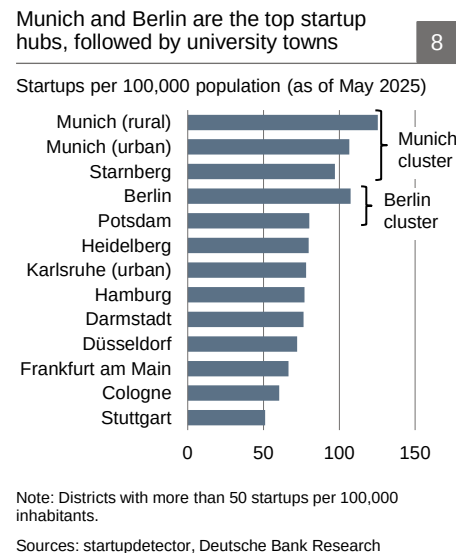
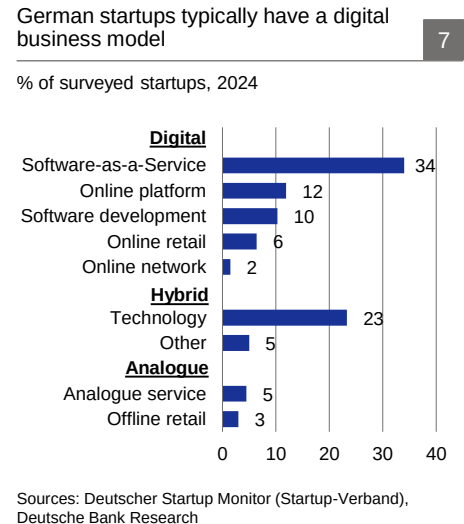
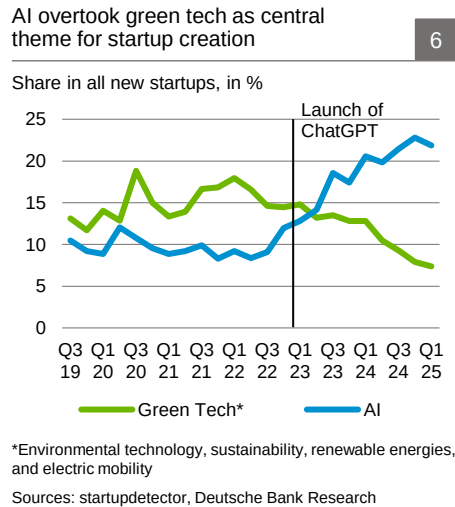
¹⁰ Total early-stage entrepreneurial activity" (TEA) measures the proportion of 18-64-year-olds who have started a business in the last 3.5 years, or are in the process of starting one, out of all 18-64-year-olds. See Global Entrepreneurship Monitor, <https://www.gemconsortium.org/data>.

¹¹ Bundesverband Deutsche Startups and Stepstone Group (2024).

¹² Bundesverband Deutsche Startups et al. (2021). Für ein Wirtschaftswunder 2.0. Wie Startups und Scaleups den deutschen Arbeitsmarkt beflügeln. June 22.

¹³ startupdetector (2025). startupdetector report 2024/25. Eine Auswertung aller Startup-Neugründungen und Finanzierungsrunden in Deutschland. May 12.

German startup ecosystem – punching below its weight



From a regional perspective, Bavaria (Munich) and Berlin stand out as hubs, accounting for 19% and 18% of new startups in 2024, respectively. They are followed by other economic heavyweights, North Rhine-Westphalia (18%) and Baden-Württemberg (12%). A comparison of the number of *existing* startups with population size shows that particularly large cities like Hamburg, Cologne and Frankfurt as well as university towns like Heidelberg or Darmstadt have a vibrant startup culture (Chart 8).

These numbers highlight two key characteristics of the startup ecosystem.

First, startups often originate from universities. In 2023, German universities counted over 13,000 startup ventures in planning and almost 3,000 startups being founded.¹⁴ This is based on a broader definition than before and also includes partnerships and sole proprietorships. Half of these startups were established as corporations. In light of the above figures, this suggests that around half of all new startup formations came from universities.

Second, startups tend to cluster in certain areas, with Silicon Valley being the most prominent example. Clustering is a well-known phenomenon among innovative, human capital-intensive, and research-driven companies. The reason is that knowledge often “only travels a few blocks”.¹⁵ Moreover, strong startup locations attract talent and investment. Germany, with Berlin and Munich, boasts two internationally renowned startup hubs. In global startup ecosystem rankings, both cities are positioned in the top 40,¹⁶ but London and Paris are consistently at the forefront in Europe. While Munich stands out due to its proximity to universities and its high patent density, Berlin scores better in terms of access to funding, valuation and talent.

¹⁴ Stifterverband (2025). Gründungsradar 2025. Wie Hochschulen Unternehmensgründungen fördern. March 3.

¹⁵ Weik, Stefan (2025).

¹⁶ In the Dealroom.co 2025 Global Tech Ecosystem Index, Munich ranks 17 and Berlin 31 among the “global champions”. The Global Startup Ecosystem Report 2024 places Berlin on rank 15 and Munich on 33.



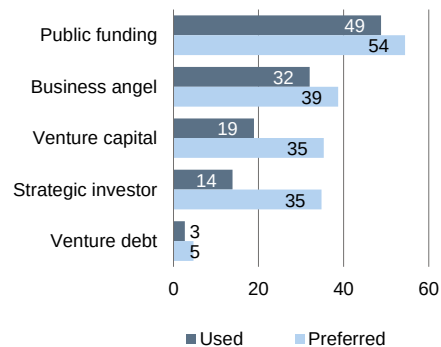
German startup ecosystem – punching below its weight

Financing – Germany is punching below its weight

Only one in five startups manage to secure VC funding

9

% of surveyed startups, 2024

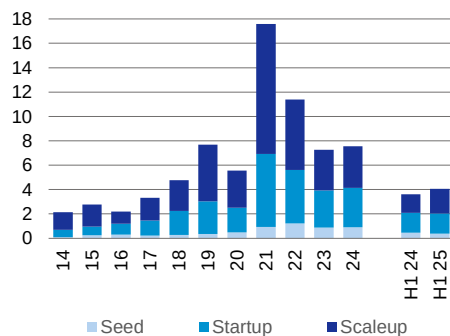


Sources: Deutscher Startup Monitor (Startup-Verband), Deutsche Bank Research

VC investment in Germany – stabilising after the 2021 boom

10

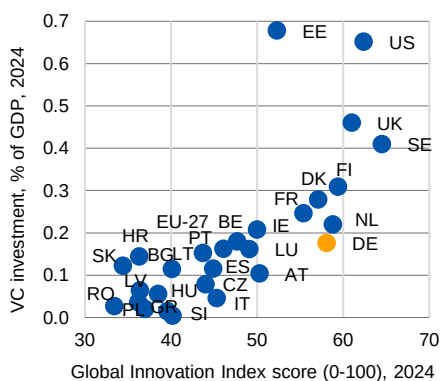
EUR bn



Sources: Dealroom.co, Deutsche Bank Research

German VC market – small compared to the country's innovative strength

11



Sources: WIPO, Dealroom.co, Deutsche Bank Research

Many startups receive public money, but only few secure venture capital

Funding is a key concern for growth-oriented startups. Over the last three years around 40-60% of German startups managed to secure external funding, according to survey-based data.¹⁷ This is a rather small share, because the ecosystem contains many nascent startups that are yet to prove their business model, and the funding climate has been challenging over the last few years. In addition to external financing, the founders' own contributions and, in some cases, revenues already generated also play an important role in the financing of young ventures. Nevertheless, almost three out of four startups plan to raise external capital in 2025. This is slightly more than last year, and the envisaged amounts are also somewhat higher, suggesting slightly increased financing needs and potentially depleted financial reserves in some cases.

Government support is the most important external funding source, used by almost half of startups in 2024, followed by business angels (32%). Only 19% of startups are financed by venture capital, even though almost twice as many would like to secure VC funding (Chart 9). Still, some startups have reservations about VCs because they want to maintain control over their own company.¹⁸ However, studies show that VC funding has a positive impact on companies' growth, innovation output, and commercialisation success.¹⁹

German venture capital market stabilising, yet still lagging the country's innovation potential

The German venture capital market has grown considerably over the last 10 years as VC investments nearly quadrupled from EUR 2.2 bn in 2014 to EUR 7.6 bn in 2024 (Chart 10). In the global boom year of 2021, they spiked to EUR 17.7 bn, propelled by low interest rates and supportive fiscal policies.²⁰ Since then, the funding environment has slowed due to rising inflation, higher interest rates, and heightened geopolitical uncertainty. The downturn was most pronounced in scaleup funding, already the area with the severest deficits, making it even more difficult for mature startups to secure funding for their business expansion. Meanwhile, angel and seed funding volumes remained relatively stable for younger startups trying to get initial financing. Last year, VC investment began to stabilise, and it has picked up in the first half of 2025, reaching EUR 4.0 bn (+9% yoy), mainly thanks to large funding rounds in June.

In terms of size, the risk capital market in Germany is broadly in line with the EU average, measured by annual new VC investments of 0.18% and 0.16% of GDP, respectively. However, compared to Germany's high capacity for innovation, its VC volumes are underwhelming (Chart 11). Other similarly innovative countries have significantly larger VC markets, such as France (0.25%), the Netherlands (0.22%), Denmark (0.28%) or Finland (0.31%). As with other capital market segments, the US VC market is in its own league (0.65%). This could make it more difficult for young, promising German startup companies to grow, compared to their peers in other highly innovative economies. Particularly, in Germany (and the EU more generally), there is a shortfall in scaleup financing: more than half of funding in large rounds above EUR 50 m stems from foreign investors alone (Chart 12). In turn, this can have

¹⁷ Bundesverband Deutsche Startups. Deutscher Startup Monitor, issues 2022, 2023 and 2024.

¹⁸ BMWK (2023). Das Ökosystem für KI-Startups in Deutschland. August 1.

¹⁹ KfW (2024).

²⁰ For more details on the European VC market, please see Walther (2024).

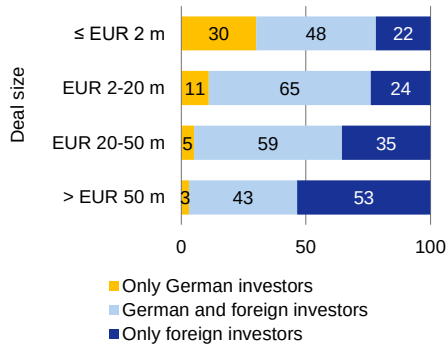


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The larger the VC deal, the larger the share of foreign investors

12

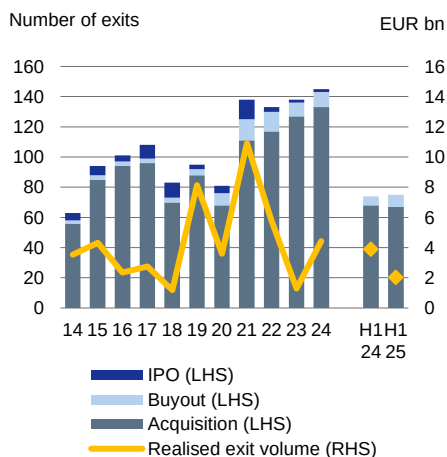
VC deals in Germany by origin of investor, in % (avg. 2021-23)



Source: KfW, based on data from Dealroom.co

Rising number of VC-backed exits, but volumes remain volatile

13



Sources: Dealroom.co, Deutsche Bank Research

important repercussions, incl. scaleup firms reorienting themselves towards non-European markets, as outlined above.

Exit market – lacking momentum

The exit market is a key component of startup financing. This is where VC investors can “cash out” their equity stakes. Successful exits tend to have a positive effect on the whole startup system, as realised profits are often reinvested in other startups. VC funds may expand their capital base, allowing them to contribute to larger funding rounds. Exits can also be positive for founding dynamics. Some founders launch new ventures, returning their capital – and expertise – to the ecosystem. This virtuous “flywheel effect” is illustrated by the Skype example, where founders and employees created subsequent startups, in total leading to around 950 companies in 50 countries.²¹

Exits are rather seldom in Germany, although they have become more numerous in recent years (Chart 13). At the same time, realised exit volumes are volatile, in total averaging around EUR 4 bn p.a. In the vast majority of cases, exits take the form of an acquisition by established companies, followed by buyouts by private equity funds. IPOs have become very rare in recent years.²² Globally, conditions for IPOs have been unfavourable due to high market volatility and uncertainty. In Europe alone, there are currently over 100 tech companies waiting for an IPO window to open up.²³ Apart from cyclical factors, many European startups, especially in the tech sector, have decided to list on US exchanges for structural reasons (deeper liquidity pools, higher valuations). As a result, European stock exchanges have missed out on a staggering USD 244 bn in market capitalisation, which European startups have gained from their IPOs on US exchanges between 2015 and 2023.²⁴ This also comes at a cost to the overall economy, which can lose its most innovative and high-growth companies.²⁵ Whether the current shift in some investors’ preferences – away from the US, due to perceived heightened policy uncertainty, and towards Europe – will last remains to be seen. It could yet prove to be short-lived given the fundamental advantages of the US capital market are still in place. So far at least, the IPO market in Europe has not picked up at all.

Political initiatives provide tailwinds for the startup ecosystem

Improving the environment for young, innovative companies lies at the heart of current efforts to strengthen competitiveness and boost potential growth. Germany already boasts a vibrant and maturing startup scene. Still, young ventures face difficulty bringing innovations to the market and expanding their business due to structural issues. These include:

- **Complex regulatory environment** when it comes to establishing and operating a startup. For example, the administrative burden for starting a company in Germany is significantly higher than in many other OECD countries. Startups also often struggle to comply with laws regulating their innovative activities like the EU data protection rules (GDPR) or the AI act. They may be more challenged than incumbent corporates with greater

²¹ Atomico et al. (2023). State of European Tech 2023. November 28.

²² See Schildbach, Jan (2024). European stock markets – hidden champion Germany. Deutsche Bank Research, EU Monitor. July 22.

²³ Atomico et al. (2024). State of European Tech 2024. November 19.

²⁴ McKinsey (2024). Overcoming the European Tech IPO Challenge. July.

²⁵ Weik, Stefan (2025).



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expertise and larger legal teams. Moreover, rather rigid labour laws may discourage startups from expanding.²⁶

- **Difficult market access** due to a fragmented EU single market (more details see below), high barriers for public procurement processes, and a certain restraint among established companies to engage in cooperations²⁷ amid the current economic uncertainty.
- **Insufficient funding**, with smaller (risk) capital markets compared to the US as well as other innovative economies like the UK and Nordic countries.

New German government aims to strengthen the startup ecosystem. Building a conducive environment for entrepreneurship and founding a business has been a slow process. This changed in 2022 when Germany adopted its inaugural startup strategy. It was followed by the introduction of more startup-friendly framework conditions (e.g. more favourable tax rules for employee share ownership and lower hurdles for IPOs) and several initiatives to improve the availability of funding (e.g. implementing the EUR 12.5 bn “Zukunftsfonds”, launching the EUR 12 bn WIN initiative).

The new government aims to build on these efforts to strengthen the startup system on multiple levels (Chart 14). It envisages measures that range from streamlined and faster processes to found a company (within 24 hours as a target), creation of regulatory sandboxes, to bolstering employee stock participation. Moreover, the funding environment will be boosted through a EUR 100 bn “Deutschlandfonds” to support the financing of innovative scaleup and SME companies.²⁸ The federal government will provide an initial EUR 10 bn of equity, intending to increase the fund's volume tenfold through private investments. In addition, the WIN initiative which aims to allocate more growth and innovation capital to young firms is intended to be doubled to EUR 25 bn. At its launch in September 2024, several German banks and insurers committed to invest up to EUR 12 bn in VC by 2030. The new coalition also plans to unlock further VC investments through “enhanced participation options” for institutional investors, for example, by proposing lower capital requirements in Solvency II and removing national capital buffers. However, improving exit markets for private investors in successful startup firms is not in focus. Nevertheless, full implementation could accelerate the commercialisation of innovations and foster a new generation of high-potential German growth companies.

German startups could further benefit from the **new EU Startup and Scaleup Strategy**.²⁹ Remaining hurdles in the single market are estimated to equal a substantial tariff of 44% for the average manufacturing sector and even 110% for the services sector.³⁰ This makes it difficult for startups to expand to other EU markets. Therefore, the EU wants to establish a more innovation- and SME-friendly framework,³¹ which includes simplified rules to reduce the administrative burden, the introduction of regulatory sandboxes, and an ambitious plan to create a single set of rules for EU companies (28th legal regime). To improve the funding of typically capital-intensive deeptech startups in strategic sectors, the EU plans to establish a so-called “Scaleup Europe Fund” with private co-financing (volume and timeline yet to be determined). As these companies build

²⁶ OECD (2025). OECD Economic Surveys: Germany 2025. June 3.

²⁷ Bundesverband Deutsche Startups (2024). Deutscher Startup Monitor 2024. Den Blick nach vorne. September 29.

²⁸ See Walther, Ursula, and Jan Schildbach (2025). Coalition agreement – nudges for capital markets. Deutsche Bank Research, Germany Monitor. May 5.

²⁹ https://research-and-innovation.ec.europa.eu/document/download/2f76a0df-b09b-47c2-949c-800c30e4c530_en.

³⁰ IMF (2024). Europe's Declining Productivity Growth: Diagnoses and Remedies. Regional Economic Outlook Notes for Europe. November.

³¹ See also the recently published EU Single Market Strategy, https://single-market-economy.ec.europa.eu/document/download/d92c78d0-7d47-4a16-b53f-1cead54bcb49_en?filename=Communication%20-%20Single%20Market%20Strategy.pdf.

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on novel scientific or engineering breakthrough technologies (e.g. AI, quantum computing, green hydrogen), they are particularly important for closing the EU's innovation gap with the US and raising Europe's growth potential.

German coalition agreement – addresses challenges for startups at different levels

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Challenges	Proposed measures
Company formation	> Creation of a digital "one-stop shop" that enables company formation within 24 hours
Licensing / transfer of intellectual property to university spin-offs	> Introduction of binding standardised spin-off agreements
Complex approval processes	> Establishing regulatory sandboxes
Recruitment and retention of talent	> Setting up a digital "work-and-stay" agency to streamline visas and the recognition of professional and academic qualifications > Further strengthening of employee equity participation
Market access	> Simplified and more SME-friendly public procurement law
Financing	> Creation of a EUR 100 bn "Deutschlandfonds" dedicated to closing the gap in growth and innovation financing > Doubling WIN initiative to EUR 25 bn, attracting more private VC by using public guarantees > Making the "Zukunftsfonds" permanent beyond 2030, which provides means for VC funds and startup companies, with a focus on financing of scaleup firms > Enhanced VC participation options for institutional investors
Exit market / IPOs	> No specific measures

Sources CDU/CSU-SPD coalition agreement, Deutsche Bank Research

In addition, the EIB recently launched the TechEU platform, providing EUR 70 bn in startup and scaleup funding until 2027. It aims to keep home-grown success stories in Europe, and also looks for buy-in from the private sector, mobilising investments of up to EUR 250 bn in total for the European tech sector.

Outlook – Germany on a long way towards a startup nation?

Startups are key to promoting productivity and innovation in Europe. Germany can build on its excellent research institutions as well as a growing and increasingly experienced startup ecosystem. Furthermore, established companies already invest heavily in R&D (2.1% of GDP in 2023 vs. 1.5% for the EU-27), facing little shortage in funding given access to bank lending and capital markets. That said, the above analysis also indicates that the country is not realising its full potential regarding startup creation and the scaling of young ventures. This is mostly because of an intricate regulatory framework, insufficient venture capital funding, and a fragmented European market.

Looking ahead, there are several reasons for optimism that Germany will become a more fertile ground for startups. The new government aims to strengthen the startup ecosystem through various initiatives, including a streamlined founding process, regulatory sandboxes, and additional financing. Moreover, after years of stagnation, the German economy is expected to gain significant steam next year.³² Startup creation has shown strong momentum already in the first quarter of this year and VC funding has picked up, too. Geopolitical shifts may also lead European investors to double down on domestic startups. However, the outlook for the exit market continues to be uncertain. Especially for IPOs (globally), caution prevails due to shifts in global

³² Winkler, Robin, et al. (2025). The Big Berlin Bill: lifting our growth forecasts for 2025 and 2026. Deutsche Bank Research, Focus Germany. June 26.



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trade patterns and heightened geopolitical risks. Last but not least, efforts to remove hurdles to the EU single market and truly make progress with the capital markets union will remain crucial for the long-term success of the European startup environment.

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