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KfW Climate Barometer 2025

Climate investment by businesses has dropped by nearly 8% in real terms to EUR 80 billion – decline driven by large enterprises

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Climate investment by businesses has dropped by nearly 8% in real terms to EUR 80 billion – decline driven by large enterprises

Summary of the most important findings

Climate investment by companies in Germany has fallen by just under 8% in real terms

Total domestic climate investment by the German business sector fell from EUR 85 billion to EUR 80 billion in 2024, a 5.5% drop in nominal terms. Adjusted for price increases, that was a decline of 7.8%. Climate investment was therefore on a level similar to total investment in the German business sector. Relative to all business investment, the volume remained comparable to the previous year: 16.5% of all business investment went to climate action in 2024, after 17.0% in 2023.

Large enterprises have scaled back their climate investment

Whereas large enterprises still reported increases in investment in the years 2022 and 2023, they reduced their spending on climate action in 2024 – from EUR 50 billion in the previous year to EUR 42 billion (-16.5% in nominal terms, -18.5% in real terms). The difficult global economic environment, geopolitical uncertainties, growing international competition and changed priorities likely put the brakes on large enterprises' climate commitments.

Small and medium-sized enterprises, however, increased their climate investment

SMEs, on the other hand, expanded their total investment in climate action last year by EUR 3 billion to EUR 38 billion in total (+10.4% in nominal terms, +7.8% in real terms). Investment in energy efficiency upgrades to existing buildings (+58% in real terms) and in the generation and storage of renewable electricity (+7.5% in real terms) were the areas with the sharpest increases.

Bank loans are becoming steadily more important for financing climate investment

In the SME sector, own resources took the lion's share of funds (48%) for climate investment in 2024, as they did in previous years. Bank loans made up 33% and promotional funds 19% of the funding mix. In the period from 2021 to 2024 the relative weight of debt capital thus rose by nearly ten percentage points.

Cost-effectiveness concerns remain the key constraint to climate investment

A wide range of barriers slow down climate investments in the business sector. The main barrier reported by firms continues to be uncertainty around the cost-effectiveness of climate investments (48%). Many technologies for decarbonising the business sector still have cost disadvantages compared with fossil-based technologies as the external costs of carbon emissions are not internalised. Lengthy planning and approval procedures (41%) were the second most frequently mentioned barrier, closely followed by insufficient financial resources (41%). These need to be addressed in order to incentivise more climate investment in the business sector. The challenge for designing policy instruments is to simultaneously incentivise the green transition for firms while preserving their international competitiveness – especially for energy-intensive firms.

Businesses' main plea to policymakers is to lower electricity prices

To support climate investment, businesses would mainly like to see a reduction in electricity prices (70%), which is of great importance for making the electrification of heating and mobility economically attractive. They also give high priority to simplifying planning and approval procedures (67%), tax incentives (65%), expanding energy infrastructure (63%) such as electricity grids, and providing more promotional funding (56%).

Strategic importance of climate action is growing

Fifty-six per cent of businesses have incorporated climate action into their business strategy (+5 PP on the previous year). Eleven per cent of businesses aim to become climate neutral (+2 PP on the previous year). Large enterprises (78%) and larger SMEs (27%) are at the forefront in this regard.

Climate action comes with new market opportunities

Seventeen per cent of enterprises see ambitious climate action as an opportunity to open up new sales markets (+2 PP on the previous year). Large enterprises (64%), construction firms (23%) and manufacturers (23%) are particularly optimistic about this.

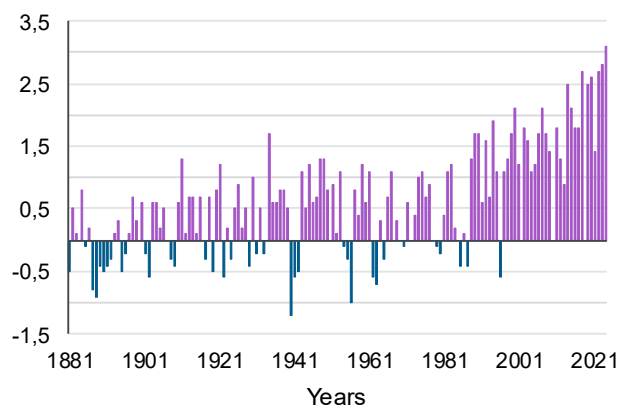
Need for climate action remains high

Given the geopolitical uncertainties and difficult economic situation in Germany, climate action appears to be slipping down the list of topics in public policy. Global warming and the associated risks to economic prosperity and quality of life, however, remain. In 2024 the average global temperature was 1.54°C above the pre-industrial level (1850 to 1900)¹, surpassing the 1.5°C threshold for the first time – a threshold set under the Paris Climate Agreement to limit the risks and impacts of global climate change. As global greenhouse gas emissions continue rising unabated, accumulate in the atmosphere and break down only very slowly in the planetary system, further temperature increases are inevitable. The adverse impact of climate change on ecosystems and humans is already visible in all regions of the world: extreme weather events such as droughts and heavy rainfall are becoming more common and more intense, land and sea ice is melting, and sea levels are rising. Only systematic climate action and timely adaptation can limit the damage resulting from climate change and preserve the foundations of life for future generations.

Climate change already has a clear impact in Germany. Since the 1960s, every decade has been warmer here than the previous one. The past years were among the warmest ever recorded. At the same time, the pace of temperature increase has clearly accelerated in the past 50 years – as it has worldwide (Figure 1). Since 1881, when systematic weather records began, the mean temperature in Germany has already increased by an average of 2.5°C.² The number of hot days with temperatures exceeding 30°C has quadrupled since the 1950s from around three days per year to now twelve days per year. Extended periods of drought are becoming more frequent, putting pressure on agriculture and water supplies. This also makes wildfires more likely. There are early signs that heavy rainfall is becoming more frequent, particularly in southern Germany. The North Sea and Baltic Sea are likely to experience higher water levels due to sea level rise. In Cuxhaven, for example, the sea level has already risen by more than 25 cm since 1900. The danger of higher storm surges is therefore increasing.³

Figure 1: Warming trend in Germany

Positive and negative variations in average annual temperature in Germany from the multi-year mean of 1881–1910 up to the year 2024, in °C



Note: The zero line represents the average air temperature in Germany of the years 1881 to 1910: 7.8°C.

Source: German Weather Service (2025)

Growing economic losses from extreme weather events

Climate change is advancing and fuelling the intensity and frequency of extreme weather events. The economic losses from extreme weather events are already high. The European Environment Agency (EEA) estimates that weather and climate-related extremes caused property losses of EUR 738 billion in the European Union alone between 1980 and 2023 (in prices of 2023), with floods taking the lion's share of 44%, followed by storms (29%) and heatwaves (19%). Property losses have grown over time – by 2.9% on average per year between 2009 and 2023. Among the EU countries with the highest losses per square kilometre of land area during the period of 1980 to 2023 are Slovenia (EUR 866,000), Belgium (EUR 554,000), Germany (EUR 505,000) and Italy (EUR 447,000). Because a large portion of households and enterprises that suffered losses were not insured against extreme weather events, they had to absorb the losses themselves.⁴ In many cases the government must cover the costs of disaster aid and reconstruction of infrastructure. As a result, public and private funds are no longer available for growth-oriented investment but must be redirected to reconstruction and repairs.

¹ Cf. German Federal Environment Agency (UBA) (2025): Indikator Globale Lufttemperatur (*Global air temperature indicator* – in German), <https://www.umweltbundesamt.de/daten/umweltindikatoren/indikator-globale-lufttemperatur#die-wichtigsten-fakten>, retrieved on 30 September 2025.

² LOESS trend of regional mean.

³ Cf. German Weather Service (2025): Was wir über das Extremwetter in

Deutschland wissen (*What we know about the extreme weather in Germany – our title translation, in German*).

⁴ Cf. European Environment Agency (EEA, 2025): Europe's environment. Climate risks to the economy, <https://www.eea.europa.eu/en/europe-environment-2025/thematic-briefings/climate-change/climate-risks-to-the-economy>, retrieved on 30 September 2025.

The European Environment Agency has put the damage caused by extreme weather events in Germany between 1980 and 2023 at EUR 180 billion.⁵ The flood disaster in Germany's Ahr Valley and on the Erft River in 2021 alone caused at least EUR 40 billion in damage. The floods claimed the lives of more than 180 people.⁶ The federal and state governments together allocated EUR 30 billion to a reconstruction fund for flood damage restoration, which is far from completed.

Besides the potential property losses from extreme weather events, decreasing water availability, especially in southern Europe, rising insurance premiums and extreme weather-induced disruptions to international supply chains are among the greatest climate risks for the European economy.⁷ As a highly industrialised country, Germany is also heavily exposed to the indirect consequences of climate change in other parts of the world because of its many international trade linkages. This aspect has so far received little attention in the public conversation because such indirect losses are more difficult to attribute and quantify. However, recent studies for the EU indicate that indirect losses from disrupted global trade and supply chains have the potential to significantly exceed direct climate damage in the EU (such as destroyed infrastructure).⁸ One prominent case in which a supply chain was disrupted by an extreme weather event was that of a major German carmaker. Between August and October 2023, Volkswagen was unable to complete the production of around 150,000 vehicles because a supplier of toothed rings for the powertrains of combustion engines in Slovenia was shut down by a severe flood.⁹

In summary, climate change impacts are just as much a risk factor for future economic prosperity in Germany as, for example, skilled labour shortages, high energy costs and excessive bureaucracy.

KfW Climate Barometer reveals investment behaviour of German businesses in climate action

The new German Federal Government emphasised in its coalition agreement that it will adhere to the goal of making Germany climate-neutral by 2045. The EU as a whole is aspiring to reach climate neutrality by 2050. Achieving this objective requires substantial investment in Germany – including in manufacturing and industry.¹⁰ At present, the difficult economic environment driven by trade conflicts, growing international competition, geopolitical uncertainties and weak economic development is making it difficult to commit to the necessary investment in Germany.

How did climate investments in the business sector recently develop in this environment? The KfW Climate Barometer, which is published for the fourth time this year, provides answers to this question. As an annual survey, it provides what is thus far the only representative database for the investment behaviour of all German businesses – from micro-businesses to large enterprises – in the area of climate action (see Box 1 for enterprise size classes). It also delivers insights into the current attitudes and activities of German businesses around the energy transition. Around 13,270 businesses took part in the survey, which was conducted between 10 February and 20 June 2025. More details about the methodology of the KfW Climate Barometer can be found at the end of this report (Box 5).

⁵ Cf. European Environment Agency (EEA, 2024): Economic losses from weather- and climate-related extremes in Europe, <https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related?activeAccordion=ecdb3bcf-bbe9-4978-b5cf-0b136399d9f8>, retrieved on 30 September 2025.

⁶ Cf. Federal Ministry for Economic Affairs and Climate Action (2023): Was uns die Folgen des Klimawandels kosten (*What the impacts of climate change will cost us* – our title translation, in German) – information sheet #05. Damage from flood events in Germany.

⁷ Cf. European Environment Agency (EEA, 2025): Europe's environment. Climate risks to the economy, <https://www.eea.europa.eu/en/europe-environment-2025/thematic-briefings/climate-change/climate-risks-to-the-economy>, retrieved on 30 September 2025.

⁸ Cf. i. a. Fahr, S. et al. (2024): The globalization of climate change:

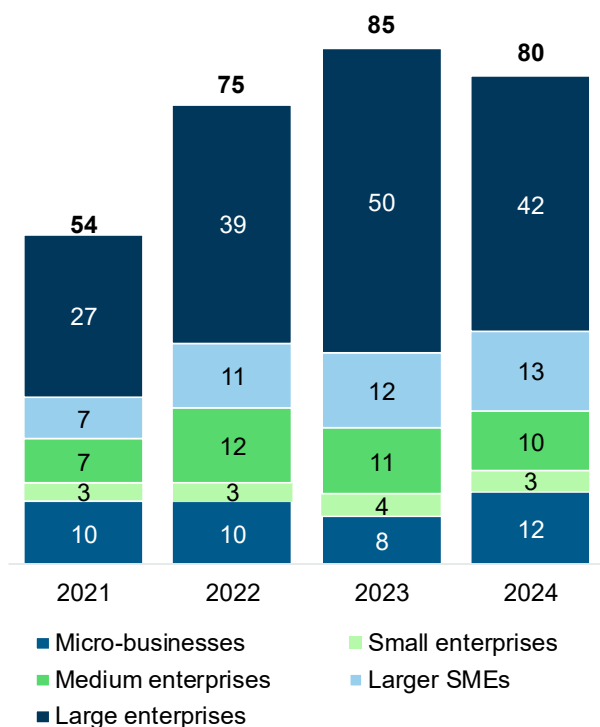
amplification of climate-related physical risks through input-output linkages, ECB Working Paper Series No 2942, European Central Bank; European Scientific Advisory Board on Climate Change (2025): Scientific advice for amending the European Climate Law. Setting climate goals to strengthen EU strategic priorities.

⁹ Cf. Automobilwoche (2023): VW baut wegen Slowenien-Hochwasser 150.000 Autos weniger (*VW makes 150,000 fewer cars due to Slovenia flood* – our title translation, in German), <https://www.automobilwoche.de/agenturmeldungen/vw-baut-wegen-slowenien-hochwasser-150000-autos-weniger>, retrieved on 30 September 2025.

¹⁰ Cf. Brand, S., Römer, D. and Schwartz, M. (2021): Investing EUR 5 trillion to reach climate neutrality – a surmountable challenge, Focus on Economics No. 350, KfW Research.

Figure 2: Climate investment by size class

Volume in EUR billions



Note: Box 5 gives details on the calculation of investment amounts for climate solutions. Climate-positive investments are investments in measures aimed at avoiding or mitigating greenhouse gas emissions caused by the respective business, although the intention to act on climate change did not necessarily have to be top priority.

Source: KfW Climate Barometer 2022–2025

Box 1: Enterprise size classes used

The KfW Climate Barometer divides businesses into five different size classes. These are defined as follows: Micro-businesses have fewer than five employees. Small businesses have five to nine employees. Medium businesses are defined as those that have ten to 49 employees. Companies with 50 and more employees are referred to as larger SMEs – provided their annual turnover does not exceed EUR 500 million. This turnover threshold also applies to all smaller size classes. Large enterprises are therefore defined as companies with an annual turnover exceeding EUR 500 million; their headcount does not play a role, however. In the following, only these designations will be used for ease of reading. Where the SME sector is additionally referred to as a collective, it comprises the first four size classes (i.e., the entire business sector without large enterprises).

Climate investment of German firms fell to EUR 80 billion – a drop of nearly 8% in real terms

German enterprises invested some EUR 80 billion in climate action in Germany in 2024 (Figure 2). That was almost EUR 5 billion below the previous year's level in nominal terms (-5.5%). Adjusted for price increases, the decline was an even steeper 7.8%.

This development is likely due to the cyclical weakness of the German economy. The KfW-ifo SME Barometer, for example, shows that the business situation of German enterprises deteriorated markedly in the course of the year 2024.¹¹ Many enterprises were confronted with increased costs of materials, energy and wages, an uncertain environment and a generally subdued domestic and global economic development. Accordingly, aggregate gross fixed capital formation in the business sector also fell again last year and now stands at EUR 485 billion – a 4.8% decline in real terms on the previous year (total business investment based on national accounts as of August 2025).¹²

Climate investment was therefore on a level similar to total investment. Relative to all business investment, the volume remained comparable to the previous year: 16.5% of all business investment went to climate action in 2024, after 17.0% in 2023 (Figure 3). The share thus remains above the levels of 2022 and 2021, when they stood at 16.0% and 12.8%.

However, significantly higher investment is needed to achieve the greenhouse gas reduction targets. For example, a recent study has quantified the investment required to put Germany on a competitive and climate-neutral footing: around 11% of annual economic output needs to be invested in the next ten years (some EUR 540 billion on average each year, including replacement investments that are necessary anyway as part of the usual investment cycles).¹³

Even if not all of these investments have to be borne by the business sector, businesses still need to considerably increase their level of ambition.

¹¹ Cf. Scheuermeyer, P. (2025): KfW-ifo SME Barometer: August 2025: SME business confidence has (slightly) dropped, KfW Research.

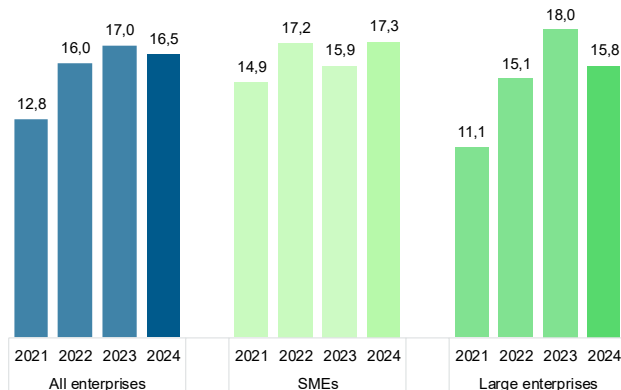
¹² Gross fixed capital formation in the business sector comprises private sector investment in machinery and equipment plus construction (without residential construction). Total business investment is calculated by KfW Research on the basis of data from the Federal Statistical Office by adjusting gross fixed capital formation for investment by the state and in residential

construction. The underlying data was obtained from Fachserie 18, Reihe 1.4 of the Federal Statistical Office.

¹³ Cf. Agora Energiewende (2024): Investitionen für ein Klimaneutrales Deutschland. Finanzbedarfe und Politikoptionen (*Investment in a climate-neutral Germany. Financial needs and policy options* – our title translation, in German).

Figure 3: Share of climate investments in all investments of the business sector

In per cent by enterprise size class



Sources: KfW Climate Barometer 2022–2025, KfW SME Panel, Federal Statistical Office, own calculation

The decline is driven by large enterprises, while SMEs even recorded a significant rise

A closer look at the enterprise size classes also reveals an encouraging trend. Whereas the volume of climate investment declined noticeably overall, small and medium-sized enterprises were able to increase their investment in climate action by EUR 3 billion to a total of EUR 38 billion. That was a notable rise of 7.8% in real terms and a significantly stronger increase than that of total gross fixed capital formation in the SME sector, which rather tended sideways over the same period. A higher level of climate investment was reported particularly by micro-businesses (+47% in real terms to EUR 12 billion) and larger SMEs (+3% in real terms to EUR 13 billion) (Figure 2).

The decline in overall climate investment was therefore driven by large enterprises. They significantly reduced their spending on climate action in 2024 – from EUR 50 billion in the previous year to EUR 42 billion, a drop of 18.5% in real terms.

Worsened investment climate and changed priorities have put the brakes on large enterprises' climate commitment

The decline in climate investment by large enterprises can be traced to at least two factors. First, the overall

investment climate in the large enterprise segment was generally unfavourable last year – even more than among SMEs. Total gross fixed capital formation in the SME sector dropped only slightly (-1.3% in real terms), while large enterprises experienced a more significant drop of -7.5% in real terms.¹⁴ As larger enterprises are more likely to compete at international level, global demand weakness – exacerbated by trade conflicts and geopolitical risks – and the comparatively high cost burden in Germany have caused investment activity by large enterprises to drop considerably overall. This is also reflected accordingly in climate investment.

Second, there are signs that the topic of climate action has somewhat slipped out of the spotlight of large enterprises. Thus, in the survey conducted under the recent Climate Barometer, large enterprises reported much more often than before that other matters took priority for them. Around 40% of them see this as a relevant factor that is slowing climate investment in their business. That was a 19 percentage-point increase on the previous year's survey (see following chapters for details). Besides the difficult economic situation, this could also be linked to the changed public perception. In the past, large enterprises were under significantly greater public pressure than smaller businesses to undertake climate investments.¹⁵ However, the topic appears to no longer dominate the public conversation and political debate. The public now perceives aspects such as domestic security, social security, immigration and economic growth as more important than climate issues.¹⁶

As a result, large enterprises are also less likely to feel that their customers are demanding more contributions to climate action from them (Figure 4). This could cause them to somewhat de-prioritise their activities in the area of climate action.¹⁷

¹⁴ Cf. Schwartz, M. and Gerstenberger, J. (2025): KfW SME Panel 2025 – Steady course, but headwinds loom: SMEs were stable in recession year, trade conflicts on the horizon, KfW Research.

¹⁵ Cf. Abel-Koch, J., Brüggemann, A., Köhler-Geib, F., Kohn, K., Lo, V., Schwartz, M., and Schwarz, M. (2022): KfW Climate Barometer 2022. In 2021, German enterprises invested around EUR 55 billion in climate action – still too little to reach climate neutrality, KfW Research.

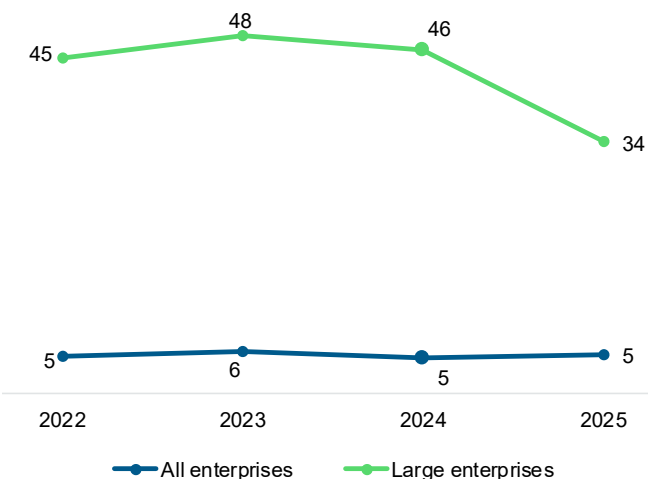
¹⁶ Cf. Frankfurter Allgemeine Zeitung (news daily) *Wie wichtig das Klima den Wählern noch ist*, (How important climate still is for voters – our title

translation, in German) article by Lukas Fuhr, published on 6 August 2025.

¹⁷ Earlier KfW studies also suggested that a link existed between the interest of stakeholders and enterprises' actual climate action efforts. Grewenig, E. (2024): Anforderungen von Kunden und Finanzierungspartnern gehen mit stärkerem Klimaschutzbeitrag von Unternehmen einher (Demands from customers and financing partners go hand-in-hand with more powerful contributions to climate action from businesses – in German only), Focus on Economics No. 456, KfW Research.

Figure 4: Perceptions of customer demand for more climate action

Percentage of firms responding 'Applies'



Note: Businesses were asked: 'To what extent does the following statement on the issue of climate action currently apply to your business: 'Our customers demand from us a stronger contribution to climate action'. The reply categories were 'Applies', 'Applies in part', 'Does not apply' and 'Don't know'.

Source: KfW Climate Barometer 2021–2025

Despite these challenges, there are no signs (yet) of a structural decline in climate investment by large enterprises. There is hardly any variation between the investment figures for the year 2024 and those from two years before (-0.2% in real terms). Rather, the year 2023 appears to have been an exceptional year. During that year, both the investment volume of EUR 50 billion and the 18% share of climate investment in total investment were well above the previous levels (Figures 2 and 3). It thus remains to be seen how the investment activity of large enterprises in the field of climate action will develop from now on.

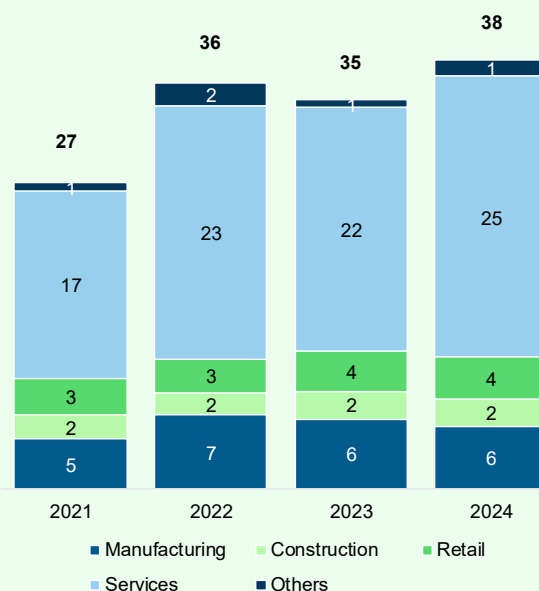
Box 2: Aggregate climate investment by SMEs by sector

We can estimate the volume of investments allocated by SMEs to individual sectors (Figure 5). A sector comparison shows that the services sector recorded the steepest increase in climate investment in 2024: The investment volume rose to EUR 25 billion, an increase of 12.7% in real terms. Service providers have also traditionally accounted for the lion's share of climate investment by SMEs with 65% of investment in 2024. This is primarily due to the great importance of the services sector. Businesses that provide other services (without commerce) comprise 2.4 million businesses alone, which

represents 64% of all businesses. Manufacturers, on the other hand, recorded the sharpest drop in investment volume. They reduced their spending on climate action from EUR 6.3 billion to EUR 5.6 billion in 2024, a decrease of 13% in real terms. This development is consistent with the general investment trends, which have seen manufacturers cut back their investment as well.¹⁸ In construction and commerce, climate investment tended to move sideways.

Figure 5: Volume of funds allocated by SMEs to climate investments by sector

Volume in EUR billions



Source: KfW Climate Barometer 2022–2025

Renewed investment appetite is another sign of emerging optimism among SMEs

A decisive factor for the significant rise in climate investment by SMEs is that significantly more firms have shown an interest in investing. After the shares of investing businesses had decreased noticeably in the previous two years, at times dropping to a mere 8% (on average across the entire SME sector), the investment appetite recovered again significantly in 2024 and is approaching the peak levels of 2021 (Figure 6). Overall, 15% of small and medium-sized enterprises – almost twice as many as in the previous year – invested in climate action in 2024. This positive trend can be observed across all size classes and in all segments.

¹⁸ Cf. Schwartz, M. and Gerstenberger, J. (2025): KfW SME Panel 2025. Steady course, but headwinds loom: SMEs were stable in recession year, trade conflicts on the horizon, KfW Research.

The share of large enterprises with climate investments has also increased further. The unbroken upward trend of recent years continued and reached a new peak of 86% in 2024. The fact that the sum of total investments by large enterprises dropped nevertheless is due to the significant decline in the average amount invested per business, which was unable to keep up with the growing number of investors.

Average investment amounts have fallen in all segments

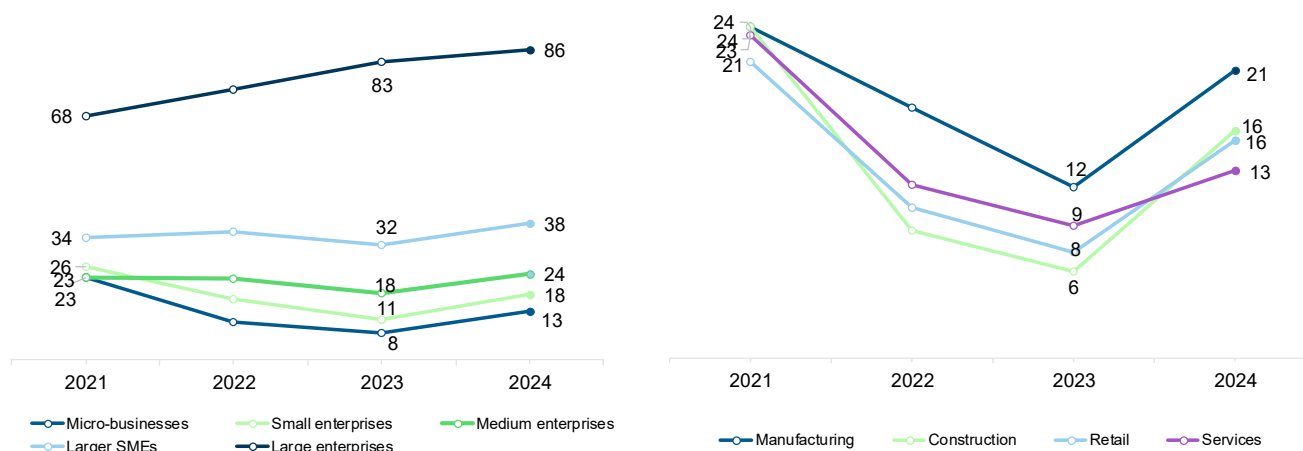
The same trends can also be seen in the SME sector. After the average volume invested in climate action by an SME increased in the past two years – also as a result of increased large-scale projects –, there was a steeper drop in 2024. This can be seen in all enterprise size classes and sectors (Figure 7). Accordingly, the average amount invested by an SME (assuming it made any climate-related investment at all) decreased from EUR 146,000 to EUR 91,000 in 2024 (-39% in

real terms). At the same time, the median shifted down as well. In 2024 half the SMEs invested an amount of less than EUR 30,000 in climate action (after EUR 35,000 in 2023, -18% in real terms). Thus, the trend generally indicates that businesses that were able to free up funds for climate investment invested lower amounts than they did in the previous year.

Therefore, smaller projects generally continue to dominate investment activity in the area of climate action. Across all segments, the average sum invested by an SME in climate action was EUR 91,000. By comparison, investment projects generally have an average sum of EUR 204,000¹⁹ per year and per investing business – more than twice as much. The amounts which businesses allocate to climate action investments on average grow significantly with the size of the enterprise. In a sector comparison, manufacturing enterprises stand out as their investment volumes are higher than in all other sectors.

Figure 6: Share of enterprises with climate-positive investments by enterprise size class and sector

In per cent by enterprise size class (left) and sector (right)

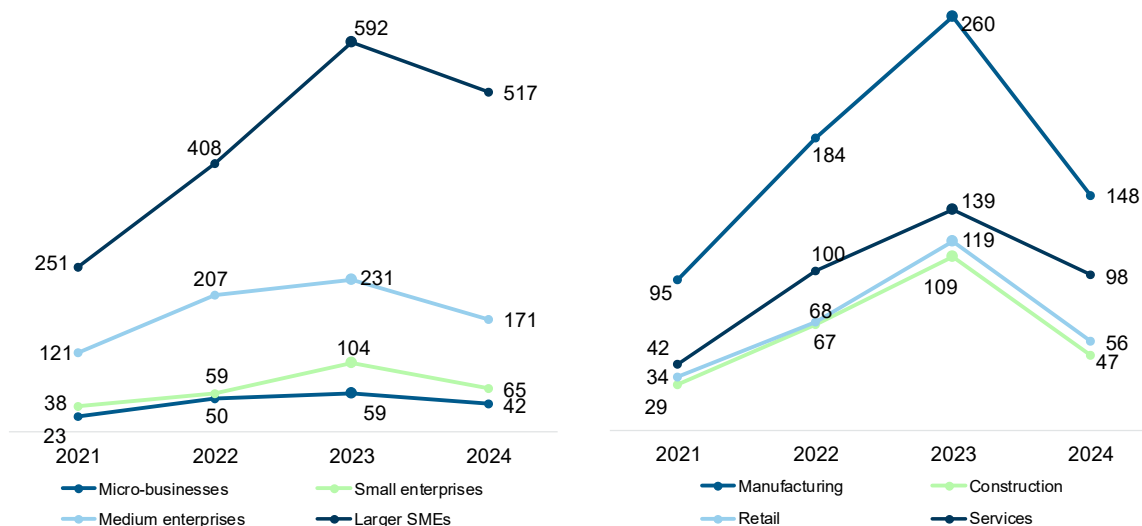


Source: KfW Climate Barometer 2022–2025

¹⁹ Cf. Schwartz, M. and Gerstenberger, J. (2025): KfW SME Panel 2025. Steady course, but headwinds loom: SMEs were stable in recession year, trade conflicts on the horizon, KfW Research.

Figure 7: Comparison of average volumes invested in climate-positive projects by SMEs

Average per enterprise in EUR thousands by enterprise size class (left) and sector (right); only SMEs that implemented investments with a climate focus



Source: KfW Climate Barometer 2022–2025

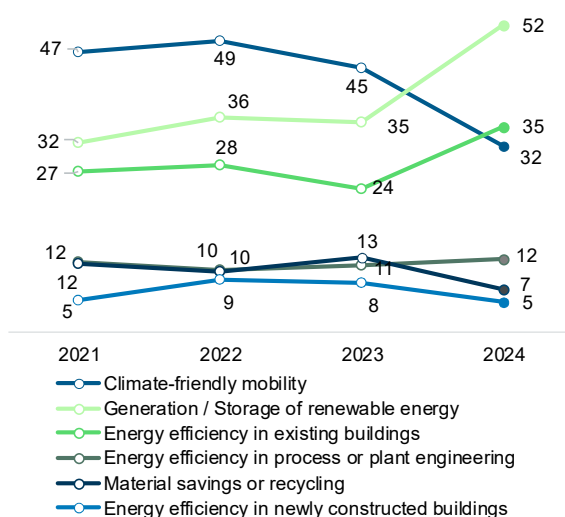
More than half of all businesses invested in renewable energy, a new all-time high

More and more enterprises are focusing on measures for generating or storing electricity and heat from renewables. In 2024, more than half (52%) of investing businesses implemented such projects – a jump of 17 percentage points compared with previous years (Figure 8). The costs of renewable energy technologies have fallen significantly in recent years,²⁰ which is likely to have made them much more cost-effective and, hence, more attractive for businesses. This is also increasingly reflected in the growing readiness of businesses to invest accordingly.

The second most frequent measures to be implemented in 2024 were investments aimed at improving energy efficiency in existing buildings, for example with thermal insulation or heat pumps. Measures were implemented in this area by 35% of investing businesses, a noticeable increase of 11 percentage points on the previous year. Various economic-policy measures have likely encouraged this development. Thus, the national carbon price for fossil fuels was raised sharply – after a pause in the increase in the previous year – from EUR 30 to EUR 45 per tonne in 2024. That led to an increase in the prices of fossil fuels and, as a result, the cost of operating fossil-fuel based heating systems, which in turn has likely further improved the cost-effectiveness of zero-emission heating systems and energy-efficient building measures.

Figure 8: Purposes of climate-positive investments

Percentages of investors, multiple responses were possible



Note: The values for 2021 and 2024 refer exclusively to small and medium-sized enterprises.

Source: KfW Climate Barometer 2022–2025

Since 2024, businesses have also been benefiting from more favourable incentives for the installation of climate-friendly heating systems and other energy-related upgrades as part of the Federal Government's support for efficient buildings.

²⁰ Cf. Roser (2020): *Why did renewables become so cheap so fast?* Our World in Data, initially published on 1 December 2020 (partly updated in April 2025), retrieved on 11 September 2025.

Willingness to invest in climate-friendly mobility, however, decreased in 2024

Climate-friendly mobility was third on the list of the most common forms of climate investment. In the year 2024, almost one in three investing businesses (32%) implemented such projects, for example by acquiring electric vehicles or expanding charging infrastructure. Compared with the previous years, however, that share has decreased significantly. Green mobility previously accounted for just under 50 per cent, making it the most important area of investment. Special effects associated with the end of subsidies for the purchase of plug-in hybrid vehicles (beginning of 2023) and commercially operated all-electric passenger vehicles (from September 2023) played a role. Many businesses moved their purchases forward in order to benefit from the subsidies before they ended.²¹ Sales fell accordingly in the months after the end of the support programme. The number of registrations with the Federal Motor Transport Authority also reflected this development. Around 29,000 fewer electric passenger vehicles were registered for commercial owners in 2024 than in 2023.²² Registration numbers have since recovered again significantly. In the first nine months of this year alone, more electric passenger vehicles were registered for commercial owners than in all of 2024.

Measures aimed at improving energy efficiency in process or systems engineering followed at some distance (for example in production and cooling, 2024: 12%), as did measures aimed at reducing consumption of materials or recycling (7%). Around 5% of investing businesses carried out energy efficiency measures in newly erected buildings. Investments in hydrogen technologies, which enterprises were also asked about in addition to the areas described, still have no relevance across the wider business landscape.

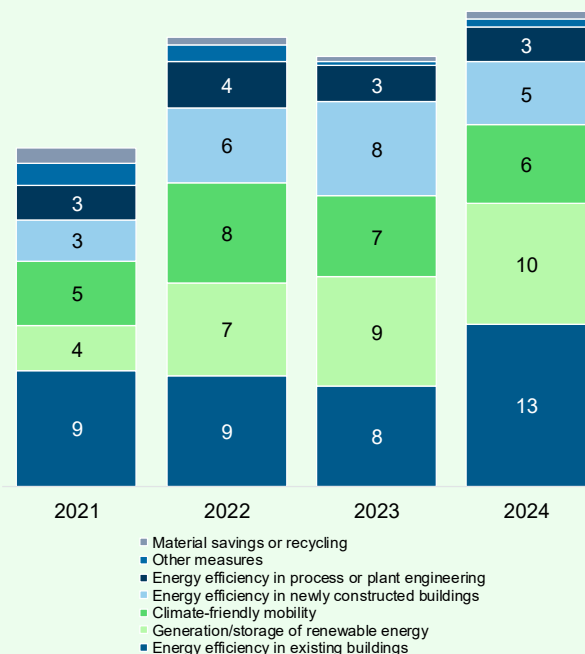
Box 3: Aggregate climate investment by SMEs by area of measures

A look at the development of aggregate investment volumes in the various areas of measures reveals a similar picture as for the number of investments undertaken (Figure 9). Whereas SMEs' investment in the generation and storage of renewable energy (+7.5%) and in energy-efficiency measures in existing buildings (+58%) increased in real terms, the sums they invested in the field of climate-friendly mobility have decreased (-5.7% in real terms). The

steepest decline in investment was recorded in energy-efficiency measures in newly erected buildings (-34.5% in real terms).

Figure 9: Volume of funds allocated by SMEs to climate investments in each area of measures

Volume in EUR billion, extrapolated values based on businesses with valid data on areas of measures



Source: KfW Climate Barometer 2022–2025

Buildings remain the area where the largest investment volume was allocated. Investments in the energy efficiency of existing and newly erected buildings amounted to around EUR 18 billion in 2024, representing approx. 49% of the total volume of SMEs' climate investment.

The sums invested in energy efficiency measures in process or systems engineering (EUR 3 billion) and reducing material consumption or recycling (approx. EUR 1 billion) remained on a low level in 2024 as well.

²¹ Cf. Brüggemann, A., Römer, D. and Rode, J. (2024): Jeder fünfte Pkw im Unternehmensfuhrpark fährt inzwischen elektrisch – weitere Impulse nötig (One in five cars in the company fleet are now electric – further impetus

needed – in German only) Focus on Economics No. 470, KfW Research.

²² Cf. Federal Motor Transport Authority (2025), FZ 28.

Development this year fraught with uncertainties, but the general trend is positive

Based on the data supplied by businesses, climate investment can be expected to increase in the current year (Figure 10). Whereas 16% of SMEs that undertook climate investments in 2024 reported that they wanted to invest less in 2025, around 36% are planning to invest more in climate action. The resulting balance of 20 percentage points is clearly positive.

What is also encouraging is that there is a consistently positive balance across all business segments. The outlook for larger enterprises is slightly better, as the balance for micro-businesses is +19 percentage points, while it is as high as +30 percentage points for large enterprises. The sector comparison also paints a generally optimistic picture. Enterprises that operate in the services sector are particularly optimistic, with a balance of +26 percentage points, followed by the manufacturing sector (+15) and the construction industry (+11). Commerce sits at the bottom of the table with a balance of +6 percentage points.

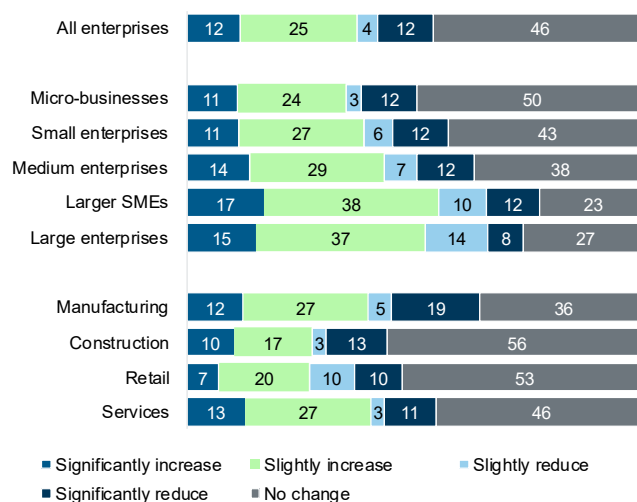
Thus, investment expectations in climate action resemble general investment expectations, which are also cautiously optimistic for the current year.²³ The expectations expressed by businesses also indicate that the outlook on investment for the current year could turn out slightly brighter than last year.²⁴ Additional incentives are being expected, not least under the plans of the Federal Government. Tax relief (for example, the gradual reduction in the corporate tax rate from 1 January 2028), depreciation allowances (for example, for machinery, equipment or electric vehicles) and the planned Infrastructure Fund are intended to provide further impetus for investment.

Opposing trends also exist, however. In the current debate around Germany as a business location, other aspects of competitiveness have moved into the spotlight, causing climate change to increasingly slip into the background in the public perception. The share of businesses reporting that other topics are more important to them than climate action is also at an all-time high, at 40%. There are also uncertainties as to the direction which European and German climate policy will take in the future. This could promote a wait-and-see attitude and thereby delay investment. Ongoing trade uncertainties – for example in connection with US trade policy – could additionally hamper investment

decisions. How climate investment will ultimately develop therefore remains to be seen.

Figure 10: Expected development of climate investments in 2025 compared with 2024

In per cent of businesses, only those with climate investments in the year 2024



Source: KfW Climate Barometer 2025

Funding mix shows familiar patterns – with minor shifts

The KfW Climate Barometer shows how small and medium-sized enterprises financed their climate investments. The funding behaviour reveals familiar patterns. Similar to general investment, small and medium-sized enterprises²⁵ funded the lion's share of their climate investments using funds of their own (Figure 11). In the aggregate across all SME size classes, own funds made up a share of 48% in the year under review. These included internal funding, shareholder contributions or intra-group funding models (+2 percentage points on the previous year). They amounted to a funding volume of approx. EUR 18.4 billion.

Purely internal funding – from retained earnings, depreciations and reserves – dominated the funding mix with a share of 43% alone (or 90% of own funds invested). The importance of own funds in the financing of SMEs' climate investments has thus remained steady on a high level. This is also in line with the funding pattern of all investments by SMEs, 51% of which were financed with their own funds last year. The generally high importance of own funds can be largely explained by the mostly rather moderate amount SMEs tend to invest. Debt capital is often simply not needed to finance these volumes, or the effort and cost of

²³ Cf. Schwartz, M. and Gerstenberger, J. (2025): KfW SME Panel 2025. Steady course, but headwinds loom: SMEs were stable in recession year, trade conflicts on the horizon, KfW Research.

²⁴ Cf. Scheuermeyer, P. (2025): KfW-ifo SME Barometer: August 2025. SME business confidence has (slightly) dropped, KfW Research.

²⁵ Cf. Schwartz, M. and Gerstenberger, J. (2025): loc cit.

borrowing is too high. In total, 84% of all SME investors with a focus on climate action used funds of their own.

Bank loans are becoming steadily more important for the financing of climate investment

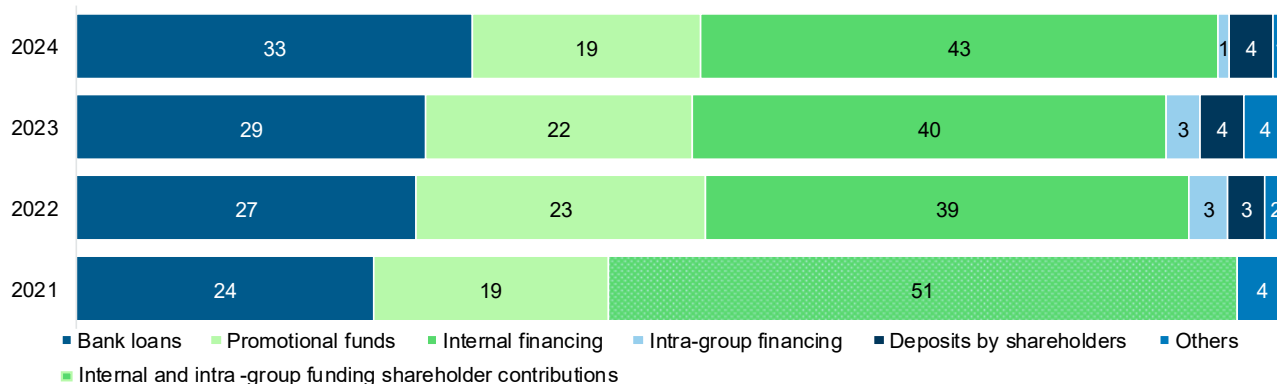
The easing of monetary policy implemented by the ECB in the summer of 2024 led to a drop in interest rates for business loans. Even if it has largely failed to have an effect on business investment²⁶, SMEs have been showing a growing interest in debt capital to finance their investment activity – both in terms of general investment and with a view to climate-related investment. Approx. one in five SMEs (21%) resorted to loans from banks or savings banks to finance climate investment last year. The total volume of loans used to finance climate investment (including current account loans or overdraft facilities) in 2024 was around EUR 13 billion.

Thus, around 33% of the investment volume raised by SMEs for climate action projects was financed with the aid of bank loans. That means debt finance is becoming increasingly more important. In recent years the relative weight of debt capital rose by nearly ten percentage points. And not only that, the renewed increase means the relevance of debt-financed investment activity in the area of climate action now exceeds the comparison value of general investment finance by SMEs (2024: 32%, long-term average since 2003: 31%).²⁷

The continuing increase in the importance of debt finance is driven by higher investment volumes – despite the general reduction in average investment volumes. Borrowing requirements for investment projects tend to increase with growing project volumes. Climate investments are no exception.

Figure 11: Funding of climate investments by SMEs

Percentages of investment volume



Source: KfW Climate Barometer 2022–2025

²⁶ Cf. Schwartz, M. and Gerstenberger, J. (2024): Zinswende mit überschaubarem Zusatzeffekt auf die Investitionen im Mittelstand (Interest reversal with moderate additional effect on SME investment – in German only), Focus on Economics No. 462, KfW Research.

²⁷ Cf. Schwartz, M. and Gerstenberger, J. (2025): KfW SME Panel 2025. Steady course, but headwinds loom: SMEs were stable in recession year, trade conflicts on the horizon, KfW Research.

Promotional funds quite steady in the financing mix – investment amounts are decisive for extent of use

In addition to investment loans from banks and savings banks, the use of public promotional funds represented the second major building block of external funding for SMEs' climate investment projects. This includes state investment grants and reduced-interest loans. The volume of promotional funds used for investments in climate-positive projects amounted to some EUR 7 billion in 2024. That was 19% of the financing mix (-3 percentage points compared with the previous year). In the aggregate, debt capital plays an important role in the financing of climate investment, accounting for 52% of the mix. One in four investing SMEs (25%) used promotional funds – more than those that used bank loans.

The same pattern for the use of bank loans applies to promotional loans: The corresponding share in the financing mix of climate investments by SMEs also grows significantly with the volume of the investment. In this respect, KfW Research has recently confirmed that the use of promotional funds increases very sharply specifically when very high amounts are invested.²⁸ One factor that could be at play here is that the effort involved in applying for promotional funds for climate investments with a larger volume is less significant and therefore promotional funds are more often used. At the same time, greater use of promotional funds could also be an indication that implementing larger climate-positive projects exceeds

the financial capacity of many businesses, making the use of promotional funds all the more important to close financing gaps.

A comparison with general investment finance, where the share of promotional funds totals 'just' 13%, also reveals the noticeably higher importance of promotion in the field of climate investment. The broad range of public promotional programmes on offer – specifically for climate investment – is the likely cause of this. A broad set of instruments in the form of grants, reduced-interest loans or risk assumption by the state are designed to rectify instances of market failure wherever possible.

SMEs continue to make very little use of the capital market to finance climate investment

Around three per cent of small and medium-sized enterprises used publicly traded capital market instruments (such as bonds and shares) or over-the-counter equity (such as venture capital or private equity) to finance climate investments. Overall, they were used to finance only a relatively small portion of 1% of the volume, or around EUR 0.4 billion. Thus, other financing sources have recently been of little importance for businesses – and have even become less relevant than in previous years. Given the cost and complexity, capital market finance is likely to be unattractive for many SMEs. Besides, their financing requirements are often not on the scale required, for example, for issuing a bond.

²⁸ Cf. Brüggemann, A. and Wehrstedt, C. (2025): Finanzierung von Klimaschutzinvestitionen im Mittelstand: Bedeutungszuwachs von Bankkrediten durch steigende Projektgrößen (Financing of climate investment in the SME sector: bank loans become more important with project size – in

German), Focus on Economics No. 507, KfW Research.

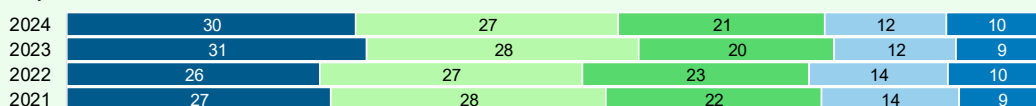
Box 4: Development of energy costs in enterprises

Data from the KfW Climate Barometer shows that the relative burden from energy costs – measured as the share of energy costs in businesses' total costs – has remained largely steady over the past four years (Figure 12). Thus, energy costs made up less than 5% of total costs in 57% of businesses in the year 2024. The share of businesses that have relatively high energy costs of at least 10% has fluctuated only minimally over time. Across all businesses, energy costs thus continue to play a rather subordinate role compared with other costs. Salaries and wages in particular (the largest cost item especially for SMEs, accounting for 35% of total costs on average) have lately driven cost increases. Energy-efficiency measures implemented early by many businesses in the wake of the energy price crisis of 2022 have been crucial in keeping energy costs very steady.²⁹ At the current margin, the relative burden of energy costs in the manufacturing sector in particular has been falling, after peaking in 2022, and is gradually approaching the distribution across the broad business sector. It must be noted, however, that energy-intensive industry in particular continues to grapple with a significantly higher energy price level, particularly for natural gas. Since the beginning of 2022, energy-intensive industries have recorded an almost steady downward trend in output.³⁰ Besides ongoing weak demand for raw materials due to the economic slowdown, one of the likely main reasons for the persistent decline in production is the incomplete return to lower energy prices, which is affecting the international competitiveness of businesses.

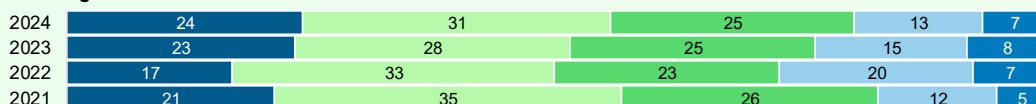
Figure 12: Shares of energy costs in total costs

Shares of enterprises in per cent

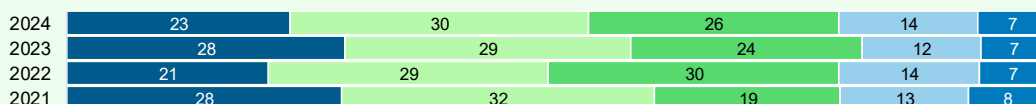
All enterprises



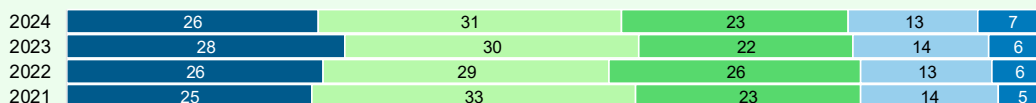
Manufacturing



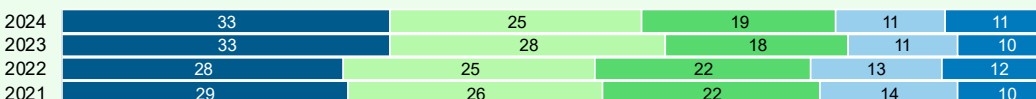
Construction



Retail



Services



■ Less than 2 % ■ 2 to under 5 % ■ 5 to under 10 % ■ 10 to under 20 % ■ 20 % or above

Note: The specific question was: 'How high was the share of energy costs in total costs incurred by your business?'

Source: KfW Climate Barometer 2022–2025

²⁹ Cf. Grewenig, E. and Schwartz, M. (2023): Weitere Energieeinsparungen für viele kleine Unternehmen aktuell mit Herausforderungen verbunden – bei einem Drittel Energiesparmaßnahmen geplant (Further energy savings currently pose challenges for many small businesses – one third plan energy reduction measures, in German only), Focus on Economics No. 439, KfW Research.

³⁰ German Federal Statistical Office (2025): *Bedeutung der energieintensiven Industriezweige in Deutschland - Statistisches Bundesamt* (Importance of energy-intensive industrial sectors in Germany – our title translation, in German) Federal Statistical Office, retrieved on 14 October 2025.

Cost-effectiveness concerns remain the key constraint to climate investment

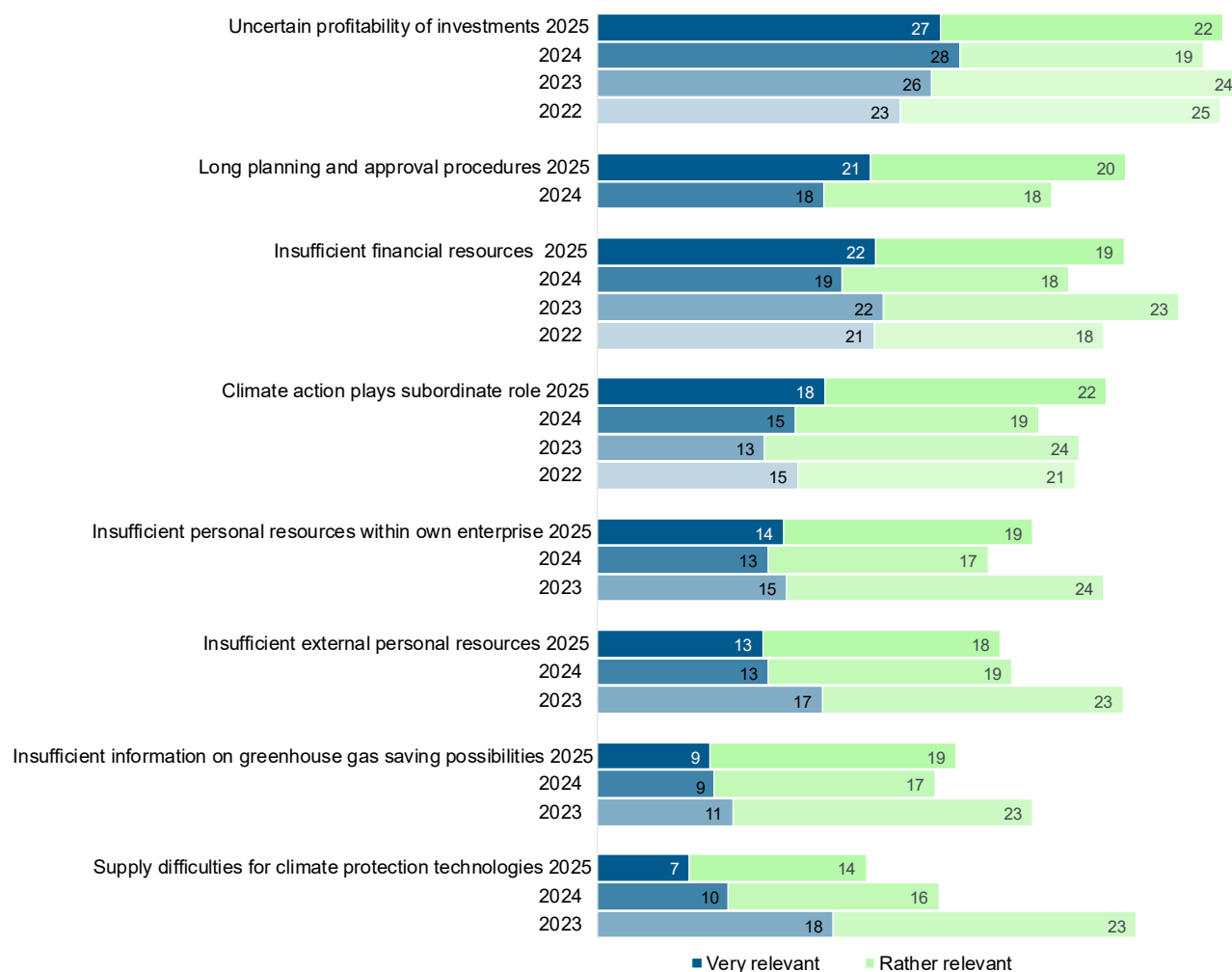
Cost-effectiveness aspects continue to present the highest investment hurdles (Figure 13). In the current survey wave, more than one fourth (27%) of businesses mentioned uncertainty over the cost-effectiveness of their investment as a very relevant barrier to the implementation of climate investments. A further 22% view this aspect as a rather relevant barrier. Combined, this applies to just under half of all businesses (48%).

A look at the individual sectors shows that manufacturers perceive insufficient cost-effectiveness as a relevant or very relevant obstacle (62%,

Figure 14). Furthermore, Figure 14 illustrates that the higher the share of energy costs in the total costs of a business, the more likely it is to mention cost-effectiveness as a barrier to climate investment. Larger enterprises, too, which are most likely to be manufacturing firms, are also more likely to perceive uncertain cost-effectiveness as a constraint. One possible explanation for this is that these business segments are more exposed to international competition and the associated cost pressure. Many companies face the challenge that because of market imperfections, climate action projects often have an even worse risk-return profile than conventional, fossil fuel-based investment alternatives.

Figure 13: Barriers to climate investment

Shares of enterprises in per cent

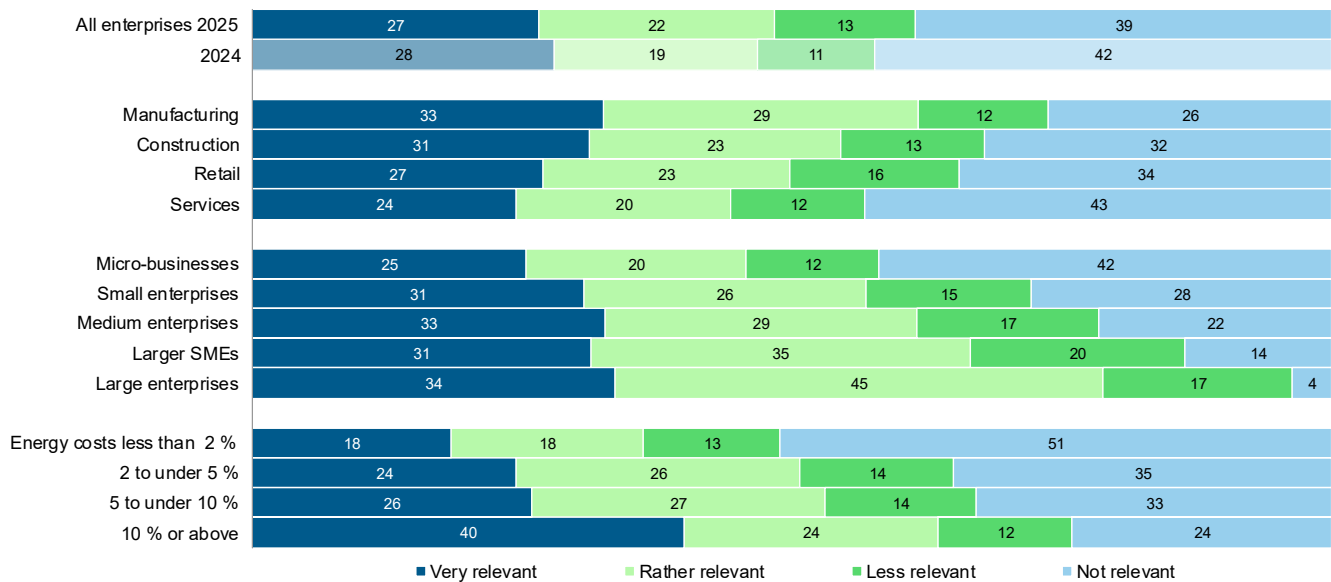


Note: Businesses were asked: 'How relevant are the following barriers to the implementation of climate-positive investments in your enterprise?' The response options were 'very relevant', 'rather relevant', 'not so relevant', 'not relevant'. Here we illustrate the share of enterprises that responded 'very relevant' or 'rather relevant'. As the possible answers were partly amended from survey waves 1 and 2, not all comparison data is available for some of the categories.

Source: KfW Climate Barometer 2022–2025

Figure 14: Insufficient cost-effectiveness as a barrier to climate investment

Shares of enterprises in per cent



Note: Businesses were asked: 'How relevant are the following barriers to the implementation of climate-positive investments in your enterprise?' Here we present the shares for the barrier 'Cost-effectiveness of investment too uncertain'.

Source: KfW Climate Barometer 2024, 2025

More than 40% of businesses reported lengthy planning and approval procedures as a barrier

Protracted planning and approval timeframes were ranked second among the most serious investment obstacles (Figure 13). Specifically, 41% of businesses regarded this aspect as a relevant barrier, with 21% describing it as very relevant and 20% as rather relevant.³¹ With an increase of 5 percentage points on the previous year's survey (36%), this investment constraint has further gained in importance. Extended approval procedures can delay investment projects, increase their costs and compromise investment security. These may be caused by incomplete applications that lead to queries and delays on the one hand and by complex procedures and inconsistent enforcement regulations by authorities on the other hand. Staff shortages within the authorities worsen the problem.

Lack of financial resources is a problem particularly for manufacturers and energy-intensive enterprises

Financial constraints are almost on a par with lengthy planning and approval procedures. Specifically, 41% of businesses regarded a lack of financial resources as a relevant investment constraint, with 22% describing it as very relevant and 19% as rather relevant. Compared with the previous year, that was an increase of 4 percentage points. The segmentation by sector and

energy intensity of businesses highlights that financial limitations are most likely to be a constraint to climate investment for manufacturing enterprises (50%) and for energy-intensive businesses (56%). The latter segment stands out most prominently here. One third of businesses (33%) in which the cost share of energy is 10% and more reported that a lack of financial resources was a very relevant constraint on their implementation of climate investments. This was significantly above the average for all enterprises (22%). One reason for the particularly high relevance of this aspect could be that precisely these businesses are facing high investment and, thus, financing requirements in the transition away from predominantly fossil fuel-based business models that potentially exceed their financial capacity.

Climate action has become less of a priority for large enterprises in particular

Approx. 40% of businesses reported that for them, a relevant barrier to investing in climate action was that the issue was less of a priority for their business or that other issues were more important (Figure 13). That share was just 34% in the previous year and 37% two years ago. The importance of climate action also varies by enterprise size (Figure 15). In all size classes, the share of businesses that regard climate action as less of a priority has recently increased. This increase is particularly noticeable among large enterprises. Here,

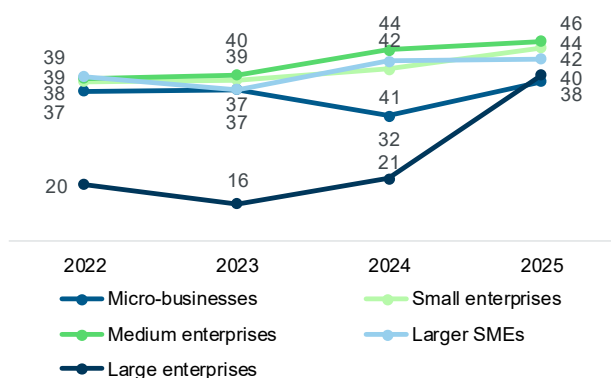
³¹ Only a comparison with the previous year is possible here because this item was surveyed in the previous wave of the KfW Climate Barometer for the first time.

the share has nearly doubled from 21% in the previous year to now 40%. Among micro-businesses the rise was 6 percentage points, while the increase in the remaining size classes was minor.

Possible reasons for the decreasing relevance of climate action could be the economic slowdown and increased international competition amid rising cost pressure. The latter is likely to be a particular challenge for large enterprises.

Figure 15: Low priority of climate action as a barrier to climate investment

Percentage of firms responding 'Applies' and 'Applies to an extent'



Note: Specifically, the statement to be commented on was 'Other topics are more important / climate action plays only a minor role'. The wording of the question and response options are given in the notes on Figure 13.

Source: KfW Climate Barometer 2022–2025

Skilled labour shortage remains a barrier to climate investment

The shortage of skilled workers is now a widespread problem in Germany.³² It has recently decreased somewhat because of the weak economic performance. At the beginning of the second quarter of 2025, 27% of businesses in Germany reported that a shortage of skilled labour was restricting their operations.³³ A significant factor is the successive departure of the post-war generation of baby boomers from the workforce.

Considering these developments, it is understandable that many businesses perceive skills shortages as an obstacle to the green transformation. Thus, around 14% of businesses regard the lack of in-house human

resources as a very relevant barrier to the implementation of climate-positive projects (Figure 13). A further 19% view this barrier as rather relevant. Taken together, these perceived barriers increased by three percentage points to 33% on the previous year. Only in 2023 was the share higher, and significantly so, at 39%. Recruiting skilled labour for decarbonisation measures poses challenges for businesses, as this field often requires specific skills that go beyond the usual qualifications.³⁴ The competencies required range from regulatory and business skills for the strategic implementation of climate action plans to specific digital and technical skills needed for the installation of new technologies.

The success of many climate action projects, however, depends not only on the qualifications of employees but on the availability of external expertise as well. Craft enterprises that provide advisory, assembly and maintenance work on installations of energy systems are an example of this.³⁵ A share of 31% of businesses mentioned a lack of external expertise as a relevant barrier to climate investments (Figure 13). Compared with the previous year, that was a slight drop of one percentage point, but the shortage remains steady.

In total, the significance of skilled labour shortages as an obstacle to climate investment has changed little on the previous year. Around one third of firms continue to be affected. An economic recovery could further worsen the shortage of skilled workers. Addressing this problem requires measures such as bringing more women and older workers into the workforce and directly recruiting and integrating skilled migrants – both for general roles and specifically for climate-related activities. In addition, basic and advanced training schemes must be geared more closely to the changed skills requirements of businesses so that skills shortages will not become a bottleneck to the green transformation in the future.

Slightly more businesses do not know how to lower carbon emissions

In-depth knowledge of where and how climate action can be effectively implemented within the business is a crucial prerequisite for targeted investment. The data of

³² Cf. Müller, M. (2025): Growth weakness due to skills shortages: what would business as usual mean, what can we do? Focus on Economics No. 505, KfW Research.

³³ Cf. Müller, M. (2025): KfW-ifo Skilled Labour Barometer June 2025, Economic downturn causes skills shortage to ease further, KfW Research, and Peichl, A., Sauer, S. and Wohlrabe, K. (2022): Fachkräftemangel in Deutschland und Europa – Historie, Status quo und was getan werden muss (*Skills shortages in Germany and Europe – history, status quo and what needs to be done* – our title translation, in German), ifo Schnelldienst 75/2022, Munich.

³⁴ Cf. Grewenig, E. (2023): Mangelnde Digitalkompetenzen erschweren die Rekrutierung von Fachkräften in klimaaffinen Unternehmen (Shortage of digital expertise hampers recruitment of skilled workers in climate-positive businesses – in German only), Economics in Brief No. 240, KfW Research.

³⁵ Cf. Römer, D. and Rode, J. (2025): KfW Energy Transition Barometer 2025. Public support has stabilised – one in three households use energy transition technologies, KfW Research.

the KfW Climate Barometer shows that lack of information about ways in which they can reduce their greenhouse gas emissions is a relevant barrier to climate investments for 28% of businesses. That was a moderate increase of 2 percentage points on the previous year. Compared with the year 2023, however, when 34% of businesses still regarded information deficits as a relevant barrier to investment, a much higher level of awareness can now be seen (Figure 13).

Information deficits are particularly pronounced among small businesses. Whereas lack of information was mentioned as a relevant barrier by only 13% of large enterprises (17% in the previous year), that figure was 27% among SMEs with fewer than ten employees (25% in the previous year). This difference is partly because large enterprises have already dealt more extensively with their greenhouse gas emissions and potential for climate action as part of their sustainability reporting and due diligence obligations.

Services known as transformation advice, for example, can be helpful in reducing information gaps among smaller businesses and medium SMEs. Here, external advisers work to identify specific approaches to sustainable business practices. The findings gained enable businesses to plan climate investments in a more targeted manner and to focus on the areas that offer the greatest reduction potential.

Supply issues have decreased significantly as a barrier to climate investment

Shortages of raw materials and intermediary products had become more significant during the COVID-19 pandemic and even worsened at times as a consequence of Russia's war of aggression against Ukraine. Whereas many businesses two years ago perceived supply bottlenecks as a risk to Germany's competitiveness, the situation has since improved noticeably.³⁶ This is also reflected in the findings of the KfW Climate Barometer. Only 21% of businesses now mention supply problems (for example for heat pumps or photovoltaic systems) as a relevant barrier to climate investment (Figure 13). This represents a decline of around 6 percentage points on the previous year and as much as 20 percentage points on the year 2023.

The findings of the KfW Climate Barometer reflect the general decrease of problems in the supply of climate-smart goods. However, an escalation of trade conflicts could reverse this trend again. In this context, the strong dependence on imported base metals and rare earths – particularly from China – constitutes a risk factor for the German energy transition.³⁷ Rare earths are very important for many climate technologies such as wind generators, electric vehicles or energy-efficient lighting systems. Because of China's restrictions on the trade and export of certain rare earths, the electronics industry is already complaining about growing material shortages.³⁸

³⁶ Cf. Abel-Koch, J. (2025): KfW-Internationalisation Report 2025. SMEs' international business stagnates in difficult environment – US policies are making EU single market even more important, KfW Research, and Abel-Koch, J. (2023): KfW-Internationalisation Report 2023. Many SMEs currently perform better than their foreign competitors but see need for action to secure their future competitiveness, KfW Research.

³⁷ Cf. Levinger, H. (2025): A rare opportunity: What are the chances for

reducing rare earth dependence? Focus on Economics No. 516, KfW Research.

³⁸ ifo Business Survey of 30 July 2025: [Materialengpässe in der Elektroindustrie nehmen zu](#) (*Material bottlenecks in the electronics industry are increasing* – our title translation, in German), [ifo Business Survey | ifo Institute](#), retrieved on 15 October 2025.

Main plea to policymakers is to reduce electricity prices, followed by simpler planning and approval procedures

What policy actions would businesses like to see to help them invest in climate action? The survey revealed a clear favourite: 70% of all businesses consider reducing electricity prices to be an important policy approach, and of these, nearly half (49%) regard it as a very important one (Figure 16). This is likely because the electrification of building and process heat, for example with heat pumps or electrode boilers, and electric mobility are a key pillar for achieving climate neutrality in industry and business. Affordable electricity lowers the cost of operating electrical systems and electric vehicles, making their use more economically attractive than fossil fuel-based alternatives.

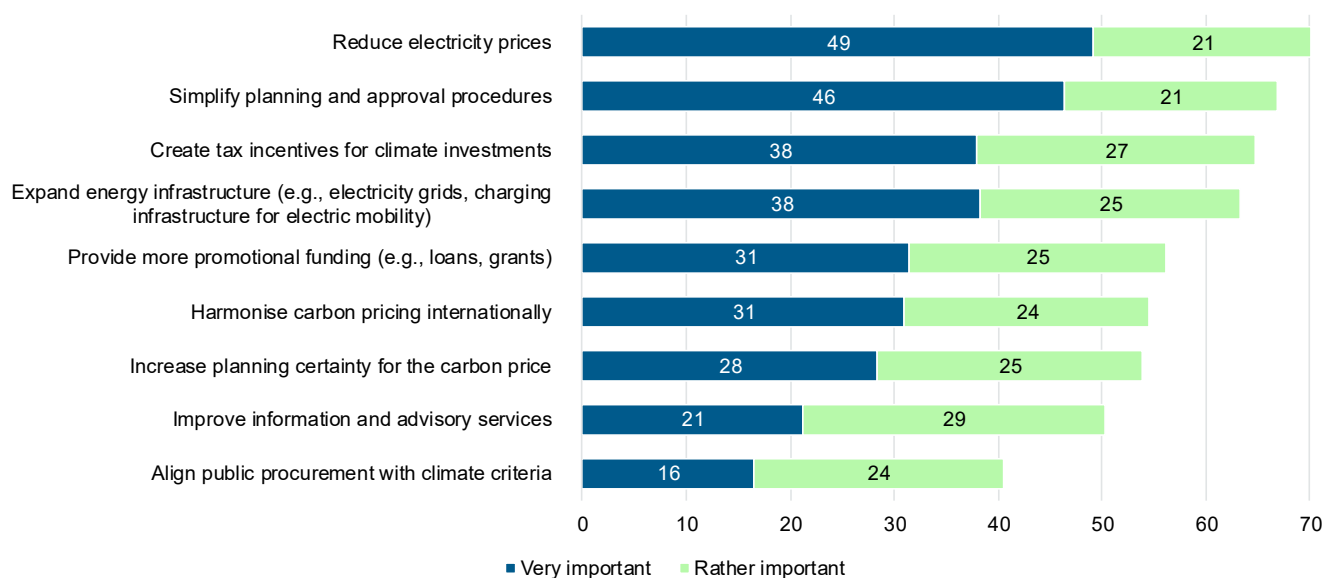
The second item on the wish list was to simplify planning and approval procedures, which 67% of businesses believe to be very important or rather important. This request to policymakers is aligned with the survey finding on investment barriers, where lengthy planning and approval timeframes were ranked second among the most serious investment obstacles. The analysis by

enterprise size shows that support for this policy measure grows significantly with the size of the business (Figure 17). Among the largest enterprises, 91% consider the simplification of planning and approval procedures to be important. The differences are likely due to the fact that the average volume of investment in climate action projects tends to increase with the size of the business. That also increases the likelihood that their projects need to go through an approval process.

Among the policy actions listed in the survey, the third most frequently chosen one was tax incentives for climate investments (65%). Like lower electricity prices, tax incentives make climate investments economically more attractive, thereby addressing the investment barrier businesses mention most often: uncertain cost-effectiveness. Making available more promotional funds, for example in the form of promotional loans or grants, also contributes to improving cost-effectiveness while at the same time addressing funding constraints to the implementation of climate investments. Fifty-six per cent of businesses regard this policy measure as helpful for the realisation of their own climate action projects (rank 5). It must be emphasised here that the

Figure 16: Support for policy measures

Shares of enterprises in per cent

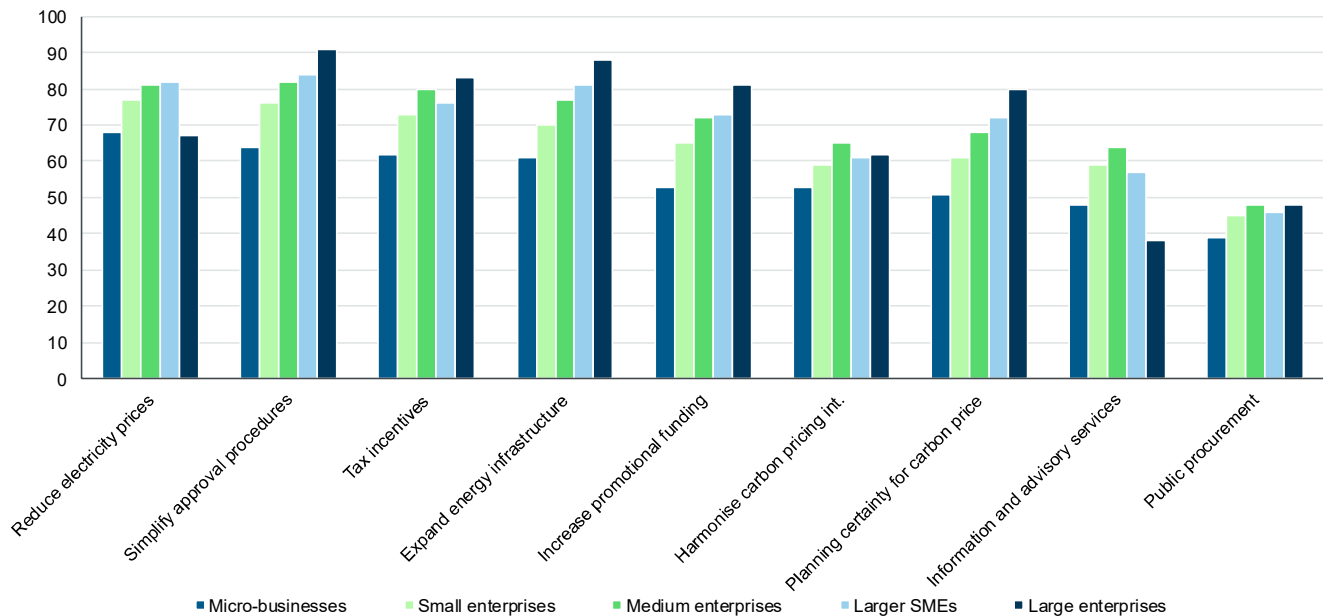


Note: Businesses were asked: 'How important would the following policy measures be to promote climate action investments in your business?' The reply categories were 'very important', 'rather important', 'rather unimportant' and 'unimportant'.

Source: KfW Climate Barometer 2025

Figure 17: Policy measures requested by business size

Shares of businesses that responded 'very important' or 'rather important' in per cent



Note: The wording of the question, explanations and response options are given in the notes on Figure 16.

Source: KfW Climate Barometer 2025

request for more promotional funds increases with the size of the enterprise (53% in micro-businesses vs. 81% in large enterprises). The foregoing has shown that the average volume of climate action investment increases with the size of the enterprise and the use of promotional funds grows with the volume of the investment. This suggests that large businesses in particular are keen for greater promotional funding.

In the top half of policy measures with the highest rates of support is the demand for an expansion of the energy infrastructure such as upgrades to electricity grids or the provision of charging infrastructure for electric mobility. This aspect is considered to be very important or rather important by 63% of businesses, ranking fourth in the list. Again, the larger the business, the higher the rates of support (61% in micro-businesses vs. 88% in large enterprises). Transitioning to climate-friendly production processes, renewables-based heating systems for buildings or climate-friendly mobility requires sufficient availability of electricity from renewable energy. The state needs to provide the framework to ensure the necessary infrastructure expansion – especially of electricity grids – and its financing. Larger enterprises, which usually require larger amounts of energy, are more reliant on progress made in the expansion of electricity infrastructure. Requests by large-scale consumers for grid connection already

face capacity constraints in electricity grids³⁹, which is hampering the green transformation in the business sector.

Finally, it should be noted that larger SMEs and large enterprises with greater exposure to international competition attribute much greater significance to the need for higher planning certainty regarding carbon pricing (72% and 80%) than to the international harmonisation of carbon pricing (61% and 62%). This underscores the high importance of reliable policy frameworks, especially when businesses have to make decisions on investing in climate technologies that tie up capital for long periods. Calling into question climate targets or regulations already adopted is therefore not conducive to investment certainty.

More than half of businesses have incorporated climate action into their business strategy

To what extent is climate action anchored in business strategies? The KfW Climate Barometer shows that decarbonisation is an issue of strategic importance for many businesses in Germany. Thus, 56% reported that climate action is fully or partly included in their business strategy (Figure 18). In the previous year, that share was around 50%, whereas climate action was still regarded as part of the business strategy of 63% of

³⁹ Cf. German Association of Energy and Water Industries – BDEW (2024): Umgang mit steigenden Netzananschlussverfahren von Großverbrauchern. Unter besonderer Berücksichtigung von Rechenzentren (*Addressing*

increasing grid connection procedures of large-scale consumers. With consideration of computer centres – our title translation, in German).

businesses in 2023.

The share of businesses that have incorporated climate action into their strategy without any restrictions has risen on the previous year (26% compared with 23%), as has the share of those that have partly integrated it (30% compared with 28%). Accordingly, the share of businesses that did not present climate action as part of their strategy fell from 38% to 35% in 2025.

Given that the business strategy describes the long-term orientation of a business, it is surprising that fewer businesses than two years ago currently incorporate climate action into their strategy (56% vs. 63%). The year 2023 was likely an exceptional year. Given the energy price crisis caused by Russia's war of aggression against Ukraine, aspects such as energy efficiency and expansion of renewable energy likely came into stronger focus for businesses that year, including as a way to increase resilience. As the record-high prices have eased, a normalisation may have taken place in the years thereafter.

A look at the various sectors shows that manufacturers attribute significantly greater strategic importance to climate action than the trade or services sectors. For them, the green transformation often brings about sweeping changes. To be able to achieve climate-neutral business models, they must substantially

modify products – for example in the automotive industry – as well as production processes – for example in paper and steel production.

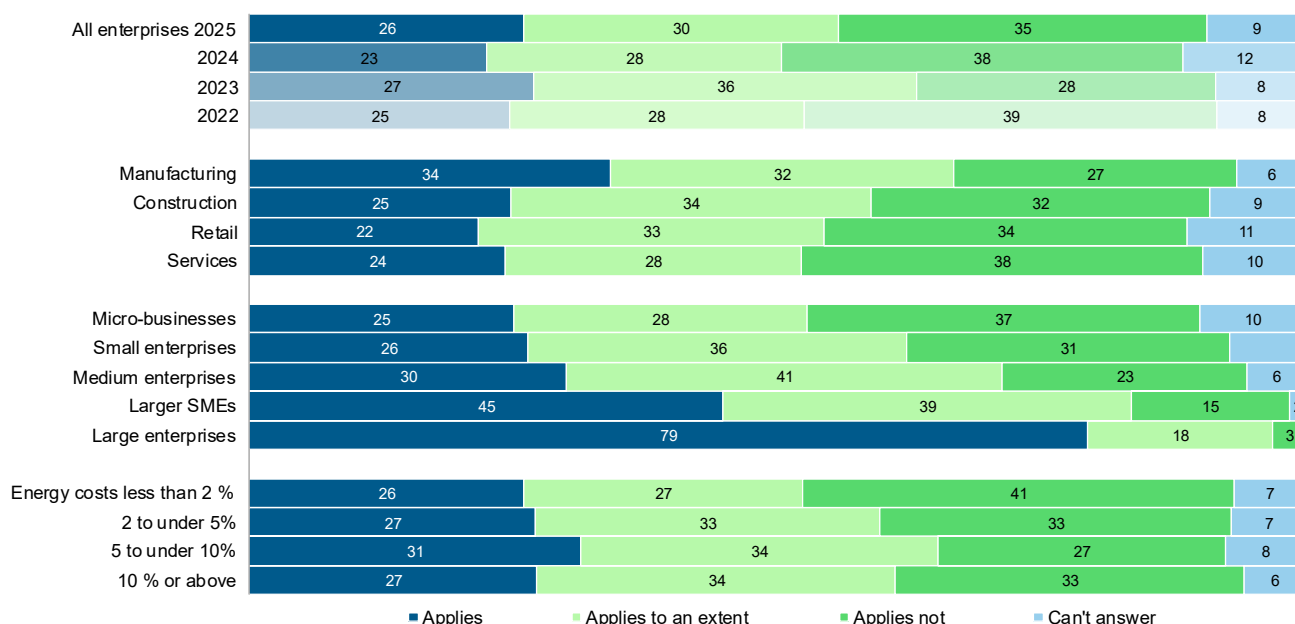
Furthermore, the larger the enterprise, the more likely climate action is part of its business strategy. Almost all large enterprises – 97% – have dealt with climate action as a strategic issue.

Energy costs also play a role. Businesses with a low share of energy costs (less than 2%) attribute the lowest strategic relevance to climate action (52%). Among more energy-intensive businesses, on the other hand, that share is at least 60%, although it does not rise continuously with increasing energy cost shares.

Strategic anchoring of climate action is increasing again

A comparison of the current figures with those of the year 2024 reveals that the proportion of enterprises that mentioned climate action as being at least part of their business strategy increased in almost all sectors, size classes and energy cost categories. The sharpest increase could be observed in the services sector with around 8 percentage points, followed by commerce with 6 percentage points. In the segmentation by enterprise size class, micro-businesses stand out with an increase of 6 percentage points (Figure 19).

Figure 18: Climate action as part of the business strategy



Shares of enterprises in per cent

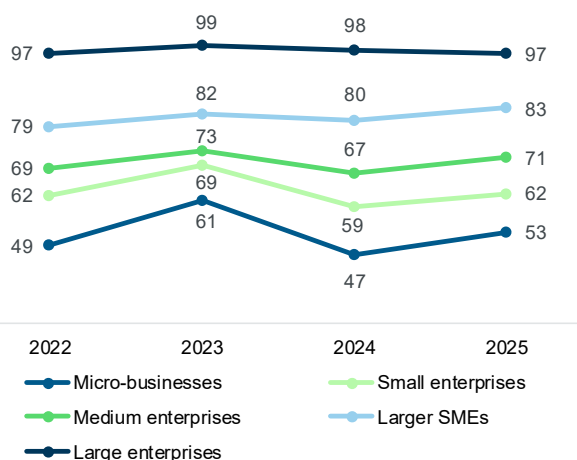
Note: Businesses were asked: 'To what extent does the following statement on the issue of climate action apply to your business: Climate action is incorporated into our business strategy'. Energy cost share means the share in total costs incurred by the business.

Source: KfW Climate Barometer 2022–2025

The share of large enterprises, on the other hand, remained largely steady on a high level. Compared with smaller businesses, large enterprises are more likely to formulate explicit strategies and plan for the long term, including in the field of climate action. In addition, regulatory requirements as well as demands from customers and capital providers have contributed to the fact that climate action has now been firmly included in the business strategy of nearly all large enterprises.

A look at the energy cost shares also reveals that the strategic importance of climate action has grown in all categories under review. The increase here was between 3 and 6 percentage points.

Figure 19: Climate action as part of the business strategy by enterprise size over the course of time



Percentage of firms responding 'Applies' and 'Applies to an extent'

Note: The wording of the question, explanations and response options are given in the notes on Figure 18.

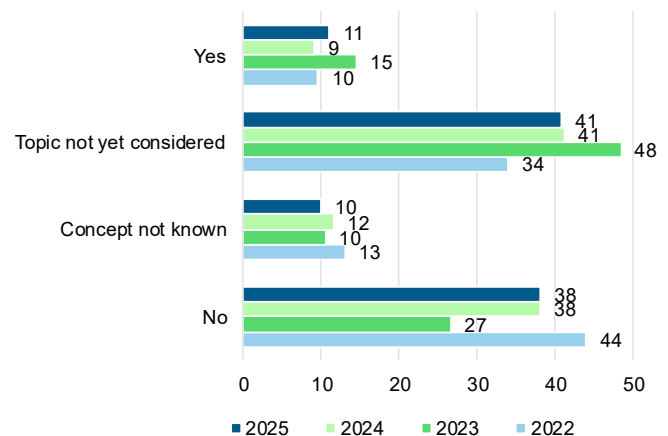
Source: KfW Climate Barometer 2022–2025

Only few businesses pursue their own climate neutrality target

Germany has set itself the goal of becoming climate neutral by 2045. Incorporating climate action into the business strategy is an important step on the way to this target. Nevertheless, only few businesses currently pursue climate neutrality as an explicit target. Only around one in ten businesses (11%) responded that they were aiming to become climate-neutral (Figure 20). With a 2 percentage-point increase on the previous year, that figure was similar to the year 2022 (10%) but well below that of 2023, when 15% of businesses were still aiming for climate neutrality. This drop is likely due primarily to the challenging economic environment, in which long-term goals such as climate neutrality appear to be slipping down the agenda.

Figure 20: Climate neutrality as a goal

Shares of enterprises in per cent



Note: Businesses were asked: 'Are you aspiring for your business to become climate neutral?'

Source: KfW Climate Barometer 2022–2025

A look at the enterprise size classes shows that large enterprises remain much more likely to pursue the goal of climate neutrality than smaller businesses, at 78% (-1 percentage point on the previous year). That share is significantly lower among SMEs, with 27% of larger SMEs stating that they pursued climate neutrality (+3 percentage points on the previous year).

The picture is consistent across the economy, with an increase on the previous year in the share of enterprises in all sectors reporting that they were aiming for climate neutrality. Manufacturing remains the sector with the largest share of enterprises wanting to become climate neutral – 15%. The decline here, however, was particularly steep compared with 2023, when the share was still 19%.

Almost one in three businesses has a plan to reduce greenhouse gas emissions – larger firms are leading the way

The implementation of climate strategies and targets is often underpinned by specific greenhouse gas mitigation plans. Currently, 30% of businesses report pursuing such a plan at least partly (Figure 21). Compared with the previous year, that is a 5 percentage-point increase which is driven mainly by small and medium-sized enterprises.

Among large enterprises, on the other hand, an opposing trend is apparent, with 91% pursuing greenhouse gas mitigation plans at least in part, which represents a minor decrease on the previous year (93%). Possible reasons for this development could be simplifications and deferrals of mandatory sustainability reporting. There are also indications that in the future

the European Corporate Sustainability Due Diligence Directive (CSDDD) is to apply only to EU-based companies with at least 5,000 employees instead of those with at least 1,000 employees, as is currently envisaged. Among other things, the directive requires businesses to prepare climate transition plans.

Larger businesses increasingly recognise climate action as an opportunity to open up new sales markets

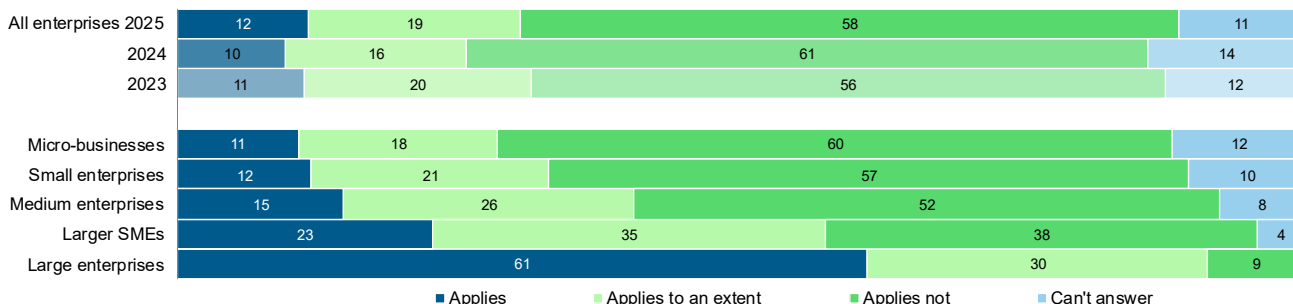
Transitioning to climate neutrality does not just pose a challenge for businesses but also opens up new business opportunities. Approx. 17% of enterprises view ambitious climate action at national or international level as an opportunity to open up new sales markets.

That was a roughly 2 percentage-point increase on the previous year. In 2023, however, that share still stood at 19% (Figure 22).

A sector comparison shows that construction firms and manufacturers were particularly optimistic about climate action opening up new sales opportunities. Eight per cent of construction businesses agree fully with the statement that ambitious climate action will open up new sales markets for them, while 15% agree in part. For manufacturers, those shares are 6% and 17%. The greater optimism in these sectors is likely because they are already increasingly offering climate-related technologies or services and therefore would be able to benefit from progress in climate policies.

Figure 21: Greenhouse gas reduction plans

Shares of enterprises in per cent

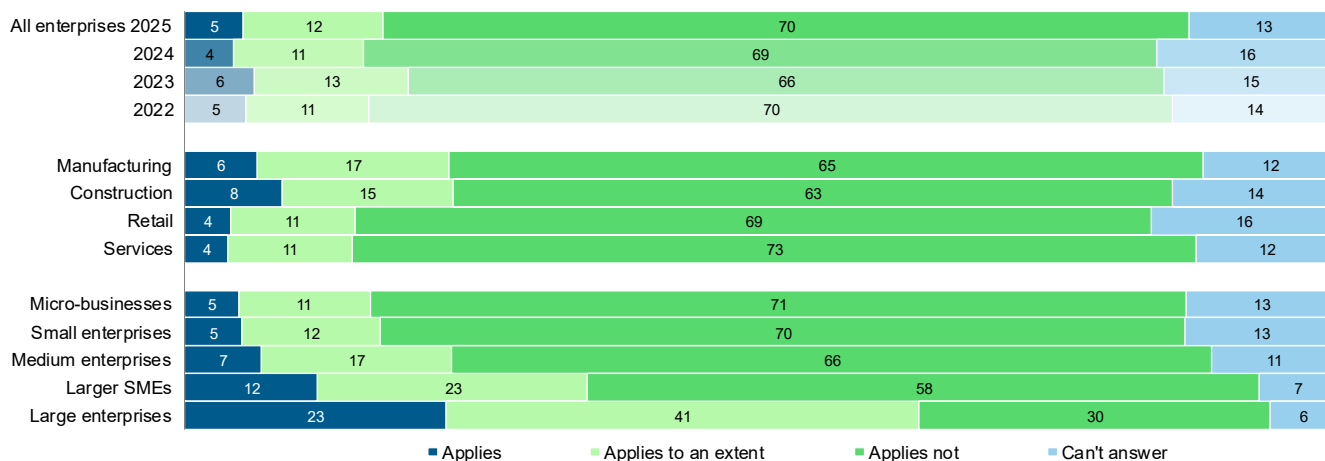


Note: Businesses were asked: 'To what extent does the following statement on the issue of climate action apply to your business: Our company has a concrete plan to reduce greenhouse gas emissions'.

Source: KfW Climate Barometer 2023–2025

Figure 22: Climate action as opportunity to open up new sales markets

Shares of enterprises in per cent

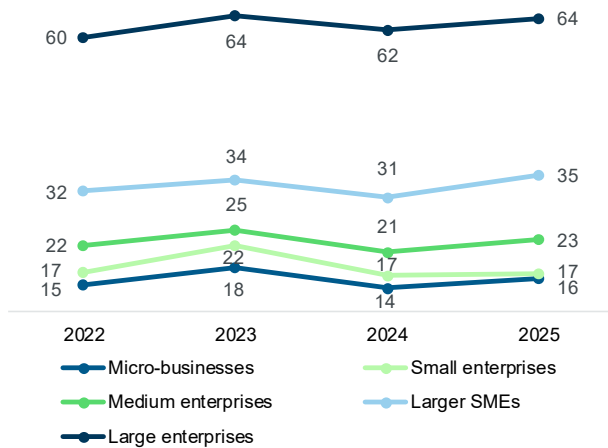


Note: Businesses were asked: 'To what extent does the following statement on the issue of climate action currently apply to your business: Ambitious climate action opens up new opportunities for our business'.

Source: KfW Climate Barometer 2022–2025

Figure 23: Climate action as opportunity for new sales markets by enterprise size class over the course of time

Percentage of firms responding 'Applies' and 'Applies to an extent'



Note: The wording of the question, explanations and response options are given in the notes on Figure 22.

Source: KfW Climate Barometer 2022–2025

A differentiated analysis by enterprise size also shows significant differences in the way companies assess new sales opportunities. While 16% of micro-businesses see opportunities for new markets at least in part, that figure rises to 35% for larger SMEs and even 64% for large enterprises. Figure 23 shows that the assessment of opportunities to open up new sales markets has remained steady or improved across all size classes compared with the previous year. Large enterprises and larger SMEs show increases of 2 and 4 percentage points, respectively, on the previous year's level, matching the 2023 level again – the previous record in the time series, while the rates for smaller businesses remain lower. Larger enterprises are thus significantly more optimistic again about the opportunities that could arise from opening up new sales markets in the field of climate action.

Conclusion: Transition to climate neutrality requires reliable policy frameworks and economic incentives

Total domestic climate investment by the business sector fell from EUR 85 billion to EUR 80 billion in 2024, a 5.5% drop in nominal terms. Adjusted for price increases, that was a significant drop of 7.8%. Given the high need for investment to achieve national climate targets, that is a noticeable setback on the way to climate neutrality in industry, construction, commerce and services.

The decline in overall climate investment was mainly driven by large enterprises. Whereas significant in-

creases could still be recorded in this business segment in the years 2022 and 2023, climate investment here fell by 18.5% in real terms in 2024. Large businesses tend to be more exposed to international competition than SMEs. Global demand weakness, exacerbated by trade conflicts and geopolitical risks, as well as the comparatively high cost burden in Germany have likely prompted large enterprises to scale back their overall investment activity – and especially in the field of climate action. What is more, large enterprises were under greater public pressure to invest in climate action in the past. That pressure has recently eased noticeably because other issues (such as security, migration and economic growth) have moved into the focus of the general public. There are also uncertainties around the direction which European and German climate policy will take in the future.

As opposed to large enterprises, SMEs recorded overall growth of 7.8% in real terms in climate investment for 2024. Investment in energy efficiency upgrades to existing buildings (+58% in real terms) and in the generation and storage of renewable electricity (+7.5% in real terms) were the areas with the sharpest increases. The main driver of the higher investment volume was noticeably stronger investment activity by SMEs, with the share of SMEs making climate investments increasing from 8% to 15% on the previous year.

Besides economic factors, a range of structural obstacles weigh on businesses' willingness to invest in climate action. The highest hurdles to investment result from uncertainty around the cost-effectiveness of the climate measure. Lengthy planning and approval procedures were the second most frequently mentioned barrier to investment, closely followed by insufficient financial resources. Manufacturers and energy-intensive businesses in particular report funding obstacles. Both segments face high investment and funding requirements in the green transformation of business models, which could overwhelm the self-financing capacity of enterprises.

The barriers need to be addressed directly in order to incentivise more climate investment in the business sector. Many technologies for decarbonising the business sector still have cost disadvantages compared with conventional fossil-based technologies as the external costs of carbon emissions are not internalised. Current carbon prices are often too low for the transformation to be driven solely by the market. Additional policy changes are therefore required in order to make climate investments more economically attractive. The main change that businesses would like to see is lower electricity prices, which are key to the electrification of

building and process heat, as well as mobility, tax incentives and the provision of more promotional funds, which could simultaneously address funding obstacles. In the short term, electricity prices could be lowered by, for example, providing state subsidies for grid fees or reducing government levies. In the medium and long term, the ambitious development of renewable energy and the reduction of the need to expand the electricity grid by making electricity demand and supply more flexible through time-based or geographically differentiated pricing signals in the electricity market are key approaches to the structural reduction of electricity prices.

The request of businesses to simplify planning and approval procedures remains a perennial issue. To achieve this, procedures must be standardised and digitalised. And the approval authorities also need to have more staff and better technical equipment. There is also a clear need for the government to set frameworks for accelerating the expansion of the energy infrastructure, including, for example, upgrades to electricity grids or the provision of charging infrastructure for electric mobility. Businesses regard this as an important prerequisite for transitioning to climate-friendly technologies.

In designing policy instruments, the challenge is to simultaneously incentivise the green transition in

enterprises while preserving their international competitiveness – particularly of energy-intensive enterprises. In order to discourage enterprises from moving out of regions with low environmental regulations (carbon leakage), transparency should be created early about the duration of and funds allocated to relief measures and promotional programmes. This provides planning certainty for businesses facing investment decisions that tie up capital for long periods. At the same time, the carbon border adjustment mechanism (CBAM) which will come into force in 2026 must be closely monitored so that opportunities for circumvention can be detected and eliminated early. Furthermore, a Europe-wide solution is needed that can offset competitive disadvantages of European industrial enterprises exporting to third countries when the free allocation of carbon certificates gradually expires under the EU Emissions Trading System with the introduction of the CBAM from 2026. The CBAM will initially apply only to the emission-intensive raw materials cement, iron, steel, aluminium, fertilisers, hydrogen and electricity. The fundamental idea of CBAM is to put a carbon price similar to that of the European Emissions Trading Scheme on imported goods from third countries that have not taken comparable climate action. The aim is to avoid competitive distortion and protect European industry.

Box 5: Dataset of the KfW Climate Barometer 2025

Business investment in climate solutions is of high relevance for achieving Germany's national climate targets. The **KfW Climate Barometer**, a survey that was conducted for the first time in 2022 and is now available in its fourth wave, is the first and thus far only representative database for the investment behaviour of all German enterprises in the field of climate action. It comprises small and medium-sized enterprises as well as large enterprises, thereby mapping the **entire business landscape**. The surveys carried out under the KfW Climate Barometer form the basis for analyses on investments and attitudes concerning the implementation of the energy transition and climate neutrality. Accordingly, the barometer provides a representative picture of the current situation, needs and plans of the businesses.

The established survey instrument of the **KfW SME Panel** forms the starting point. It has been conducted since 2003 as a recurring postal survey of small and medium-sized enterprises in Germany with annual turnover of up to EUR 500 million – including micro-businesses and sole traders. With a database of up to 15,000 companies a year, the KfW SME Panel is the only representative survey of the German SME sector, making it the most important source of data on issues relevant to the SME sector. More detailed information is available on the Internet at www.kfw-mittelstandspanel.de. A total of 13,079 SMEs took part in the current wave.

To obtain a comprehensive picture of the investment behaviour of all enterprises in the field of climate action, the survey also includes **large enterprises** with an annual turnover of more than EUR 500 million. This segment, which comprises around 1,800 enterprises in Germany, has also been surveyed in writing since 2022. Large enterprises and SMEs are largely asked the same questions, for example regarding their attitudes about climate neutrality and climate action, investments in climate solutions, barriers to implementation and energy costs. Overall, 193 large enterprises participated in the survey in 2025.

The **basic population** surveyed for the KfW Climate Barometer thus comprises all SMEs in Germany. They include private-sector companies from all industries. Not counted are the public sector, banks (central banks and credit institutions) and non-profit organisations. The sample is designed in such a way that it can generate representative and reliable data. In order to be able to draw conclusions on the basic population based on the sample, the results of the survey were weighted or extrapolated (net sample in relation to the basic population). The results are therefore **representative**. The data of the KfW Climate Barometer is also available to external researchers for use in exchange visits to KfW Research.

The 2025 survey wave was conducted by GfK GmbH on behalf of KfW Group. The survey period ran from 10 February to 20 June 2025.

Further information can be obtained at www.kfw.de/klimabarometer.

Supplementary information on the investment volumes employed for climate solutions

For methodological reasons, the volumes invested in climate solutions by large enterprises were not extrapolated directly from the survey data, unlike for SMEs. Rather, the corresponding value results from the product of gross fixed capital formation calculated for large enterprises – based on the national accounts of the Federal Statistical Office – and the share of climate investments in total investments reported by large enterprises under the survey. Thus, the reported volume of climate investments made by large enterprises depends on the gross fixed capital formation reported in the national accounts. As a result of the regular revisions of the national accounts, the investment volumes reported for large enterprises, too, can therefore retroactively change from previously reported values. This report is based on the gross fixed capital formation shown in the national accounts as of August 2025.

Supplementary information about the business sector in Germany

In 2024 there were 3.87 million businesses in Germany. Approx. 3.1 million businesses are domiciled in the western German states (82%), while 692,000 (18%) are domiciled in eastern Germany. In this report, the SME sector covers all enterprises in Germany with an annual turnover of not more than EUR 500 million. According to this definition, SMEs account for 99.95% of all enterprises in Germany. Some 1,800 businesses are defined as large enterprises with an annual turnover exceeding EUR 500 million.

The vast majority of SMEs in Germany are very small. Eighty-one per cent of businesses have fewer than five employees. That share has grown by around two percentage points since the turn of the millennium. A further 9% of enterprises have 5 to 9 employees. That means nine out of 10 enterprises in Germany have fewer than 10 employees. Only 2% of enterprises have more than 50 employees. The fragmented nature of the business sector is reflected in the average employee headcount. In 2024 the average number of employees was around 10.5 workers per business. In the SME sector (i.e. without large enterprises), the average number of employees including owner-managers was approx. 10.5 (median value 3). The greater fragmentation was primarily due to increasing tertiarisation.

Accordingly, economic activity is strongly shaped by services businesses. Around 77% of all enterprises operate in service industries, including retail and wholesale. This comprises nearly 3 million businesses. With a share of just over 5%, manufacturing has a comparatively low share in the number of businesses, but it provides employment to 16% of all workers. With around 24 employees, its average workforce is also significantly larger than in services businesses (around 10 employees) or the construction sector (approx. seven workers).