

*Bertelsmann Stiftung (Hrsg.)*

# Innovative Milieus 2023

Die Innovationsfähigkeit der deutschen Unternehmen  
in Zeiten des Umbruchs

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## Executive Summary

The German economy relies on innovation as a driving force for its prosperity. A group of cutting-edge German companies that are deeply integrated into global value chains contribute significantly to the country's competitiveness and its overall economic well-being.

However, this group remains small, and it is not growing. In fact, the effects of the COVID-19 pandemic have precipitated a decline in Germany's innovative strength, and the country is now falling behind in the global race for innovative ideas and business models.

- The share of particularly innovative companies has fallen from 25% in 2019 to 19% in 2022.
- The share of companies demonstrating a relative aversion to innovation has risen from 27% to 38% during the same period.

Over the past three years, Germany has seen its innovation input and output decline. Overall, there has been a 15% decrease in the output of product, process, organizational and marketing innovations. In response to the exceptional circumstances brought about by the pandemic, 26% of companies have postponed or canceled their innovation initiatives, while 12% have expanded their efforts.

Nevertheless, the demands of digitalization, decarbonization and demographic change necessitate substantial and consistent investments in innovation. These investments are crucial for the development of new products and digital business models, the transformation of manufacturing processes, and for increasing productivity. In terms of proactively navigating these kinds of transformative change, many companies are now facing major challenges, in large part due to the disruptive impact of the pandemic, which led many to postpone or cancel their innovation activities. Given the current circumstances, it is crucial that Germany adapt and develop the mindset, practices and regulatory frameworks that have facilitated the

country's success in global markets. However, this task is now more challenging than ever before.

The gap between innovation-driven and innovation-averse companies is widening. While only 10% of “technology leaders” have postponed or canceled innovation projects, a significant 42% of “passive adapters” have taken similar measures. This creates considerable risks for Germany as an innovation hub. Notably, innovation-savvy milieus displayed higher resilience during the pandemic, with a larger proportion of their planned innovation activities being carried out or even expanded compared to other milieus.

To mitigate these risks, strong value networks, excellent research activity and robust infrastructures are essential. Collaborations between companies, startups, research institutions and academia are crucial in navigating the growing complexity. Survey results highlight:

- The significant success of companies in top milieus, with the “leaders” achieving a net profit margin that is approximately 27% higher than the average across all milieus. Furthermore, these companies have experienced less decline in recent years, with a profit margin in 2019 surpassing the milieu average by 19%.
- Regression analyses confirm the significant impact of product and process innovations on company success. On average, the implementation of innovations in these areas results in a growth of 15 to 20 employees.
- Compared to other companies, leaders exhibit a higher level of interconnectedness with suppliers, customers, other businesses and academia. They actively participate in networks, seeking appropriate partners to address various challenges. Notably, they collaborate rather regularly and intensively with academia. These leaders engage with academia to a similar degree as they do with suppliers, indicating a high level of collaboration. In contrast, there is a lack of connections between “adapters” (i.e., innovation-averse companies) and academia. Interestingly, all companies interact heavily with their customers in order to share ideas on innovation, highlighting the importance of customer engagement in driving innovation.

The study presented here on innovative milieus at the company level offers several noteworthy findings:

- First, significant variations exist among milieus in their innovation attitudes, objectives, availability of innovation input factors, corresponding activities, and achieved success in innovation.
- Second, there has been an overall decline in the emphasis on innovation compared to the previous 2019 survey. The ambition for disruptive innovation and the affinity for technology have both decreased.
- Third, we observe a notable gap in terms of professionalizing essential aspects of a holistic approach to innovation management.

Compared to the 2019 survey, there have been no drastic changes regarding milieu-specific characteristics. Technology leaders, as particularly ambitious pioneers in the

field, continue to rely on deeply anchored innovation structures and systematic innovation management. For their part, the disruptive innovators are increasingly shifting their focus toward agile cooperation with customers, resulting in a somewhat diminished level of their previous innovation impact or “disruptiveness.” Cooperative innovators draw their innovative power from engaging in close exchanges, both externally and internally, establishing modern cooperation structures and fostering participatory corporate cultures. By contrast, conservative innovators tend to rely on their accumulated expertise and approach innovation with caution, primarily generating innovations from within.

Passive implementers are certainly open to innovation but mainly carry out their activities within overarching value structures. Random innovators, although more risk-averse, still embrace uncertainty as part of their innovation process. Finally, companies without an innovation focus typically have very low ambitions in this regard and have very limited access to the structural, procedural or methodological conditions needed to cultivate innovation.

A prime example of technology leaders can be found in the German automotive industry. Deeply integrated into global value chains, they foster intensive innovation collaborations with various stakeholders and consistently maintain their technological edge. Currently, German manufacturers still account for nearly one-third of global automotive revenues. The model for doing business in Germany stems in large part from the German automotive industry, which is marked by the innovative strength of manufacturers and their influence on suppliers. This has also led to regional effects, such as those observed in the Bavarian city of Ingolstadt, where productivity per employed person is approximately € 130,000 (compared to the national average of € 75,000), and has grown by over 50% in the past decade (compared to the national average of just over 20%). Such remarkable development would not have been possible without the technological leadership demonstrated by these companies.

However, Germany is also home to hundreds of hidden champions in various industries that serve as technology leaders and have played a pivotal role in the country’s recent employment growth. The positive spillover effects of Germany’s tech prowess in the automotive industry are evident, as is demonstrated by the significant investments from foreign companies like Tesla, Rock Tech, CATL, SVOLT and Intel, which would have been difficult to imagine otherwise.

At the same time, there is now competition for these kinds of greenfield investments. The United States is enhancing its locational advantages through the Inflation Reduction Act, which will have tangible effects on Germany’s innovation ecosystem. For instance, the highly innovative battery cell manufacturer Northvolt plans to delay investments in a new factory in the German municipality of Heide and instead make larger investments in the United States, where they will have access to substantial subsidies. Since 2019, the EU has been targeting the promotion of mission-oriented investments within the EU, primarily through the Important Projects of Common European Interest (IPCEI) program. However, the budget for these projects is comparatively smaller than those in the United States. The current

developments in international funding programs, infrastructure (related to green and competitive energy supplies), and demanding regulations underscore the urgent need for the EU and Germany to accelerate their activities at all levels in order to secure future prosperity.

Decarbonization efforts, together with Germany's regulatory framework, will determine the extent to which the (basic materials) industry has a future in this country. Maintaining a competitive energy market with stable prices is absolutely critical to sustaining industrial activity in Germany. This requires significant investments in the development and scaling of green technologies. These efforts are part of a comprehensive sustainability strategy based on environmental, social and governance (ESG) criteria at the EU level. Companies primarily focus on process innovations to become more ecologically and sustainable, with an average of 59% of companies across all milieus in Germany being actively engaged in such efforts. Product innovations are also pursued, with an average of 53% of companies across all milieus being involved in this area. Here, too, the technology leaders report significantly higher investments in sustainability (84% in process innovation and 79% in product innovation) compared to the overall milieu average.

To enhance future innovation capabilities, increase company competitiveness, and foster a sustainable innovation landscape in Germany – and thus contribute to solving the Grand Challenges we all face – this study concludes with specific recommendations. These recommendations, which build upon the characteristics highlighted in the study's milieu-oriented framework, target two groups: companies operating within specific milieus at the micro level, and (primarily) government entities responsible for establishing innovation frameworks at the macro level. These recommendations aim to help create an innovation-friendly environment at the macro level in which mission-oriented ecosystems bring together representatives from all seven milieus and thereby facilitate collaboration for greater impact.