

Infrastructure Report Germany 2025

Investments Between Optimism and Deteriorating Municipal Assets

Summary

Based on data from the BAI Investor Survey 2024, current academic literature, industry data, and expert interviews with 15 industry representatives, this report provides an in-depth analysis of the current status and challenges associated with private infrastructure investments in Germany. A particular focus is placed on the field of municipal infrastructure.

New data indicates that the significance of infrastructure within the portfolios of German institutional investors continues to grow. Steady returns and diversification represent key characteristics that have rendered this asset class indispensable in institutional portfolios. While Infrastructure Equity—particularly through single-fund investments—constitutes the alternative asset class with the second-largest share among invested German investors (limited partners, or LPs), Infrastructure Debt is currently experiencing strong momentum. The majority of existing investors intend to increase their infrastructure allocations. The megatrends of ecological and digital transformation play a decisive role in shaping the sectors in which German LPs choose to invest.

However, Germany's infrastructure has so far benefited only marginally from the boom of this asset class among German institutional investors. A lack of investable projects, excessive bureaucracy, and the resulting market inefficiencies have led to comparatively less attractive risk-return profiles, which in turn contribute to a phenomenon referred to as "reverse home bias": German institutional capital increasingly flows into infrastructure abroad. Nevertheless, new data suggests a positive trend for Germany as a location for infrastructure projects. Allocation to German infrastructure projects is increasing, with renewable energy—particularly wind and solar power—firmly establishing itself as a key investment category in Germany. Political efforts, such as shorter approval procedures, are beginning to bear fruit.

In particular, the municipal infrastructure sector exhibits a significant investment gap, as evidenced by recent data. From the perspective of institutional investors, municipal infrastructure would generally represent an attractive investment segment due to government backing, long-term and stable cash flows, and the advantages of local proximity. In practice, however, private-sector investors have so far played an almost negligible role in municipal projects in Germany.

Consequently, based on expert interviews, the report presents a detailed discussion of potential solutions to foster greater private investment in German infrastructure projects, with a particular focus on municipal infrastructure.

An analysis of the coalition agreement of the new Black-Red (conservative-social democratic) federal government, along with recent policy measures, reveals that the fundamental importance of private capital for renewing deteriorating existing infrastructure, as well as for driving ecological and digital transformation, has been acknowledged. The federal government's investment initiative, combined with the €500 billion infrastructure special fund, is expected to deliver substantial positive momentum. However, the special fund alone will not suffice to meet the total investment needs in Germany. It will be crucial to integrate the various planned approaches and to combine public capital with private investment—either by assuming risks or by leveraging state resources efficiently. Additionally, an initial wave of public investment should create positive path dependencies.

Furthermore, emphasis must be placed on citizen participation. Particularly in the context of municipal infrastructure, it is essential to learn from past negative experiences and ensure that the population recognizes the added value of private investment in public services. This is key to increasing public acceptance of private sector involvement.

There is significant potential to create access to more municipal projects and models with competitive risk-return structures through the bundling and standardization of municipal infrastructure projects, according to the experts interviewed. Central to this effort are the standardization of financing structures and the development of uniform process standards for planning, procurement, and implementation. A comparison with France shows that Germany could particularly learn from the explicit central government guarantee for repayment, the standardized project structuring, and the strategic use of economies of scale through project bundling (“mutualiza-

tion”). Cross-regional cooperation and standardization across different federal states could have a positive impact.

Improvements to the regulatory framework—such as planning and approval procedures and public procurement law for projects—are already being partially addressed by policymakers. In investor supervision, positive impulses can be seen through the infrastructure quota in the investment ordinance. However, the classification of infrastructure investments as Qualified Infrastructure is considered particularly challenging by Solvency II investors, especially in the context of fund investments.



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1. Introduction

Even before the introduction of the €500 billion Infrastructure Special Fund—which includes €100 billion earmarked for federal states and municipalities—the need for infrastructure investment in Germany had become a widely discussed issue. In recent years, the country has accumulated an enormous investment backlog.



This primarily concerns the rehabilitation of deteriorating existing infrastructure: A recent study estimates that highways, railways, and energy infrastructure alone will require €400 billion in investments over the next decade. Maintaining public infrastructure will therefore only be feasible with private investment and the participation of fund managers.¹

On the other hand, the ecological and digital transformation of the economy requires massive investments: Achieving the legally binding target of climate neutrality by 2045 will necessitate investments ranging from €1.1 trillion to €5 trillion, depending on the study and underlying definitions.²

The primary reason for this situation is the chronic underinvestment in Germany over the past decades. Since the year 2000, public investment in infrastructure—such as roads—and in social infrastructure—such as schools—has averaged only about 2.1% of GDP, significantly below the EU average of 3.7% of GDP.³

The deterioration of public infrastructure can also be attributed to the fact that depreciation of existing assets has often not been accounted for in public-sector financial reporting. In the context of a potential reform of the debt brake, experts therefore advocate particularly for a modernization of public accounting practices, including the introduction of double-entry bookkeeping at the federal level.⁴

¹ Prof. Dr. Dr. h.c. Lars P. Feld, Universität Freiburg & Walter Eucken Institut; Julia Braun, M. Sc., Walter Eucken Institut (2024).

² Handelsblatt Research Institute (2024), KfW Research (2021).

³ Wirtschaftsdienst (2022).

⁴ Friedrich Heinemann, Zareh Asatryan, Albrecht Bohne, Paul Steger: Zukunftshaushalt statt Schuldenbremse, ZEW (2025).

The new federal government, in its coalition agreement, has acknowledged the critical importance of a well-functioning infrastructure for prosperity, social cohesion, and future competitiveness, and is addressing this issue not only through the special fund but also via a comprehensive investment initiative.⁵

However, projected figures on Germany's investment needs clearly indicate that the special fund will not be sufficient to even come close to eliminating the existing backlog. In the municipal sector as well, the €100 billion allocated to states and municipalities under the special fund falls short of addressing the investment gap, which municipalities themselves estimate at a total of €215.7 billion.⁶

The importance of private capital in Germany's infrastructure sector is therefore currently greater than at any point in history. For this reason, this study provides an in-depth analysis of the current status of infrastructure within German investment portfolios, recent political initiatives, and opportunities to combine private and public capital, as well as a discussion of potential solutions to encourage greater private investment in German infrastructure.



⁵ Koalitionsvertrag zwischen CDU, CSU und SPD - 21. Legislaturperiode, p.52-53

⁶ KfW-Kommunalpanel 2025.

2. Infrastructure in the Portfolios of German Institutional Investors

We begin by examining the portfolios of German institutional investors and, based on current data, provide an update on the role of Infrastructure Equity and Infrastructure Debt.

2.1. Demand for Infrastructure Investments among German Investors

The data is sourced from the BAI Investor Survey 2024, which includes representative information from 111 German institutional investors managing approximately €2.3 trillion in assets under management. The largest group comprises major insurers subject to Solvency II regulation, accounting for 35%, followed by pension funds, which represent 22% of the surveyed investors. Accordingly, the sample provides a cross-sectional representation of the German institutional investor landscape, encompassing a diverse range of investor types and a broad spectrum of assets under management.⁷

The BAI Investor Surveys from 2022, 2023, and 2024 reveal a consistent increase in the share of investors allocating to infrastructure. Both Infrastructure Equity and Infrastructure Debt are expected to see further growth in participation among German institutional investors. For Infrastructure Debt in particular, the anticipated increase is striking—rising by ten percentage points, from 49% to 59%—marking the strongest momentum among all alternative asset classes.

While Infrastructure Debt is rapidly gaining traction among German institutional investors, equity investments have already established a strong presence in portfolios. With 85%, Infrastructure Equity represents the second most prevalent alternative asset class among German investors, trailing only Real Estate Equity at 87%.

Participation rates of LPs in alternative asset classes

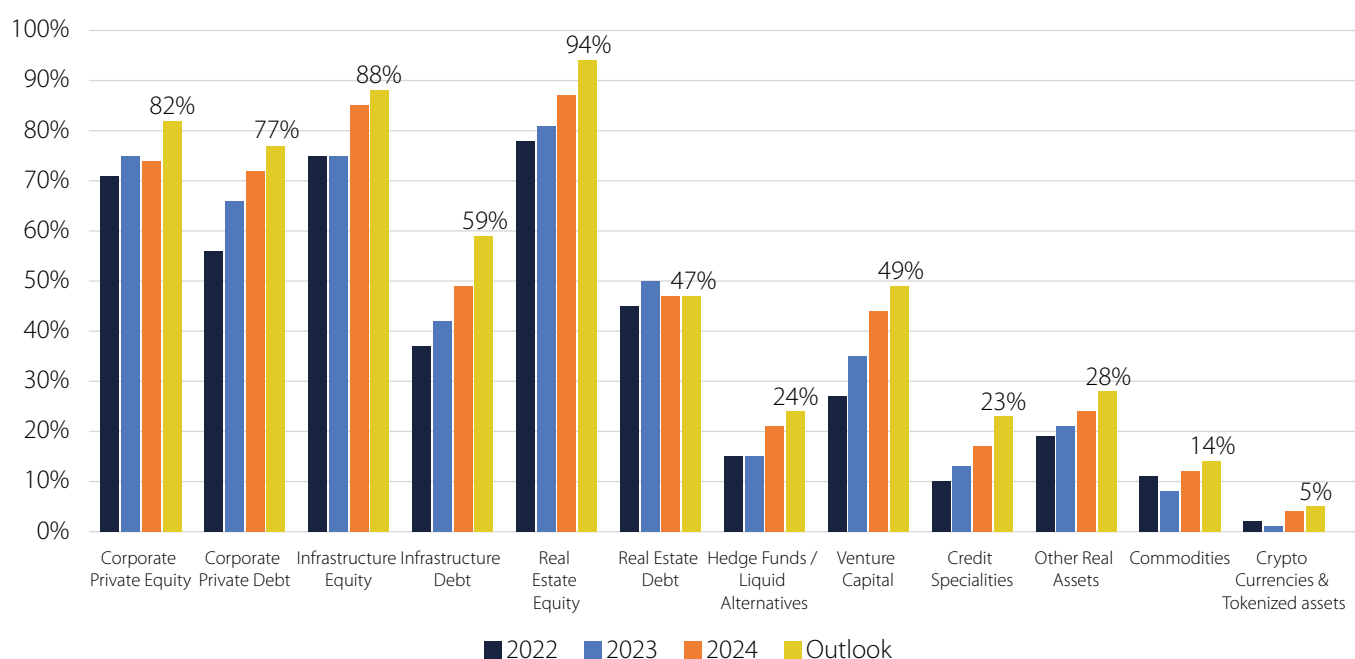


Figure 1: Share of surveyed investors invested in each alternative asset class. Source: BAI Investor Survey 2022, 2023, 2024.

⁷ BAI Investor Survey 2024.

Data from the BAI Investor Survey 2024 indicates that the importance of infrastructure in institutional portfolios continues to grow even among existing investors. A majority—57% for Infrastructure Equity and 50% for Infrastructure Debt—report plans to increase their allocations further. In contrast, only small proportions, 8.1% and 6.5% respectively, intend to reduce their investments (see Figures 2 and 3).

Planned adjustment of Infrastructure Equity allocation (as % of responses)

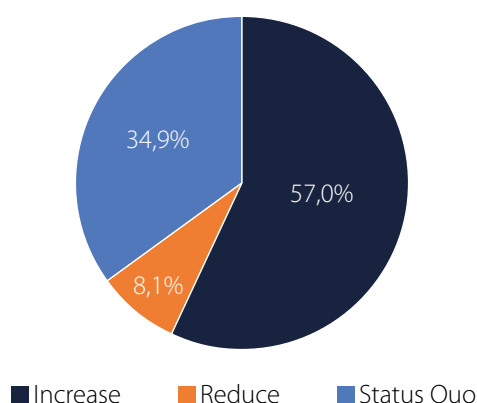


Figure 2: Planned adjustment of Infrastructure Equity allocation by investor share. Source: BAI Investor Survey 2024.

Planned adjustment of Infrastructure Debt allocation (as % of responses)

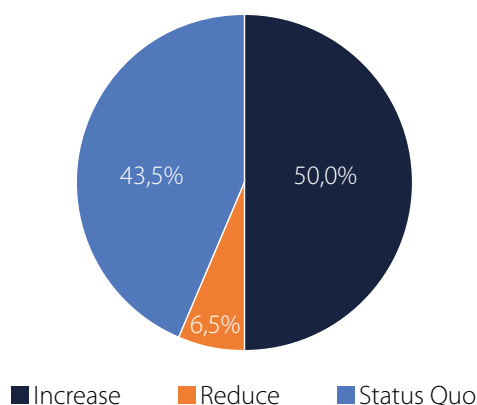


Figure 3: Planned adjustment of Infrastructure Debt allocation by investor share. Source: BAI Investor Survey 2024.



Danny Tuchlinsky,
Investmentmanager,
Ärzteversorgung Land
Brandenburg

Danny Tuchlinsky,
Investment Manager at
Ärzteversorgung Land
Brandenburg, explains the popularity of Infrastructure Equity as follows: At the onset of the low-interest-rate era, many investors turned to core infrastructure to replace bonds in their portfolios,

focusing on traditional infrastructure projects such as bridges, ports, roads, and airports. More recently, however, a shift toward core-plus investments has become evident. For long-term investors, building an infrastructure allocation steadily over the years is essential, regardless of short-term macroeconomic developments. Regarding allocation strategy, he notes that his institution is well-positioned with an infrastructure quota of approximately 10%, invested almost exclusively in equity (Infrastructure Equity). For quota investors, equity is significantly more attractive than Infrastructure Debt, as infrastructure projects must be reflected within the quota, and Infrastructure Equity offers higher returns in this regard.

The BAI Alternative Investments Sentiment Barometer (Figure 4) reflects a positive outlook for both Infrastructure Equity and debt among German institutional investors. Infrastructure Debt ranks just behind equity in perceived sentiment, nearly on par with Corporate Private Equity.



BAI Alternative Investments Sentiment Barometer 2024

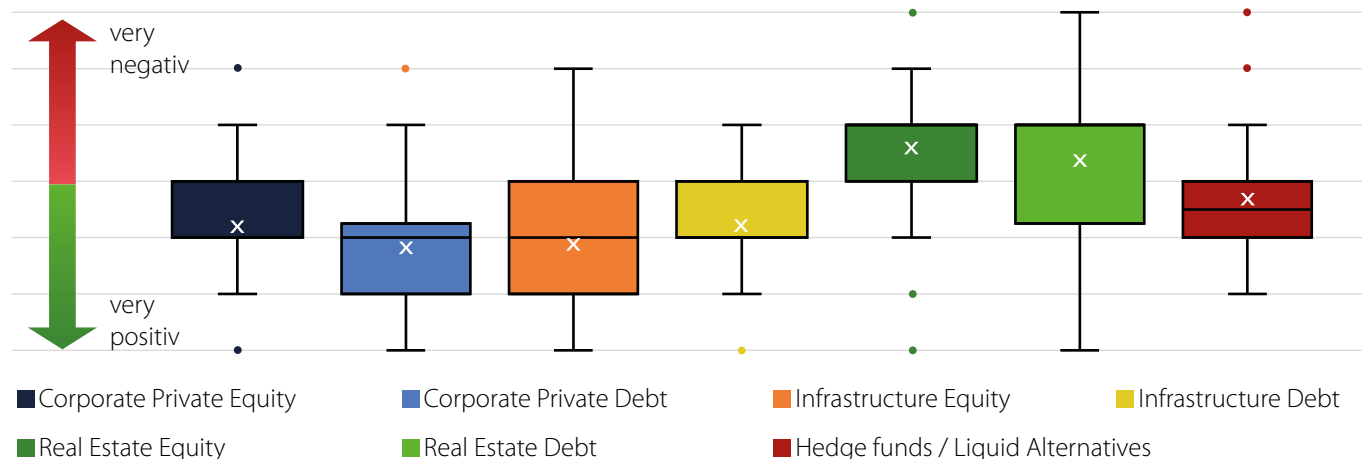


Figure 4: BAI Alternative Investments Sentiment Barometer 2024.

2.2. Infrastructure Sectors and Access Routes

The megatrends of ecological and digital transformation play a decisive role in shaping the infrastructure sectors in which German investors allocate capital. Renewable energy is firmly established in portfolios, with 77.5% of all investors allocating to infrastructure being already active in this segment. Projects located in Germany are also increasingly becoming attractive targets for private capital (see Figure 3). A more detailed discussion of renewable energy is presented later, within the context of

infrastructure trends in Germany. In contrast, conventional energy sources based on fossil fuels, such as oil and gas, account for only 20.7% of Germany's infrastructure portfolios (see Figure 5).

The transport, social infrastructure⁸, and utilities sectors each form part of the portfolios of roughly half of German infrastructure investors. However, as discussed in Section 3, these are predominantly infrastructure projects located abroad for various reasons. Consequently, Germany's infrastructure has not yet sufficiently benefited from the overall attractiveness of these sectors to German institutional investors.

Share of Infrastructure investors allocated to each Infrastructure sector

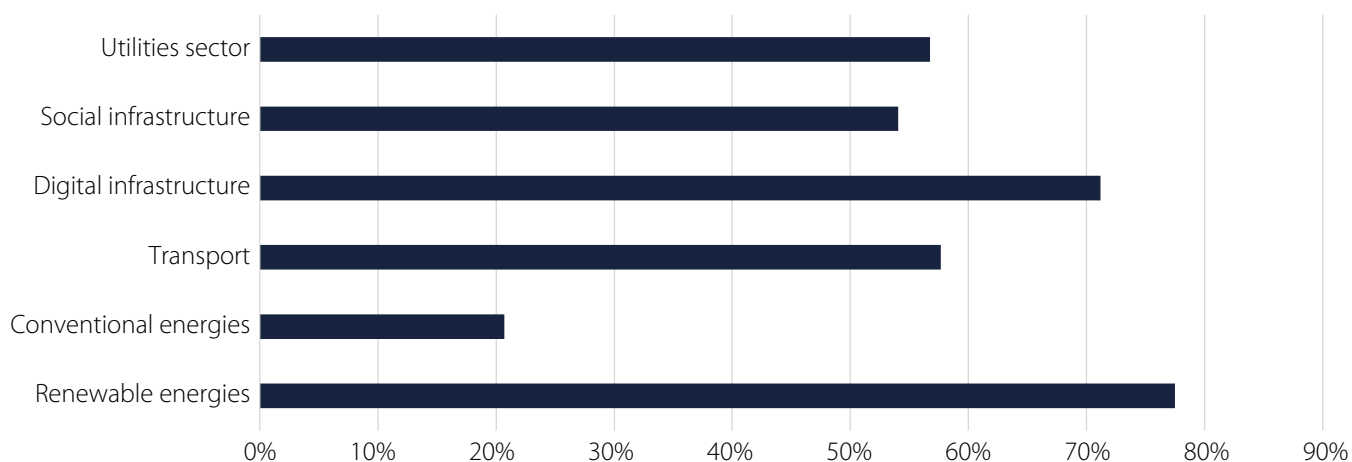


Figure 5: Infrastructure investments by sector. Source: BAI Investor Survey 2024.

⁸ Cf. BAI Infrastructure 2024 p.24-25

The second most attractive infrastructure sector for German LPs, after renewable energy, is currently digital infrastructure (71.2%). The increasing integration of artificial intelligence into various areas of the economy is driving a significant demand for supporting infrastructure, such as servers and fibre-optic networks.

Regarding infrastructure allocation across sectors, two distinct investment philosophies prevail. One strategy advocates targeted investments in specific trends to capitalize on megatrends, while the other emphasizes broad diversification within the asset class.

Danny Tuchlinsky of Ärzteversorgung Land Brandenburg highlights that digital infrastructure—particularly data centres—is a key trend in today's infrastructure market and is increasingly considered a viable investment target. However, he emphasizes the importance of viewing this trend within the broader context of diversification, as such trends can shift rapidly. He stresses that long-term investors generally favor a diversified approach to mitigate risk. In contrast, other investor groups, such as family offices, may be more inclined to pursue trend-based strategies in pursuit of potentially higher returns.

Beyond the questions of Infrastructure Equity versus Debt and the weighting of various sectors, the choice of investment vehicles utilized by German investors is crucial for understanding the role of infrastructure within portfolios. Fund-based investments clearly dominate: 63% of Infrastructure Equity investors allocate through single funds, while 54% do so for Infrastructure Debt. For Debt investments, the concentration on single funds is even stronger, with only 24% invested via funds of funds, the second most significant access route. Infrastructure Equity investments follow a more diverse approach, with 42% through funds of funds and 29% via co-investments. Direct investments, in particular, tend to be feasible only for very large investors with specialized in-house expertise due to the substantial operational complexity involved.

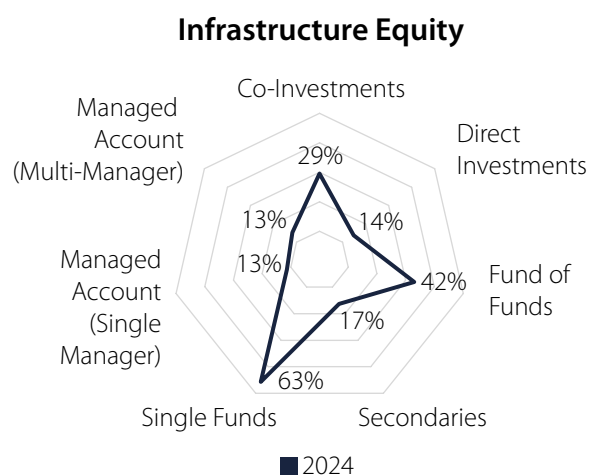


Figure 6: Access channels for Infrastructure Equity investments by German institutional investors. Source: BAI Investor Survey 2025.

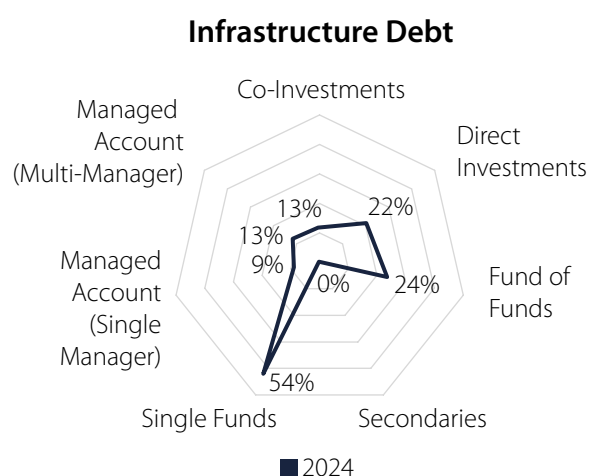


Figure 7: Access channels for Infrastructure Debt investments by German institutional investors. Source: BAI Investor Survey 2025.

Danny Tuchlinsky of Ärzteversorgung Land Brandenburg explains that their infrastructure investments to date have been made exclusively through single funds. While co-investments are theoretically conceivable, direct investments are ruled out due to capacity restrictions. The decision to place greater emphasis on specific themes within the infrastructure sector is left to the fund managers, who, as experts, can make informed selections without tying up the organization's resources.

3. Investments in German Infrastructure – The Reverse “Home Bias”

The previous chapter established that both Infrastructure Equity and Infrastructure Debt are currently perceived as attractive portfolio components for German institutional investors. However, for the deployment of private capital to support the ecological and digital transformation, as well as the modernization of existing infrastructure in Germany, it is crucial that institutional capital also flows into domestic infrastructure projects.



The question of the extent to which German institutional investors allocate to German infrastructure—and what obstacles and location-specific factors influence these investments—was examined in last year’s study, “Between Short-term Headwinds and Strong Long-term Tailwinds: Infrastructure 2024 – Focus on Germany.”⁹

According to the study, 80.8% of the surveyed German investors stated that they primarily invest in infrastructure abroad (p. 26). This so-called “reverse home bias” stands in stark contrast to the geographical asset allocation observed in other asset classes, such as Real Estate—where local assets traditionally dominate—or even Corporate Private Equity, where local proximity generally exerts a positive influence on investments in German companies, as confirmed by discussions with investors.



*Dimitri Mavridis,
Senior Associate, DACH
Research at Preqin*

According to **Dimitri Mavridis, Senior Associate, DACH Research at Preqin**, the market for alternative investments—particularly Infrastructure—is growing steadily in Germany. Despite periods of stagnant fundraising, assets under management continue to increase. Nevertheless, Germany lags significantly behind in a European comparison: Infrastructure investments in the United Kingdom are roughly five times higher, and more than twice as high in France. While investment volumes are rising domestically, it remains questionable how much of this capital is actually deployed within Germany, given the comparatively low expected returns.

Feedback from surveyed investors further reinforces the finding of a reverse home bias in Infrastructure portfolios.

⁹ BAI Infrastructure 2024.



*Maximilian Cosack,
Head of Private Assets,
HUK-COBURG Asset
Management*

**Maximilian Cosack,
Head of Private Assets
at HUK-COBURG Asset
Management,**

notes that, in contrast to Real Estate allocations—where German institutional investors maintain a clear focus on domestic projects—the share of infrastructure investments

within Germany accounts for only about 15% of their portfolio. Moreover, this portion primarily consists of renewable energy projects, such as photovoltaic and wind power installations.

3.1. General Challenges and Barriers to Investments in German Infrastructure

A range of barriers and location-specific factors have been identified as reasons why institutional capital predominantly flows into infrastructure projects abroad.¹⁰ Investors describe risk-return structures in Germany as less attractive, even compared to certain parts of the European market. This is largely attributed to market inefficiencies driven by bureaucratic obstacles. Less favorable investment conditions and a limited supply of assets deemed investable from an institutional perspective are mutually reinforcing. Additionally, strong reservations regarding the use of private capital in Germany are perceived as a significant impediment.

The €500 billion infrastructure special fund—introduced by the previous Bundestag and financed through debt—is intended to help alleviate the persistent investment backlog in Germany’s infrastructure. A key question in this context is how the special fund will influence the balance between public and private capital (see Section 3.4.1).

In the renewable energy segment, particularly solar and wind farms, German projects are increasingly becoming part of domestic institutional portfolios, although specific market-related challenges remain

(see Section 3.2). Other infrastructure sectors are viewed as significantly more challenging for investment in Germany. Municipal infrastructure stands out as a prime example (see Section 3.3), with the federal structure of the German state often perceived as an additional barrier (see Section 3.4.6).

Although Infrastructure is already firmly established in German institutional portfolios (see Section 2), regulatory hurdles in investor supervision continue to be perceived as preventing the full mobilization of private capital for infrastructure (see Section 3.4.3.1, Qualified Infrastructure Investments under Solvency II). Regarding other frictions within investor regulation, policymakers have fortunately begun to respond and incorporate proposed changes (see Section 3.4.3.2, Infrastructure Quota in the Investment Ordinance).

According to **Maximilian Cosack of HUK-COBURG Asset Management**, the core issue is simply the lack of suitable projects. While the renewable energy sector—particularly photovoltaic and wind—offers some investment opportunities, overall infrastructure exposure in Germany remains low, especially in the municipal segment. Compared to countries such as the United Kingdom, where large parts of infrastructure have been privatized, there are hardly any investable municipal infrastructure projects available in Germany.

Furthermore, the few projects that do exist often fail to meet institutional investors’ requirements for an attractive risk-return profile. Many assets are classified as “supercore”—extremely stable but offering very low returns. At the same time, Germany lacks projects that deliver a return potential in the range of 8–10% IRR, which typically aligns with the objectives of conservative infrastructure investors. This results in a significant supply gap, particularly compared to other markets.

Another major obstacle is the complexity, duration, and bureaucracy associated with processes, especially in the context of public-private partnerships (PPPs). Administrative barriers—from permitting procedures to environmental requirements—frequently lead to

¹⁰ Ibid.

significant delays or even the cancellation of projects. Beyond these structural challenges, Cosack highlights informal barriers: In Germany, a fundamental scepticism towards private capital in the provision of public services remains predominant. Overall, he calls for a shift in mindset: Bureaucratic processes must be streamlined, investment pathways clarified, and the relationship with private capital redefined.

Danny Tuchlinsky of Ärzteversorgung Land Brandenburg also points out that there is a lack of acceptance for private capital in infrastructure in Germany. For example, many municipal utilities are reluctant to bring in private investment due to concerns about loss of control or potential public criticism—often fuelled by the perception that private equity earns excessive profits from public services, even though infrastructure investments typically yield only single-digit returns above the risk-free rate.

While the renewable energy sector in Germany currently shows a positive trend for domestic investment (see Section 3.2), municipal infrastructure faces even greater barriers to utilizing private capital (see Section 3.3).

Nevertheless, data from the BAI Investor Survey 2024 reflects an overall positive trend regarding the role of German projects in institutional portfolios. One-third of respondents indicated plans to increase their share of infrastructure investments, while only 5.5% intend to reduce their exposure, and just under 10% still plan no allocation to German infrastructure. The majority—51.7%—expect no change in their current level of domestic investment. This is primarily because investors are obligated to meet their risk-return objectives above all else.¹¹ Although it can be established that German investors are generally willing to increase their local engagement¹², they are obliged to maintain geographic diversification. They cannot base investment decisions solely on geographic or regional factors. Moreover, significant barriers to infrastructure projects persist, including a shortage of investable projects and considerable bureaucratic obstacles.

Adjustment of the geographical asset allocation in Infrastructure

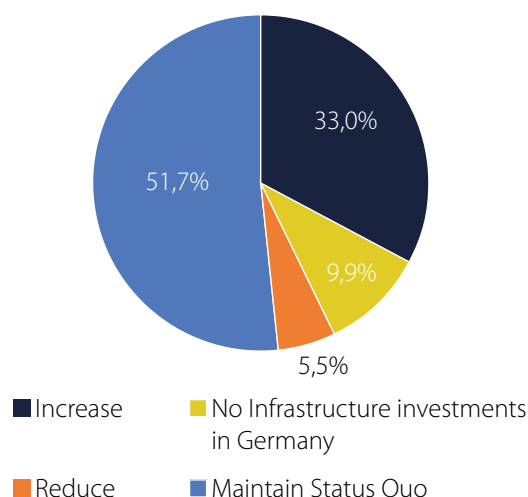


Figure 8: How do you plan to adjust your allocation to Infrastructure in Germany?
Source: BAI Investor Survey 2024.

3.2. Renewable Energy

With 77.5% of surveyed German infrastructure investors allocating to renewable energy, this sector currently holds the greatest significance for German investors (Figure 5: Infrastructure Investments by Sector, Source: BAI Investor Survey 2024).



Gregor Kurth,
Partner and Head of
Transactions, Igneo
Infrastructure Partners

In this context, **Gregor Kurth, Partner and Head of Transactions at Igneo Infrastructure Partners**, argues that, “to attract private capital today, investment opportunities must meet the criteria of economic viability, sustainability, and security of supply. In the past, during the era of liberalization, the focus was on affordability. With growing awareness of climate change, sustainability has become another key consideration for investors. The war in Ukraine has elevated energy security to a critical factor, further raising the standards for investment opportunities that attract private capital.”

Nevertheless, Kurth emphasizes that Germany still offers substantial opportunities for private sector involvement, particularly in the energy sector. As the

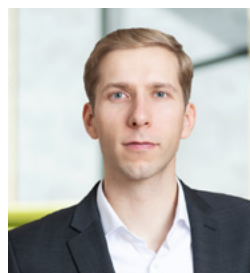
¹¹ Cf. BAI Studie Infrastructure 2024.

¹² Cf. 3.3.3

government aims to stabilize energy prices, electricity generation is being significantly expanded, with a strong emphasis on renewable sources. To handle this increased renewable energy capacity, projects to modernize and expand the power grid will be essential. Furthermore, the need to balance the increasingly unpredictable relationship between supply and demand will drive demand for energy storage solutions. This creates opportunities for growth and innovation in grid infrastructure and battery technology, supported by private capital investment in Germany.

3.2.1. Positive Developments

Efforts to improve location factors for infrastructure projects in Germany—particularly in the areas of the energy transition and renewable energy—have now shown measurable positive results.



*Daniel Tubik,
Portfolio Manager,
GLS Investments*

Daniel Tubik, Portfolio Manager at GLS Investments, observes that policymakers have recently achieved significant progress in streamlining approval processes in the wind energy sector. The reduction of bureaucratic hurdles is beginning to bear fruit, as evidenced by the sharp increase in the number of approvals for wind power projects. However, he cautions that policymakers must not rest on these achievements and should continue to pursue further reductions in administrative complexity.

Data from the report “Status of Onshore Wind Energy Expansion in Germany” by the German Wind and Solar Agency show that approvals for new wind turbines surged by 85% in 2024 compared to the previous year. Of the approximately 2,400 newly approved installations nationwide, with a combined capacity of over 14,000 MW, nearly 30% of this capacity is attributable to projects located in North Rhine-Westphalia.

Newly approved onshore wind turbines by capacity (in MW)

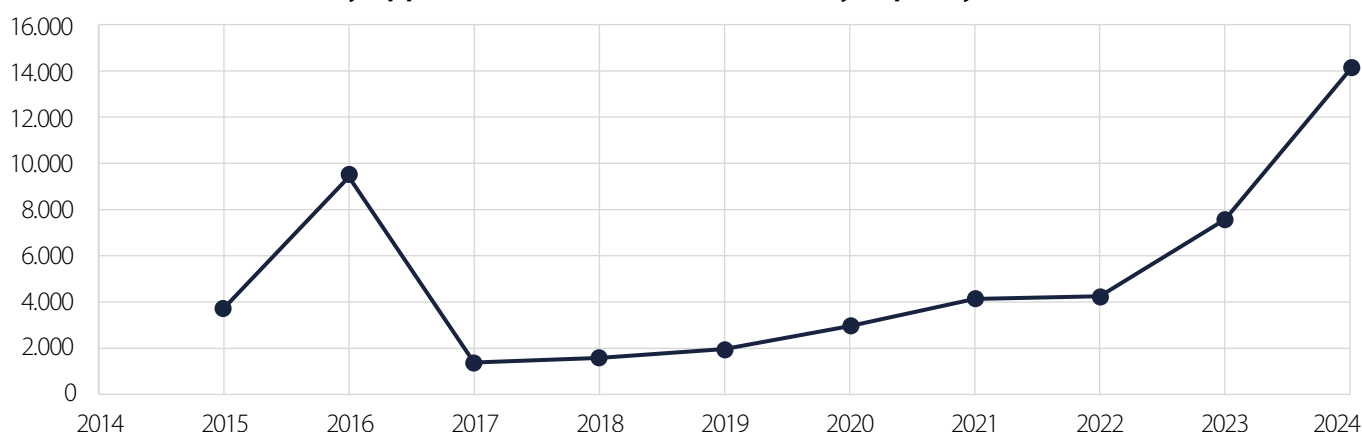


Figure 9: [Status of onshore wind energy expansion in Germany in 2024](#), p. 19.

Policy successes are reflected in the fact that, despite the surge in new approval applications, average processing times have been reduced from just over 26 months to around 23 months. However, compared to the last decade, this still ranks on the higher end of approval durations. A more pronounced improvement is evident in the median processing time, which

indicates that a few extreme outliers heavily influence the average duration. Addressing these outliers and systematically reducing such delays remains a key challenge. The new coalition agreement explicitly addresses additional measures to accelerate planning and approval processes for infrastructure projects.¹³

¹³ *Koalitionsvertrag zwischen CDU, CSU und SPD - 21. Legislaturperiode* p.22.

Duration of approval procedures for wind turbines in Germany (in months)

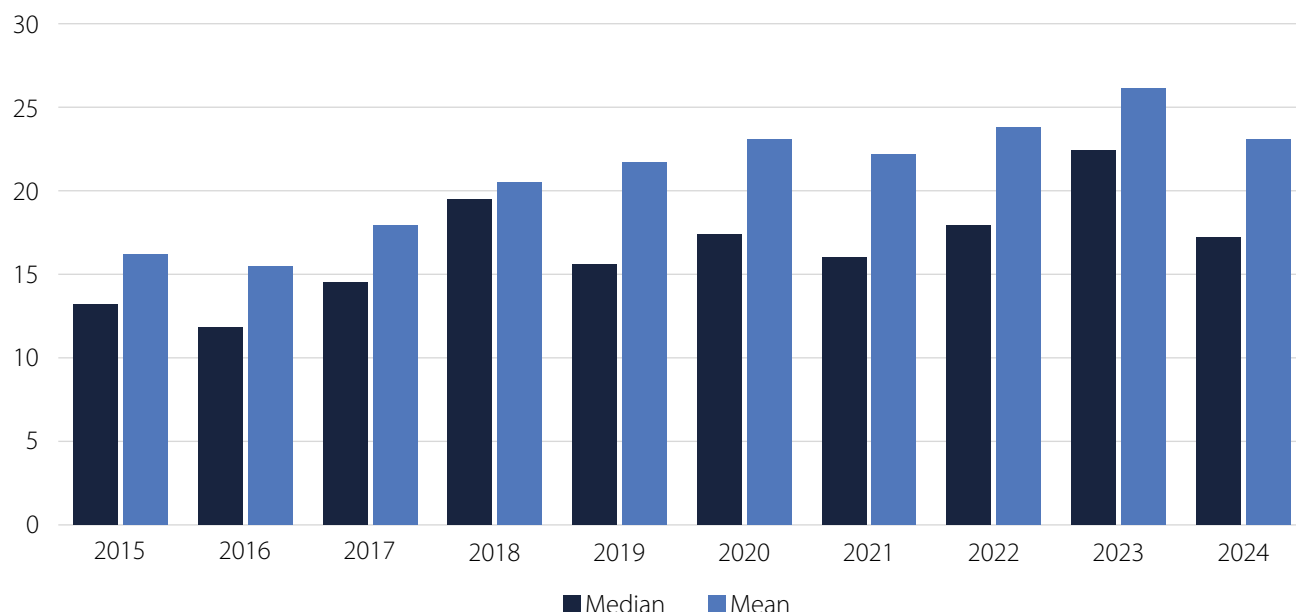


Figure 10: Status of onshore wind energy expansion in Germany in 2024, p. 20.

The megatrends of ecological and digital transformation are also reflected in investors' perceptions of the investment environment across infrastructure sectors. Sentiment toward digital infrastructure is the most favorable, with a total of 39% of investors rating the environment as "very positive" or "positive." For renewable energy, 25% of investors share at least an optimistic view. However, optimism is more restrained in this segment: only 3% classify the outlook as "very positive," while the largest share, 29%, considers the environment for renewables to be "somewhat positive."

Infrastructure market environment by sector in 2024

"How do you currently assess the investment environment in the following Infrastructure sectors?"

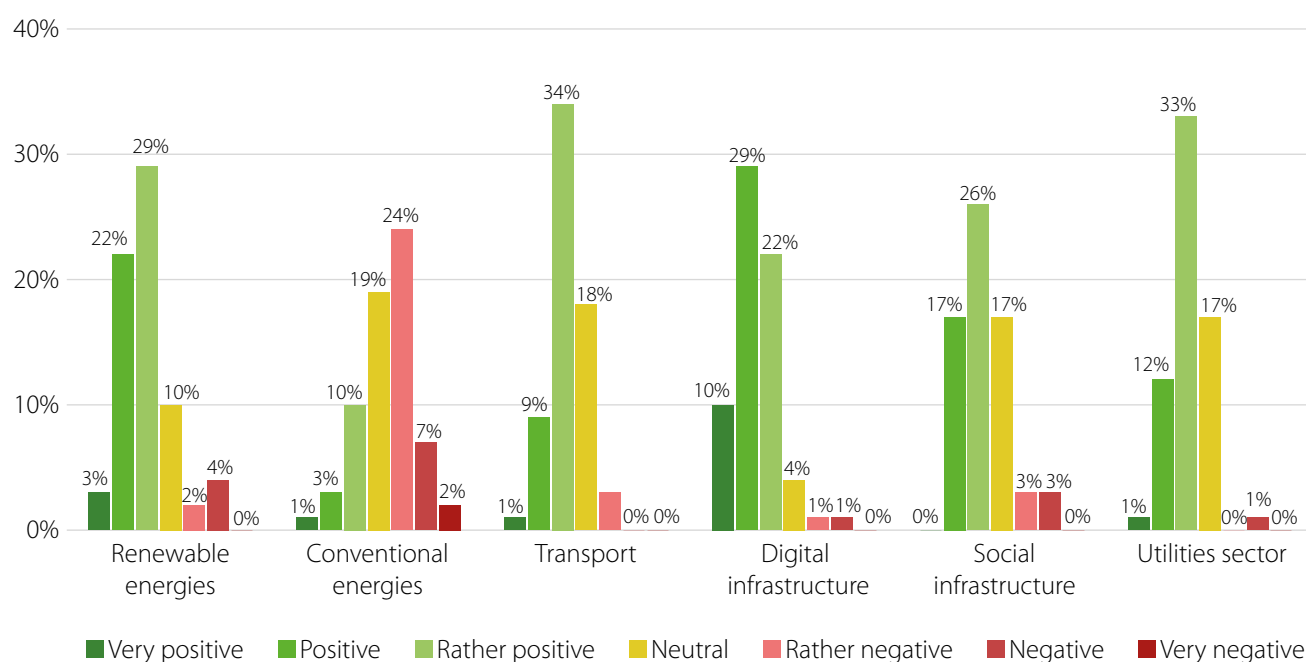


Figure 11: Assessment of the investment environment by Infrastructure sector. Source: BAI Investor Survey 2024.

3.2.2. Current Market-side Challenges

Daniel Tubik of GLS Investments argues that, although there is a growing number of investable renewable energy projects in Germany, these tend to be relatively small compared to projects in markets such as Spain or the United States, where projects exceeding 100 MW are not uncommon. Smaller wind and solar projects in Germany pose the challenge of requiring significant investment costs for relatively modest IRRs in an environment of rising interest rates. Moreover, due diligence requirements apply equally to small and large projects, further putting pressure on returns. Large-scale projects in Germany are hindered by high capital requirements and complex approval processes, despite the existing investor demand for such projects.

Tubik further identifies several market-related challenges for infrastructure projects in Germany. In the context of energy production, negative electricity prices are becoming increasingly relevant, particularly in the solar segment on very sunny days. Such effects have so far been insufficiently accounted for in many return models. While battery storage could theoretically mitigate these price spikes, current uncertainty makes it difficult to reliably assess risk-return profiles: Storage technology is still maturing, and numerous variable factors influence the revenue side. Despite these uncertainties, political and societal pressure to invest in battery storage continues to grow.

Solar expansion and battery storage are mutually dependent—both should be seen as endogenous factors that jointly shape market dynamics: Expanding solar capacity increases the demand for storage solutions, while the expansion of storage infrastructure, through its price-setting and grid-stabilization functions, impacts the risk-return profile of future solar investments. In this context, grid infrastructure—particularly substations—also holds high economic significance, as it plays a central role in the efficient expansion of a decentralized power system.

Expert interviews overall indicate that, while wind farms and solar energy have already become established investments for institutional capital, this is not yet the

case for municipal infrastructure, particularly electricity grids and district heating systems.

3.3. Municipal Infrastructure

Municipal infrastructure refers to essential public services and facilities provided by cities and municipalities to ensure the functioning of daily life within a community. This includes, among others, technical infrastructure such as roads, bridges, and public transportation (buses, trams); water supply and wastewater management; energy supply systems such as electricity and gas networks, and, where applicable, local district heating; and waste management services, including garbage collection, recycling centers, landfills, and material recovery facilities.

From the social infrastructure segment, municipal educational and healthcare institutions—such as schools and hospitals—are included. A third category comprises municipal administrative buildings.

3.3.1. Municipal Budget Situation & Investment Needs

Rising social, personnel, and material costs pose a long-term challenge for municipal budgets and significantly limit the investment capacity of municipalities. According to the KfW Municipal Panel 2025, municipalities report an investment backlog totaling €215,7 billion (at current prices), representing a 15,9 % increase compared to the previous year.

The primary drivers of this development are growing investment shortfalls in road and transport infrastructure (+€9.7 billion to approximately €48.3 billion), school infrastructure (+€7.3 billion to around €54.8 billion), and infrastructure for civil protection (+€4 billion to roughly €16.3 billion). A key factor contributing to the increased investment backlog is also the price trend in construction (see Construction Price Index for Roads, Figure 12).

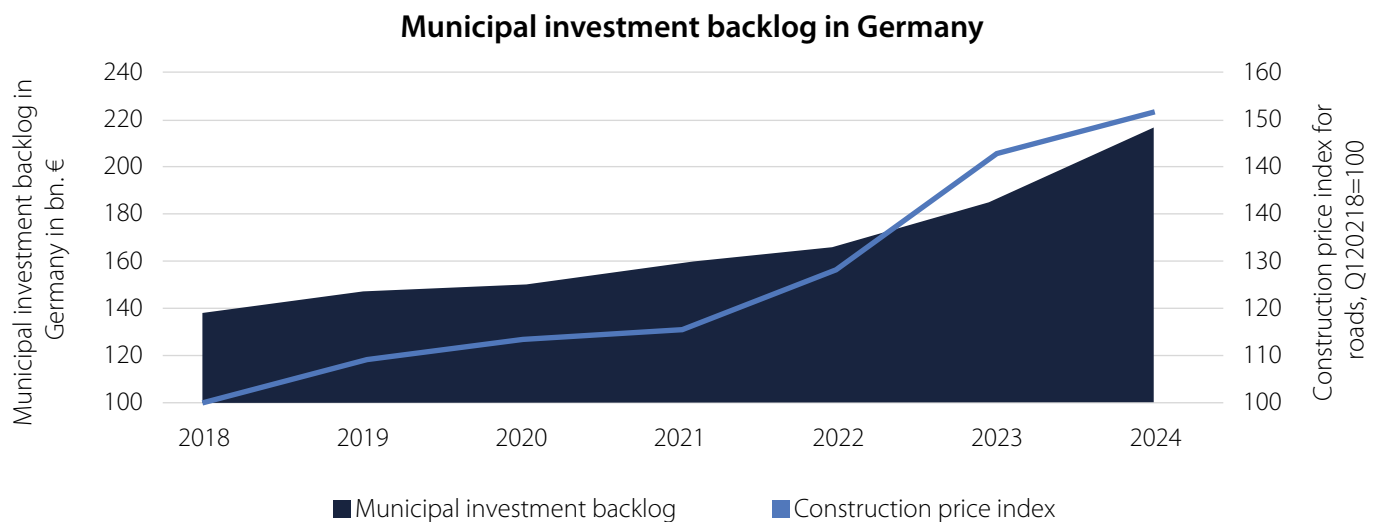


Figure 12: Investment backlog of German municipalities. Source: KfW Municipal Panel 2024, 2025¹⁴; Construction price index for roads, Q1 2018=100. Source: Federal Statistical Office.¹⁵

More than half of municipalities cite insufficient own funds as the primary reason for not implementing or only partially implementing projects (see Figure 13). Additional key challenges include complex

construction regulations, such as procurement procedures, and internal administrative barriers, including staff shortages and a lack of digitalization.¹⁶

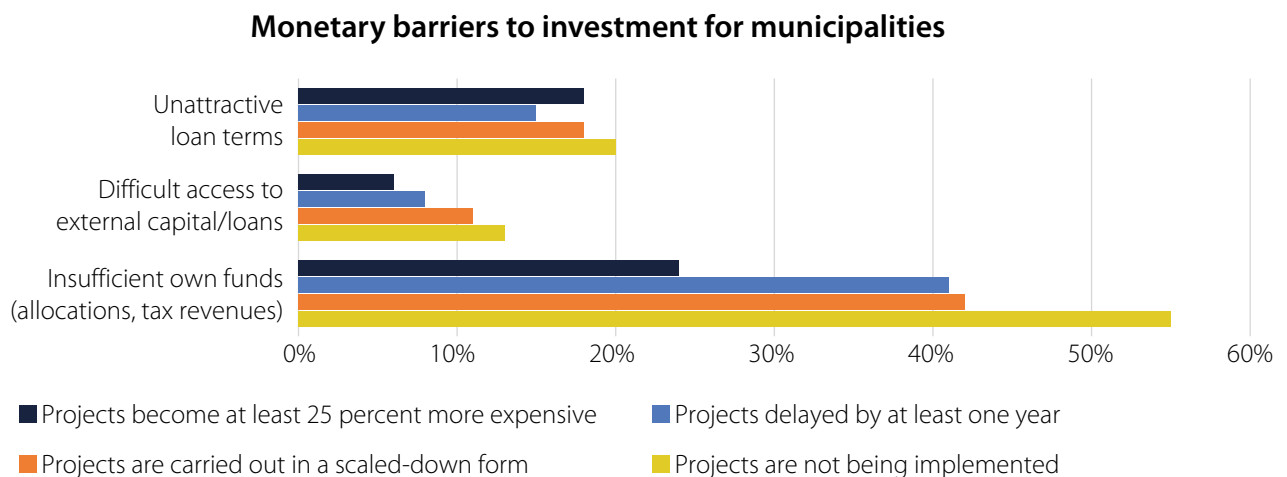


Figure 13: Impact of monetary investment barriers on German municipalities. Source: KfW Municipal Panel 2024.¹⁷

3.3.2. Financing Structures & Role of Institutional Investors

Under the prevailing traditional municipal financing model, infrastructure project financing is covered entirely through equity contributions from municipal utilities, public budgetary funds, or loans from public lenders such as savings banks, KfW, or development banks, with no involvement of private capital. Those

models represent the standard approaches for municipal infrastructure projects, such as schools, roads, or wastewater systems, where the public entity bears the full risk in cases of sole ownership. Due to budgetary constraints, leveraging through additional debt is only possible to a limited extent.

The financing mix for municipal investments, as reported in the KfW Municipal Panel 2025, indicates that

¹⁴ KfW-Kommunalpanel 2024, p. 15., KfW-Kommunalpanel 2025.

¹⁵ Statistisches Bundesamt 2025.

¹⁶ KfW-Kommunalpanel 2024.

¹⁷ KfW-Kommunalpanel 2025 p. 23.

municipal loans (25%), cash reserves from the previous year (20%), subsidies (21%), and current general cover funds (20%) comprise most financing sources. Investments from private capital are not listed separately and are categorized as “Other,” representing only 3% (see Figure 14).

Financing mix for municipal investments

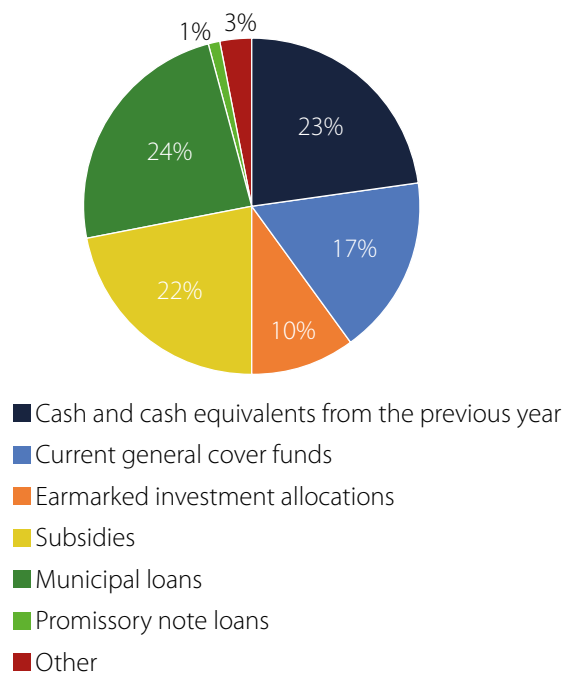


Figure 14: Financing mix of municipal investments. Share of total investment volume as a percentage. Source: KfW Municipal Panel 2025¹⁸

Given the strained budgetary situation of municipalities described above, alternative financing models involving private capital are becoming increasingly prominent.

A small number of individual infrastructure projects—such as municipal heating and mobility infrastructure, including charging networks or district heating systems—are being financed and implemented via special-purpose vehicles (SPVs), supported by institutional capital. Unlike traditional public-private partnerships (PPPs, see Section 3.4.2), the private partner in these models is not necessarily the operator or the primary risk bearer. The role of the private partner can be structured flexibly depending on the project, ranging from a purely financial investor, such as a fund, to a strategic co-investor with operational influence.



Andre Pfleger, Head of Transformation Financing, LBBW Asset Management

Andre Pfleger, Head of Transformation Financing at LBBW Asset Management, explains that municipally affiliated companies (“KNU”), such as public utilities or special-purpose associations, have so far generally been in a comfortable financial position through their shareholders—often via municipally guaranteed loans.

The massive transformation driven by the energy and heating transition will result in municipal utilities’ balance sheets doubling or even multiplying in the coming years. This creates an immense and immediate financing need on the part of KNUs, which cannot be met solely through internal financing or capital injections from shareholders. Against the backdrop of the generally strained fiscal situation of municipalities, the involvement of private capital—such as institutional investors or private individuals—appears fundamentally necessary. A prerequisite for this, however, is an adequate return on capital from the investors’ perspective, regardless of whether the investment is structured as equity or debt.

Bringing both market sides together and finding solutions that meet the requirements of both parties represents the central challenge for asset managers operating in this segment. Cases where private investors play a key role in financing municipal infrastructure in Germany are still the exception rather than the rule.

The debt side is already better established for municipal infrastructure investments, as banks, savings banks, cooperative banks, and major commercial banks often act as lenders at both the corporate level of municipal utilities and the project level. This segment already operates within a functioning market with standardized financing instruments.

¹⁸ KfW-Kommunalpanel 2025 p. 23.

The greater bottleneck, however—and a relatively new challenge—exists on the equity side. Many municipal infrastructure operators can no longer meet their equity needs solely through their existing shareholders. At the same time, there are often significant differences in return expectations between financing parties and investors due to differing backgrounds and interests. Pflieger emphasizes that enhancing the equity base of municipal companies is crucial to ensure overall financial capacity and, consequently, the successful implementation of investment projects.



*Marc Gerards,
Investment Director,
EB-SIM*

Marc Gerards, Investment Director, EB-SIM, argues that municipal utilities—such as city-owned utilities and their network subsidiaries—often struggle to attract investors and private capital. Ideally, however, new structures could be created

for upcoming projects or expansion measures. For instance, a municipal utility could bring in a new external partner exclusively for a specific project. For example, if a new residential district requires new networks and facilities, it would be easier to justify involving new partners who provide private capital for that purpose.

3.3.3. Requirements, Motivation & Investment Willingness of Institutional Investors

Maximilian Cosack of HUK-COBURG Asset Management outlines several reasons why investments in municipal infrastructure in Germany can be attractive for domestic institutional investors. A key argument is the home market advantage: as an institutional investor, one has a firm understanding of the local environment and access to informational advantages that can be leveraged—similar to Real Estate portfolios, which for German investors have traditionally been heavily domestic. In contrast, exposure to German infrastructure remains extremely limited, with renewable energy investments—such as photovoltaic and wind power—dominating, while municipal infrastructure plays almost no role.

Cosack also highlights Germany's financial strength as a major factor supporting greater engagement. As Europe's largest and economically most stable economy with a strong credit rating, Germany offers reliable conditions, especially for cash flows that are government-backed or supported. Political stability—despite some recent uncertainties—is also seen as an advantage, particularly in the context of long-term infrastructure investments. Furthermore, Germany's support schemes have proven remarkably stable in



an international comparison, giving investors the planning security they require—unlike in markets such as Spain, where drastic policy changes have occurred in the past.

Danny Tuchlinsky of Ärzteversorgung Land Brandenburg adds that municipal infrastructure can, in principle, be highly attractive for institutional investors because it represents classic “core infrastructure”—stable, long-term assets with predictable cash flows, as typically found in utility networks. This makes the segment broadly comparable to other established infrastructure investments.

However, certain conditions must be met for such assets to become viable investment options. It is therefore crucial that the investments are competitive compared to other infrastructure offerings – particularly in terms of risk-return profile and marketability. Tuchlinsky also stresses that for Ärzteversorgung Land Brandenburg, direct stakes in specific municipal utilities are not an option, as these would be too niche and insufficiently diversified. Instead, structured and pooled solutions are required.

Maximilian Cosack of HUK-COBURG Asset Management describes a fundamental tension faced by locally anchored investors such as insurance companies. On one hand, there is a natural positive home bias—a generally higher willingness to invest in the domestic market, partly driven by a sense of responsibility toward their own region. When opportunities to invest in local infrastructure arise, investors are therefore open to engagement, primarily since proximity to municipal utilities or local authorities often provides better access and reduces friction compared to international large-scale investors.

On the other hand, this positive regional orientation must not result in municipal infrastructure investments being perceived merely as a form of subsidized lending. These investments must be regular, market-based transactions that are viable from a risk-return perspective. However, due to structural factors, returns are often not competitive.

In principle, municipal infrastructure could be an attractive investment segment for institutional investors, given government backing, long-term and stable cash flows, and the benefits of local proximity. Nevertheless, factors such as comparatively less attractive risk-return profiles and limited marketability currently prevent the full utilization of private capital’s potential to close the existing financing gap.

Several factors make investments in municipal infrastructure fundamentally attractive from an investor’s perspective:

- **Positive regional ties, informational advantages, and local expertise**
- **Germany’s strong creditworthiness and economic stability**
- **Stable, predictable cash flows**
- **Government backing through public ownership.**

However, these advantages are offset by perceived challenges such as unattractive risk-return structures, limited marketability, and highly fragmented project structures.

3.4. Approaches to Improving Conditions for Investments in German Infrastructure, Particularly Municipal Infrastructure

To stimulate private investment in infrastructure in Germany, it is essential to systematically identify existing challenges and develop targeted solutions. Based on expert insights, the following section outlines potential levers to improve the framework conditions for private capital in this sector. Within this context, we discuss approaches aimed at enhancing investment conditions for German infrastructure overall, with a particular focus on municipal infrastructure.¹⁹

¹⁹ The distinction between what constitutes municipal infrastructure is not always clear-cut.

3.4.1. The Infrastructure Special Fund and Private Infrastructure Investments in the Coalition Agreement of the New German Federal Government

We begin by examining the new Infrastructure Special Fund, which was approved on March 18, 2025, by the previous Bundestag through an amendment to the German Constitution (Grundgesetz).²⁰

In its coalition agreement, the new federal government emphasizes that a well-functioning infrastructure is crucial for Germany's prosperity, social cohesion, and long-term viability. The special fund is intended to serve as a "booster" to achieve this goal. The fund has a total volume of €500 billion, of which €100 billion is earmarked for federal states and municipalities, which bear the bulk of investment responsibilities. This allocation underscores the government's acknowledgment of the enormous financing needs in the area of municipal infrastructure. An additional €100 billion from the special fund is designated for the Climate and Transformation Fund. In comparison, €150 billion from the federal share of the fund is scheduled to finance infrastructure measures between 2025 and 2029. The coalition partners intend to define priority sectors with significant investment needs and ensure that an evaluation process accompanies all measures. Furthermore, the increase in investment volume is to be supported by accelerated planning, approval, procurement, and tendering processes. The agreement explicitly states that the fund should "leverage private capital wherever possible."²¹

Considering the overall investment needs for infrastructure in Germany, the €100 billion allocated to states and municipalities under the special fund is currently insufficient to eliminate the investment backlog, which municipalities themselves estimate at €186 billion.²² Overall, Germany's investment needs, given the legally binding goal of climate neutrality by 2045, are estimated—depending on the study and definition—at between €1.1 trillion and €5 trillion.

According to KfW, only about 40% of this amount can be covered by public funds.²³ A recent study by Prof. Dr. Lars Feld of the University of Freiburg projects a financing requirement of €400 billion over the next ten years for highway, rail, and energy infrastructure alone. Maintaining public infrastructure will therefore only be feasible with the involvement of private investment, with state-owned project companies potentially contributing to the solution. In any case, fund managers are expected to play a central role in meeting these financing needs.²⁴

Despite the introduction of the special fund, a substantial need for private capital in Germany's infrastructure sector, particularly in municipal infrastructure, is expected to continue. Given the enormous challenges Germany faces, it is crucial to deploy the special fund as efficiently as possible and combine it with private investment. This raises the question of how such a combination can be achieved and how the special fund might influence the balance between public and private capital in the infrastructure sector.

A key consideration is that the special fund and private capital should be strategically linked—using public funds to leverage and mobilize private investment in a targeted manner.

Andre Pfleger of LBBW Asset Management

considers the Infrastructure Special Fund potentially highly relevant for amplifying the impact of public funds through private capital. He argues that government grants, risk assumption mechanisms, liquidity support, or tax credits could help address the primary issue: Germany's comparatively low risk-return profile.

Pfleger emphasizes that such public measures could bridge the gap between risk and return expectations, thereby removing a key barrier to private investment in municipal infrastructure. By deploying subsidies, guarantees, and tax incentives, Germany could make

²⁰ Bundeszentrale für politische Bildung (2025) - Grundgesetzänderung für Verteidigung und Sondervermögen.

²¹ Koalitionsvertrag zwischen CDU, CSU und SPD - 21. Legislaturperiode, p.52-53.

²² KfW-Kommunalpanel 2024.

²³ Handelsblatt Research Institute (2024), KfW Research (2021).

²⁴ Prof. Dr. Dr. h.c. Lars P. Feld, Universität Freiburg & Walter Eucken Institut; Julia Braun, M. Sc., Walter Eucken Institut (2024).

its infrastructure market more competitive on an international level.

However, it is essential to note that German institutional investors generally regard stable and predictable regulatory frameworks as more important location factors than direct state interventions. Surveyed investors expressed a preference for simple, reliable frameworks over complex or heavy-handed government involvement.²⁵ The rationale behind measures for state interventions, however, could be to create positive dynamics and path dependencies, supported by improvements in the regulatory framework.

Another lever for deploying the special fund efficiently is through risk-sharing mechanisms, one of which is discussed below.

Maximilian Cosack of HUK-COBURG Asset Management advocates a situational, holistic approach when combining public and private financing sources. In his view, the special fund and private investments should not be seen as mutually exclusive but rather as complementary and closely integrated. The objective is to use public funds as efficiently as possible and leverage them by mobilizing private capital. Since the special fund ultimately consists of taxpayer money, there is a particular responsibility to deploy it strategically—ideally in a way that encourages complementary private sector involvement.

Cosack points to existing European models such as the European Investment Fund (EIF), which incentivizes institutional investors by using so-called first-loss components. These structures involve public funds taking on the riskiest tranche of an investment, thereby reducing residual risk for private investors, as they would only bear losses after the public share is absorbed. Comparable solutions—such as equity funds supported by the special fund—could thus create attractive, risk-adjusted entry vehicles for private investors.

The EIF uses first-loss components, whereby public funds specifically cover the riskiest part of an investment, thereby reducing the remaining risk for private investors, as they would only be liable after the state in the event of a loss.²⁶

For the debt-financed Infrastructure Special Fund to achieve maximum efficiency and help close the investment gap—which is significantly larger than the fund itself—the framework conditions are crucial. These conditions must enable an initial wave of public investment and create path dependencies that lead to a permanently higher level of investment.

The coalition agreement, therefore, complements the Infrastructure Special Fund with an “Investment Offensive.” As part of this initiative, a Germany Fund (Deutschlandfonds) is to “combine the strength of private financial markets with the long-term strategic approach of the state as an investor.” At least €10 billion in federal equity will be provided through guarantees or financial transactions. Additionally, private capital and guarantees are to be used to leverage the fund’s resources to a minimum of €100 billion.

Designed as an umbrella fund with an “entrepreneurial governance” model, the initiative aims to invest in various modules in the areas of growth and innovation capital—particularly for SMEs and scale-ups—with a strong focus on Germany.²⁷

For the planned decarbonization of heat supply—a subsegment of public infrastructure largely under municipal responsibility—the coalition partners explicitly aim to involve private capital alongside public funding. By creating greater legal certainty and investment protection, they seek to stimulate investor interest in this sector. To this end, key regulations (such as the AVB-FernwärmeV and WärmelieferV) will be revised, and an unbureaucratic arbitration body will be established to ensure transparent pricing and thereby improve market efficiency.²⁸

²⁵ BAI Infrastructure 2024, p. 27.

²⁶ Cf.: The new EIF AGRI guarantee facility: How it works and who can benefit.

²⁷ Koalitionsvertrag zwischen CDU, CSU und SPD - 21. Legislaturperiode p.4-5.

²⁸ Ibid. p.35.

Additionally, the coalition has recognized the importance of capital market regulation in leveraging private capital to finance future-oriented infrastructure. Accordingly, a legally secure and competitive European framework for “fund investments in infrastructure and renewable energy” is to be established, accompanied by targeted adjustments to tax regulations.²⁹

Whereas the coalition agreement of the previous federal government with the so-called “traffic light-coalition” (SPD/Greens/FDP) lacked concrete plans for mobilizing private capital in the infrastructure sector³⁰, there is now evident progress in terms of awareness, with promising approaches outlined across several areas. However, what remains unclear—since it is not explicitly stated in the coalition agreement—is the extent to which these approaches will incorporate the funds from the Infrastructure Special Fund.

The next step is to interlink the various approaches planned by the new government and to combine public capital efficiently with private investment—either through risk-sharing mechanisms or by using public funds as a lever. At the same time, an initial wave of public investment should aim to create positive path dependencies that lead to a sustained higher level of investment.

The special fund and the coalition agreement can, in any case, generate positive momentum for the municipal infrastructure sector. To achieve this, it is essential to adopt pragmatic approaches and incorporate the perspectives of institutional investors and asset managers.

3.4.2. Public-Private Partnerships (PPP) as an Instrument for Mobilizing Private Capital

From an investor’s perspective, according to **Gregor Kurth of Igneo Infrastructure Partners**, investments in municipal infrastructure in Germany represent a promising opportunity—particularly in light of recent legislative changes and the special fund for public

infrastructure financing, which allocates €100 billion to federal states and municipalities for municipal and state infrastructure projects. This change, as he argues, provides greater financial flexibility and the potential for increased public-private partnerships (PPPs) in municipal infrastructure projects by offering a substantial public financing base. However, private investors will continue to play a critical role in closing financing gaps and contributing expertise to complex projects. Kurth argues that the risk-return profile of such investments is likely to improve as the government strengthens its commitment to infrastructure development and supports these initiatives through regulatory measures.

PPPs, which are mentioned in the context of the Infrastructure Special Fund, involve private capital providers taking on not only financial exposure but also operational responsibilities and risks—alongside complex contractual frameworks and governance issues. For large, capital-intensive, and technically demanding projects, partnerships between municipalities or federal states and private companies can offer significant advantages.³¹

Particularly in complexity management, public-private partnerships offer advantages, as the planning expertise of the public partner is complemented by the economic incentives driving the private partner, which can enhance efficiency. A positive example of a successful PPP is the conversion of the former Unity Media headquarters in Cologne into a secondary school, completed in less than two years from application to completion.³² Conversely, there are prominent negative examples, such as Berlin Brandenburg Airport (BER), which was initially designed as a PPP but was ultimately completed as a fully public project after major delays and massive cost overruns.³³

Although studies indicate that with stronger political commitment, PPPs could generate highly positive macroeconomic effects, the trend in both the number

²⁹ *Ibid.* p.49.

³⁰ BAI Informationsbroschüre Infrastruktur (2022), p.74-45.

³¹ For an introduction to and classification of PPPs cf. BAI Informationsbroschüre Infrastruktur (2022), p.45-52.

³² HIH Invest (2023).

³³ Tagesschau: Staatliches Sondervermögen - Können private Partner die Infrastruktur retten? (2025).

and volume of PPP projects in Germany has been rather unfavorable in recent years. One key factor shaping this negative perception has been the criticism by the Federal Court of Auditors (Bundesrechnungshof, BRH) regarding PPPs in highway construction, which significantly influenced public opinion. Additionally,

bureaucratic hurdles have historically represented a central obstacle to the broader implementation of PPPs.³⁴ The number and volume of PPPs in Germany have stagnated at a low level, except in 2020, when a significant increase in volume was recorded in the road construction sector (see Figure 15).

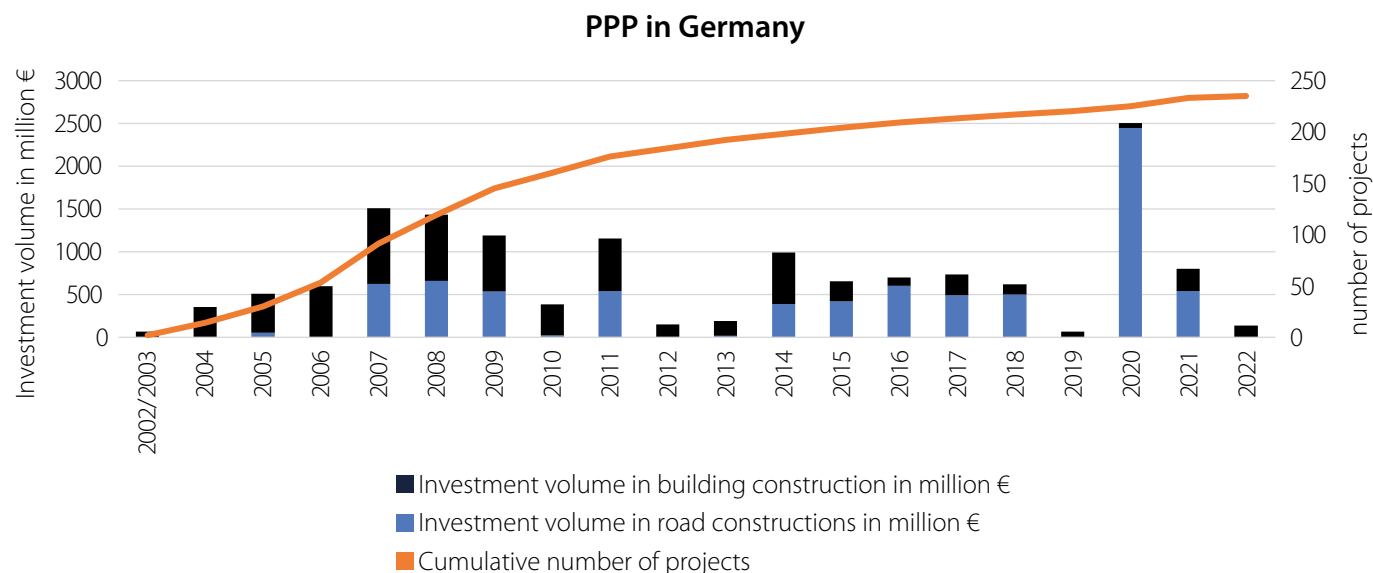


Figure 15: Investment volume in public-private partnerships in building construction and road construction, cumulative number of projects, 2002–2019. Source: PPP Project Database.³⁵

The limited relevance of PPPs in Germany is also reflected in the fact that only 14.9% of respondents in the BAI Investor Survey 2024 reported having invested in PPPs (see Figure 16). According to Dimitri Mavridis of Preqin, institutional investors in Germany are significantly more cautious toward public-private partnerships compared to their counterparts in other European countries. Only about 31% of investors in Germany express openness to PPPs—a markedly lower share than, for instance, the United Kingdom, where approximately 83% of investors are supportive. Mavridis attributes this reluctance to factors such as low market penetration, cultural reservations, and a more restrictive regulatory environment.

Are you invested in public-private partnerships (PPPs) in Germany?

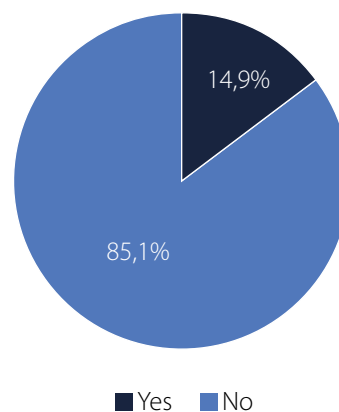


Figure 16: Share of infrastructure-invested respondents with investments in public-private partnerships (PPP) in Germany. Source: BAI Investor Survey 2024.



A study by the ifo Institute identifies transparency as a key factor for the success of PPPs, noting that, despite progress in Germany, there remains significant room for improvement. The authors recommend optimizing PPP planning phases by emphasizing clear evaluation criteria, providing timely feedback to bidders, utilizing standardized documentation,

³⁴ BAI Informationsbroschüre Infrastruktur (2022), p.45-52.

³⁵ Öffentlich Private Partnerschaften – PPP-Projekt Datenbank.



and simplifying bureaucratic processes to facilitate access for smaller providers. Greater overall process transparency could help minimize conflicts and reduce information asymmetries. The study also recommends the involvement of multiple oversight bodies to enhance governance and accountability.³⁶

In the previous government's coalition agreement, it was emphasized that, for infrastructure projects related to core state responsibilities, both implementation and financing should fundamentally remain under public control.³⁷ The new coalition agreement, however, signals a shift in this stance. For transport infrastructure, it introduces a "three-pillar model" comprising budgetary funds, user-based financing, and private capital—such as through PPPs, albeit on a limited scale. In this context, Autobahn GmbH is to be granted limited borrowing capacity and provided with access to truck toll revenues.³⁸

It remains to be seen whether the expectation expressed in the expert interviews—that the Infrastructure Special Fund could also increase the role of public-private partnerships (PPPs) in Germany—will ultimately materialize.

Stronger political support for PPPs—treating them as an open-ended financing option for municipal infrastructure projects—could enhance both the flexibility and the financial feasibility of projects in this sector. Standardized documentation and reduced bureaucracy could improve the transparency of procurement and procedural workflows, thereby increasing both the efficiency and the societal acceptance of PPPs.

3.4.3. Barriers and Improvements in Investor Supervisory Regulations

The political initiatives discussed so far, as well as the measures outlined in the coalition agreement, primarily aim to improve the supply-side conditions for investable infrastructure projects in Germany—specifically, by facilitating greater involvement of private capital in domestic infrastructure projects.

The limited supply of investable infrastructure projects is almost certainly the key bottleneck to increasing infrastructure investment in Germany.³⁹

Additionally, investors face allocation constraints within alternative asset classes, which can influence demand for German projects and potentially limit the overall potential for infrastructure investments. Closely related to this are investor supervisory regulations, which govern investments either directly—through quotas—or indirectly, via mandatory capital requirements, depending on the investor type and asset class.⁴⁰ Demand-oriented measures to increase overall infrastructure investment do not necessarily translate into higher investment in German projects. However, when combined with supply-side measures, they can serve as key components in mobilizing more institutional capital for infrastructure in Germany.

³⁶ David Gstrein, Elena Herold, Florian Neumeier, Niklas Potrafke, Tuuli Tähtinen, Pascal Zamorski: *Transparenz bei Öffentlich-Privaten Partnerschaften* (2024), Ifo-Institut.

³⁷ BAI Informationsbroschüre *Infrastruktur* (2022), p.74-45.

³⁸ *Koalitionsvertrag zwischen CDU, CSU und SPD - 21. Legislaturperiode* p.25.

³⁹ Cf. BAI *Infrastructure* (2024).

⁴⁰ Cf. BAI *Investorenaufsichtsrecht* (2025).

3.4.3.1. Qualified Infrastructure Investments under Solvency II

In this context, the new government intends to advocate for an amendment to the Solvency II regulation to reduce capital requirements for investments in infrastructure projects and venture capital by large insurers. Such a reform could unlock the potential for additional multi-billion-euro investments in these sectors.⁴¹

In expert interviews, the area of qualified infrastructure was frequently identified as a key area for improvement under Solvency II concerning infrastructure investments.

Since 2009, large insurers have been subject to the EU Solvency II Directive, which requires them to calculate their Solvency Capital Requirement (SCR) using a standardized formula. This regulation aims to protect insurers from insolvency by taking into account the material risks of their business operations. The amount of required capital depends on the type of assets held. In addition to capital requirements, insurers must apply a look-through approach for assessing market risk and comply with quantitative reporting obligations to supervisory authorities.

However, since 2016, regulatory relief has been granted for investors in Infrastructure Equity and Debt under Solvency II. Certain assets can be explicitly classified as “infrastructure investments,” resulting in reduced SCR requirements. This is particularly relevant for insurers with low equity ratios. Tokarevich and Düsterlho (2017)⁴² demonstrate that insurers can lower their SCR by up to 18 percentage points for Infrastructure Equity and up to 16 percentage points for Infrastructure Debt, significantly expanding their capacity for such investments.

For an asset to qualify as an “infrastructure investment” under Solvency II, a preliminary assessment and an independent, conflict-free validation are required. This involves extensive analysis, including formal compliance checks, a thorough review of the financial model, and stress testing of the investment. Furthermore, investors must assess the suitability of the investment, for example, in terms of asset-liability management considerations.⁴³



Sascha Beisheim, Senior Institutional Business Development Director, Igneo Infrastructure Partners

Sascha Beisheim, Senior Institutional Business Development Director at Igneo Infrastructure Partners, explains that, based

on discussions with Solvency II investors, the concept of supporting investments in qualified infrastructure is well-intentioned and sends

the right signal. However, in practice, it ultimately depends on the individual investor’s ability to meet the relatively high requirements.

According to regulatory guidance, the responsibility lies with the company – in this case, the investor – to conduct thorough due diligence and ensure continuous monitoring to comply with the principle of prudent person management. Additionally, investors allocating to infrastructure must have the necessary personnel and technical expertise to meet these regulatory obligations.

⁴¹ *Koalitionsvertrag (2025)*, p.4-5.

⁴² Tokarevich, Jegor; Düsterlho, Jens-Eric von (2017): *Qualifizierte Infrastrukturinvestitionen für VAG- Investoren*. In: *Absolut Report (01)*, p. 30–35.

⁴³ *BAl Informationsbroschüre Infrastruktur (2022)*, p. 32-33.

In discussions with small and mid-sized Solvency II investors, it became evident that they rarely benefit from the reduced capital requirements for “qualified infrastructure.” The main reason is that these investors typically invest via fund-of-funds structures to achieve the desired diversification across countries and sectors. However, the effort required to conduct detailed due diligence on every single portfolio company across all underlying funds – the so-called “look-through-through” approach – is prohibitively high. As a result, the supervisory requirements for verification cannot be met, meaning that the full capital charge must be applied.

Sascha Beisheim, Senior Institutional Business Development Director, Igneo Infrastructure Partners



*Kathrin Schmidt,
Portfoliomanagerin, GVV
Kommunalversicherung*

Kathrin Schmidt, Portfolio Manager at GVV Kommunalversicherung VVaG,

emphasizes that investments in qualified infrastructure can be challenging, particularly due to the reliance on the quality of TPT (Tripartite Template) data provided by asset managers. If the data documentation is insufficient, investments may not qualify as “infrastructure” under Solvency II, which would significantly increase the capital requirements for the insurer. She suggests improving the quality and consistency of TPT data delivery as a key measure to address this issue, facilitate the classification of investments as qualified infrastructure, and thereby reduce the capital burden.



*Jegor Tokarevich,
CEO, Substance Over
Form Ltd.*

Jegor Tokarevich, CEO of Substance Over Form Ltd.,

clarifies: “The TPT includes a single data point for the QI classification. In our experience, GPs who conduct comprehensive QI assessments typically have no difficulty filling in this data point within the TPT. In my view, this TPT data point poses no major challenge for GPs, as it essentially consists of a single, straightforward entry with basic information.

The problem, therefore, is often not the TPT itself. Instead, it is the preparation and review of extensive documentation (10–30 pages per asset) that creates a significant operational burden. While the TPT may only contain a single value, the investor must receive and verify a much larger accompanying set of documents before the value reported through the TPT can be accepted.”



*Philipp Kratzer, Head of
Alternatives Strategy &
Advisory, MEAG*

Philipp Kratzer, Head of Alternatives Strategy & Advisory at MEAG,

explains that under Solvency II, it is particularly challenging to classify infrastructure investments as “qualified” on the equity side—primarily due to MEAG’s strict interpretation of regulatory requirements. The firm emphasizes a conservative approach and close adherence to statutory provisions, which makes qualifying equity transactions under this structure more difficult.

On the debt side, however, their investments more frequently meet these criteria, and MEAG actively reports this to institutional clients, as it is often requested. Nonetheless, Kratzer notes that achieving “qualified” status for infrastructure investments under Solvency II is regarded more as a “nice to have” rather than the main motivation for investing. The primary focus remains on the fundamental value of the underlying assets rather than solely on regulatory classification.



*Armin Beerwart, Head
of Private Markets, W&W
Asset Management*

Regarding qualified infrastructure (QI) under Solvency II, **Armin Beerwart, Head of Private Markets at W&W Asset Management GmbH,** explains that their infrastructure investments are generally made regardless of whether they qualify as QI

or not. Both approaches—booking as QI or non-QI—are possible, although QI status under Solvency II is naturally considered advantageous due to the reduced SCR requirement.

At W&W, a process for verifying QI eligibility has been in place for many years, both at the time of investment and continuously during the holding period. However, this process is complex and time-consuming. For direct or co-investments, verification and monitoring are still relatively manageable. The challenge becomes significantly greater in highly diversified fund portfolios, which are subject to frequent changes—such as new investments during the commitment period and subsequent exits.

While some fund managers provide pre-prepared QI assessments, which are highly helpful, a simplification for diversified fund investments would be very desirable from an investor's perspective.

Regarding the support provided by fund managers in QI verification, **Sascha Beisheim of Igneo Infrastructure Partners** argues that, although *investors can outsource the preliminary review to external partners, the regulator requires that the final assessment be conducted by the investor itself.*

Jegor Tokarevich of Substance Over Form adds: *“External service providers can significantly ease the process by preparing the asset review in collaboration with the GP. This enables the investor to review the QI documentation received from the GP and make the classification much more efficiently.”*

In summary, qualifying infrastructure investments as QI is a valuable approach to increasing the potential for infrastructure allocations in Solvency II investors' portfolios. However, in practice, it is associated with substantial operational complexity and effort—especially for fund investments and equity exposures. These challenges could be mitigated through improved data delivery and professional external support. Whether and how these investor suggestions can be translated into concrete regulatory improvements remains an open question, given that the existing regulation was the result of extensive deliberation and consultation.

3.4.3.2. Infrastructure Quota in the Investment Ordinance (AnlV)

Regarding the promotion of infrastructure investments by pension schemes (Versorgungswerke) or smaller insurers, a recent positive development occurred in February under the remaining red-green coalition partners of the previous government. This step addressed long-standing demands from industry associations. Pension funds are generally subject to various state-level regulations, which are partly aligned with federal requirements but may vary across states. These rules governing diversification and allocation aim to ensure adequate risk spreading. However, Infrastructure investments are not explicitly listed as a separate category in the applied regulatory framework. Since they are often made via equity or debt participation, they fall under the quota for risk-bearing investments, which is generally limited to 35% of secured assets, with an additional 5% permissible under related quotas (e.g., Real Estate). Direct investments may alternatively be counted within the Real Estate quota.

The debate on introducing a dedicated Infrastructure quota for pension funds began following the introduction of such a quota in North Rhine-Westphalia in 2021, inspired by the European Solvency II framework for insurers concerning qualified infrastructure.⁴⁴

The Federal Ministry of Finance (BMF), in its Eighth Ordinance Amending Regulations under the Insurance Supervision Act (8. VAGVÄndV), closely aligned with the approach taken in North Rhine-Westphalia. At the core of this amendment is the introduction of a new infrastructure quota, allowing for investments of up to 5% of secured assets specifically dedicated to infrastructure projects.⁴⁵

The separate diversification quota applies to both direct and indirect investments in infrastructure and does not count toward existing diversification quotas, which are often already exhausted by illiquid assets.

⁴⁴ Cf. BAI Informationsbroschüre Infrastruktur, p.33-35, (2022).

⁴⁵ Bundesgesetzblatt, Achte Verordnung zur Änderung von Verordnungen nach dem Versicherungsaufsichtsgesetz (2025).

This measure aims to enhance legal certainty, reduce competition between different asset classes within asset allocation, and increase flexibility in capital investment. Importantly, the infrastructure quota is not part of the risk-bearing investments quota. Additionally, the overall risk-bearing investments quota has been raised from 35% to 40% of secured assets, allowing existing sub-quotas within this category to be utilized more effectively. The new regulation is intended to create incentives for increased private investment in infrastructure projects and companies.⁴⁶

Figure 18: Would you invest more in infrastructure with a nationwide infrastructure quota in the Investment Ordinance, following the example of NRW? Source: BAI Investor Survey 2024.

Investors subject to the investment ordinance (AnIV) who would increase their Infrastructure investments if a dedicated Infrastructure quota were introduced

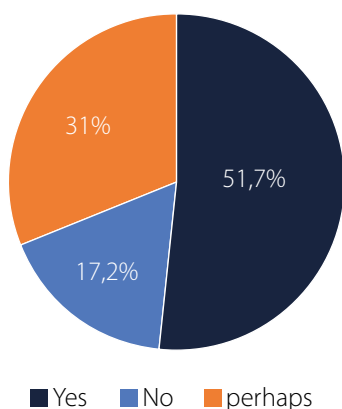


Figure 17: Would you invest more in Infrastructure with a nationwide Infrastructure quota in the Investment Ordinance, following the example of NRW? Source: BAI Investor Survey 2024.

According to the BAI Investor Survey 2024, 51.7% of respondents subject to the Investment Ordinance (AnIV) stated that they would increase their infrastructure investments if an infrastructure quota similar to that introduced in North Rhine-Westphalia were implemented. An additional 31% indicated that they might “perhaps” do so (see Figure 17). These figures demonstrate that there is considerable potential for additional infrastructure investment that such a quota could unlock. However, the actual impact would vary depending on each investor’s existing allocation and individual regulatory and portfolio constraints.

Danny Tuchlinsky, Ärzteversorgung Land Brandenburg, explains that his institution currently allocates around 10% of its assets to infrastructure—a level regarded as “very adequate and satisfactory” within the existing allocation strategy.

Regarding whether the new infrastructure quota could enable additional investments—particularly in German infrastructure—he remains cautious for now, noting that much depends on the specific implementation of regulations. Key questions include what requirements BaFin will impose regarding investment guidelines and how the respective state supervisory authorities will interpret these new rules.

He also points out that his pension fund introduced a dedicated “sustainable infrastructure quota” several years ago in consultation with its supervisory authority. At present, he sees no urgent need to expand the infrastructure quota further. Nevertheless, as a growing institution with positive contribution balances, new allocation opportunities will continuously emerge, and the role of infrastructure investments could evolve accordingly.

The potential of the new quota lies particularly in its design as an “overflow quota,” meaning it does not have an exclusivity constraint relative to other quotas. Investors can therefore allocate infrastructure under different categories as well, so the impact on additional investments is not limited to just five percent. Positive experiences with the quota in North Rhine-Westphalia highlight its capacity to stimulate greater infrastructure investment. Expert assessments suggest that the legislator is sending a positive and vital signal with this measure.⁴⁷

3.4.4. Overcoming Scepticism Toward Private Capital and Addressing Negative Experiences

In addition to structural and regulatory barriers to infrastructure investments, discussions frequently

⁴⁶ Neue 5%-Infrastrukturquote: Geänderte Anlageverordnung erleichtert Infrastrukturinvestitionen, Deloitte (2025).

⁴⁷ Infrastrukturquote für alle!, DPN (2024); Nachgehakt: Was bringt die neue Anlageverordnung?, DPN (2025).

highlighted informal or “soft” factors. A fundamental prerequisite is the existence of a broad societal awareness of the necessity to utilize private capital in municipal infrastructure.

However, during the 2000s—particularly in sectors such as water utilities—many municipalities had negative experiences, which in some cases solidified unfavorable perceptions.

A 2013 meta-study by the Scientific Service of the German Bundestag summarizes the debate on the privatization and liberalization of water supply in Germany since 2000. The academic literature presents a mixed picture regarding the efficiency of privatization; observed advantages and disadvantages vary significantly depending on the municipality and region where privatization has occurred.

Proponents argue that privatization has led to efficiency gains and price reductions, and that environmental impacts can be effectively controlled through legal regulations. However, a majority of studies reach a negative conclusion in either individual case studies or quantitative cross-sectional analyses. Critics argue that price reductions largely failed to materialize, while privatization in industrialized countries brought no significant efficiency improvements. Furthermore, without a strong focus on the common good, the risk of negative environmental impacts increases.⁴⁸ The study further cites case examples of water supply privatization in Berlin, Potsdam, other municipalities in Brandenburg, Hamburg, and Wetzlar, where negative experiences were reported. Key issues identified included a lack of transparency in contract design—particularly concerning profit guarantees—the loss of municipal control, and price increases. However, it remains unclear whether privatization was always the direct cause of these outcomes. In some cases, the study also observed long-term financial burdens on municipalities, such as those arising from subsequent buybacks of privatized assets. Moreover, proceeds from privatization were often used by municipalities

for budget consolidation rather than for reinvestment, thereby depleting long-term equity reserves.⁴⁹

Public opinion on private capital and the privatization of municipal infrastructure in Germany is often negative. The share of private capital has historically fluctuated in cycles, with recent years showing a noticeable shift back toward greater state involvement. Positive examples differ from negative ones primarily in the extent to which the public was engaged in decision-making and broad citizen participation was ensured. These factors have proven critical in fostering transparency, trust, and acceptance of private sector involvement in public infrastructure.⁵⁰

In the area of municipal infrastructure, the significant scepticism toward the use of private capital plays a key role. This scepticism has been identified as one of the reasons for the so-called reverse home bias in infrastructure investments by German institutional investors, who often prefer foreign infrastructure projects over domestic ones.⁵¹

Empirical evidence on the effects of privatization in the municipal sector in Germany does not fully align with the generalized criticism often expressed in public opinion. A 2011 study by the Monopolies Commission revealed that municipal utilities were the cheapest electricity provider in only 109 out of 7,323 postal code areas. This finding indicates competition-reducing effects and entry barriers for new private market participants.⁵² An example illustrating how misconceptions about the effects of privatization in the municipal sector arise is the partial privatization of Berlin’s water supply. Following the partial privatization, water prices increased, prompting public pressure that led to full re-municipalization in 2013. However, the price increases were not caused by privatization itself. Instead, they resulted from state-guaranteed returns, which were necessary to attract private investors and secure the short-term capital inflow desired by the Berlin Senate. Because the city retained a majority stake of 50.1%, private

⁴⁸ *Wissenschaftliche Dienste des Bundestags: Privatisierung der Wasserversorgung und ihre Folgen in ausgewählten EU-Staaten (2013)*, p. 17–21.

⁴⁹ *Ibid.*, p. 40–50.

⁵⁰ Cf. *Deutschlandfunk* 2022.

⁵¹ Cf. *BAI Infrastructure* 2024.

⁵² *Monopolkommission, Wettbewerbsentwicklung mit Licht und Schatten, Sondergutachten 59, Bonn 2011*, p. 290 ff.

investors' control and influence were significantly limited. To compensate, guaranteed returns were offered as an incentive. This arrangement also meant that positive effects—such as efficiency gains—failed to materialize. The inability to achieve sufficient returns to cover guaranteed interest ultimately led to higher prices being passed on to consumers.⁵³ This example illustrates how incomplete privatizations—or inefficient allocations of responsibilities between private and public actors combined with poorly designed incentive structures—can be a root cause of the negative public perception.

It is essential to learn from past experiences and ensure that the public is more effectively engaged in future private-sector participation in municipal infrastructure projects.

Marc Gerards, Investment Director at EB-SIM, argues that more positive examples of private capital involvement in essential public services are needed. Pension funds or church-based investors, he explains, do not seek operational control over electricity grids, heating, or water supply in municipalities. Instead, the operational responsibility should remain with the local utility's expertise and decision-makers, while new project partners primarily take on the role of financing the energy transition.

This model can work not only for debt financing but also for equity investments, enabling municipalities to access equity capital and implement projects of significant scale—projects that would otherwise be impossible due to financial constraints. “For the public, this creates added value, while operational control over the project remains with the existing leadership of the municipal utility,” Gerards notes. Such positive examples, he argues, could encourage more municipalities to adopt these models.

From past discussions and experiences, it becomes clear that any reform initiative aimed at improving the use of private capital in the infrastructure sector must focus on citizen participation. Particularly in the field of municipal infrastructure related to



public services, it is fundamentally vital that the population perceives added value. Privatizations driven solely by the pursuit of maximum profit, without involving and engaging local residents, tend to encounter strong resistance. When utilizing the infrastructure special fund, this aspect should be carefully considered to generate positive spillover effects.

3.4.5. Improving Structural and Procedural Frameworks

In addition to avoiding past mistakes in private investments in municipal infrastructure, it is crucial to improve the specific conditions that make private investment technically feasible. This requires addressing project structuring and strengthening overall capital market readiness.

Andre Pflieger of LBBW Asset Management emphasizes that beyond the willingness of municipal decision-makers, there must also be the capability to structure projects in a way that makes them capital market-ready. A prerequisite is robust planning—for both equity and debt financing. Investors require a clear risk profile and a transparent business model.

⁵³ Michael Eilfort, Benjamin Jursch, *Aus Politik und Zeitgeschichte/bpb.de. Zur Privatisierung von Infrastruktur. Staat im Vorteil (2017).*

Pfleger sees a particular need for new approaches in the equity segment, as there is currently a lack of effective mechanisms to bridge the gap between private investors' return expectations and the target structures of municipal enterprises. Overcoming the strict separation between public and private capital is essential.

As a potential solution, he points to proven structures from other infrastructure sectors—such as pooling investor capital through asset managers with mandate-based allocation. These structures could be supported by targeted measures, such as government subsidy programs, low-interest KfW loans, guarantees, or even direct co-investments by development banks. To further incentivize private participation, tax incentives—modeled after U.S.-style tax credits—could also be considered.

However, the financing aspect is only part of the challenge associated with the transformation task. Pfleger also highlights regulatory hurdles, particularly in permitting and planning processes, as a central barrier, along with material and personnel bottlenecks during the planning, procurement, and construction phases. These constraints affect both municipal enterprises and their service providers in implementing transformation plans. A more balanced investment ramp-up could already provide significant relief without calling into question the overarching transformation objectives.

Further challenges for investments in municipal infrastructure include a lack of resources and technical expertise within municipalities, as well as the small-scale nature of projects. This fragmentation makes project bundling a practical solution.



Sebastian Carneiro, CEO & Co-Founder, Solas Capital AG

Sebastian Carneiro, CEO & Co-Founder of Solas Capital AG, provides a concrete model and example: *"The revised EU Energy Performance of Buildings Directive (EPBD) mandates the phased renovation of the worst-performing buildings and aims to achieve an almost*

climate-neutral building stock by 2050. Meeting these targets requires the deployment of efficient energy technologies, with photovoltaic systems, heat pumps, and storage solutions proving particularly practical and economically viable. Moreover, public authorities are required to implement these measures within shortened timelines, facing significant challenges in doing so. Many municipalities lack not only the financial resources but also the personnel capacity and technical expertise to carry out such renovation projects independently.

Energy Performance Contracting (EPC) offers a practical solution in this context: an external service provider—typically a specialized energy services company or investor—plans, finances, and implements the renovation measures at its own risk. The investment costs are repaid through contractually guaranteed energy cost savings. However, a key prerequisite for this model is the bundling of multiple smaller projects to create economically viable volumes, thereby attracting the interest of institutional investors."

While some municipalities can finance street lighting projects through subsidies or internal funds, others rely on models such as Energy Performance Contracting.

Sebastian Carneiro notes that in recent years, his company has participated in numerous municipal lighting projects across Europe—both as part of comprehensive energy-efficiency programs and as standalone modernization initiatives. EPC, he argues, offers significant potential for energy savings, emissions reduction, and urban renewal. However, challenges arise from complex procurement processes and the technical integration of new systems into existing infrastructure.

Project bundling can be seen as a prerequisite for standardization. At first glance, standardization appears to conflict with one of the main drivers and advantages of municipal investments: the importance of local proximity and the motivation of German investors to invest in local infrastructure, leveraging their informational advantages (see section 3.3.3).

Maximilian Cosack of HUK-COBURG Asset Management argues that regional proximity to municipalities can indeed be advantageous for accessing municipal infrastructure—for example, through established relationships or reduced resistance in the investment process. However, he does not see this as incompatible with the need for greater standardization. On the contrary, he advocates moving away from overly granular thinking and viewing regional proximity in terms of a nationwide domestic market for infrastructure investments. What matters, he stresses, is having unified structures and processes along which municipal infrastructure projects can be executed.

Standardization, in this context, is key: there must be clear frameworks for structuring project financing, defining the characteristics of unsecured municipal bonds, and designing equity investments—whether through SPVs or direct balance sheet entries. Only once such standards are in place can institutional investors invest efficiently and with reduced risk. Currently, each municipality and each project requires a bespoke approach, which is not only time- and cost-intensive but also makes risk-return profiles less attractive.

According to Cosack, such standardization would lower due diligence costs, reduce uncertainties, and mitigate market inefficiencies. Ultimately, this would not only improve overall investment conditions but also make municipal infrastructure investments far more appealing to institutional investors.



From the interviews, a series of measures can be derived to improve the structural and procedural conditions for investments in municipal infrastructure. As discussed above, improvements to regulatory frameworks—such as planning and permitting processes and public procurement law—are already being partially addressed by policymakers (see section 3.4.1). In addition, enhancements to the tax framework and targeted government support programs could serve as key levers for mobilizing private capital.

Experts interviewed see significant potential in bundling and standardizing projects to achieve economically viable scales. Key elements include standardizing financing structures (e.g., bonds, SPVs, balance sheet investments) and developing uniform process standards for planning, procurement, and implementation. Centralized platforms could reduce complexity in procurement processes, while tailored models such as energy performance contracting could improve the alignment between municipal needs and institutional investors' requirements.

3.4.6. Learning from Other Countries – The Comparison with France

In the context of improving conditions for investments in municipal infrastructure in Germany, it is also essential to look beyond national borders and consider frameworks in other countries. The United Kingdom was frequently cited in interviews as a positive example for the effective implementation of public-private partnerships (PPPs). Additionally, France—with its highly centralized state structure—offers an interesting case study for standardizing municipal infrastructure projects to improve investment conditions.

Maximilian Cosack of HUK-COBURG Asset Management emphasizes that the recent positive momentum for municipal infrastructure investments—sparked, for example, by the discussion around a special infrastructure fund—must now be urgently translated into concrete measures. A nationwide, unified approach is key. The current federal system, in which each German state pursues its own strategy, significantly hinders the efficient implementation of policies.



Cosack advocates for greater centralization and points to France as a model. Roughly a decade ago, France introduced a clear, centrally mandated rollout plan for fiber-optic infrastructure, dividing regions and systematically awarding concessions. The result: a significantly higher expansion rate and far less complexity for investors. In contrast, Germany's market remains highly fragmented, leading to inefficiencies and creating substantial obstacles—and “many headaches”—for investors.

The organization of municipal capital investment in France differs significantly from that in Germany. While Germany involves multiple federal layers, in France, responsibility for essential infrastructure—such as schools, hospitals, public lighting, and waste management—rests clearly with municipalities operating within a centrally regulated system.

The following section uses the example of Infrastructure Debt investments to illustrate which factors within France's centralized system have a positive impact on municipal infrastructure investment.



Stanislas Boutmy, Head of Public Sector Finance, Sienna Investment Managers

Stanislas Boutmy, Head of Public Sector Finance at Sienna Investment Managers, explains that institutional investors' access to municipal infrastructure in France is closely linked to a high level of fiscal security. Under French law, the repayment of municipal

debt is classified as a mandatory expenditure. If a municipality fails to meet its payment obligations, the creditor can appeal to the prefect, the state's representative, who is authorized to enforce the necessary transfers from the municipal budget to ensure repayment.

Furthermore, municipalities receive monthly transfers from the state to cover essential expenditures such as personnel costs and debt service, making default virtually impossible. In contrast, the German federal government limits its role to legal supervision, while the states may exercise substantive oversight—reflecting a different model of municipal autonomy. Within this legally secure framework, debt financing serves as a particularly viable instrument, with approximately 26% of all municipal investments in France being financed through loans (amounting to up to €27 billion annually in 2024).



Pascal Jolly, Senior Advisor, Public Sector and Infrastructure, Sienna Investment Managers

Pascal Jolly, Senior Advisor for Public Sector and Infrastructure at Sienna Investment Managers, adds that the French system benefits not only from strong fiscal security but also from a high degree of standardization and “mutualization.” As investment volumes have grown and technical standards tightened over recent decades, municipalities have increasingly pooled their projects—for example, by jointly developing waste management

facilities across multiple départements. European regulatory requirements further reinforce this trend.

In parallel, a centrally organized civil service with uniform career paths for municipal and regional administrative staff facilitates seamless knowledge transfer. Senior public officials rotate regularly between municipalities, regions, and specialized authorities, ensuring that best practices are disseminated systematically.

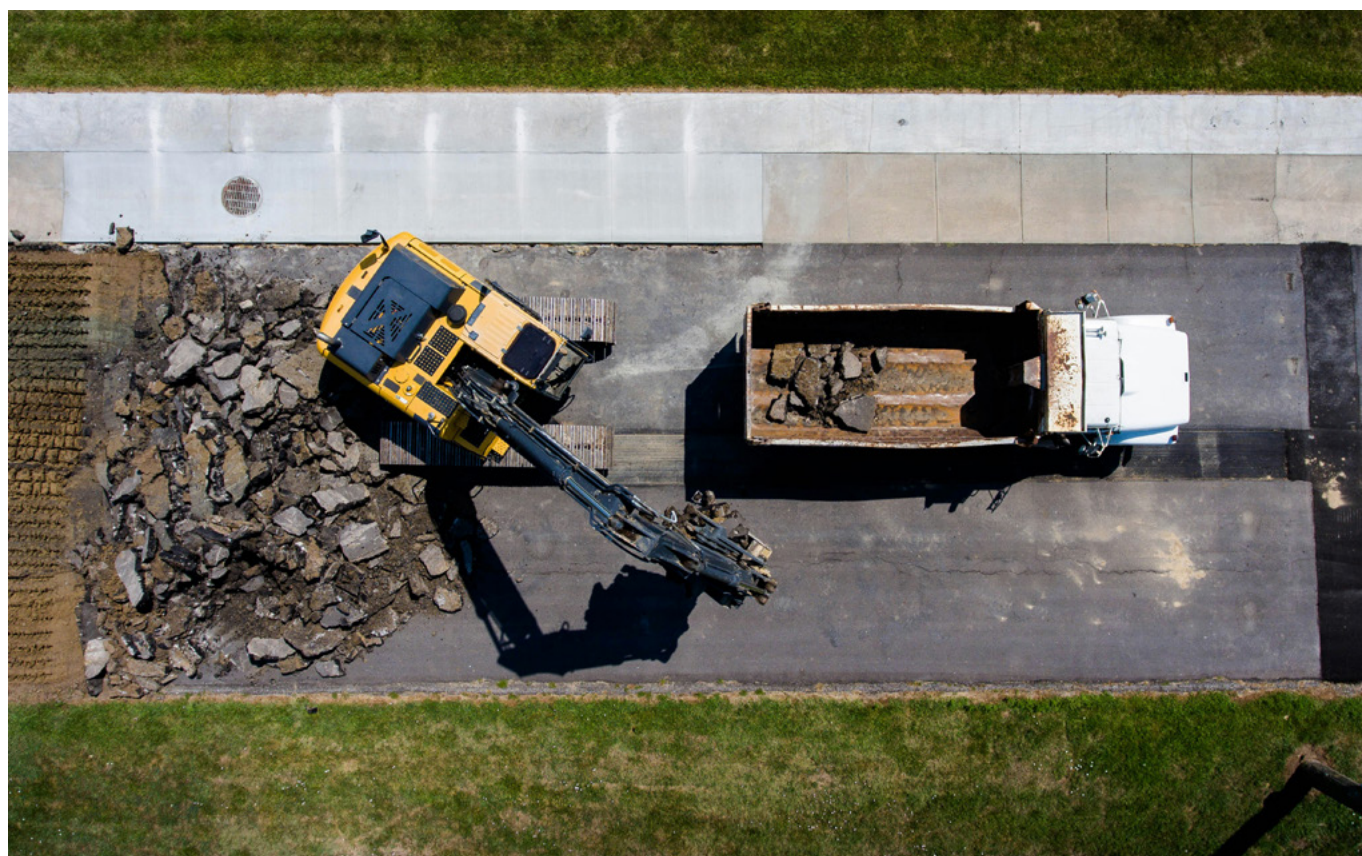
Credit agreements themselves are typically very concise—around ten pages—thanks to the Code Général des Collectivités Territoriales, which legally standardizes many contractual provisions.

Projects in the €5–20 million range represent the “sweet spot” for private lenders, according to Stanislas Boutmy and Pascal Jolly: they are large enough to achieve efficiency through scale, while remaining directly linked to the tax-guaranteed revenue streams of municipalities. This combination—mandatory repayment obligations, monthly state transfers, and clearly defined project sizes—makes France’s municipal lending market remarkably predictable and robust for investors.

In summary, Germany can learn from France in several key areas: strong central-state repayment guarantees, standardized project structuring, and the strategic use of economies of scale through project bundling, also known as “mutualization.” Legally codified contract templates in France typically allow municipal loan agreements to be no more than ten pages long.

Additional advantages include a centralized administrative culture with systematic knowledge exchange among municipalities, and the high share of debt financing in infrastructure investment—around 26% of municipal projects are financed through loans. These factors significantly reduce investor risk and enhance the bankability of municipal infrastructure projects in France compared to those in Germany.

Although conditions in a federal system like Germany’s are inherently different and cannot be fully replicated, it is possible to adopt key lessons from centralized systems by promoting interregional cooperation and implementing standardization across federal states.



4. Conclusion

Current data highlights the significance and growing relevance of infrastructure within German institutional portfolios. However, compared to international benchmarks, private capital—particularly in the municipal infrastructure segment—still plays a subordinate role.



For a long time, policymakers in Germany underestimated the importance of private capital in the country's infrastructure sector. Today, however, a clear shift in mindset is evident. Reforms aimed at streamlining permitting procedures have already generated positive momentum in the renewable energy sector, despite ongoing market-side challenges. The Federal Government's investment initiative and the €500 billion infrastructure special fund represent strong positive impulses. These can be optimized through a well-coordinated interplay of public and private capital.

Nevertheless, these encouraging steps should not lead to complacency. Continued efforts in reducing bureaucratic hurdles remain crucial. Additional measures and organizational improvements are urgently needed. Bundling and standardizing municipal infrastructure projects—potentially through the involvement of state-owned project companies—offers significant potential for improvement.

Ultimately, examining successful European examples beyond Germany's borders can offer valuable insights and best practices for advancing progress in this crucial area.

5. Acknowledgements

We would like to express our sincere gratitude to all investors who contributed to this study by participating in our survey, as well as to those who provided statements and participated in our investor and member interviews. Our special thanks go to:

- Armin Beerwart, Head of Private Markets, W&W Asset Management GmbH
- Stanislas Boutmy, Head of Public Sector Finance, and Pascal Jolly, Senior Advisor, Public Sector and Infrastructure, Sienna Investment Managers
- Sebastian Carneiro, CEO & Co-Founder, Solas Capital AG
- Maximilian Cosack, Head of Private Assets, HUK-COBURG Asset Management GmbH
- Marc Gerards, Investment Director, EB-SIM
- Gregor Kurth, Partner and Head of Transactions, and Sascha Beisheim, Senior Institutional Business Development Director, Igneo Infrastructure Partners
- Philipp Kratzer, Head of Alternatives Strategy & Advisory, MEAG
- Dimitri Mavridis, Senior Associate, DACH Research, Preqin
- Andre Pfleger, Head of Transformationsfinanzierung, LBBW Asset Management
- Kathrin Schmidt, Portfolio Manager, GVW Kommunalversicherung VVaG
- Jegor Tokarevich, CEO, Substance Over Form Ltd.
- Daniel Tubik, Portfolio Manager, GLS Investments
- Danny Tuchlinsky, Investment Manager, Ärzteversorgung Land Brandenburg

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