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Investments to upgrade digital infrastructure

Briefing

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I. Introduction

The German government is striving to modernise the country's digital infrastructure. It is planning to invest billions in upgrading infrastructure and improving legal frameworks. The government's objectives are set out in several initiatives, including its digital strategy,[1] modernisation agenda for state and public authorities (federal government)[2] and national data centre strategy[3].

The term "digital infrastructure" as used in the government's plans covers a range of areas.[4] These firstly include the physical cable lines used to set up telecommunications networks and enable the transmission of data. Users with different requirements are connected to the telecommunications networks, whether businesses and public authorities or private households. In industrial contexts where there is a high demand for pooled computing capacity, data centres are deployed between the telecommunications network and end users. These are either set up locally and linked to the company operating the system or designed as decentralised data centres. Decentralised data centres enable users to access the decentralised computing capacity provided over the internet through cloud computing systems as and when required.

AI gigafactories (also known as hyperscale or AI data centres) are distinct from traditional data centres but are nevertheless deemed part of the digital infrastructure. Equipped with large-scale hardware, they can provide high-performance graphics processors and computing power which allow AI processes to be carried out and can also be used for other purposes such as data analysis, processing and storage.

The term "digital infrastructure" as used in the government's modernisation project also covers digital access by citizens, allowing them to make use of government services and meet their obligations towards the state, as well as work processes within the public authorities.

II. Planned investments in digital infrastructure

In its coalition agreement, the current German government set itself the goal of "putting Germany in the digital fast lane" and steering digital policy towards sovereignty, innovation and social progress.[5] Numerous strategy papers promise a wide range of legislative amendments and investments to deliver this. Apart from expanding telecommunications networks (see **1** below) and modernising the state and public authorities at federal level (see **2**), the focus will be on supporting the construction of new data centres and AI gigafactories (see **3**). Finally, money from the special infrastructure fund is also to be invested in digital infrastructure (see **4**).

1. Expanding telecommunications networks

In its resolution of 31 August 2025, the federal government adopted its digital strategy for Germany,[6] spelling out its blueprint for digital progress up to 2030. The government's strategy envisages that by the end of 2030 all households and businesses throughout the country will be fitted with fibre optic cables and that the 5G mobile communications standard from at least one network operator will be ensured nationwide. To implement the digital strategy, the Bundestag (lower house of parliament) passed an amendment to the German Telecommunications Act (*Telekommunika-*

1 Digital strategy of the federal government (*Digitalstrategie der Bundesregierung*), accessed on 22 January 2026 (note that links to sources other than EU documents are only in German).

2 Modernisation agenda for the state and public authorities (federal government), accessed on 22 January 2026.

3 National data centre strategy (Nationale Rechenzentrumsstrategie), accessed on 22 January 2026.

4 For a detailed definition of the term "digital infrastructure", see also Infrastructurist and Open Next.

5 Coalition Agreement 2025 *(Koalitionsvertrag 2025)*, para. 2140 and following, accessed on 29 January 2026.

tionsgesetz) (“**Telecommunications Act**”): Section 1(1) of the Act now states that expanding the telecommunications network is in the overriding public interest. This is supposed to give more weight to planning projects for mobile communications and the rollout of fibre optic networks during approval processes and to speed them up. The government is endeavouring to address the need for action to expand telecommunications networks. This is still a major issue: While some 93% of Germany’s territory is covered by 5G provided by at least one network operator and around 76% of all households have a gigabit connection, only 35% of all households are equipped with a fibre optic connection.[7]

2. Modernising the state and its administration at federal level

Alongside the above initiatives, the federal government adopted a modernisation agenda for the state and public authorities at the federal level on 1 October 2025. The agenda states that German central government will be optimising its decisions, processes and structures by digitalising its entire administration.

On the one hand, administrative processes are to be accelerated by digitalising applications for services and handling the subsequent procedures electronically, making them more user-friendly for both businesses and citizens. The aim is also to standardise the enforcement of laws through uniform interfaces, central portals and standardised data formats, allowing businesses and citizens to communicate with public authorities more swiftly and transparently and in paperless form. The government also intends to enable companies to be formed online within 24 hours. Besides this, individual services and documentation requirements such as driving licences and vehicle registration documents are to be fully digitalised. In its modernisation agenda, the government aims to meet its obligation under section 6 of the German E-Government Act (*E-Government-Gesetz*) to digitalise its main administrative services end-to-end (E2E) by the end of 2029.

On the other hand, the plan is to increase the efficiency of the public authorities by digitalising internal processes and deploying AI. For example, standardisable work processes are to be automated as far as possible. It is also planned to legally and practically implement AI-supported reviews of application procedures. These projects form part of the planned “Deutschland-Stack” (also known as “D-Stack”), a technically secure, interoperable and sovereign technological platform for digitalising administrative processes.

The planned modernisation projects mean a massive overhaul of working practices within the public authorities. Federal and local authorities acting on behalf of the federal government will need to modernise their IT systems, digitalise workflows, harmonise interfaces and provide targeted training for staff.

3. Constructing new data centres and AI gigafactories

The federal government has announced the development of a national data centre strategy, which is designed to strengthen Germany as a location for data centres. Apart from providing start-up financing worth €805 million, the government is planning to act as a wholesale customer for computing capacity.[8] The draft strategy paper states that computing capacity in Germany is to be at least doubled and capacity for AI at least quadrupled by 2030. The aim is to promote the establishment of an AI gigafactory, expand AI capacities and data ecosystems for national high-performance computing, and help research institutions purchase quantum computers.

In the area of energy supply for network operators, objectives include improving the tendering process for network operators, introducing industry standards for flexible grid connection agreements, continuing state subsidies for data centres in relation to the German Renewable Energy Sources Act (*Erneuerbare-Energien-Gesetz*) and grid costs, including data centres in electricity price compensatio,n and developing a policy for designating preferential areas. The federal government’s strategy also envisages that the concept of sovereignty in Germany and the EU should be prioritised.[9]

6 Federal Ministry of Transport – Digital strategy of the federal government, accessed on 26 January 2026.

7 Federal Government, Expanding digital infrastructure – Faster internet for all *(Ausbau digitaler Infrastrukturen – Schnelleres Internet für alle)*, accessed on 26 January 2026.

8 See Handelsblatt article dated 13 January 2025: Federal Government plans to support AI Gigafactory – and become a major customer itself *(Bund will AI Gigafactory fördern – und selbst Großkunde werden)* (paywall).

9 See on all these points National data centre strategy *(Nationale Rechenzentrumsstrategie)*, accessed on 29 January 2026.

With regard to AI gigafactories, the European Commission is seeking to promote EU competitiveness in artificial intelligence by investing a total of €200 billion in the AI Innovation Package 2024, the Competitiveness Compass 2025, AI Continent Action Plan, Apply AI Strategy and InvestAI initiative. Among other things, it plans to support the construction of four to five AI gigafactories by providing a €20 billion investment fund.[10] To implement the project, the European Commission has published a draft amendment to Regulation (EU) 2021/1173 of 13 July 2021 ("**EuroHPC Regulation**")[11]. The plan is initially to establish the European High Performance Computing Joint Undertaking ("**EuroHPC JU**"), which will manage the selection process for applicants wishing to construct and operate the subsidised AI gigafactories. As a condition for funding, the draft EuroHPC Regulation requires the creation of a public-private partnership between the consortium that is awarded the contract and the EuroHPC JU. The scope of EU funding is set at a financial contribution of up to 17% of capital expenditure (CAPEX) for the entire computing infrastructure of the AI gigafactory or a guaranteed "purchase" of access time to the AI gigafactory agreed in advance. This financial contribution is to be matched by a participating state acting as a sponsor alongside the EU. The remaining investments and operating expenses (OPEX) for the gigafactory are to be borne by the consortium itself. The intention is that it will also be possible to expand an AI factory into an AI gigafactory, with financial support already provided being partially credited towards this.

4. Investments from the special infrastructure fund in digital infrastructure

By resolution of the 20th German Bundestag on 18 March 2025 and the Bundesrat (upper house of parliament) on 21 March 2025, the legislature amended the German constitution by introducing the new Article 143h of the German Basic Law (*Grundgesetz*), creating the basis for a special debt fund for infrastructure and investments to achieve climate neutrality through federal law. From the outset, the plan was to use part of the fund to expand the digital infrastructure.[12]

In the German Act on the Establishment of a Special Fund for Infrastructure and Climate Neutrality (*Gesetz zur Errichtung eines Sondervermögens Infrastruktur und Klimaneutralität*) ("**Special Infrastructure Fund Act**"), the 21st German Bundestag approved the establishment of such a fund on 18 September 2025 based on Article 143h(1) of the Basic Law. The fund is worth €500 billion and will be used to finance additional investments, i.e., investments beyond those already covered in the federal budget, over a period of twelve years.

A sum of €100 billion from the fund will be allocated to the climate and transformation fund.[13] Another €100 billion will be made available to the federal states for investments in their infrastructure.[14] The federal states and local authorities have signalled their intention to use some of this for digitalisation projects.[15] The remaining €300 billion will be used for federal investments as set out in the Special Infrastructure Fund Act. Section 4(1) (7) of the Act also provides for investments in the expansion of digital infrastructure at federal level (referred to as "digitalisation").

Use of the investments earmarked for the federal government is determined annually in an economic plan as an annex to the federal budget. Expenditure of resources from the special fund in 2025 was determined by the 2025 economic plan (Wirtschaftsplan 2025), which came into force retrospectively on 1 January 2025. In December 2025, the Bundestag also adopted the 2026 economic plan when passing the 2026 federal budget. While the 2025 plan provides for expenditure of €37 billion and commitment appropriations of €87.5 billion for future financial years, which will be staggered over the next 20 years, the 2026 plan provides for expenditure of just under €58.9 billion and commitment appropriations of around €80.4 billion.

In the area of digitalisation, the 2025 economic plan provides for expenditure of €4 billion, and the 2026 economic plan provides for an even greater outlay of €8.5 billion. A wide range of measures are planned to modernise public administration, which will open up farreaching opportunities for IT providers. Notably, funds are available for a digital wallet referred to as the "EUDI wallet/identity ecosystem". Under the revised

10 See on all these points European Commission, press release of 11 February 2025, accessed on 29 January 2026.

11 Draft amendment to Regulation (EU) 2021/1173.

12 See Bill to amend the German Basic Law (*Gesetzentwurf zur Änderung des Grundgesetzes*), p. 9–8 and p. 13 (paywall).

13 See Article 143h(1), fifth sentence of the German Basic Law.

14 See Article 143h(2) of the German Basic Law, section 3 of the German Act on the Establishment of a Special Fund for Infrastructure and Climate Neutrality.

15 See, for example, for the state of North Rhine-Westphalia, which accounts for around €21.1 billion of the total investment by the federal states: North Rhine-Westphalian plan for good infrastructure *(Nordrhein-Westfalen-Plan für gute Infrastruktur)*, accessed on 29 October 2025. In addition, North Rhine-Westphalia is spending a further €10.1 billion from other funds on a total investment package of €31.2 billion in the state's infrastructure.

eIDAS Regulation (in force since 20 May 2024), all EU member states have to offer their citizens an EUDI wallet based on uniform technical standards in 2026.

Other digitalisation projects provided with funds in the 2025 and 2026 economic plans from the special fund for infrastructure and climate neutrality include the establishment of a citizen's account/infrastructure and modernisation of the register landscape. This will result in a wide range of activities for innovative companies along the entire implementation chain, such as the digital design of identity and citizen account platforms, register harmonisation and migration from and to existing systems.

Finally, the 2025 and 2026 economic plans focus on the expansion of mobile communications and broadband as pillars of digital public services. For example, a commitment appropriation totalling €1.8 billion is planned for nationwide broadband expansion from 2026 to 2046. The competitive and regulatory regimes also have to be complied with in this context, meaning that both companies and the public sector should plan such procedures and how to implement them at an early stage.

III. What does this mean for companies?

The billions of euros for the expansion of digital infrastructure that have already been approved and announced by the German government combined with the parallel optimisation of the legal regime open up enormous economic potential for companies and investors. However, given the tight timeframes imposed by the German government and the EU and the partly new requirements for public procurement, those involved also face practical and legal challenges when acquiring and implementing such contracts.

On the one hand, these are projects that have to be made legally and operationally ready for implementation within a short space of time. This requires close interaction between commercial, technical and legal experts at all stages of project implementation, starting with the planning and application phase.

On the other hand, while efforts are being made to improve the legal regime for infrastructure projects, there is a visible increase in the complexity of approval and financing procedures, which is likely to continue in the future. Attention must be paid to the constantly changing public procurement aspects, the requirements of funding law and EU state aid law as well as sustainability requirements and the EU taxonomy. This is compounded by a need to deal with new legal constructs such as the special fund for infrastructure and, in the case of AI gigafactories, the requirement under EU law to establish a consortium.

IV. Legal challenges

Companies, investors and the public sector are well advised to consider the legal requirements for digital infrastructure projects at an early stage of their development. This calls for a bird's-eye view in order to optimise contract acquisition and implementation, from planning and application to project delivery and long-term operation.

1. Meeting and complying with legal requirements

Above all, it is essential to gain an in-depth understanding of the legal rules underpinning investments in digital infrastructure and to develop strategic principles. These vary significantly depending on the type of investment in question and demand extensive sector and industry expertise.

For network expansion, the German Telecommunications Act and the recently enacted EU Gigabit Infrastructure Act provide the framework, including notification requirements to the Federal Network Agency (*Bundesnetzagentur*), rights of way for public transport routes and shared use and co-installation obligations, in addition to construction, planning, environmental and critical infrastructure requirements. The digitalisation of public authorities/public administration is essentially governed by the German Online Access Act (*Onlinezugangsgesetz*) and the its amending act, which oblige the federal government, states and local authorities to provide their services digitally via linked administrative portals, supported

by e-government legislation, data protection law (GDPR/German Federal Data Protection Act (*Bundesdatenschutzgesetz*)) and IT security law (Act on the Federal Office for Information Security (*Gesetz über das Bundesamt für Sicherheit in der Informationstechnik*) and NIS 2 implementation). The construction and operation of data centres is primarily subject to planning and building regulations (German Building Code (*Baugesetzbuch*) and local building regulations) as well as increasingly strict energy and climate policy requirements such as those set out in the Energy Efficiency Act (*Energieeffizienzgesetz*) for data centres (e.g., efficiency indicators, renewable energies and waste heat utilisation) and IT security and critical infrastructure rules when critical services are provided. Depending on the tasks involved, specific requirements under EU digital regulations apply, including the AI Act, the Data Act and the Cyber Resilience Act. Employment, trade law and data protection requirements also apply across all fields, meaning that digital infrastructure is now regulated at the interface between telecommunications, administrative, energy, security and digital law.

2. Public procurement law

Public procurement law applies to both public contracting authorities and companies participating in public tenders on a regular basis or for the first time. According to estimates, the use of funds from the special fund for infrastructure and climate neutrality will result in a spike in spending on public procurement. This will add to the complexity faced by public contracting authorities, particularly against the backdrop of accelerated investments in key infrastructure such as digital infrastructure. This means that contracting authorities will have to focus on optimising their procurement and tendering processes by adapting and leveraging the potential offered by the German Procurement Acceleration Act (*Vergabebeschleunigungsgesetz*) so that they are able to implement investments in digital infrastructure as efficiently and effectively as possible. This includes greater flexibility to divide contracts into partial or trade-specific lots, accept alternative bids and use functional performance specifications with defined requirements and more extensive rules on subsequent requests for documents planned under the Procurement Acceleration Act.

3. Leveraging private sector investment and cooperation

Alongside public investments, significant financial backing from the private sector will be needed to achieve the comprehensive upgrade of digital infrastructure within the desired timeframes. Various investment models (debt/equity capital and mixed financing) can be used at all stages if the legal framework is reliable and investors' criteria are met for the project (e.g., bankability for financial investors). Apart from understanding the legal framework, it is crucial to analyse and examine the commercial risks inherent in the project.

In view of the large capital requirements and growing procurement by the public sector alone, cooperation between various investors or between public and private companies, known as public-private partnerships ("**PPPs**"), will see a comeback. These partnerships can take many forms, allowing financial resources, technical knowledge and innovation to be pooled. Stakeholders in the public sector are able to benefit from the efficiency and market-related experience of the private sector and financial investors, while private companies gain access to long-term projects, stable framework conditions and public demand. Cooperative models can be used flexibly and for specific purposes, especially in regional or sectoral digital projects. PPPs go further by contractually dividing up financing, construction, operation and in some cases the risk of digital infrastructure between the state and private sector, the aim being to close investment gaps, relieve the pressure on public budgets and implement projects more quickly. Typical areas of application for PPPs include nationwide expansion of fibre optic networks, digital education and administrative infrastructure, and smart-city solutions.

Clearly defined roles, transparent corporate governance and contract structures, fair risk allocation and long-term assurance of quality and data security (even if a partner withdraws) are crucial for the success of such alliances and PPPs. An alliance should offer added value for all partners involved. Given this, it is crucial to set up such alliances correctly; this should be reflected in the project schedule and the tendering process for PPP projects, and the time required for proper planning should be fac-

tored in. Well-structured alliances can make a key contribution to guaranteeing sustainable finance and accelerating the rollout of digital infrastructure.

4. Subsidy law

It is expected that much of the investment planned under the special fund for infrastructure and climate neutrality will take the form of government subsidies. Investments in EU-funded AI gigafactories will also to be channelled through subsidies to PPPs for gigafactory consortia and the EuroHPC JU, which oversees the selection process for applicants for constructing and running the subsidised gigafactories. Complying with the applicable funding conditions and ensuring that the funding and other resources are used for their intended purpose will be essential.

5. Drafting and negotiating complex contracts

Investments in digital infrastructure involve a multitude of complex distribution and procurement agreements. When drafting and negotiating such contracts, traditional contract law (German Civil Code (*Bürgerliches Gesetzbuch*), German Commercial Code (*Handelsgesetzbuch*)), public procurement law (mainly the German Act Against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen*), Act to Accelerate the Awarding of Public Contracts (*Vergabebeschleunigungsgesetz*) and Sectoral Regulation (*Sektorenverordnung*)) overlap with highly specialised requirements for IT and telecommunications services. Supply, project and master agreements often cover topics such as service descriptions, expansion stages, SLAs/KPIs, acceptance and remuneration models (milestones, flat rates, usage fees), liability, warranties, IP rights, data use, information security and interfaces with subcontractors and operators, often in complex multi-vendor environments. In the public sector, supplementary contract terms for the procurement of IT (*EVB-IT*) (standardised IT contract terms) serve as model contracts for procuring hard- and software, maintenance, project and system services. They form the central frame of reference, which is adapted in tenders and contract negotiations and reinforced by specific network or data centre-related rules (for instance critical infrastructure rules, NIS 2, GDPR and energy efficiency). In distribution and cooperation models (such as reselling, wholesale or open access models for fibre optics), antitrust and state aid law restrictions, remuneration and discrimination issues, and complex rules on sharing of responsibilities relating to operation, support and security must also be taken into account. Thus contract negotiations are often an interdisciplinary balancing act between technology, regulation, procurement and civil law.

V. Final thoughts

The German government is driving forward the modernisation of digital infrastructure, investing billions and optimising the legal structure to put Germany on the “digital fast track” by 2030. All in all, these schemes create a wide range of market opportunities for companies along the implementation chain – ranging from identity and citizen’s account platforms and register harmonisation to network and data centre construction. At the same time, tight timelines and complex procedures are putting the pressure on: Procurement, subsidy and EU state aid law, sustainability, IT security, equally cooperative alliances and PPPs all need to be incorporated at an early stage. Companies that take an interdisciplinary approach to planning, ensure legal compliance and establish robust structures for contracts and cooperative alliances will be well placed to benefit from the drive towards transformation, this despite predictable bottlenecks during approval and procurement procedures. The agenda is ambitious, financially secure and rooted in a European framework. Its success now depends on swift implementation, legal clarity and effective partnerships.

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