

## Broadband in Germany

The 2018 coalition agreement of the German Federal Government identifies the priority goal of a nationwide expansion of gigabit networks by 2025. The federal government has also developed a 5G Strategy for Germany.



## Summary of broadband development in Germany

The federal government has developed a framework for action with the 5G Strategy for Germany, which was launched in summer 2017, in order to support network expansion and the development of 5G applications at an early stage.

In the coalition agreement of the German Federal Government, signed in March 2018, the priority goal of a nationwide expansion of gigabit networks by 2025 has been set. In order to achieve this target, a number of measures are being implemented, which are summarised in the implementation strategy of the Federal Government for shaping the digital transformation.

In November 2019, the German government has approved a mobile communications strategy. The aim of the strategy is to ensure nationwide supply of mobile voice and data services.

In addition, the Federal Ministry for Economic Affairs and Energy (BMWi) published the Digital Strategy 2025 (Digitale Strategie 2025), with more focus on stimulating broadband take-up and usage in different sectors.

# National broadband strategy and policy

## Responsible authorities

- The Federal Ministry for Transport and Digital Infrastructure (Bundesministerium für Verkehr und digitale Infrastruktur, BMVI) is responsible for broadband development and the implementation of the federal government's broadband strategy.
- The Federal Ministry of Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie, BMWi) promotes the key areas of digital infrastructure and transport infrastructure.
- The Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur) is responsible for implementing the regulatory framework laid down in EU and national law.
- The Federal Gigabit Bureau (Gigabitbüro des Bundes) has been designated as a national broadband competence. It maintains contact with the broadband competence centres of the federal states.

## Main aims for broadband development

In the coalition agreement of the German Federal Government, the priority goal of a nationwide expansion of gigabit networks by 2025 is laid out. The goal is to expand the fibre infrastructure in each region and each community, preferably directly to the house.

## Main measures for broadband development

- The revision of the Telecommunications Act, which entered into force in May 2012, optimises the framework for the expansion and construction of high-speed networks by creating incentives for investment in new networks. It also addresses the requirements to jointly use alternative infrastructures like sewer or energy networks or apply cost-effective technologies like micro-trenching to increase broadband coverage and reduce deployment costs. The revised Telecommunications Act strengthens competition between service operators by prescribing open access obligation to networks as well as by introducing consumer protection measures in the telecommunications sector.
- The DigiNetz Act has introduced the Cost Reduction Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of upgrading high-speed electronic communication networks.
- Broadband mapping: as a central information point, the broadband atlas shows broadband penetration and availability. A bi-annual report on the broadband atlas contains a detailed analysis of broadband availability at the federal and state levels. Furthermore, the Bundesnetzagentur has launched a nationwide infrastructure atlas to facilitate the use of synergies in infrastructure deployment. The atlas contains spatial data about the infrastructure of companies and institutions, such as geo-data about fibre optic lines, empty ducts, radio towers and masts as well as radio stations.
- With the Federal Government's 5G Strategy published in July 2017, the framework conditions and fields of action are now described in order to implement the roll-out of 5G networks in Germany by 2025 and to develop Germany into the leading market for 5G networks and applications. This goal is supported by the Federal Government through measures in five fields of action:
  - Promote network roll-out;
  - needs-based provision of frequencies;
  - promotion of cooperation between the telecommunications and user industries;
  - coordinated and targeted research;

- early initiation of 5G in cities and communities.
- With its mobile communications strategy, the Federal government has announced major plans to improve its mobile coverage. The Federal Government is working with countries and municipalities to implement a mix of different measures. This includes:
  - the creation of transparency regarding the actual supply situation as well as monitoring of the mobile network expansion,
  - the identification of infrastructure and properties that the Federal Government can provide for the construction of masts,
  - the provision of EUR 1.1 billion for the development of up to 5,000 unpowered areas,
  - relieving local authorities of the implementation of the support program in order to ensure effective and cost-effective expansion,
  - the identification of acceleration potentials in mobile network expansion in cooperation with countries and municipalities.
- With the Network Alliance for a Digital Germany (Netzallianz Digitales Deutschland) the government has established a forum for discussion by telecommunications developers and network operators on the conditions for incentivising market investments. It acts both as a forum for new ideas and as a discussion platform.
- In addition, the members of the Netzallianz have decided on the Zukunftsoffensive Gigabit-Deutschland on 7 March 2017. The aim of the joint strategy is to invest 100 billion euros in order to build a high-performance broadband network throughout Germany by 2025. This should enable network speeds in the gigabit range.

## **National and regional broadband financial instruments**

The federal states in Germany support broadband development with a number of measures and financial means. Some of the current measures are:

- The coalition agreement includes information on a public financing requirement of EUR 10 to 12 billion in this legislative period, which is provided in a gigabit investment fund. For this purpose, the proceeds from the award of the UMTS and 5G licenses are earmarked. These public funds will be used for upgrades using fibre optic technology. The funding schemes are designed to systematically upgrade underserved rural areas.
- Federal funding programme (Förderprogramm zum Breitbandausbau): this programme supports network expansion to provide high-speed broadband networks in underserved areas. The support of the federal state permits nationwide expansion of minimum 1 Gbps connections in areas that were previously underserved. The maximum amount of federal funding per project is EUR 30 million.
- Combination with other funding programmes, e.g. from the federal states, is possible and can be added to cover the remaining co-financing. An overview of ongoing and completed funding processes in different federal states (Bundesländer) can be found at Breitband-Ausschreibungen.

Other financial measures:

- The German government-owned development bank KfW offers the loan 208 IKK to municipalities to support investments in infrastructure including broadband infrastructure. Though the loan is capped at EUR 150 million annually, it can be combined with financial resources from public funding.
- The Landwirtschaftliche Rentenbank also offers loans to support projects intending to establish or improve communication infrastructure including broadband networks in rural areas.

# Data on broadband development and technologies in Germany

For the latest data on broadband coverage, subscriptions and penetrations, coverage of different broadband technologies and costs check the scoreboard reports and the country reports of the Digital Economy & Society Index (DESI).

## Spectrum assignments for wireless broadband

For details on harmonised spectrum assignments consult the European 5G Observatory.

## National publications and press documents

### English

- Implementation strategy of the Federal Government "Shaping the digitalisation"
- 5G Strategy for Germany
- Gigabit Initiative for Germany
- Study on National Broadband Plans in the EU-28
- Guide to High-Speed Broadband Investment
- Broadband Connectivity Reports and Analyses
- Mobile and fixed broadband prices in Europe at the end of 2019
- Study on broadband coverage in Europe 2019

### German

- DigiNetzGesetz
- Zukunftsoffensive Gigabit-Deutschland
- Digitale Strategie 2025
- Digitalisierung gestalten, Umsetzungsstrategie der Bundesregierung

## Contact information

### **BCO Germany (national Broadband Competence Office): Federal Gigabit Bureau (Gigabitbüro des Bundes)**

Address: Kapelle Ufer 4, 10117 Berlin, Germany

Contact via email

Phone: +49 (0)175 290 2184

Website

### **Federal Ministry of Transport and Digital Infrastructure (Bundesministerium für Verkehr und digitale Infrastruktur)**

Address: Invalidenstraße 44, 10115 Berlin, Germany

Contact via email

Phone: +49 3018 300 0

Website

## **Federal Ministry for Economic Affairs and Energy (Bundesministerium für Wirtschaft und Energie)**

Address: Scharnhorststr. 34-37, 10115 Berlin, Germany

Contact via email

Phone: +49 (0)30- 18 615 0

Website

## **Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (Bundesnetzagentur)**

Address: Tulpenfeld 4, 53113 Bonn, Germany

Contact via email

Phone: +49 228 14-0

Website

Follow the latest progress and learn more about getting involved.



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## Latest

WiFi4EU stories: an interview with the Mayor of Bissen, Luxembourg

The commune of Bissen, located in the canton of Mersch in central Luxembourg, has brought connectivity closer to its citizens by adhering to the WiFi4EU initiative. Following the steps of its capital city, Bissen wants people to benefit from the many opportunities brought about by digitalization, including having equal access to public information.

EVENT | 13 July 2021

WiFi4EU online workshop for WiFi Installation Companies

This one-hour online workshop is dedicated to WiFi Installation Companies involved in the WiFi4EU initiative. Its objective is to answer their questions in order to help overcome hurdles and accelerate network deployment. This workshop is an important opportunity in view of the approaching deadline, which risks the loss of municipalities' € 15,000 WiFi4EU vouchers.

#### NEWS ARTICLE | 08 July 2021

Digital Alps: Partnering with Broadband Competence Offices to build a digital connectivity roadmap for the Alpine Region

Mountain regions have much to gain from digitalisation and broadband connectivity. There is great potential for Smart Villages, SMEs, and access to online services in healthcare, education and much more. Mountain communities, however, face greater obstacles than most in becoming full participants in the European Union's Digital Decade. Their remoteness, in terms of distance and topography, combined with smaller populations, make them technically and financially challenging to reach with broadband infrastructure.

#### VIDEO | 18 June 2021

Rural connectivity for the health and management of beehives

In rural Latvia, an EU-funded start-up is using digital connectivity to promote healthy bee colonies and modern hive management. Thanks to €15,000 in LEADER funding covering two thirds of the total budget, Jānis Kronbergs developed the BeeKing app, which aims to help beekeepers – and especially newcomers – to learn from others, implement best practices and become more efficient. In this video, he explains the tool as well as its motivation, saying that “bees are very important for our nature, for pollination and biodiversity” and digital technologies can help beekeepers stay competitive.

[Browse Broadband Europe](#)



## **Related Content**

### **Big Picture**

Broadband in EU countries

Find current information on broadband development in each country, as well as national strategies and policies for developing broadband.

### **See Also**

Broadband in Sweden

Sweden's national broadband plan, adopted in 2016, has the vision of an entirely connected Sweden and has goals for both mobile coverage and for high-speed broadband connections for households and businesses. By 2020, 95% of all households and companies should have access to...

#### Broadband - Sverige

Sveriges nationella bredbandsplan, antagen 2016, har visionen om ett fullt kopplat Sverige och har mål för både mobil täckning och för höghastighets bredbandsförbindelser för hushåll och företag. Fram till 2020 skulle 95% av alla hushåll och företag ha tillgång till bredband med...

#### Broadband in Spain

Digital connectivity and 5G rollout are among the ten strategic priorities of the Spain Digital 2025 Agenda.

#### Broadband - España

El objetivo de conseguir un 100 % de cobertura de Internet a 30 Mbps, con un 50 % de los hogares suscritos a conexiones de Internet por encima de 100 Mbps en 2020, está en línea con los objetivos establecidos en la Agenda Digital para Europa. Con el fin de aprovechar todas las...

#### Broadband in Slovenia

Slovenia's broadband aims are in line with the gigabit society targets.

#### Broadband - Slovenija

Slovenski širokopasovni cilji so v skladu s cilji gigabitne družbe.

#### Broadband in Slovakia

Slovakia has set the long-term objective of achieving access to high-speed internet connection with at least 30 Mbps for all households by the end of 2020.

#### Broadband - Slovenská republika

Slovenská republika si stanovila ako dlhodobý cieľ umožniť všetkým domácnostiam prístup k vysokorýchlostnému internetovému pripojeniu s rýchlosťou najmenej 30 Mbit/s do konca roku 2020.

#### Broadband in Romania

Romania's broadband plan focuses on building up a national broadband network as a first step towards achieving the targets set by the Digital Agenda for Europe.

#### Broadband - România

Planul României privind rețeaua de bandă largă se axează pe înființarea unei rețele naționale de bandă largă ca prim pas în atingerea țintelor stabilite de către Agenda Digitală pentru Europa.

#### Broadband in Portugal

Portugal's NGA coverage is slightly below EU average. The Agenda Portugal Digital aims at development of a digital infrastructure that allows citizens to take advantage of the new opportunities offered by technologies.

#### Broadband - Portugal

A cobertura NGA de Portugal está ligeiramente abaixo da média da UE. A Agenda Portugal Digital visa o desenvolvimento de uma infraestrutura digital que permita aos cidadãos tirar partido das novas oportunidades que as tecnologias oferecem.

#### Broadband in Poland

Poland's national broadband plan foresees that 100% of households should have access to internet connectivity of at least 30 Mbps by 2020. 50% of households should have internet connectivity of 100 Mbps by 2020.

#### Broadband - Polska

Polski Narodowy Plan Szerokopasmowy przewiduje, że do 2020 r. 100% gospodarstw domowych powinno mieć dostęp do internetu o przepustowości co najmniej 30 Mbps. Również do 2020 r. 50% gospodarstw domowych powinno korzystać z internetu o przepustowości 100 Mbps.

#### Broadband in the Netherlands

The Dutch government supports the Gigabit Society targets. All households should have the opportunity to access broadband networks of at least 100 Mbps and a vast majority should be taking advantage of 1 Gbps by 2023. Mobile networks must also be able to access basic services at...

#### Broadband - Nederland

De Nederlandse overheid ondersteunt de doelstellingen van de Gigabit Society. Dat houdt in dat alle

huishoudens in 2020 de mogelijkheid moeten hebben om een breedbandverbinding met een snelheid van tenminste 100 Mbps te gebruiken en een overgrote meerderheid zou tegen 2023...

#### Broadband in Malta

Malta's broadband policy is technology neutral and favours a competitive market environment.

#### Broadband - Malta

Il-politika ta' Malta dwar il-broadband hija waħda newtrali f'termini ta' teknoloġija u favur ambjent kummerċjali kompetittiv.

#### Broadband - Luxembourg

Die Entwicklung einer Kommunikationsinfrastruktur mit dem Ziel flächendeckende Gigabitzugänge zur Verfügung zu stellen, bildet einen der Schwerpunkte im Regierungsprogramm von Luxemburg.

#### Broadband in Luxembourg

The development of a communication infrastructure with a target of gigabit broadband access throughout the country is one of the priorities in the governmental programme of Luxembourg.

#### Broadband - Luxembourg

Le développement d'une infrastructure des communications avec pour objectif de fournir un accès haut débit en gigaoctet dans tout le pays est l'une des priorités du programme du gouvernement du Luxembourg.

#### Broadband - Lietuva

Lietuvos naujos kartos interneto prieigos plėtros plane dėmesys sutelkiamas į tiesioginį valstybės indėlį į ilgalaikės infrastruktūros plėtrą, remiamos priemonės, kuriomis skatinamos privačiojo sektoriaus investicijos ir didinama spartaus plėtojimo ryšio paklausa.

#### Broadband in Lithuania

Lithuania's Next Generation Internet Access Development Plan focuses on direct state contribution to long-term infrastructure development, supports measures promoting private sector investments and seeks to foster an increase in demand for fast broadband access.

#### Broadband in Latvia

Broadband facilitates the development of e-services for government, schools, commerce, health and business besides providing high-speed internet to residents, businesses and public administrations in Latvia.

#### Broadband - Latvija

Platjoslas sakari atvieglo e-pakalpojumu attīstību valdības, skolu, tirdzniecības, veselības aprūpes un uzņēmējdarbības vajadzībām, nodrošinot ātrdarbīgu internetu Latvijas iedzīvotājiem, uzņēmumiem un valsts pārvaldes iestādēm.

#### Broadband in Italy

The Italian strategy for next generation access network aims at developing a high-speed access network to maximise the take-up of an infrastructure able to guarantee services of 100 Mbps for at least 85% of households by 2020. Italy adopted a national state aid scheme to support...

#### Broadband in Ireland

The national broadband plan for Ireland foresees that by 2026 all premises in Ireland will have access to high-speed broadband.

#### Broadband in Hungary

Hungary's National Digitization Strategy 2021-2030 aims at 95% of households covered by gigabit networks by 2030.

#### Broadband - Magyarország

A magyar Nemzeti Infokommunikációs Stratégia 2014-2020 célkitűzése, hogy 2018-ra a teljes lakosság számára legalább 30 Mbps, 2020-ra pedig a háztartások felének 100 Mbps sebességű, új generációs hozzáférési hálózati (NGA) lefedettséget biztosítson.

#### Broadband in Greece

The Greek Digital Transformation Bible 2020-2025 highlights connectivity as one of the five strategic axes and acknowledges the Gigabit Society 2025 targets.

#### Broadband - Ελλάδα

Το Εθνικό σχέδιο ευρυζωνικής πρόσβασης επόμενης γενιάς 2014-2020 έχει ως απώτερο στόχο τη δημιουργία ευνοϊκού περιβάλλοντος για ιδιωτικές επενδύσεις σε δίκτυα επόμενης γενιάς, καθώς και

την κρατική στήριξη σε τομείς για τους οποίους υπάρχει μικρό ή δεν υπάρχει καθόλου ενδιαφέρον...

#### Broadband in France

The national broadband programme France Très Haut Débit sets out the targets of fast broadband access for all households by 2022 and fibre for all by 2025.

#### Broadband - France

Le plan national français Très Haut Débit relatif à la technologie large bande vise à rendre le très haut débit accessible dans tous les foyers d'ici 2022. Le plan prévoit la fibre pour tous d'ici 2025.

#### Broadband in Finland

The Finnish authorities go for a competition-driven, fibre-based network roll-out assisted by public funds for underserved areas and advice for local municipalities on how to deploy broadband networks.

#### Broadband - Suomi

Suomen viranomaiset toteuttavat julkisin varoin tuetun kilpailuvetoisen, kuitupohjaisen verkon käyttöönoton alueilla, joilla palveluiden levinneisyys on alhainen, sekä tarjoavat kunnille laajakaistaverkot käyttöönottoa koskevaa neuvontaa.

#### Broadband in Estonia

Estonia has established basic broadband coverage throughout the country, and has brought its broadband targets for 2020 in line with those of the Digital Agenda for Europe.

#### Broadband - Eesti

Eesti on teinud lairibaühenduse baasteenuse kättesaadavaks kogu riigis ning 2020. aasta lairibaühenduse eesmärgid on kooskõlas digitaalarengu tegevuskava eesmärkidega.

#### Broadband in Denmark

A number of political initiatives aiming at nation-wide fixed and mobile broadband coverage support Danish broadband goals. The Government works towards making Denmark a digital frontrunner by creating a foundation for Danish businesses to exploit digital technologies.

#### Broadband - Danmark

En række politiske initiativer, der sigter mod landsdækkende fast og mobil bredbåndsdækning, understøtter de danske bredbåndsmål. Desuden arbejder regeringen for at gøre Danmark til en digital frontrunner ved at skabe grundlag for danske virksomheder til at udnytte digitale...

#### Broadband - Česká republika

Národní strategie České republiky má za cíl dosažení širokopásmového přístupu k internetu s rychlostí alespoň 30 Mb/s pro všechny obyvatel a alespoň 100 Mb/s pro 50 % domácností do roku 2020. Cílem je očekávat jak prostřednictvím investic soukromého sektoru, tak i veřejné podpory...

#### Broadband in the Czech Republic

The National Plan for the Development of Very High Capacity Networks, approved in March 2021, defines the strategic approach of the Czech Republic to the construction of VHCN.

#### Broadband - Κύπρος

Το ευρυζωνικό σχέδιο της Κύπρου έθεσε στρατηγικούς στόχους για την περίοδο 2016-2020 και ευθυγραμμίζεται με τους στόχους της κοινωνίας Gigabit. Η Κύπρος έχει υιοθετήσει αρκετά μέτρα από πλευράς ζήτησης με στόχο την τόνωση της ψηφιακής οικονομίας της.

#### Broadband in Cyprus

Cyprus' broadband plan sets strategic objectives for 2016-2020 and is aligned with the Gigabit Society objectives and the 5G Action Plan. It aims at Internet coverage with at least 30 Mbps for all households and businesses by 2020. In order to achieve the 2020 take-up target of...

#### Broadband in Croatia

Croatia's strategy contains basic principles such as service and technological neutrality, net neutrality and inclusion of broadband internet access among universal services.

#### Broadband - Hrvatska

Strategija Republike Hrvatske sadržava temeljna načela kao što su načelo neutralnosti u pogledu tehnologija i usluga, mrežna neutralnost i uključivanje širokopojsnog internetskog pristupa u univerzalne usluge.

#### Broadband in Bulgaria

The National Broadband Infrastructure Plan for Next Generation Access "Connected Bulgaria" and the

Policy in the field of electronic communications have been updated and adopted in August 2020.

#### Broadband - Република България

Националният план за широколентова инфраструктура за достъп от следващо поколение 2014 на България определя цели за широколентовия достъп в съответствие с Програмата в областта на цифровите технологии за Европа.

#### Broadband - Belgien

Belgiens Breitbandstrategie ist Teil der umfassenden politischen Strategie „Digital Belgium – Plan for Ultrafast Internet in Belgium 2015-2020“. Die Rahmenbedingungen des Belgischen Breitbandmarktes begünstigen einen marktgetriebenen NGN Ausbau. Ziel ist es, bis 2020...

#### Broadband in Belgium

Belgium's broadband strategy is incorporated into a broader policy strategy "Digital Belgium 2015-2020". The aim is to provide speeds of up to 1 Gbps to half of the country by 2020 and to facilitate a proactive 5G roll-out. By lowering costs and reducing administrative burdens...

#### Broadband - Belgique

La stratégie haut débit fait partie d'une stratégie politique plus large intitulée « Digital Belgium – Plan Internet très haut débit en Belgique 2015-2020 ». Le but est de fournir, à l'horizon 2020, un débit allant jusqu'à 1 Gbps à au moins la moitié des connexions établies en...

#### Broadband - België

De Belgische strategie op het gebied van breedband is bestanddeel van de bredere beleidsstrategie: "Digital Belgium - Plan for Ultrafast Internet in Belgium 2015-2020". Het doel is het leveren van snelheden tot maximaal 1 Gbps voor de helft van het land in 2020, het zorgen voor...

#### Broadband - Österreich

Österreichs Breitbandstrategie konzentriert sich auf die Bereitstellung von ultraschneller Breitband-Übertragungsraten bis 2030. Bis Ende 2025 soll eine fast flächendeckende Verfügbarkeit von 5G erreicht werden.

#### Broadband in Austria

Austria's broadband strategy focuses on the nationwide supply of Gigabit connections by 2030. By the



end of 2025, almost nationwide availability of 5G should have been realised.

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**Source URL:** <https://digital-strategy.ec.europa.eu/policies/broadband-germany>