

Broadband: Choice of infrastructure

Broadband networks require different infrastructure types based on different logistic, economic or demographic conditions. Use the questions to help choose.

Guifi.Net: A citizen's initiative to bring connectivity to rural Spain

fix-empty

When deciding on the appropriate first-mile (also called last-mile) infrastructure for a broadband network, the following questions should be answered:

- What is the existing infrastructure available? Can it be upgraded to reach the Gigabit Society 2025 and Digital Compass 2030 objectives?
- Is the connection to the end-user upgradeable?
- Is the owner of the existing infrastructure interested in collaboration?
- What are the needs of the territory in terms of type and quality of service?
- Does the infrastructure provide affordable services for the local population and businesses?
- How is the sustainability of the infrastructure to be assessed?
- Is there sufficient funding for future-proof infrastructure?
- Are there users in remote or sparsely populated areas?
- What are the plans for the longer-term upgrade of interim-solutions?

For further details and examples please refer to the [Broadband Investment Guide](#).

Latest News

PRESS RELEASE | 12 December 2022

[Commission adopts revised State aid rules for broadband networks](#)

The European Commission has adopted a revised Communication on State aid for broadband networks. The revised Broadband Guidelines set out the rules under which the Commission will assess State aid measures notified by Member States to support the deployment and take-up of broadband networks in the EU.

PRESS RELEASE | 17 November 2022

[Commission welcomes political agreement to](#)

[launch IRISA², the Union's Secure Connectivity Programme](#)

The Commission has welcomed the political agreement reached on 17 November between the European Parliament and EU Member States on the Union Secure Connectivity Programme 2023-2027 with a budget of €2.4 billion.

PRESS RELEASE | 28 September 2022
[Commission awards outstanding broadband deployment projects and infrastructures across Europe](#)

The Commission has granted awards to innovative broadband deployment projects and successful infrastructures at the European Broadband Awards.

PRESS RELEASE | 28 July 2022
[Digital Economy and Society Index 2022: overall progress but digital skills, SMEs and 5G networks lag behind](#)

The European Commission has published the results of the 2022 Digital Economy and Society Index (DESI), which tracks the progress made in EU Member States in digital.

[Browse Broadband](#)

Related Content

Big Picture

[Broadband project planning](#)

The Broadband planning section helps municipalities and other entities in their planning of successful broadband development projects.

See Also

[Broadband: Public and private funds financing broadband deployments](#)

Investment efforts to finance public-private and private-run networks are made in cooperation between private actors who own existing infrastructure, and public authorities.

[Broadband: Actors in the value chain](#)

The basic roles of Physical Infrastructure Provider (PIP), Network Provider (NP) and Service Provider (SP) can be taken by different actors.

[Broadband: Access to infrastructure & service-based competition](#)

Access to the broadband infrastructure is possible via different network nodes on the infrastructure and application level.

[Broadband: Plan definition](#)

Key to successful regional broadband development is a politically-supported plan at local, regional or national level, that combines goals with specific needs and stakeholders.

[Broadband: Action plan](#)

The action plan details the costs, stakeholders, activities, coordination and monitoring involved in implementing the broadband strategy.

[Broadband: Technology overview](#)

An overview of different wired, wireless and upcoming broadband technologies and a description of their advantages, disadvantages and sustainability.

[Broadband: Basic business models](#)

Choosing the right business model depends on the roles of the market actors in the broadband value chain.

[Broadband: Investment models](#)

Investment models present interesting involvement opportunities for a public authority that engages in regional broadband development.

[Broadband: Main financing tools](#)

The main financing tools for high-speed broadband development projects are own resources, revenue-based financing, loans, equity and grants.

[Broadband: State aid](#)

State aid for broadband may be necessary in some places where the market does not provide the necessary infrastructure investment.

[Broadband: Network and topology](#)

A broadband network consists of geographical parts. The topology of a network describes how the different parts of a network are connected. The most relevant topologies for the backbone and area networks are tree topologies, ring topologies and meshed topologies. For the first...

[Broadband: network layers and business roles](#)

In order to understand the roles that public administrations can take, it is useful to view the different layers that make up a broadband network as well as main business roles.

[Broadband: Technology comparison](#)

A comparison of broadband technologies presents features of each solution and helps decisions on the best solution for different regions.

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