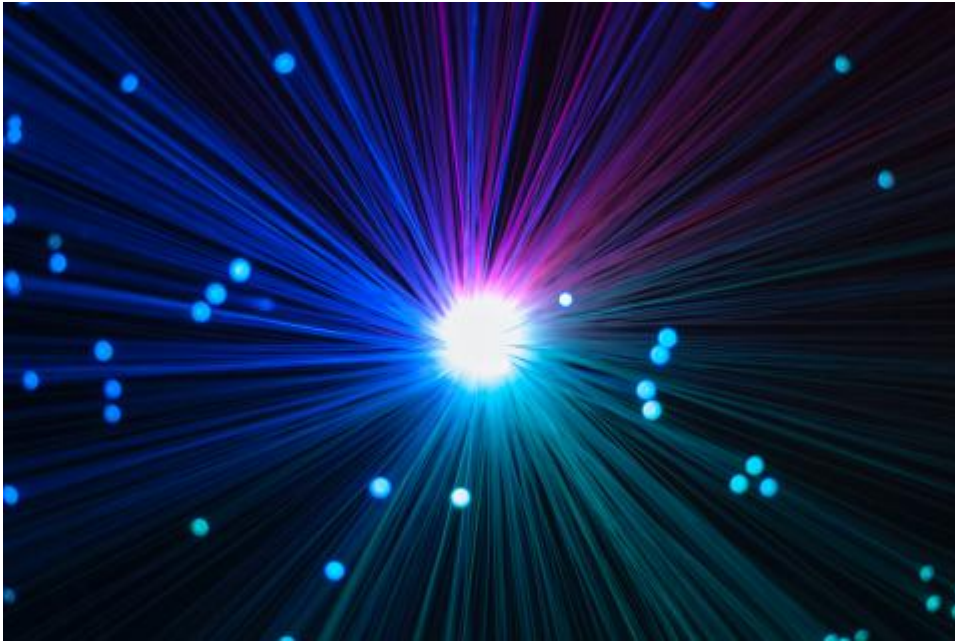


Broadband: Carrier models

Municipalities, municipal companies, joint ventures, and private companies can be involved in one, two or all three stages of broadband development.



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In regions where neither the public nor the private sector can or want to implement solutions, so-called bottom-up approaches can be realized alternatively. And, public-private partnerships (PPPs) can take over roles in one or more of the value chain stages.

Public Carrier

Potential public carriers to carry out construction and maintenance of broadband infrastructure are mainly municipalities and counties as well as local companies and joint ventures. The passive network infrastructure is primarily owned by the public sector (e.g. a municipality).

Public carriers usually build the passive network infrastructure through the involvement of sub-contractors. The involvement of the public sector in a broadband deployment project should be coordinated early with the competent authorities, particularly with regard to community economic and state aid law.

The Public DBO (Design Build Operate) Model is a possible model for designing a public-private partnership for the development of broadband projects. This model involves the managing authority operating without any private sector intervention, except at a service provider level. All aspects of

network deployment and operation are managed by the public sector.

Private Carrier

Private carriers can act as the owner and/or operator of broadband networks as well as service providers. They can be existing telecommunication companies, cable operators, private sector energy companies who want to expand their business and / or their product portfolio or start-ups. In purely privately-owned broadband deployment projects a private investor (one or more companies) takes over the full economic risk. Depending on the organizational and legal form of the company projects differ in size and type, financing strategy and the risk acceptance by investors.

If the investment of network construction and operation is entirely made of private funds, there is no open access obligation - unless the company has significant market power on a regulated market and is thus subject to ex-ante regulation. Nevertheless, the carrier can choose to open his passive and / or active network infrastructure to third parties (open access) and thereby generate revenues.

Through co-operation between different players such as energy utilities and telecommunication providers, synergies can be exploited and costs can be saved. For example, in the construction of new or the use of existing network infrastructure, or by joint design of services or the maintenance of the active network components.

The Private DBO Model is a private model involving a private sector organisation receiving some level of public funding (often a grant) to assist in its deployment of a new network offering open wholesale access.

Bottom-Up Approach

In areas lacking private sector investment to roll out infrastructure, citizens depend on their own commitment in order to achieve a rapid broadband upgrade. The bottom-up model arises from initiatives of citizens and local or regional players (companies, organizations) that want to promote and implement the deployment of broadband networks as end-users.

While private-sector broadband projects often assess the feasibility only on the basis of commercial aspects, citizens' initiatives in broadband expansion projects can take into account their own socio-economic objectives and goals, such as:

- a long-term investment horizon without short-term return expectations
- demand- and future-oriented choice of technology
- security aspects

Potential organizational forms for projects arising from bottom-up models are associations or co-operations. The idea behind bottom-up approaches is that users make long-term commitments (financial or other) which ensure the success of the project. The model has its strength primarily in the fact that it is organized locally and that there is a direct relationship between ownership and the provision of services to individual users, and thus a long-term customer loyalty is guaranteed.

Read more about the NGA bottom up model. The bottom-up, or local community, model involves a group of end users organising themselves into a jointly owned and democratically controlled organisational group capable of overseeing the contract to build their own local network.

Public-Private-Partnership (PPP)

In a public-private partnership (PPP), public and private carriers share the risk of a project on the basis of a shared commitment. In this sense, public-private partnership is a generic term for the co-operation between the private and the public sector. The aim is also to provide resources and / or expertise of the private sector and thus add a private contribution to the public sector's infrastructure and services offer.

Public-private partnerships are usually characterised by one or more of the following:

- fulfilling of a public task (pure task performance as a procurement alternative of public authorities and services without investment nature)
- participation of at least one private and one public partner
- long-term co-operation
- contractual formalization of the partnership
- increased efficiency (especially in the form of cost reductions) through:
 - sharing of risks between the partners
 - life-cycle orientation in the provision of services
 - process orientation in the provision of services
 - specific allocations of the resources of partners depending on the PPP model
 - complementary and operational objectives of the partners
 - sharing of responsibilities and tasks between the partners according to their potential for success

The term PPP is generally used to describe a variety of co-operative arrangements from loose, informal and strategic partnerships to service contracts for design, construction, financing and operation (so-called DBFO contracts, Design-Build-Finance-Operate) and formal joint ventures. Basically, there are three basic models:

1. outsourcing models (low degree of co-operation and used primarily to meet partial tasks);
2. contract models (medium degree of co-operation and mainly for the management of overall projects);
3. strategic cooperation models (high degree of co-operation between partners and including socio- contractual co-operation for the fulfilment of (sub -) tasks, primarily for management of overall projects.

Read more about the Basic Joint Venture Model. The principal aim of PPP is to involve the private sector in the provision of public services, shifting the role of the public sector from the owner and provider to purchaser and guardian of the interests of the public.

Read the guidelines on 'How to use public-private partnerships for building broadband networks in rural areas?'

Follow the latest progress and learn more about getting involved.

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The Commission has proposed this week a Path to the Digital Decade, a concrete plan to achieve the digital transformation of our society and economy

by 2030. The proposed Path to the Digital Decade will translate the EU's digital ambitions for 2030 into a concrete delivery mechanism. It will set up a governance framework based on an annual cooperation mechanism with Member States to reach the 2030 Digital Decade targets at Union level in the areas of digital skills, digital infrastructures, digitalisation of businesses and public services. It also aims to identify and implement large-scale

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The European Commission welcomes the agreement reached by the European Parliament and the Council on the Connecting Europe Facility (CEF) proposal, worth €33.7 billion, as part of the next long-term EU budget 2021-2027.

PRESS RELEASE | 09 March 2021

Europe's Digital Decade: Commission sets the course towards a digitally empowered Europe by 2030

The Commission recently presented a vision, targets and avenues for a successful digital transformation of Europe by 2030. This is also critical to achieve the transition towards a climate neutral, circular and resilient economy. The EU's ambition is to be digitally sovereign in an open and interconnected world, and to pursue digital policies that empower people and businesses to seize a human centred, sustainable and more prosperous digital future. This includes addressing vulnerabilities and dependencies as well as accelerating investment.

PRESS RELEASE | 02 December 2020

Commission launches public consultation to gather views on improving fast broadband network rollout

Earlier this week, the Commission opened a public consultation, as part of the review of the Broadband Cost Reduction Directive, to collect views, until 2 March 2021, on incentivising the rollout of fast broadband networks, including fibre and 5G. The Directive, introduced in 2014, aims to enable fast electronic communications networks for people across the EU by reducing the related costs.

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Big Picture

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

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Broadband: Plan definition

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Broadband: Action plan

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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.

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Broadband: State aid

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