

Broadband: Investment models

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

Low-cost FTTH network to revitalise the Aller valley, Spain
fix-empty

The choice of a model is a political decision based on the cultural and socio-economic situation, the ambition level of the public authority and the medium and long-term regional development goals. A fundamental choice has to be made on the level of commitment and the role of the public authority vis-à-vis the market, the citizens, and the businesses in the region.

The publicly-run municipal network model (public DBO)

In this model, the public authority builds a broadband network in the municipality, county or region (DBO refers to as design, build and operate). The deployment is run and directly controlled by the public authority. For this, a newly established company or a dedicated division within an existing utility deploys the network directly or through standard procurement to the market. The public authority keeps ownership of the network and runs operation and maintenance. The network is then generally made available to all market actors (open access network).

The public-run municipal network model is very common in the Nordic countries, e.g. in Suupohja in rural Finland.

The privately-run municipal network model

In this model, the public authority procures the building and operation of a broadband network in the municipality, county or region from a private actor (also referred to as public outsourcing or concession model).

The contracted private firm generally builds an open, operator-neutral network over which competing service providers can deliver their services to all end users. The public authority keeps ownership of the passive infrastructure but the operation contract with the external firm is typically in the form of indefeasible right of use (IRU) of e.g. twenty years.

In order to guarantee fair and non-discriminatory conditions to all service providers, the private firm building and operating the network should ideally be barred from delivering its own services. However, this is not always the case, mainly due to the scarcity of operator-neutral network providers and of independent service providers in certain Member States as well as low awareness of this possibility.

The contracted firm commits the investment and takes all the revenues but also the business risks for the whole contract period. At the end of the contract, the network infrastructure remains with the

public authority, which may then decide to renew the contract, to sign a contract with another company or even change its involvement altogether and adopt a public-run municipal network model.

This involvement type is becoming relatively common in continental Europe, e.g. in the Piedmont region in Italy.

The community broadband model

In this model, the broadband investment is carried out as a private initiative by local residents (bottom-up approach). Such projects have generally been very successful in driving the take-up rate among the end users and in building financially sustainable cases. The degree of competition varies between projects using an open network business model with good levels of competition to others acting as vertically integrated operators or procuring services from one operator for a number of years.

The public authority can support co-financing and right-of-way (RoW) granting, regulation and coordination with other infrastructure deployments and access to public infrastructure and points of presence to provide backhaul connections. Public authorities can also help establish fair conditions for all operators seeking access to the infrastructure.

A vibrant sector of broadband co-operatives and small private initiatives has grown up notably in the Netherlands and parts of the United Kingdom.

The operator subsidy model (gap-funding or private DBO)

In this model, the public authority is not directly involved in the broadband deployment projects of the region, but subsidizes one market actor to upgrade its own infrastructure. Incumbent telecommunications operators and large alternative providers usually own the passive infrastructure, active equipment and offer services to end users in a vertically integrated model.

The public authority funds the gap between what is commercially viable and the coverage that the public authority aims to achieve. Funding is offered as a grant to one or more private operators.

The advantages of this model lie in comparatively simple contractual arrangements, the potential for relatively rapid deployment and the offset of risks to the grant recipient / operator. However, public authorities will not receive financial rewards but instead have to face higher funding request for each new deployment phase, thus leading to higher investments than intended.

Operator Subsidy Models have been implemented for example in Germany.

Choosing the model

Questions that a public authority will need to answer before choosing an investment model are:

- How can we create an engine that ensures future investment in infrastructure beyond the immediate project and funding available?
- Are there benefits in keeping control and ownership of the passive infrastructure and in defining the deployment priorities?
- Would we rather be better off keeping the ownership of the infrastructure but let an operator define and execute the deployment?
- What are the pros and cons to involve vertically integrated operators (incumbents and others)

to upgrade or expand the network?

- Do we also see scope to support local bottom-up citizen initiatives?
- Given the socio-economic conditions on the ground, which level of competition is required to facilitate penetration of high quality and affordable services?

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State of the Union: Commission proposes a Path to the Digital Decade to deliver the EU's digital transformation by 2030

Today, the Commission proposed 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 digital

PRESS RELEASE | 12 March 2021

Commission welcomes agreement on the Connecting Europe Facility to fund greener, more sustainable transport and energy networks, and digitalisation

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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Related Content

Big Picture

[Broadband project planning](#)

The Broadband planning section, along with the Broadband investment guide aids municipalities and other entities in their planning of successful broadband development projects.

See Also

Broadband: Financing public-private and private-run deployments

In cooperations between private actors owning existing infrastructure and public authorities implementing a public- or private-run network, the investment efforts are partly supported by the private actor.

Broadband: Carrier models

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

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

A broadband network consists of different geographical elements and is divided into network layers. Access to the broadband infrastructure is possible via different network nodes on the infrastructure and application level. The two

Broadband: Plan definition

The key to successful regional broadband development lies in defining a plan that includes goals, collaborations, and specific needs and stakeholders.

Broadband: Action plan

Broadband project plans help you map infrastructure needs, plan financing and deployment, monitor progress, find stakeholders, make the right choices and more.

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: Main financing tools

The European Commission has a range of financing tools for high-speed broadband development projects across the EU.

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: value chain, actors & business models

Different business models are available to public authorities and other market actors in broadband development.

Broadband: Choice of infrastructure

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

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-investment-models>