BROADBAND INVESTMENT

Updating the EU Guide

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Why a guide?

A guide to support public authorities in:

- Defining their role vis-à-vis the market
- Making the right choices for their territory
- Defining and executing a successful broadband plan
- Avoiding regulatory issues
Investment model

Role of public and private in deployment, operation, ownership?

Infrastructure types

Deploy future-proof infrastructure or upgrade the current one (interim)?

Business model

Vertically integrated or open access (aka wholesale-only)?

Financing tools

How to provide the necessary financing and which actors can contribute what?

Mapping

Goals

Stakeholders

Broadband plan

Local plan

National plan

Action plan and execution

Monitoring

Procurement

Management

Demand stimulation

Coordination

Dealing with state aid
INVESTMENT MODELS

- **Gap funding**
  - Operator subsidy

- **Private-run municipal network**
  - Concession

- **Public-run municipal network**
  - Direct investment

- Community support
The broadband network is

- **Built**
- **Operated**
- **Owned**

By a telecom operator

Generally running on a vertically integrated business model

Virtually the only model used in the first broadband deployments, now less popular

Operator subsidy model *(aka Gap funding)*

- Low financial risk
- Limited engagement
- Little control on bb development
- No ownership, No revenue for upgrade
- Lock-in, competition discouraged
The broadband network is

- **Built**
- **Operated**
- **Owned**

By the public authority (in some cases in collaboration with market via PPP)

Generally running on wholesale-only business model, mostly at passive layer

Very common in the Nordic countries

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**the Nordic “municipal network” model**

- **Direct investment model**
- **High financial risk**
- **Considerable engagement**
- **Max control on bb development**
- **Ownership, Revenue for upgrade**
- **No lock-in, competition encouraged**
The broadband network is

- **Built**
- **Operated**
  By a market actor

- **Owned**
  By the public authority

Generally running on wholesale-only business model, mostly at active layer

Common in French rural deployments

Model chosen in the current Italian national plan
Network layers and business models

**Services (SP)**
Internet, phon, eTV, e-gov, e-education, IoT, cloud computing, etc e-health

**Active layer (NP)**
Transponders, switches, routers, DSLAMS, radio base stations

**Passive layer (PIP)**
Ducts, cables, masts, premises

- High operational expenditure (OPEX)
- Economies of scale
- Requires ICT know-how
- Temporary asset (fast obsolescence)

- High capital expenditure (CAPEX), low OPEX
- Local, hard to duplicate, low economies of scale
- Subject to regulation
- Permanent asset
Network layers and business models

**Wholesale-only models (open access models)**

- SP
- SP + NP
- SP
- SP
- SP
- SP
- SP

**Vertical integrated model**

- PIP + SP + NP
- SP + NP
- SP + NP

**Vertically Integrated Operator**

**LLU**

**bitstream access**
## Business model

<table>
<thead>
<tr>
<th>Investment model</th>
<th>Wholesale only (passive layer)</th>
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<th>Vertically Integrated</th>
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<tbody>
<tr>
<td>Direct investment</td>
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What’s new in the new Guide?

- Extension to support national broadband plan
- Mapping (area classification)
- Chapter on state-aid
- More examples and cases (best practices and not)
- Inclusion of the new Code and new goals (including considerations on VHCN)
What support/guiding do you feel is most urgent in your home country?

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<td>Mapping (definition of white/grey/black areas)</td>
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<td>National broadband plan</td>
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<td>Regional broadband plans</td>
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<td>Investment models (gap funding, concession, etc)</td>
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<td>6th</td>
<td>Demand-side support (e.g., vouchers)</td>
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<td>Infrastructure and technology</td>
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<td>Examples and good practices</td>
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<td>11th</td>
<td>Innovative financing tools (e.g., CEF)</td>
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<td>12th</td>
<td>Business models (wholesale-only or retail)</td>
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THANK YOU!

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More Information

For info or further questions on this seminar and the activities of the JASPERS Networking Platform, please contact the JASPERS Networking and Competence Centre at the following email:

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