



Ministry of Transport  
and Communications

# The Finnish Broadband Policy

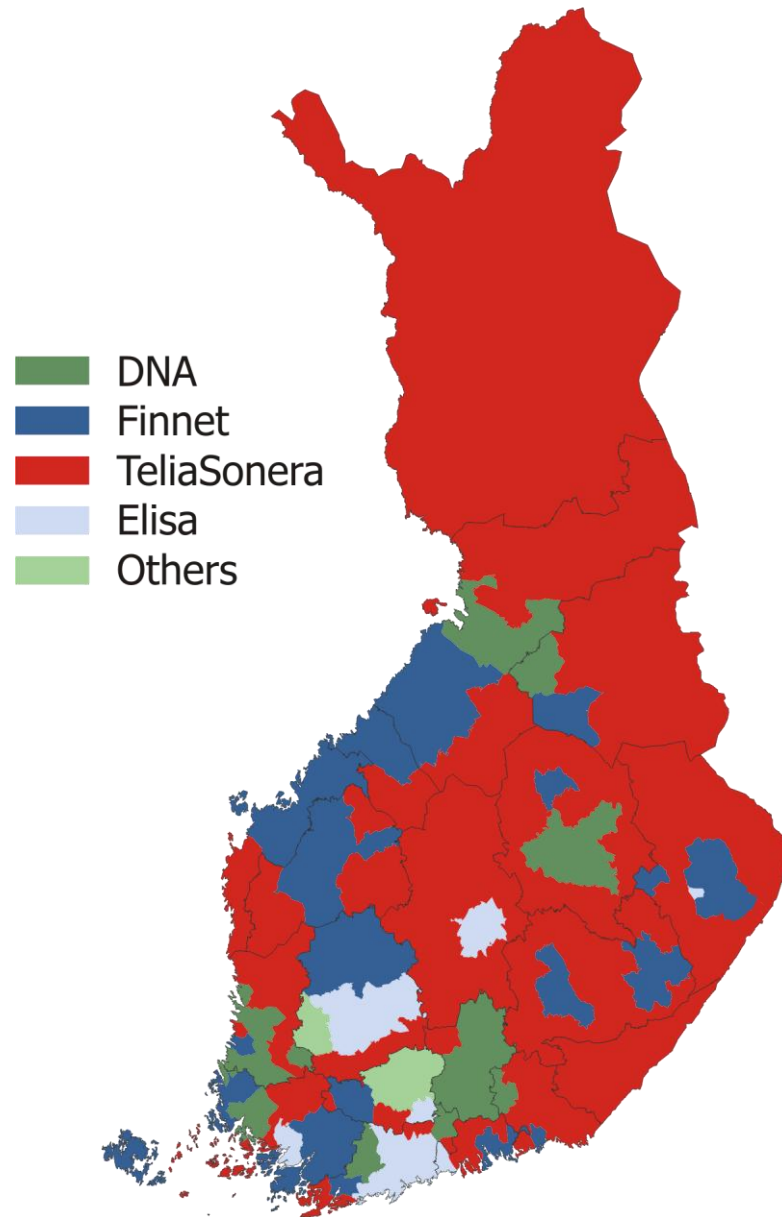
Broadband connectivity as a fundamental right

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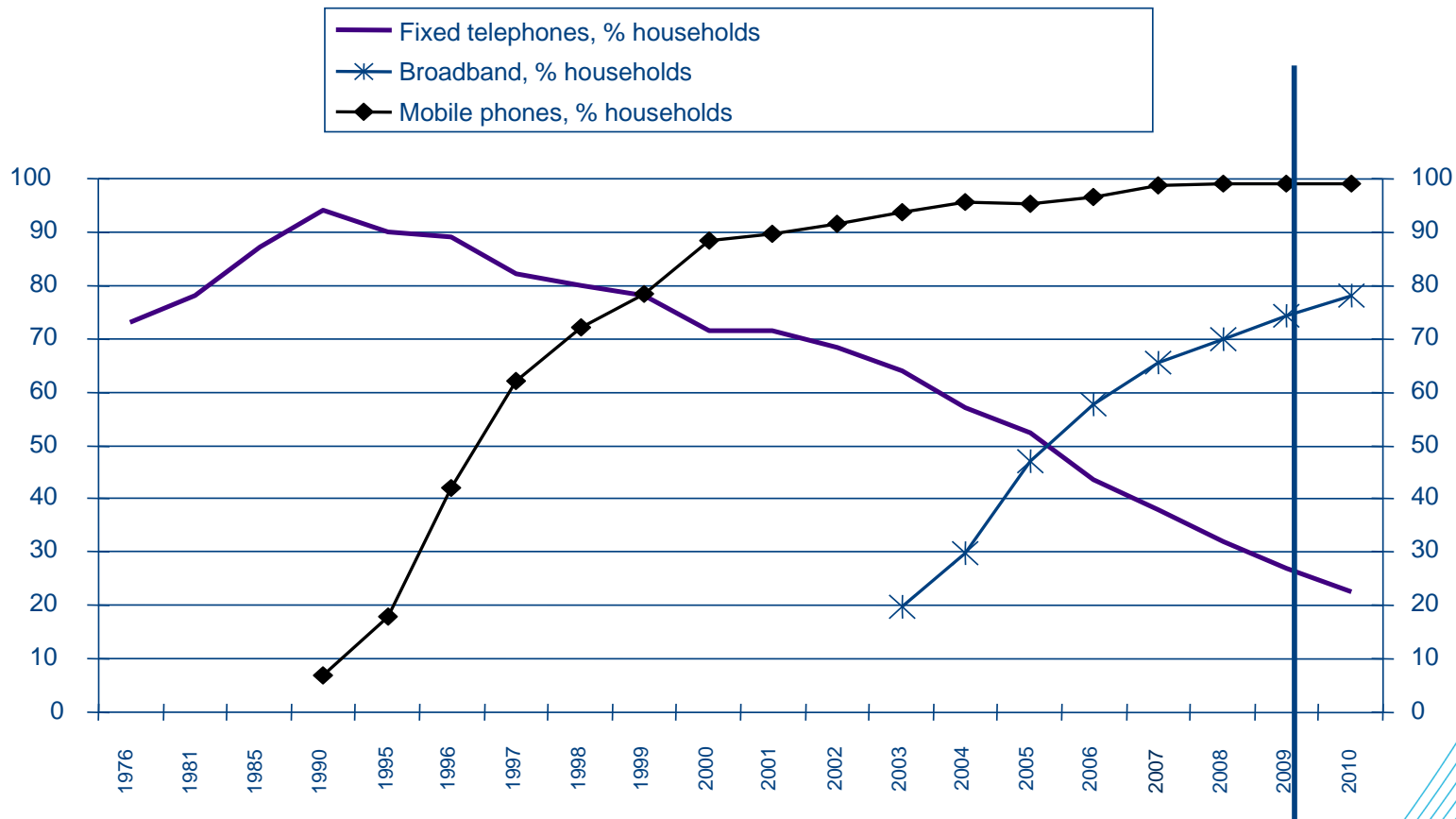
[antti.kohtala@mintc.fi](mailto:antti.kohtala@mintc.fi)



# Incumbent local operators in Finland



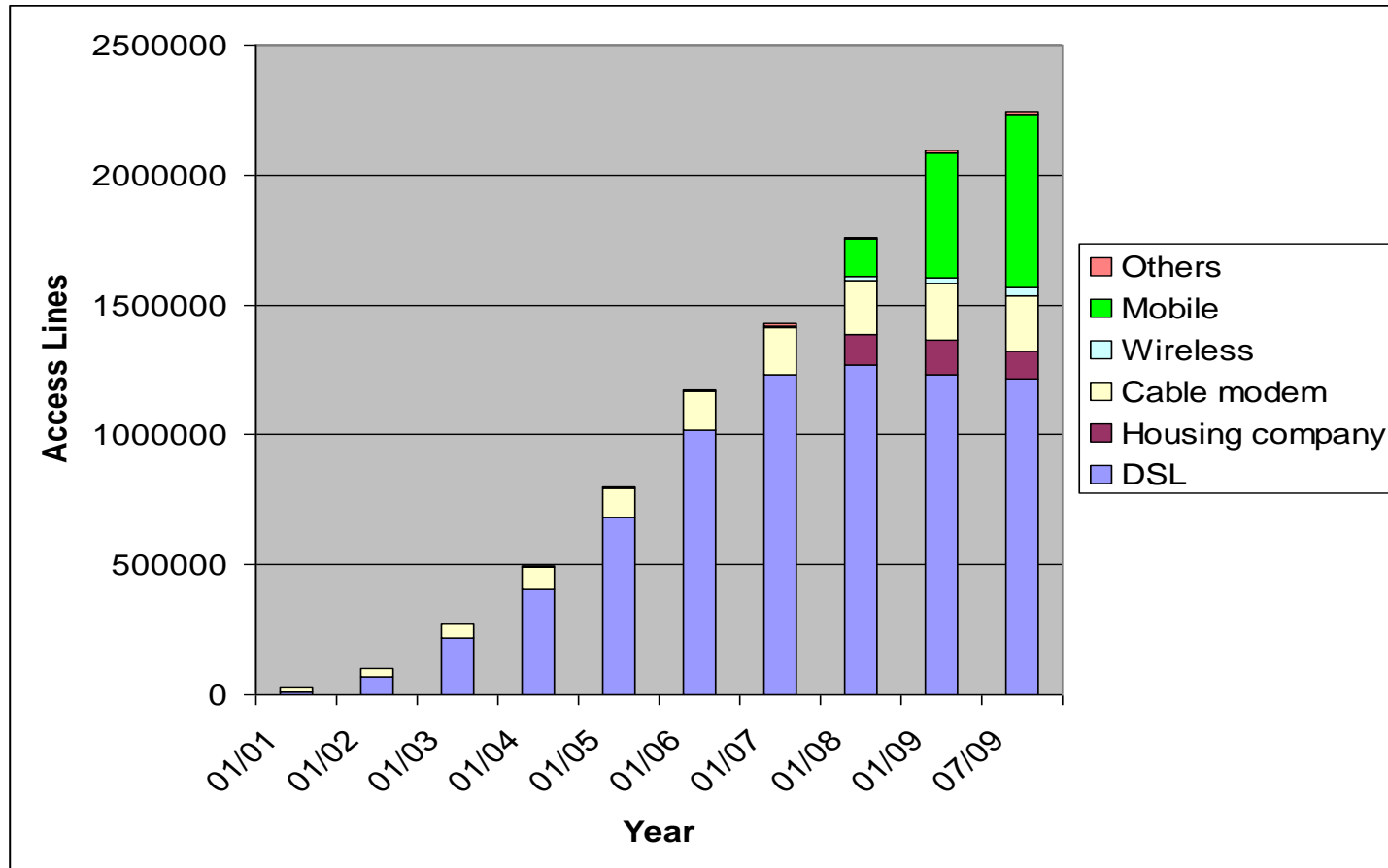
# Communications penetration in the Finnish households



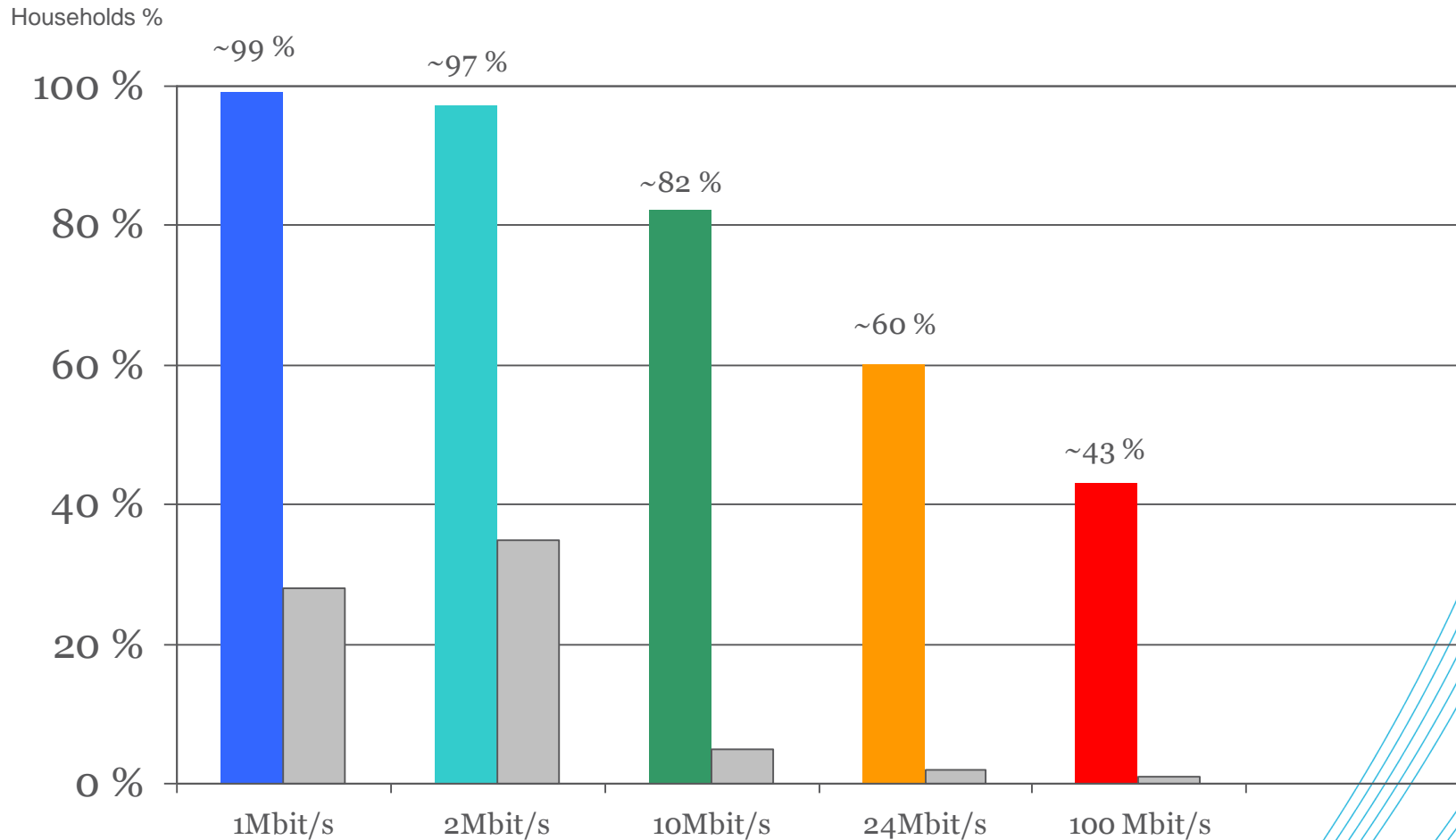
## Last mile solutions (broadband access):

- Copper lines (DSL)
  - decreasing, coverage 96% of households
- Wireless local loop (WiMAX)
  - in some areas/local (3.5 MHz), auction in Nov -09/national (2570-2620 MHz)
- Mobile – 3G/UMTS/HSPA/
  - also 900 and 1800 MHz bands (since 2007)
- Mobile - @450/Flash-OFDM
  - country wide coverage (99% of households)
- 4G-networks/LTE
  - 1800 MHz band, auction in Nov -09 (2500-2570 and 2620-2690 MHz)
- Cable tv networks
  - over 50 % of households
- Optical fiber (FTTB, FTTH)
  - about 15 % of households passed

# Broadband access lines in Finland



# In the broadband market the supply is much bigger than the demand



An estimation of the broadband supply and demand on the 1st Jan 2010

# Regional Broadband Activities

- all provinces / Regional Councils (19) have been responsible to prepare a regional broadband activities together with local municipalities
- in a close cooperation with the national broadband task force, Ministry of Transport and Communications and Ficora

# Broadband Deployment in Finland

(The Finnish Government Resolution of 4 December 2008)

## 1 Mbit/s by 2010

- by July 1st, 2010 every permanent household or enterprise must have a reasonably priced access to a fixed or wireless subscriber connection with an average downstream rate of at least 1 Mbit/s.
- the rate of 1 Mbit/s has been defined as a **universal service** but no public funding will be used.

# Universal service today in Finland

- universal service provision technology neutral
  - fixed or mobile networks and services
- access to internet at least 30-50 kbit/s
- an operator can substitute fixed subscription for mobile subscription if there is mobile coverage at home
- about 40 operators with universal service obligation (USO)

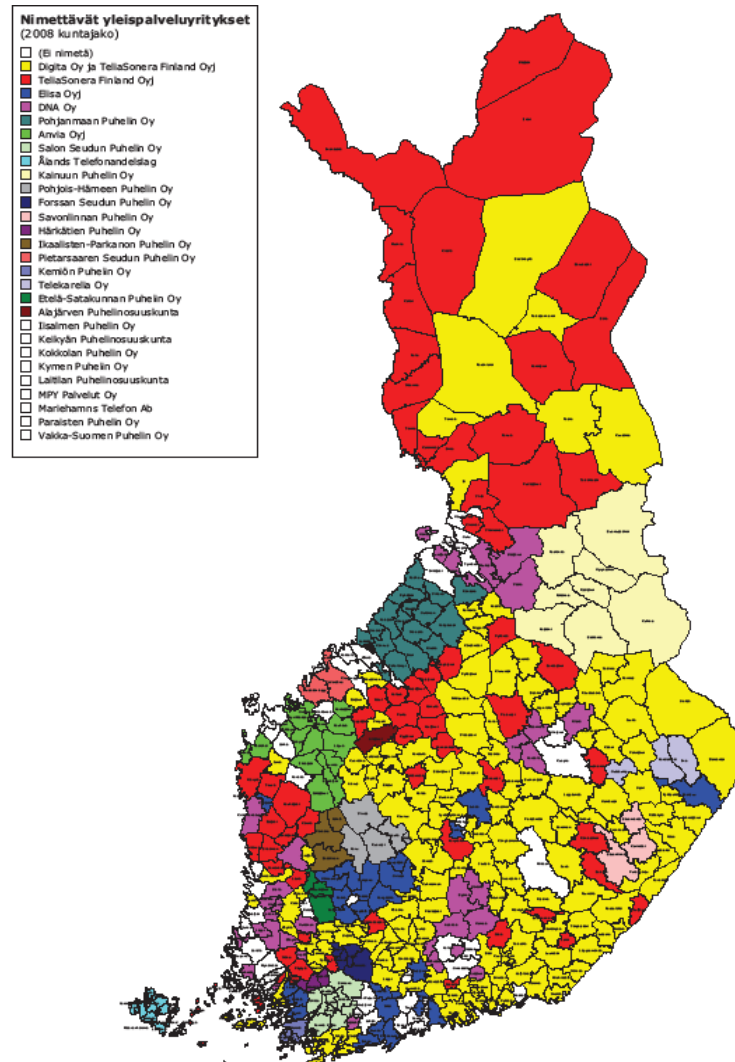
# Universal service will include broadband access

- **why** 1 Mbit/s broadband as **USO**?
  - more and more public services via broadband access
  - all citizens shall have access to information society services
  - only way to guarantee reasonable priced broadband also in sparsely populated areas
  - based on fixed monthly charging

# Some actions to reach the 1 Mbit/s target in July 2010

- Ficora (NRA) has determined operator(s) with universal service obligation (USO) in each area
- to amend the licence obligations of the @450 network
- to allow to build 3G networks also using 900 MHz bands
- the definition of 1 Mbit/s broadband as USO (average downstream minimum rate)
  - minimum rate of functional internet access is at least 1Mbps
  - 750 kbps in any 24-hour measuring period
  - 500 kbps in any 4-hour measuring period

# 1 Mbit/s USO operators in Finland



# Broadband Deployment in Finland

(The Finnish Government Resolution of 4 December 2008)

## 100 Mbit/s by 2015

- by the end of 2015 all permanent households and enterprises shall have access available to a high-speed connection permitting at least 100 Mbit/s symmetric connections.
- in built-up areas telecom operators will build high-speed connections on market terms. This should achieve a population coverage of around 95%.
- extending the coverage to near 100% will require that partly subsidised high-speed connections will be built to around 130,000 households in rural areas.
- public aid – two thirds – will be provided by the state, municipalities and the EU.
- end users shall acquire their subscriber connection at their own expense, but no longer than the last 2 kilometres
- the costs of the project will amount to about 500 million euros, of which telecom operators will pay at least one third.
- implementation in 2010–2015.

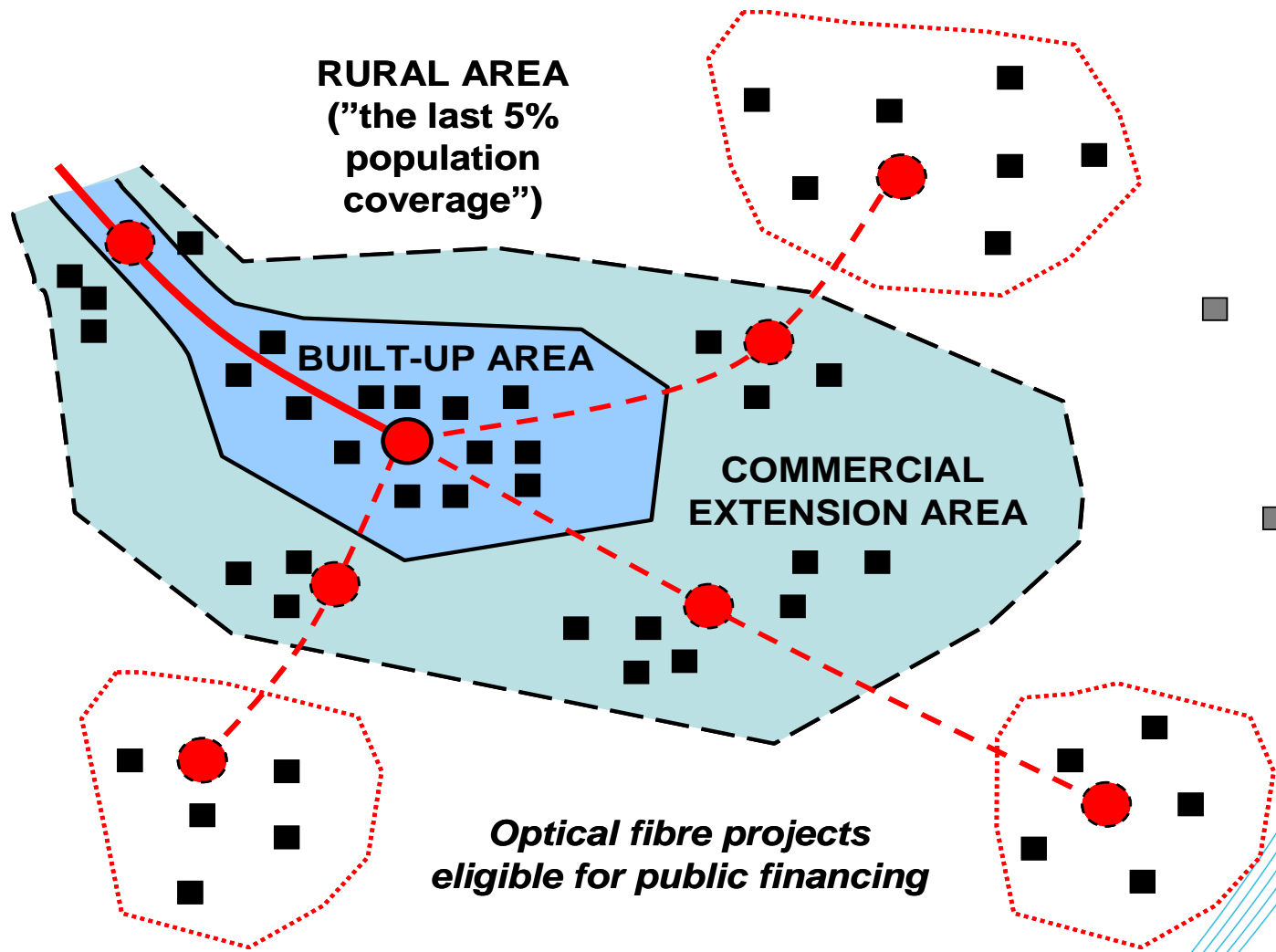
# Why is needed symmetric 100 Mbit/s in rural areas?

- information society services are at least as important in non-built-up areas as in cities (telework, remote health care, entertainment etc).
- optical fibre connections will balance the regional differences in the supply of communication services.
- in future, faster and more symmetrical connections will be needed – upstream rates need to be high as well.
- a rate of 100 Mbit/s will provide better opportunities for telework, telepresence and development of social networking services.
- it will also be enough for standard and high-definition television services and for downloading large files, e.g. fotos and films.
- the spread of high-speed broadband networks will promote competition in the distribution of television programmes.

## Next steps (last 5 %)

- the Regional Councils have defined by the end of October 2009, where broadband connections should be established on market terms and where public aid for financing optical fibre will be needed
- Ficora (National Regulation Authority) evaluates the regional plans and makes proposals on the subsidies accordingly
- the Government adopts the plans for state subsidies for different regions
- the subsidised projects will be subject to competitive tendering
- the connections will be built in 2010–15.
- Ficora pays the subsidies and monitors their use
- the subsidised networks will be owned by operators
  - services shall be provided at least 10 years
  - open access for other service providers

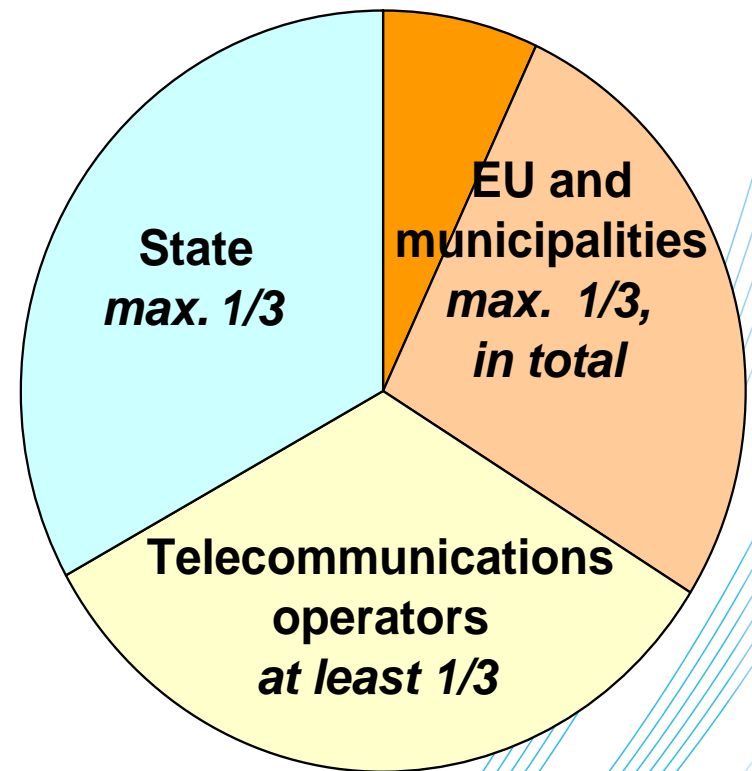
# Projects eligible for public aid (the last 5% of the population)



# Costs of extending high-speed broadband to rural areas (last 5 %)

- total costs some 500 million euros
- 25 million euro EU funding (Rural Development Fund)
- public aid no more than 2/3
- share of municipalities 8, 22 or 33% depending on the financial situation of the municipality and costs for expanding broadband network

Shares of stakeholders



# Some other actions to reach the 100 Mbps target in 2015

- building optical fibers or at least ducts as a part of a community planning
  - cooperation with water pipe and sewerage construction
  - exploitation of road constructions
  - cooperation with electrical networks
  - a part of town planning
- more frequencies for wireless broadband
  - digital dividend, 790-862 MHz band for wireless and mobile
- to promote the content provision (like IPTV)

**THANK YOU**