

**CITI- State of Telecom: National Next-Generation Broadband  
Plans -Conference  
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# **Public and Private Financing of BB in Italy**

**Lorenzo Pupillo  
PUBLIC AFFAIRS**



## **PUBLIC BENEFITS FROM BB INVESTMENTS**

- ▶ **SIGNIFICATIVE IMPACT ON ECONOMIC GROWTH ( Chiang-Rossotto World Bank Report, 2009)**
- ▶ **INVESTMENTS IN ICTs HAVE HIGHER SOCIAL RETURN THAN OTHER TYPE OF INVESTMENTS , SUCH AS HIGHWAYS CONSTRUCTIONS (Summers and DeLong , 1991- *estimated social rate of return on equipment investment* around 30-50%, Mamuneas – Nadiri 1996)**
- ▶ **PUBLIC INVESTMENT IN ICTs AND CROWDING OUT OF PRIVATE INVESTMENTS: *investing in a market conforming way vs . market replacing way***

## PUBLIC FUNDING FOR BROADBAND IN EU

### Promoting Broadband

- **Lisbon European Council:** making the EU the most competitive knowledge-based economy of the world
- **i2010:** priority for the Union to ensure that less favoured regions can fully participate in the Information Society
- **European Regional Development Fund (ERDF):** European co-financing available in disadvantaged regions



### EC Treaty Art. 87:

- prohibition of state-aid which **distorts competition**
- certain aid is or may be considered **compatible**

### Safeguarding Competition

- **Competition** leads to more choice, lower prices, innovation,...
- Avoid **crowding out** private investments and companies
- State aid should address **genuine market failures** in a necessary and proportionate way

Source :EC-2009

## COMPATIBILITY ASSESSMENT and OBLIGATIONS

- **GEOGRAPHIC AREAS : White, Black, Grey areas**

- **CONDITIONS REQUESTED FOR TRADITIONAL BB**

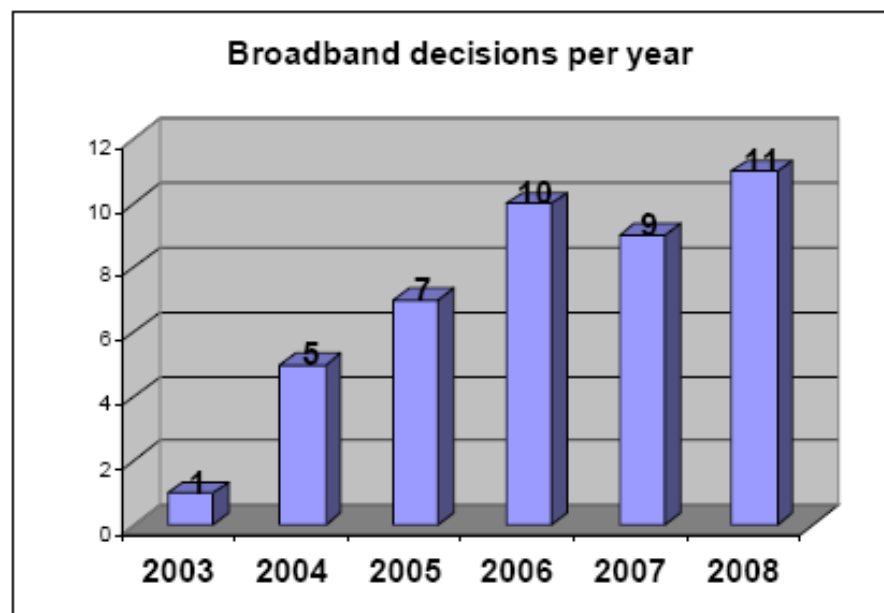
- Detailed mapping and coverage analysis – market analysis to clearly identify which geographic areas will be covered by the support measure in question;
- Open tender process selecting the best economic offer to limit aid, to respect equal treatment of candidates and to leave the market to come up with the best solution;
- Technological neutrality not to favour any technology or service provider;
- Use of existing infrastructure to avoid unnecessary and wasteful duplication of resources;
- Wholesale access to enhance competition and provide more choice for end-users;
- Benchmarking pricing to avoid excessive/ predatory pricing;
- Claw-back mechanism to avoid over-compensation to minimise the amount of aid ex post;

Source: EC - 2009

## PUBLIC FUNDING FOR BROADBAND IN EU

### State aid broadband decisions

- Well-established case practice;
- More than 40 State aid broadband decisions since 2003;
- Assessed public funding of more than €1 billion (generated investments of approx. €2 billion)



Source: EC - 2009

**Taxonomy of public interventions for the development of BB infrastructures in Italy**

**1. Backbone/backhaul  
public infrastructure**

- Construction of a backbone public infrastructure , publicly owned and operated or made available for private operators
  - Fiber optic links among central offices or for backhualing for mobile operators
- Ex: Lepida,

**2. Wireless access  
Public infrastructure**

- Construction of a public infrastructure for wireless access but managed by private operators
- Local Municipalities and regional government dynamics

**3. Subsidies to  
operators**

- Subsidies to private operators in market failure areas to guarantee broadband offerings and financial viability
- Ex: Sardegna

**4. Charters with  
operators**

- Charters between public administrations and private operators: the operators invest in infrastructures and the administrations guarantee revenues through services promotion

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**Taxonomy by regions of public interventions for the development of BB infrastructures in Italy**

Regions	Backbone/backhaul public infrastructure	Wireless access Public infrastructure	Subsidies to operators	Charters with operators
Piemonte	√			√
Valle d'Aosta	√			√
Lombardia	<i>Infratel</i>	√		
Liguria	√	√	√	√
Provincia Aut. di Trento	√	√		
Provincia Aut. di Bolzano			√	
Veneto	√		√	
Friuli Venezia Giulia	√			
Emilia Romagna	√			
Toscana			√	
Umbria	√			√
Marche	<i>Infratel</i>		√	
Lazio	<i>Infratel</i>			
Abruzzo	<i>Infratel</i>			
Molise	<i>Infratel</i>			
Campania	<i>Infratel</i>			
Puglia	<i>Infratel</i>			
Basilicata	<i>Infratel</i>			
Calabria	<i>Infratel</i>			
Sicilia	<i>Infratel</i>			
Sardegna	√		√	

## **ROMANI'S PLAN**

- ▶ **In June 2009 , the Italian Deputy Minister for Economic Development Mr. Romani, announced a Plan to pursue a Universal Broadband Service at a speed between 2 and 20 Megabits per second, by no later than 2012.**
- ▶ **The estimated costs for the plan is 1471 millions euro**
- ▶ **The short term goal of the plan is to eliminate the digital divide. The medium term goal is to deploy a Next Generation Network whose cost is estimated in about 10 billions euro.**
- ▶ **The plans will be covered by :**
  - ▶ **800 Millions national public funding**
  - ▶ **188 Millions European public funding**
  - ▶ **264 Millions Regional & National public funding**
  - ▶ **219 Millions of private investment**
- ▶ **Vehicles: Grants – Open tender - public ownership of the networks**
- ▶ **Technologies mix : 95,6% of the population will have access to 20 Mbits through ADSL2 & fiber backhauling connections and 3,9 % to 2 Mbits through wireless broadband**
- ▶ **The investment breakdown will be : 763,85 millions civil works, HW & SW for 617,66 millions and 89,81 millions for projects design.**

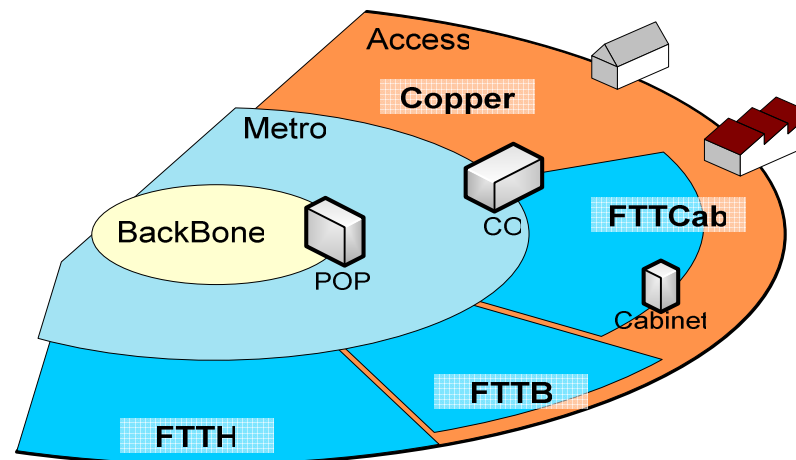


## Telecom Italia NGN2 Project

**OBJECTIVE** develop a new “all IP” multi-service Next Generation Access Network enabling new Ultra Broad Band Fixed and Mobile services

### DRIVER

- ▶ Enabling (r)evolutionary ITC services for residential and business customers
- ▶ Enabling Mobile bandwidth growth with fiber backhauling of HSDPA and LTE
- ▶ Enabling Opex reduction (CO space reduction, delivery, energy, OAM)



### STRATEGY

- ▶ FTTx access network development
- ▶ Total Replacement strategy in the long term, with PSTN replacement
- ▶ Passed/Overlay short term strategy for a wider initial coverage

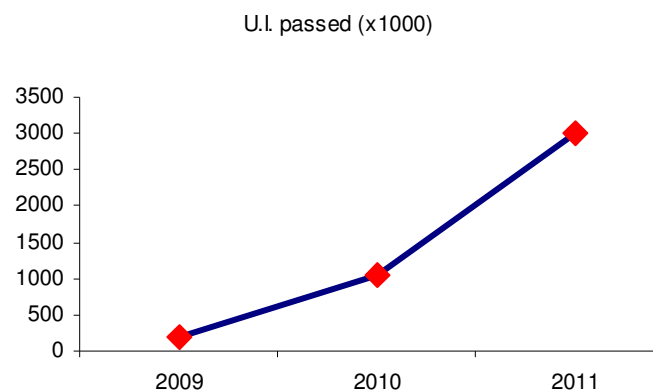
## **2009 – 2011 NGN2 FTTx deployment**

### **TI Fiber access development – technical quantities**

**In the planning period 2009 – 2011  
current deployment plan foresees an  
“overlay” coverage extension**

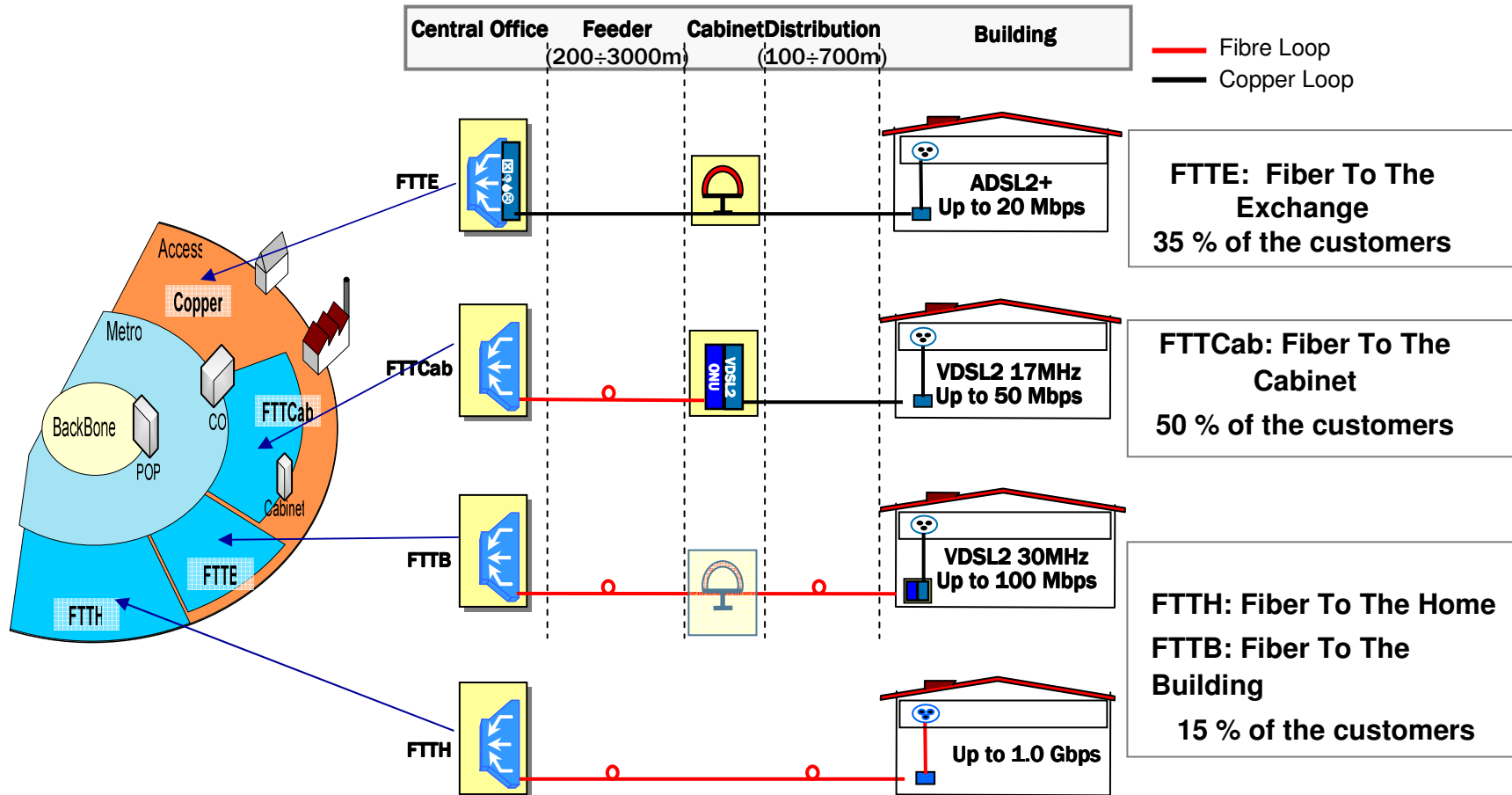
**NGN2, market driven, will be deployed with  
the following path:**

<b>FTTx passed coverage</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Cities</b>	<b>1</b>	<b>11</b>	<b>20</b>
<b>Central Offices</b>	<b>17</b>	<b>63</b>	<b>151</b>
<b>Home passed (000)</b>	<b>195</b>	<b>1.060</b>	<b>3.000</b>



- ▶ **TI will boost fiber access deployment in the 2009 – 2011 plan**
- ▶ **More than 6 Billions Euro Total Investment by 2016**

# NGN long term deployment: a mix of architectures

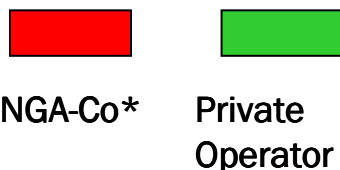
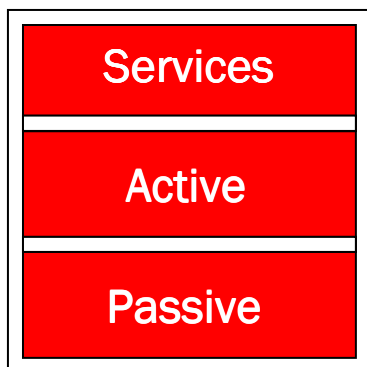


## **GOVERNMENT AS FACILITATOR OF BB INVESTMENT**

- ▶ **Simplifying permission procedures to install optical infrastructure (both in buildings and streets – e.g. Italian law 133)**
- ▶ **Allowing operators to map and use third party existing infrastructures (e.g. Municipalities ducts, utility ducts - law 133), and avoiding any duplication of investments.**
- ▶ **Authorizing innovative cost effective digging technologies and infrastructural solutions (e.g. Law 69)**
- ▶ **infrastructure/fiber sharing agreements among operators (Co-digging)**
- ▶ **Case in point :PROJECT - ROME DIGITAL CITY !**  
**In 3 years (2009-2011) within the “Belt” and by 2013 outside the “Belt”, Rome will be completely connected through a fiber network.**  
**Private funding for 600 millions of euro**  
**Public effort in approving, last July, the minitrenching approach to digging**

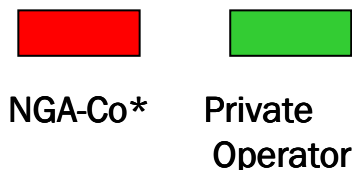
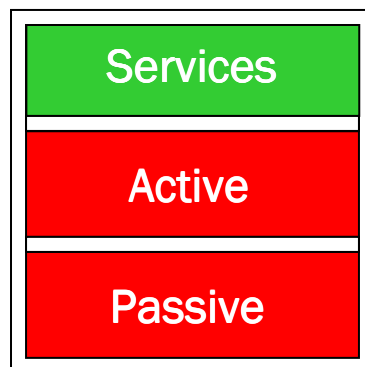


## A recent Proposal : NGA-Co ...but which model ?

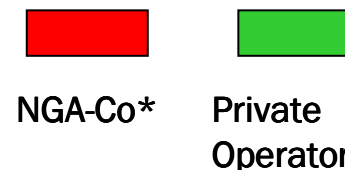
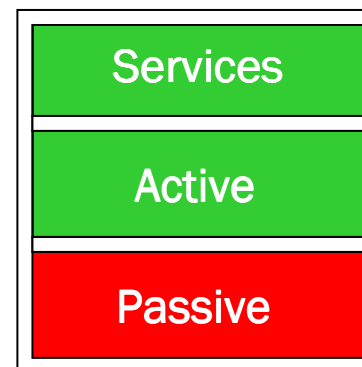


NGA-Co owns and operates the network. It is also a services provider over the network (though not necessarily the only one)

\*NGA-Co:PPP



NGA-Co owns and operates the network and resells dark fiber and/or capacity to service providers. It does not directly provide service (but may operate for its own needs).



NGA-Co owns the passive layer. Private Operators manage the active layer and operate as service providers or resell dark fiber and/or capacity to service providers.

# Thank You

**LORENZO.PUPILLO@telecomitalia.it**