Wholesale Pricing for Ultra broadband Services

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Why Ultra broadband is central in all TLC companies strategy?

All main Operators are moving towards ultra broadband.

There are three main drivers:

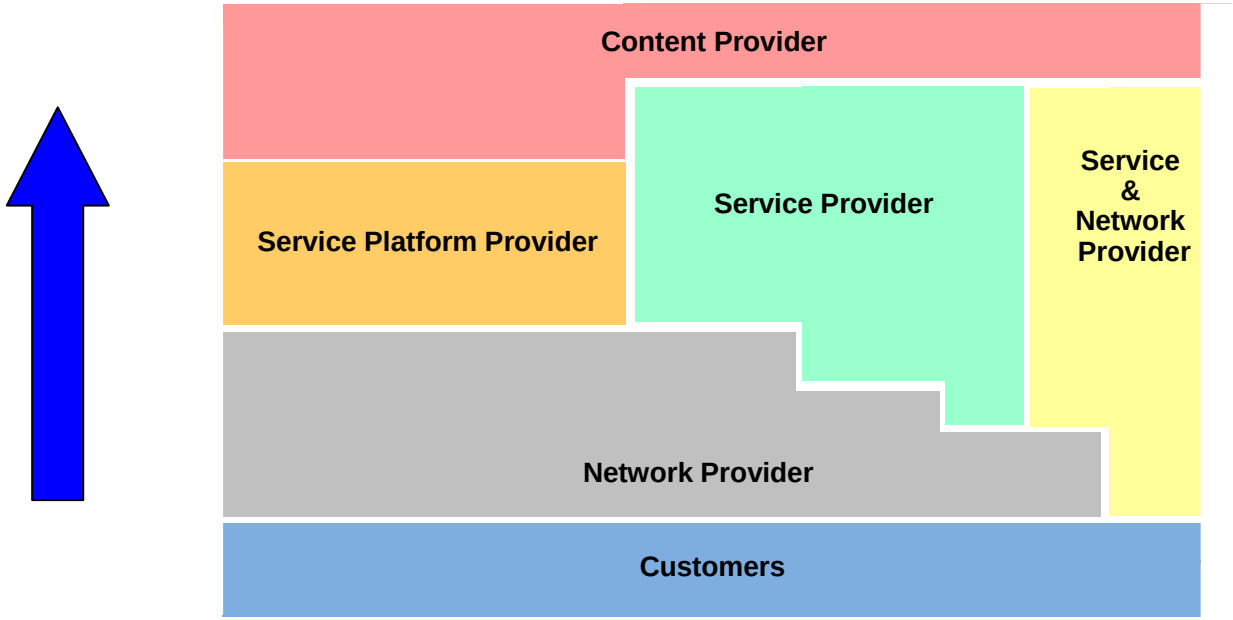
- Service & Technology enhancement
- Wider value-chain control
- Cash cost reduction

Why Ultra broadband is central in all TLC companies strategy?
1) Service & Technology enhancement

- Next generation high definition video and multimedia services can be supplied only by a new ultra broadband platform.
- Continuous growth of bit rate requested;
- New needs in broadband mobile backhauling;
- The increasing number of services over copper network will lead, in the long run, to a reduction of service and band availability;

Why Ultra broadband is central in all TLC companies strategy?
2) Wider value-chain control

- Traditional TLC services tend to become commodities showing a constantly decreasing ARPU even under an increase of customer usage.
- Some adjacent markets show considerable growth.

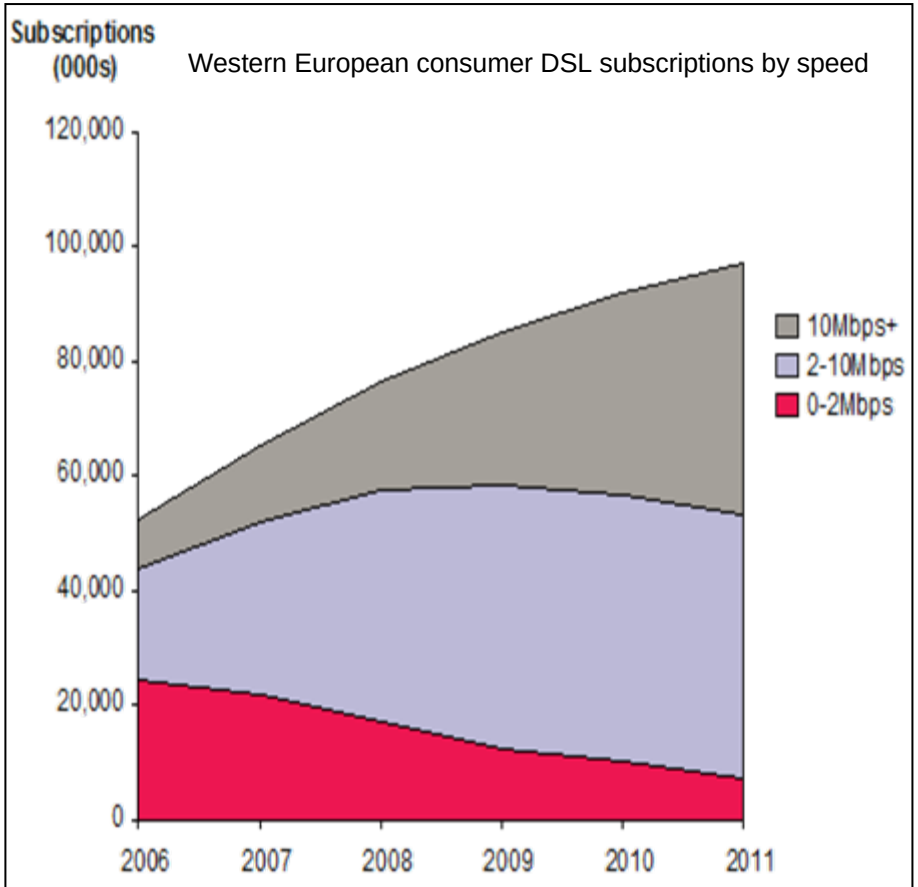


Why Ultra broadband is central in all TLC companies strategy?
3) Cash Cost Reduction

- Copper network aging and the intense use of this network for broadband will require increasing operational costs;
- Reduction of delivery and assurance costs due to the “plug and play” approach of NGN2 services and reduction of fault rate of a factor of at least 50%;
- Potential reduction of local exchanges: the distance to the buildings can be over 10 km (1/5);
- Reduction of power budget per line (from 10W to 3W).

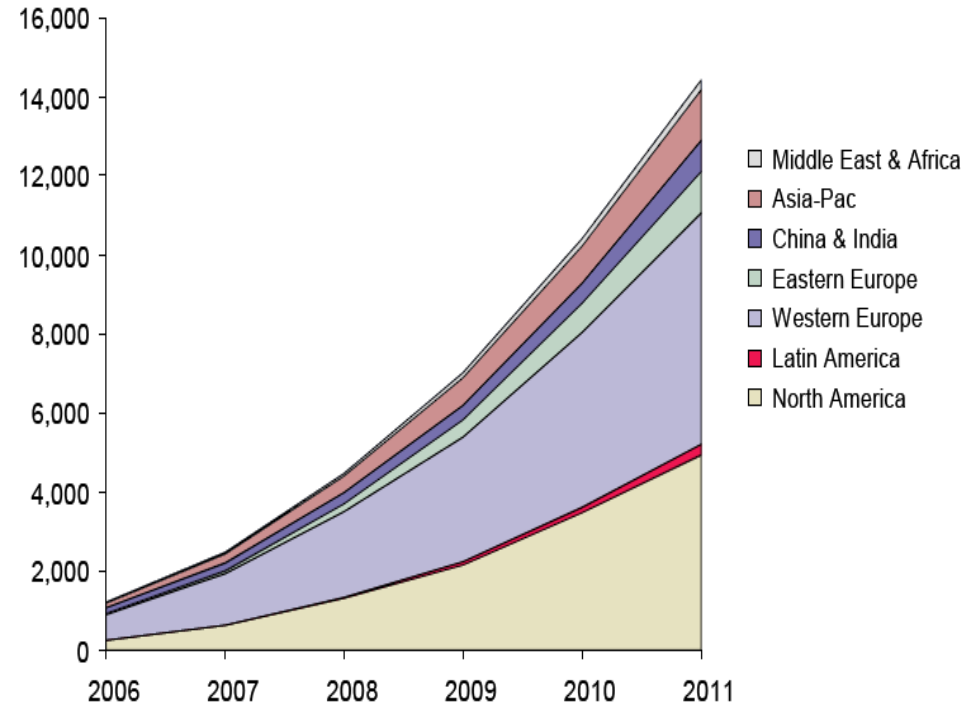
Market perspectives at a glance

Western European consumer DSL subscriptions by speed



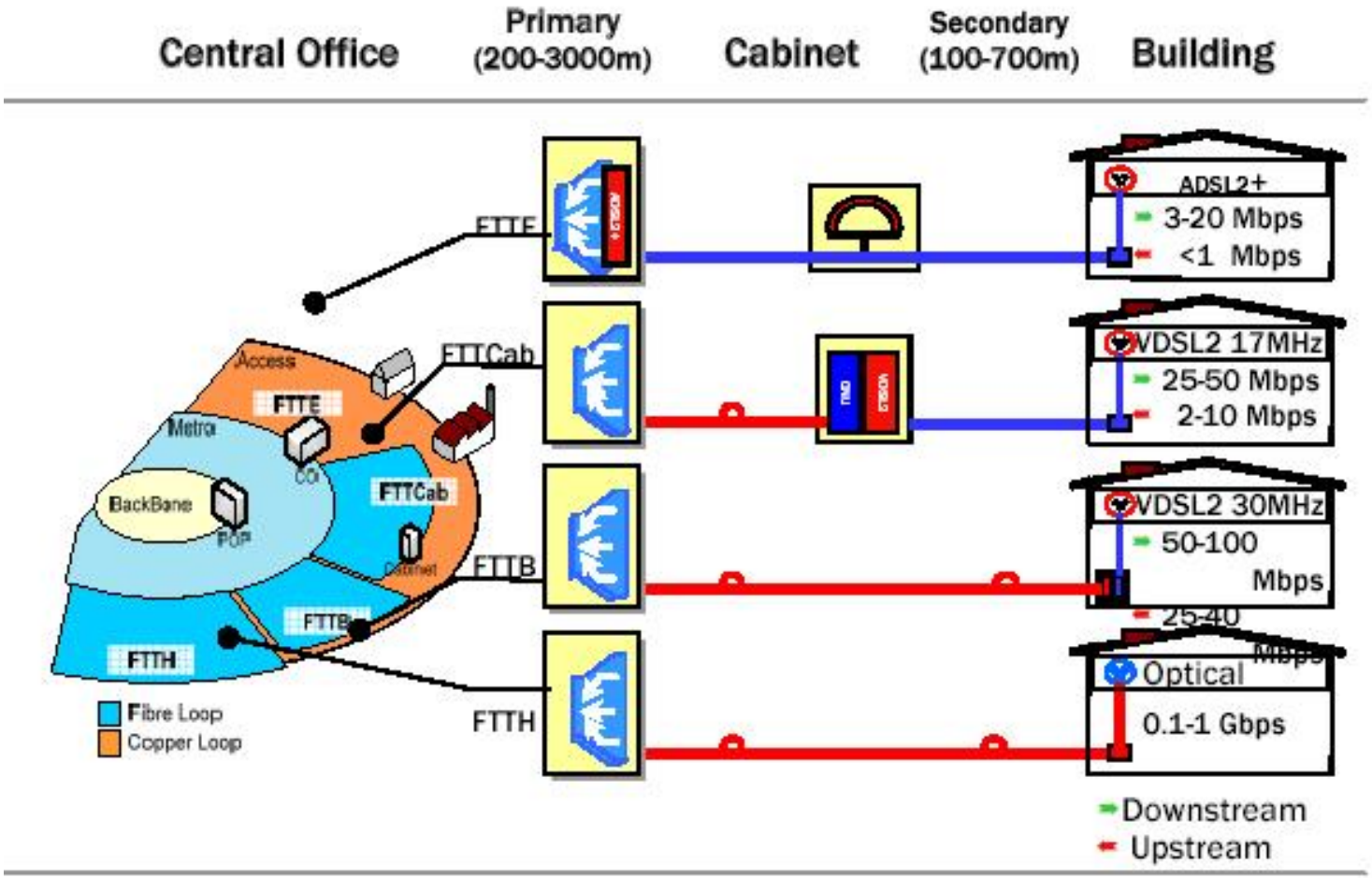
Source Ovum

Figure 3 **IPTV revenue by region**



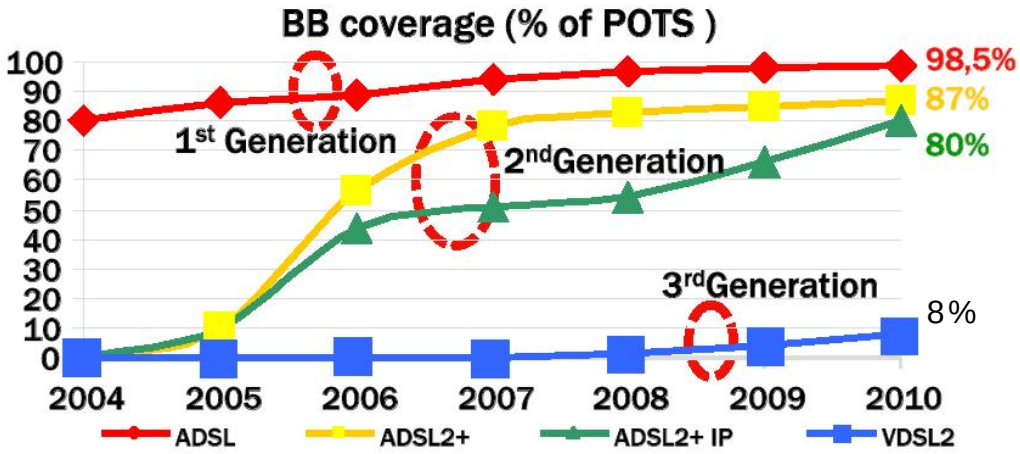
Source Ovum

Broadband technologies in TI plan



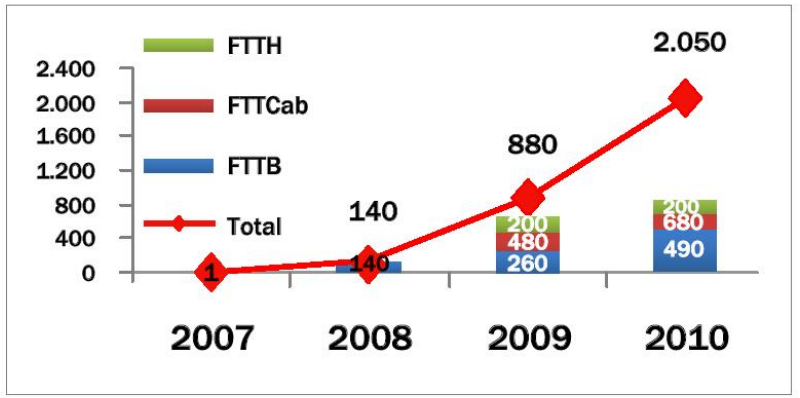
- Telecom Italia will use a mix of FTTE, FTTCab, FTTB/Curb, FTTH

Telecom Italia xDSL coverage plan



COs with ADSL	3.750	4.501	5.626	7.586	8.457	9.471	9.715

# of FTTx accesses



	2008	2009	2010
Cabinet @ building	7.200	21.200	48.000
Street cabinets	0	1.600	4.600
Total FTTx cabinets	**7.200**	**22.800**	**52.600**

From CTO presentation during last investor day

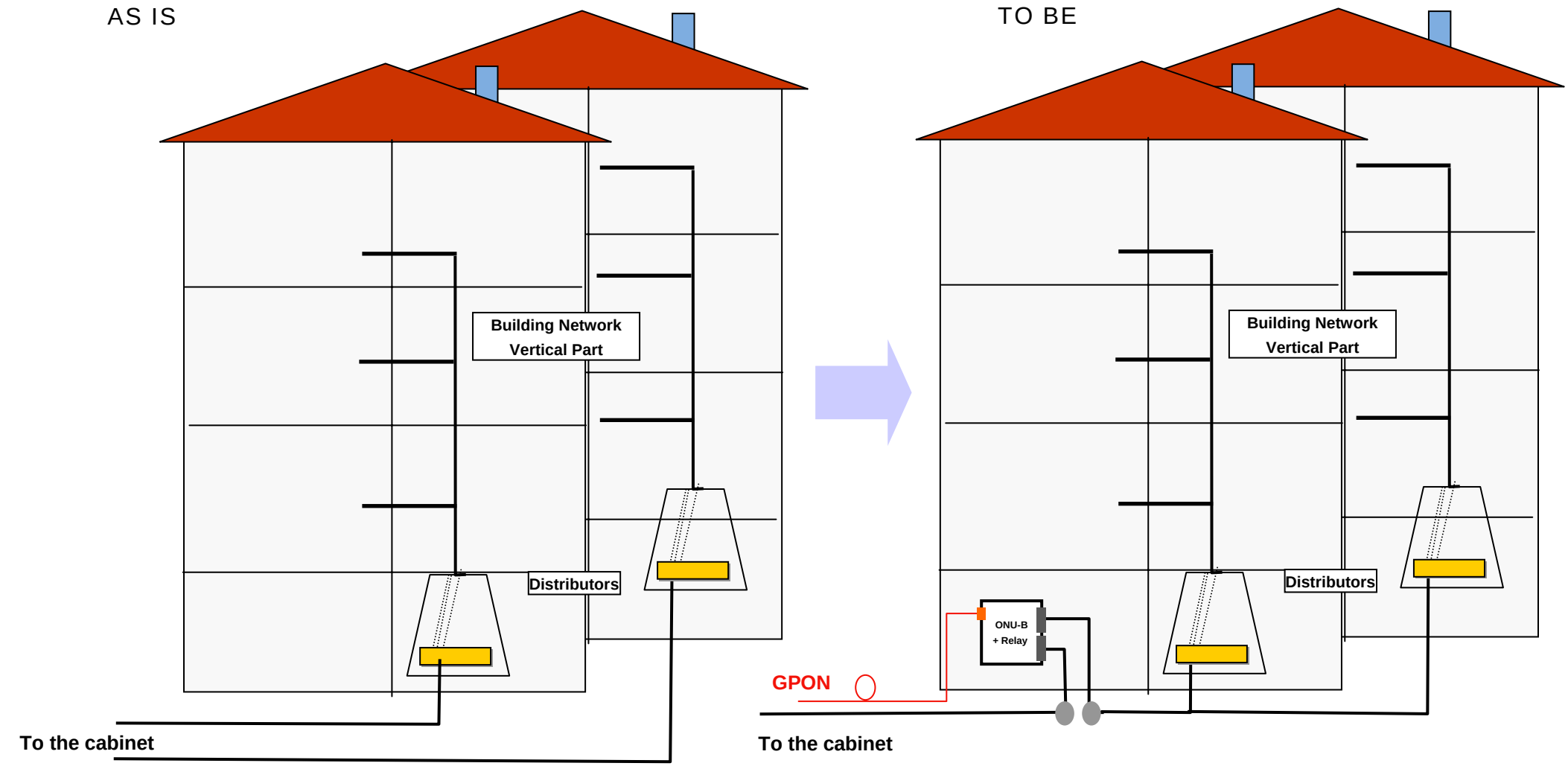
Telecom Italia wholesale offer on broadband

Today	FTTE	FTTCab	FTTB	FTTH
Bitstream	available	specific cases	no	no
Infrastructure*	available: LLU	available: Sub Loop at cabinet	no	no

Tomorrow	FTTE	FTTCab	FTTB	FTTH
Bitstream	available	available	under study	under study
Infrastructure*	available: LLU	available: Sub Loop at cabinet	in course: Sub Loop at building	under study

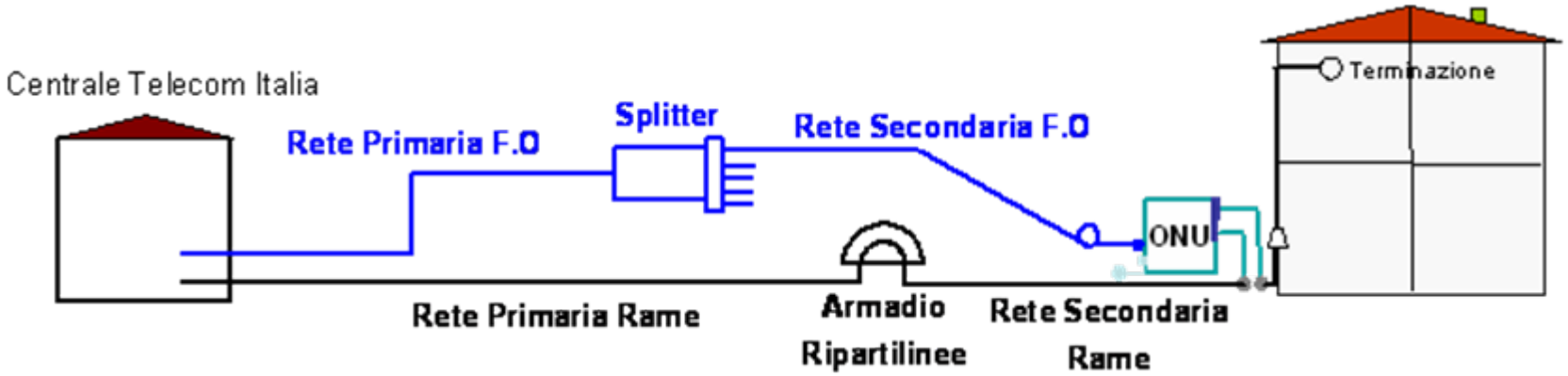
*Ducts and dark fiber offers available.

Ultra broad implementation
Fiber To The Building: Description - 1



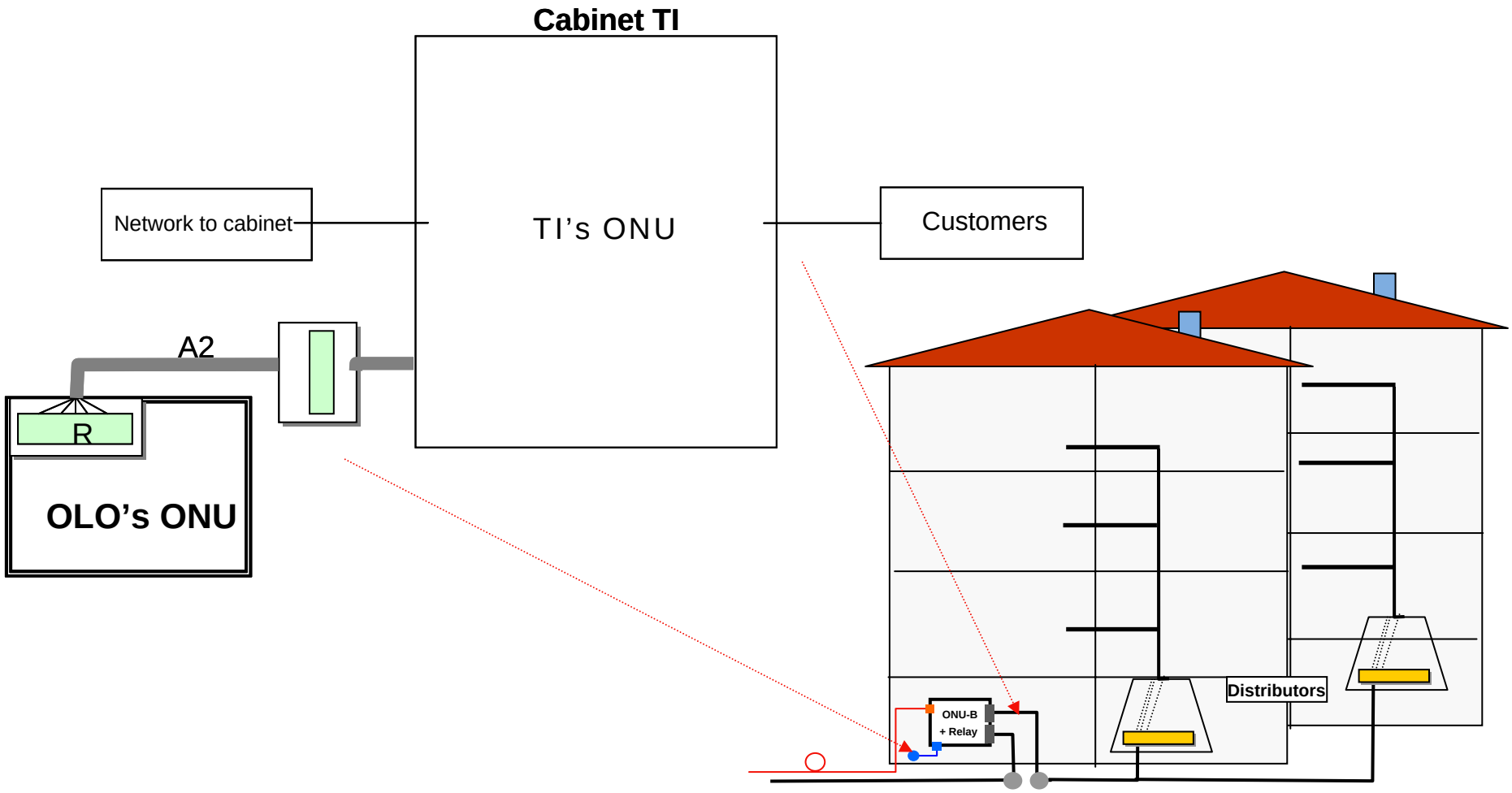
Fiber To The Building: Description - 2

- TI secondary copper network has not points of flexibility which can be used to insert FTTB equipments or suitable for Local Loop Unbundling.
- Actual description of copper network in TI Data Bases describes as one entity all secondary network from cabinet to customer.
- Thus, to insert a FTTB cabinet, TI must:
  - Re-configure copper network inserting some flexibility points;
  - Eliminate all equipment interfering with VDSL2;
  - Make some Infrastructural interventions;
  - Assure the continuity of copper lines to local exchange for all customers who keep receiving retail and wholesale services on the old platform;
  - Describe the new configurations on the data bases.



Fiber To The Building: Description - 3

- A point of flexibility is created next to TI cabinet to take part of the couples to OLO's ONU



Pricing of Sub Loop at Building/Curb level

- **Pricing Co-location**
  - Connection between TI cabinet and OLO cabinet
    - TI sets a connection between the two cabinets under : the service could be priced as one-off.
  - Space location/energy
    - The operator must negotiate directly with the building property and the energy supplier.

- **Pricing SLUB**
  - Set up per end customer
    - Active / not active couple
  - Monthly rental per couple
  - Specific one-offs

How the pricing can be determined

The steps of calculation:

1. **We are collecting all elements of cost sustained for network reconfiguration and DB organization in different cities;**
2. **… estimating a national average cost;**
3. **… ultra broadband penetration - based on actual and future services;**
4. **… defining a sustainable pricing for retail and wholesale market.**
5. **Our analysis is based on a commercial approach.**

FTTB-SLUB components

Network Segment	Costs	Life
Customer termination:	Redemption of infrastructure Network Engineering, Planning, Maintenance and Assurance	**N. years**
Copper reconfiguration	Redemption of infrastructure Maintenance and assurance Infrastructure reconfiguration Network Engineering, Planning	**N. years**
ONU-B Cabinet (TI Cabinet)	Redemption of infrastructure Maintenance and assurance Infrastructure reconfiguration Network Engineering, Planning	**N. years**
Connection between TI's and OLO's cabinet	Redemption of infrastructure Maintenance and assurance Infrastructure reconfiguration Network Engineering, Planning	**As general contract**

Another driver for the business plan: cash cost reduction (but investment increase)

As we said before, we could obtain – using a new ultra broadband platform – huge cost savings:

- Reduction of local exchanges
- Reduction of delivery and maintenance costs
- Reduction of energy

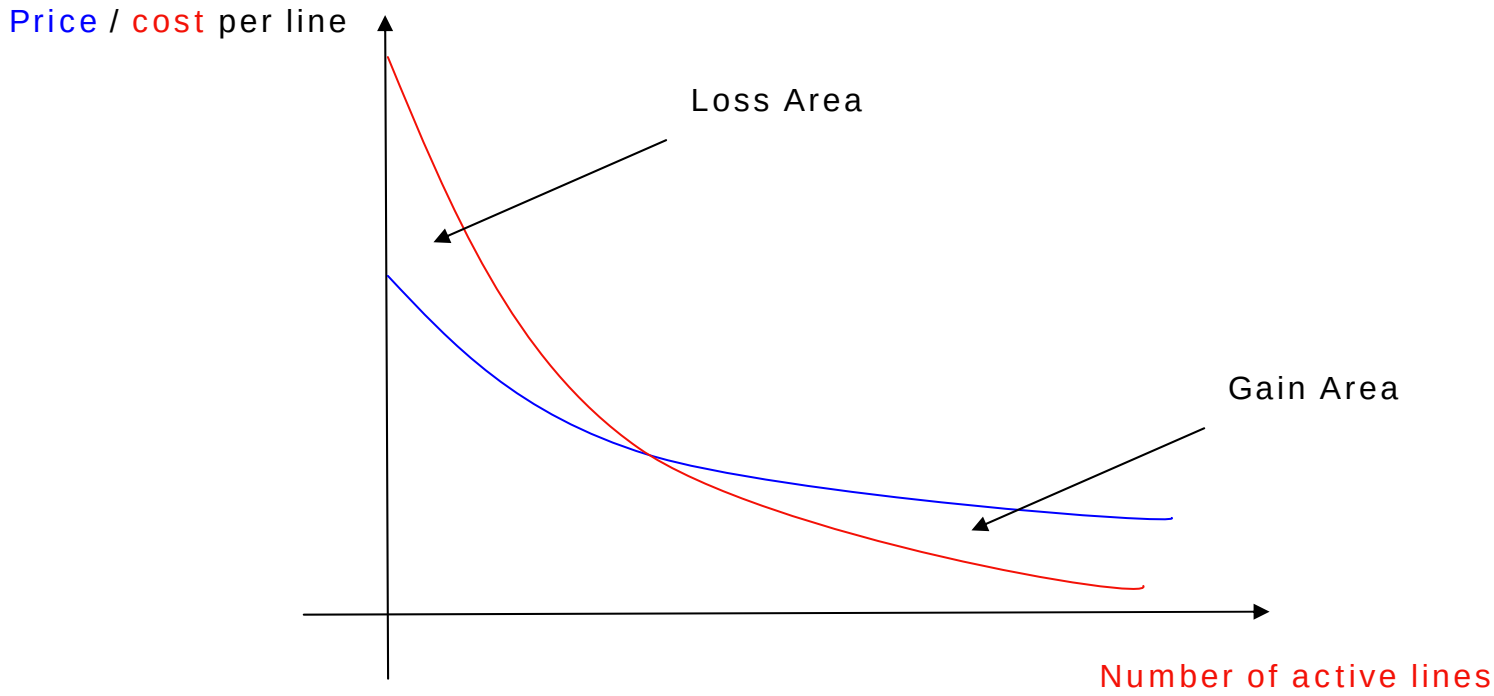
…….the faster we get rid of old platform, the wider the saving…..

and many estimations say that savings are fundamental in reaching the break even point. They could also be more relevant than revenues from service enhancements.

How long is it possible to keep old platform alive?

- A real reduction of cost can be obtained only in case of total switch off of old platforms as old equipments must be kept until last customers are using them, primary copper network still needs to be maintained etc.
- It cannot be obtained passing the single customer on the new platform.
- At the end, our estimations say that the business plan of new generation platform is positive only in case of short switch off of the legacies.

How can be defined the wholesale pricing for a Ultra broadband Line?



The perceived value of deliverable services can be a point where a sustainable retail price can be set. Consequences:

- Retail price can be very independent from cost structure.
- How do we define wholesale pricing?

How can be defined the wholesale pricing for a Ultra broadband Line? Conclusions

- Pricing must support investment and risk assumption: it should be commercial on ultra broadband and new platforms. Authority could monitor players' behavior and, in case, intervene with a "ex post" approach.
- The definition of a Broadband Premium for the development of new network platforms (for instance on traffic termination).
- On already regulated access services, the use of a perspective cost approach on accounting, passing from Historical Cost Accounting / Full Distributed Costs to Current Cost Accounting / Long Run Incremental Cost which better appreciate the value of existing assets and of investments.

Thank you

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