

The State as a market investor: FTTH, PPP and the Amsterdam Citynet case

*Broadband deployment and economic recovery
Turin, April 3, 2008*



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Theme:

Public Private Partnerships offer a way for public authorities to ensure the timely roll-out of FTTH access networks, that are pro-competitively designed, future-proof and 'open' for service providers (meanwhile pre-empting the emergence of a new privately held and vertically integrated natural monopoly...), **without** resorting to State aid

Agenda

- Why fibre access lines in Amsterdam?
- Fibre roll-out policies Asia, US, EU
- Promoting “open” Next Generation Access Networks
- Government initiatives towards (open) NGA's: various models: Milan, Stockholm, Cologne, Vienna, Amsterdam
- The *Market Economy Investor Principle* (MEIP) at work: PPP Citynet Amsterdam

Why fibre access lines?

- unrivalled transmission capacity: 10.000 – 100M x copper/coax
- supports voice, analogue/digital HD TV, super fast Internet, full screen HD, videoconferencing, multiple simultaneous HD video streams, etc., *i.e.* enables “**true broadband**”/ “**broadband 2.0**”
- wireless no alternative to wire line/fibre access line
- proven technology: 30 years (intercontinental fibre, backbone, core networks)
- future proof: no better alternative in sight

Fibre roll out policies (I)

- Asia: clear government policy to strengthen economic infrastructure
- US: incentive to invest in NGA's, "regulatory holiday", *i.e.* no access obligation for AT &T's/Verizon's new fibre based access networks (or is Obama going to change that too?)
- EU: not settled yet, except refusal of regulatory holiday (Germany), and debate on risk premium or risk sharing but ...

Fibre roll out policies (II)

... the Commission noted that:

- ***“without sufficient investment in future high-speed networks, Europe risks being outperformed by the other major economies (such as Japan, Korea and the US), which would undermine its competitiveness.”***

Promoting “open” NGA’s? (1)

- the Commission has considered the option of adopting an “*open access*” model for new network infrastructure: “*structural separation*” or “*ownership unbundling*” (as proposed by the Commission in the energy sector)
- issue of access discrimination solved once-and-for-all, but the Commission considers *i.a.* costs too high:
 - one-off costs for implementing split
 - loss of economies of scope
 - increased investment coordination difficulties

Promoting “open” NGA’s? (2)

and opts for “functional” rather than “structural” separation as a possible remedy, which also would better preserve investment incentives

- thus, if dominant (passive) infrastructure providers would not voluntarily engage in non-discriminatory service provision, a level playing field for service providers needing access to NGA must be secured by regulatory intervention, *i.e.* mandatory LLU and or “bit stream access” (or, in extreme situations, by mandatory functional separation).

Promoting “open” NGA’s? (3)

- However, LLU may not be as effective a remedy in a NGA setting as in the DSL world ...:
 - copper twisted pair: 1 exclusive line from CO to home that can be rented by third party provider using LLU
 - NGA topology can be “home run” (1 exclusive line to “CO”, like copper) which is perfectly suitable for LLU, or “shared” which is not and will make competitors more dependent on the NGA owner
- thus, building a NGA offers an opportunity for strategic design
- as yet no regulatory instruments to ensure pro-competitive NGA design, *i.e.* home run; if not later included in EU Telecoms Reform, direct (co-)investment in NGA’s by (local) government may be the only alternative

Government initiatives towards (open) NGA's

Muni fibre in Europe, some examples

	Köln NetCologne 200,000 FtH/B	Vienna 1 million FtH (via sewer)	München 450,000 homes FtH	Paris, 4 SP's towards 1 million FtH	Hauts-de- Seine (Sarko- fiber) FtH	Milan (1995) FtB	Stock- holm Dark fiber	Amsterdam 40,000 FtH
Role of city								
Market			(estimate)					
Public								
Support								
Subsidy								
Municipal investment euro	125 million	150 million	300 million?	70 million By cheap use of municipal assets	Up to 70 million subsidy proposed.	100 million, now partly privatized	100 million, 10 years profit making	6 million in PPP construct
Network open?	No	3d layer	3d layer	?	Neutral operator	No	Yes	Yes

Citynet Amsterdam (1)

- concerted action with private sector (Public–Private Partnership)
- to have the basic infrastructure for the future in time
- for everyone, without a “digital divide”
- pro-competitively designed (“home run”, not “shared”)
- and “open” (LLU)

Citynet Amsterdam (2)

Why public investment?

“The customers are your taxpayers. Access to information is an essential building block of social and economic development, like access to water and electricity.

Highly-contended DSL products with bandwidth caps ain't gonna cut it.”

*London based American analyst James Enck
(<http://euotelcoblog.blogspot.com/>)*

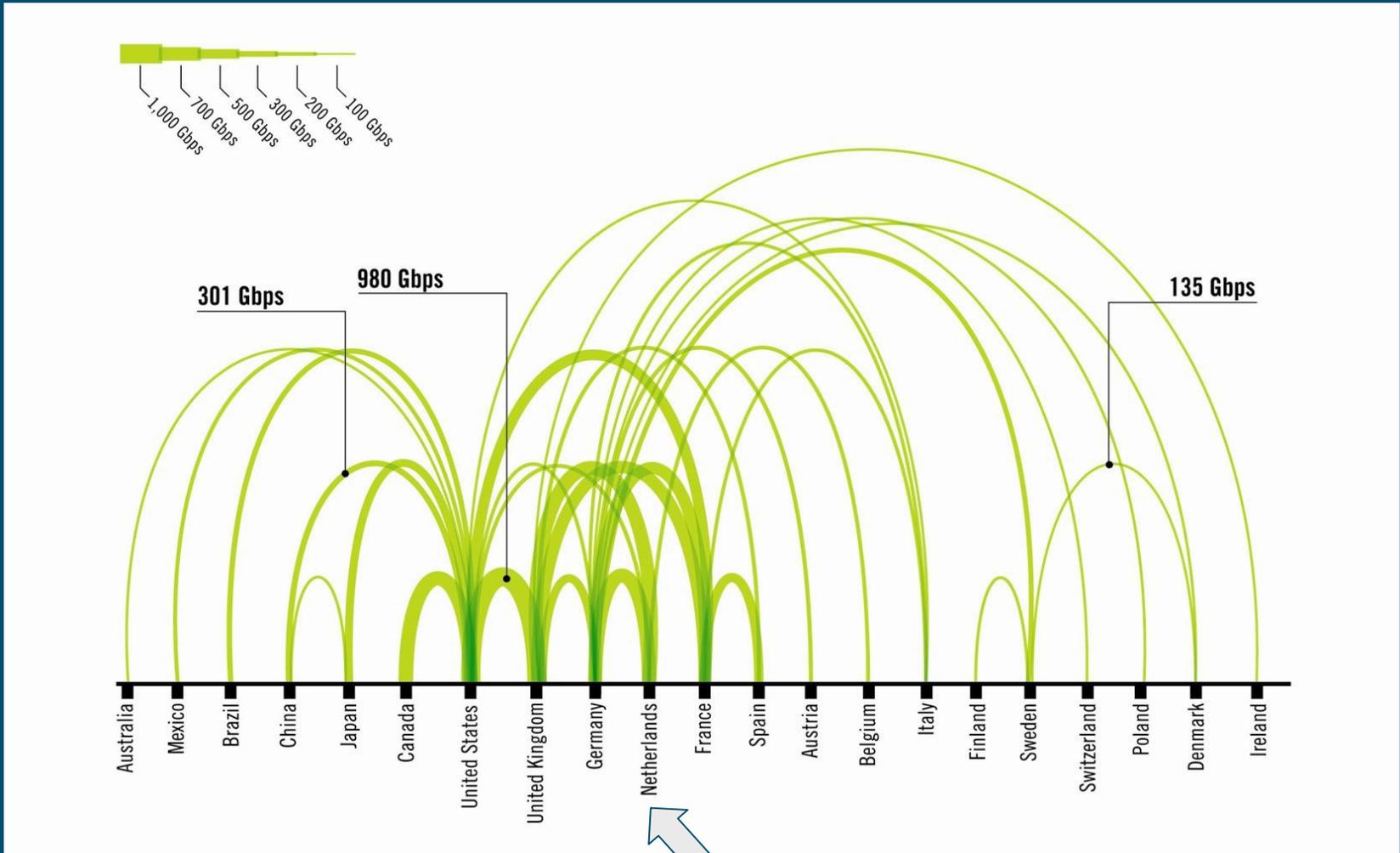




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(Courtesy of Teleography: World Map capacity between countries)



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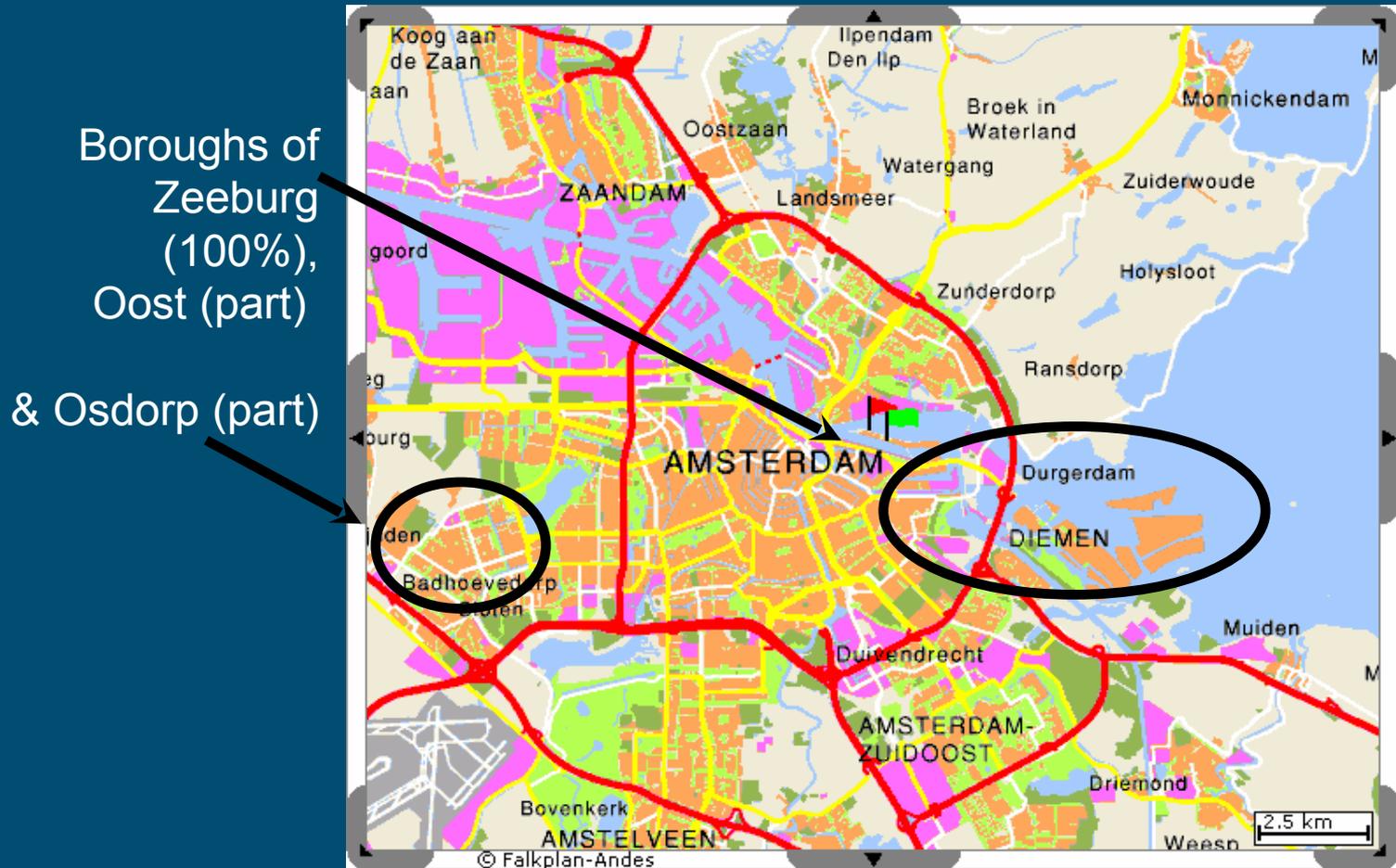
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Citynet Amsterdam (1)

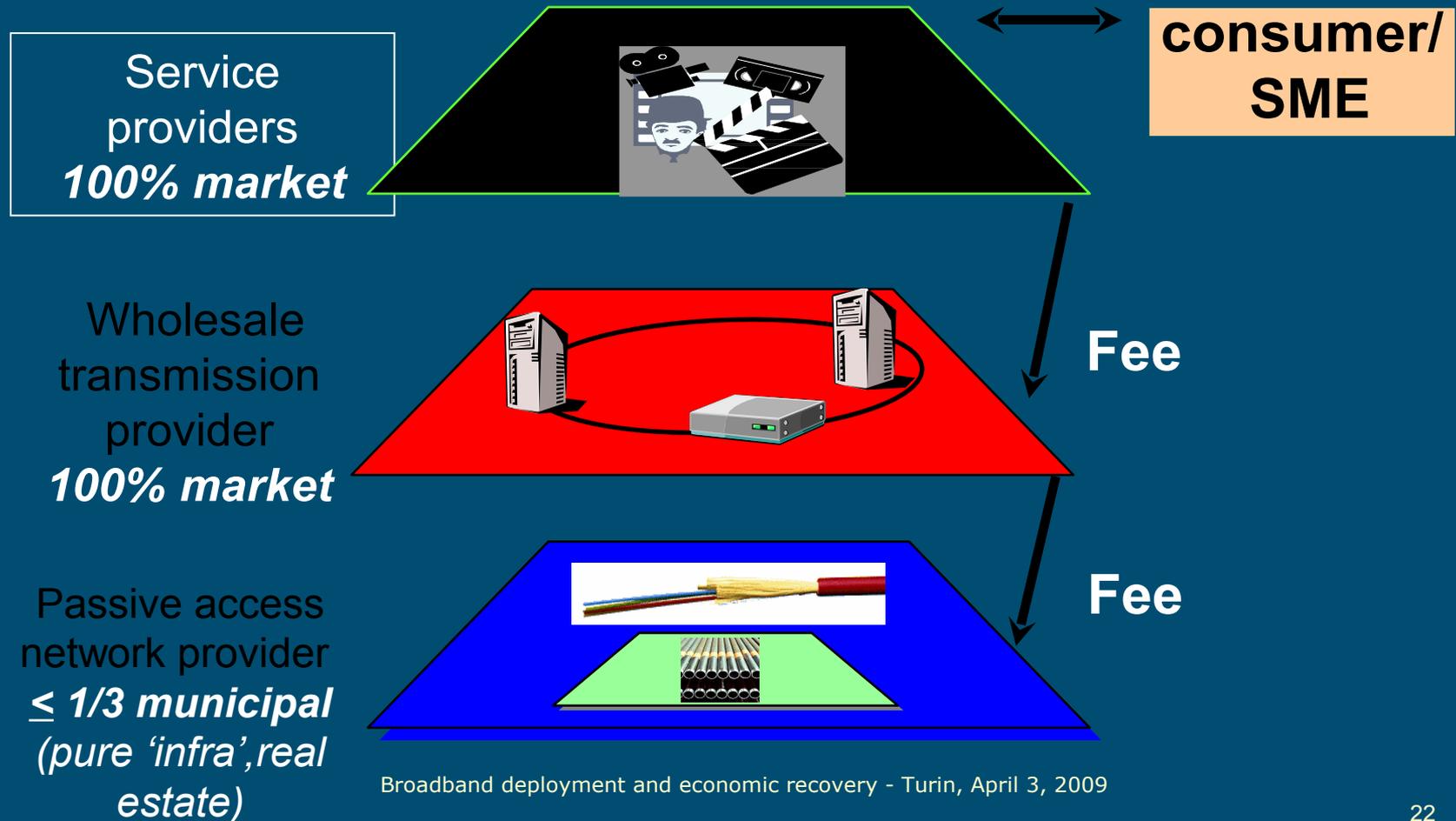
Fibre-from-the-home: to ± 40.000 meter boxes,
10% of Amsterdam



Citynet Amsterdam (2)

Three layers, three types of investors

40.000 homes passed now – more than 450,000 later on



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Star network



Citynet: more than
10.000 point-to-point
connections per POP

POP: local switch house
100 m²

Cross-connect in POP to
technology

- With or without splitters
- Per home selectable



Shared topology=specific



1 fiber

1 : 32 optical split,
buried in the street

32 fibers

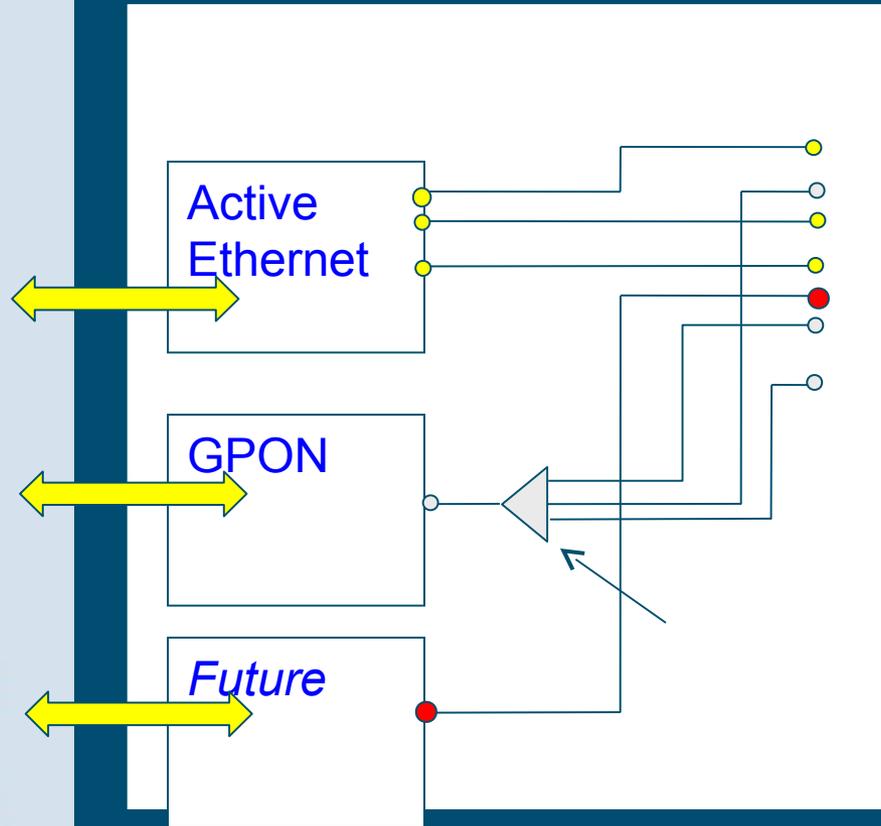
PON technology

POP: local switch house

32 neighbours locked-
in to PON



Ethernet, PON and ??



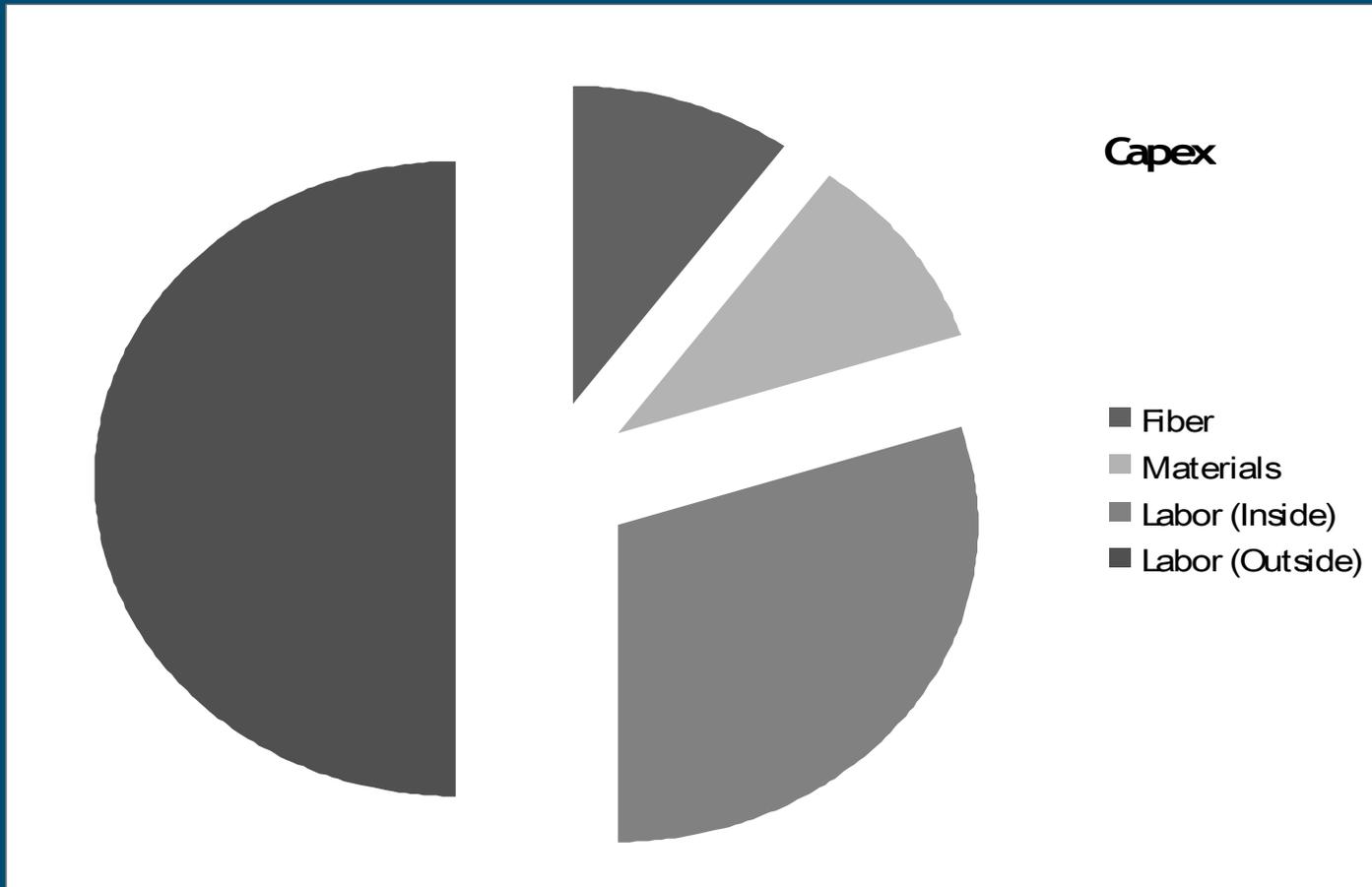
Citynet: more than 10.000 point-to-point connections per POP

1 : 32 optical split in POP

POP: local switch house

- Cross-connect in POP to technology
- With or without splitters
- Per home selectable





Citynet Amsterdam (3)

Structure PPP 2006

- limited partnership **Glasvezelnet Amsterdam CV (GNA)**
- capital: 18 million euros (first 40.000 lines)
- partners: City (6m), 5 housing corporations (6m), 2 investors ING Real Estate + Reggefiber (6m)
- GNA owns passive access network ("dark fibre")
- network leased to BBned (Telecom Italia) for a fee
- BBned obliged to (*i.a.*) activate and to provide transmission services as well as open and non-discriminatory access for any service provider
- GNA is only active on the first layer and is not involved with operating the network or providing any communications services
- 2009: 43.000 homes passed, 10.000 connected, 4000 active
- 4th February 2009: agreement with Reggefiber/KPN for next 100.000 lines, subject to regulatory clearance

Citynet Amsterdam (4)

Structure conforms to Market Economy Investor Principle (MEIP)

- in Europe, article 235 of the EC Treaty warrants that government may be active in commercial activities and may invest in commercial enterprises on the same footing as the private sector, *i.e.* a public investment in a company is not equal to State aid if it can be shown that a private investor would have made the same investment at the same terms
- there is no State aid involved if public money is invested simultaneously with and on equivalent terms as an actual, significant investment by a private investor, in the present case -in any event- ING Real Estate and Reggefiber

Citynet Amsterdam (5)

Commission 20/12/06 (1) :

- request Amsterdam (May '05/'06): confirm that MEIP applies ("non-notification", "negative clearance")
- reply EC 20/12/06: can't yet exclude State aid, therefore second phase enquiry, with formal standing for third parties (UPC, KPN...)

Citynet Amsterdam (6)

Commission 20/12/06 (2) :

- 2 remaining issues for EC
 - (i) viability of business plan GNA (take-up rate), however:
 - can EC put in doubt the bp if bp has convinced real world private investors to invest 6 million euros?
 - assumed take-up in bp quite conservative when compared to e.g. Nuenen and Hillegom (70-90%)

Citynet Amsterdam (7)

Commission 20/12/06 (3):

- (ii) "pre-investments" by Amsterdam prior to founding GNA (some ducts/fibre, software, tenders, backhaul for less than 1,5m euros), however:
 - costs are actually paid back to Amsterdam by GNA
 - thus, the equivalence between the 8 investors has not been affected

Citynet Amsterdam (8)

No standstill (1):

- standstill only applies to State aid (art. 87(1)/88(3) EC Treaty)
- UPC: no, also to "non-notifications"
- injunction proceedings June 2006 by UPC to stop project
- injunction denied by District Court on 22/6/06
- UPC appeals (July '06), pending EC decision

Citynet Amsterdam (9)

No standstill (2):

- at Court hearing in November, 2006 Amsterdam agrees to wait for EC, expected in December 2006
- 18 January 2007: Court of Appeal finds for Amsterdam and UPC is again refused a standstill, notwithstanding the remaining issues indicated in the December 20, 2006 decision of the EC as "***there is a good chance***" that Amsterdam will be able to clarify these issues to the satisfaction of the Commission

Citynet Amsterdam (10)

Commission decision 11/12/07:

- endorses the PPP option, confirming that Amsterdam's 1/3 share (6 million euros) in the Citynet Project (GNA) does not qualify as State aid
- accepts GNA's business plan as the basis of a private investment in GNA
- accepts that the equivalence between the 8 investors has not been affected by Amsterdam's "pre-investments"

Thus, if 'Altmark' or 'compatible' State aid isn't an option, a PPP deserves serious consideration for government investment in NGA's

To conclude

- for Amsterdam: all's well, that ends well
- for FTTH projects throughout Europe Public Private Partnerships are a viable and now fully tested option for governments, particularly if they succeed in finding private co-investors

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