

NGA and the Commission Recommendation – BT view

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Part 1

- Introduction – general thoughts on the draft Recommendation

The draft Recommendation - context

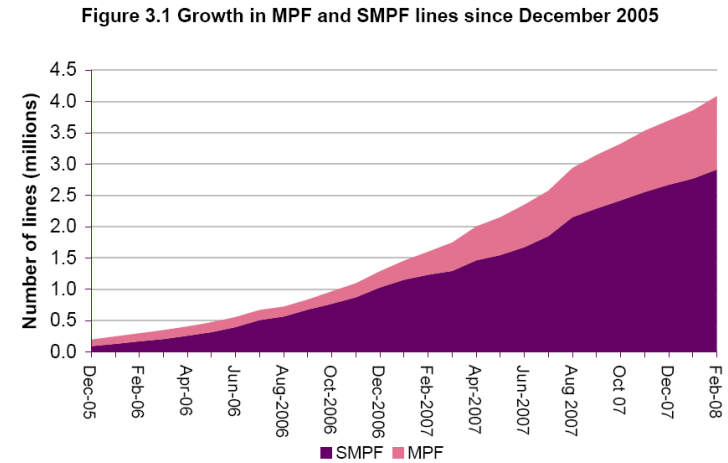
- “The development and upgrading of high-speed networks ... is a desirable development ... for ... the European economy and there is ... a need to make the transition to fibre-based access networks in an efficient but timely manner... (Recital 1)
- It is therefore important to provide guidance ... and to prevent undesirable divergences of regulatory approaches which could harm competition and undermine the ... electronic communications single market.” (Recital 1)
- “The existing regulatory framework places emphasis on the role of network infrastructure competition.” (Recital 7)

Part 2

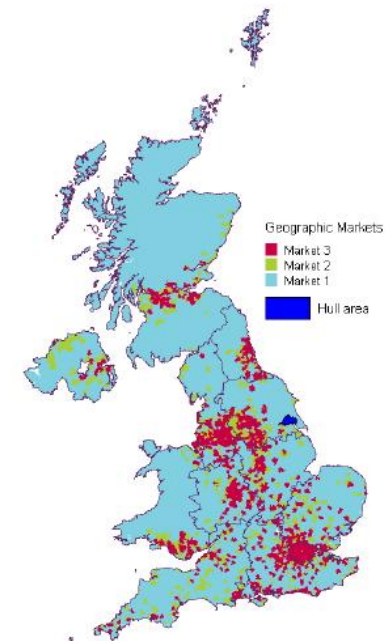
- **BT's investment in NGA**

Where we are now: Driving Growth in UK BB Market

- Over 4m LLU lines: 3m shared access, 1m fully unbundled
- Nearly 1800 unbundled exchanges
- Nearly 70% of UK has choice of 4 or more BB network providers
- Ofcom has just deregulated BB markets covering nearly 70% of population
- Average headline BB speed now 4.6Mb



Wholesale Broadband Access Markets – 21 May 2008



Next Generation Broadband: A bold vision for the UK

UK's biggest super fast broadband investment: £1.5 bn

Accessible by up to 10 million homes by 2012

Range of speeds up to 100mbps: with >1,000mbps potential

Basis for nationwide demand led roll out

World's most open super-fast network

BUT we need the barriers to investment removed

Building on Success

UK has world leading availability & take up...

- **BT's multi-billion pound investment has ensured everyone can be part of the broadband revolution**
- **10 million kilometres of fibre already in the network**
- **120,000 businesses have fibre to the premises**
- **10 million people work from home using broadband**
- **Higher take up in rural areas than in cities**

...and provides massive choice to consumers

- **Massive choice from 200 ISPs**
- **Among the lowest prices in the world**
- **Opportunity to learn from the experience of others**
- **All fibre based services from BT will be wholesaled to other ISPs**

BB in the UK: The Next Chapter

	Enhanced copper	Fibre
2008 FY*	<ul style="list-style-type: none">• ADSL2+ roll out makes speeds of up to 24 Mbps available to 40% population	<ul style="list-style-type: none">• Fibre to the home in Ebbsfleet• Operational trials of fibre to the cabinet
2010 FY	<ul style="list-style-type: none">• Widespread access to ADSL2+ and speeds of up to 24 Mbps	<ul style="list-style-type: none">• Fibre available to millions of homes and businesses• BT backhaul investment reduces network bottlenecks
2012 FY	<ul style="list-style-type: none">• Completion of ADSL2+ national roll out. Continued development of technologies to enable faster speeds and more services	<ul style="list-style-type: none">• Fibre roll-out brings range of speeds up to 100Mbps• Fibre available to up to 10 million families• Olympic village, a future fibre showpiece

*2008FY = 08/09 financial year



Part 3

- Why we are doing it and the economic challenge of NGA in the UK

What it means for consumers

TODAY...



Fast internet...



Instant messaging...



VoIP...



BT Vision...



iPlayer...

...But growth of simultaneous usage raises potential peak bandwidth issues for the future

TOMORROW...



Multi viewing High Definition TV...



Advanced High Definition gaming experience...



High Definition video conferencing...



A world of new possibilities from super-fast broadband (up to 100Mbps)...

...Assured high quality experience even with simultaneous usage of all new high speed applications and services

Some UK Commercial drivers

- Virgin Media upgrade
- Success of 3G mobile
- Increasing demand for bandwidth from IPTV
- 21CN core upgrade

...but consumer “willingness to pay” / take-up uncertain

...extent and form of regulation uncertain

BSG Chairman's Foreword

- Deployment costs of FTTC nationwide three to four times higher than current generation broadband
- FTTP/GPON five times higher again
- FTTP/PTP ~ six times higher than FTTC



Final report for the
Broadband Stakeholder Group

The costs of deploying fibre-based
next-generation broadband
infrastructure

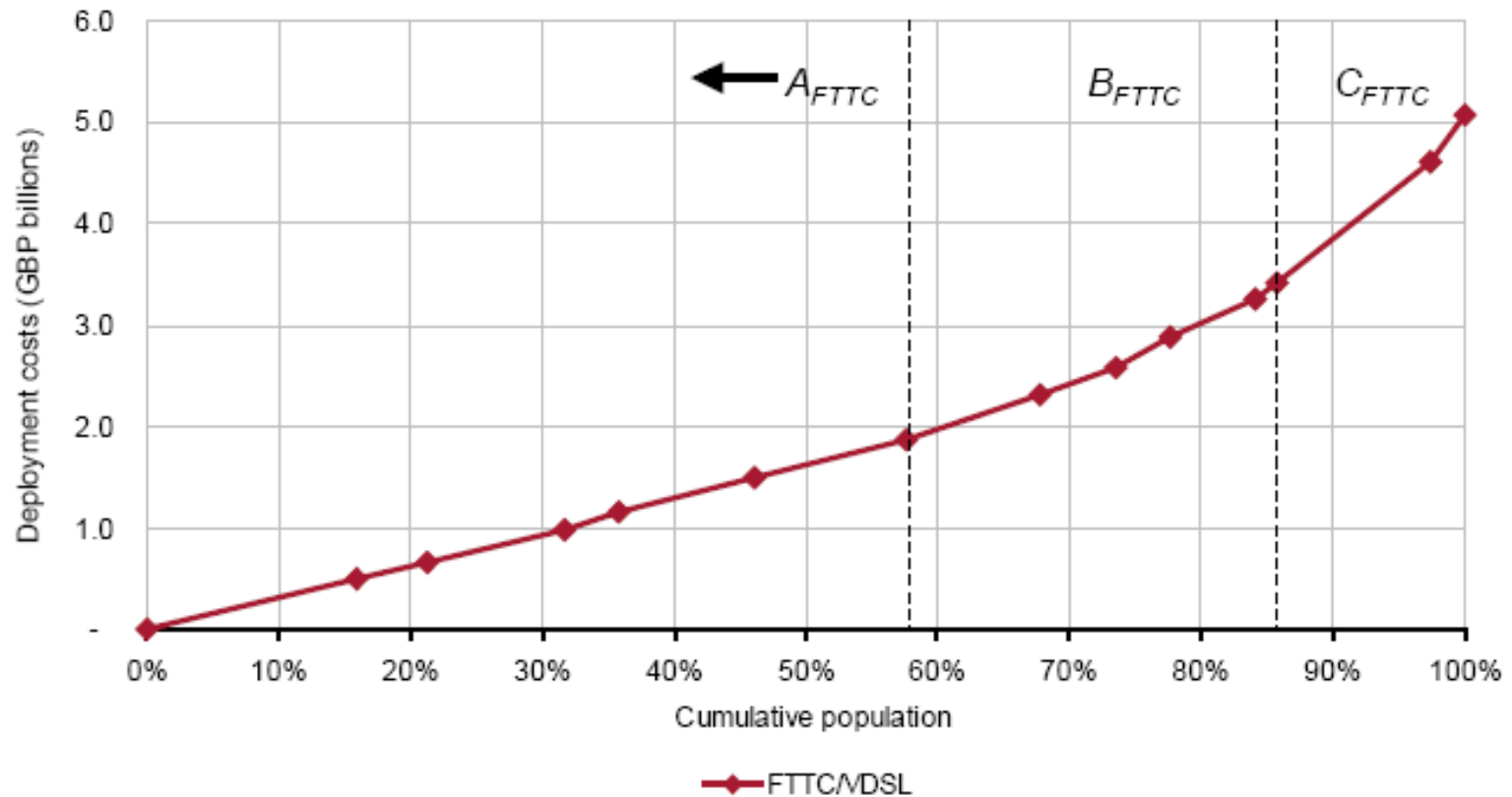
Final report

8 September 2008

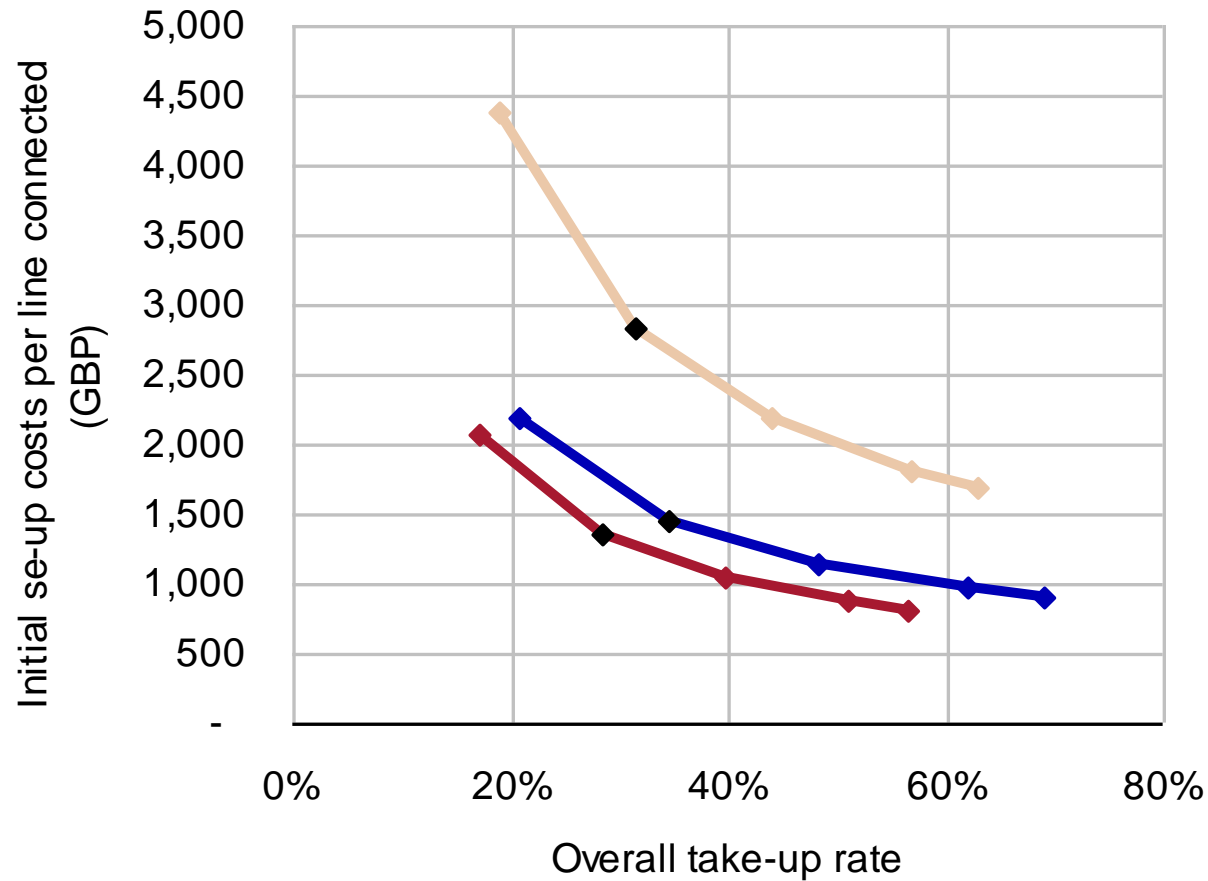
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Analysys Mason Report for the Broadband Stakeholder Group



Importance of achieving utilisation levels



Impact of overall take-up rate on the costs per premises connected nationally and in London for FTTH/GPON ([Source: Analysys Mason])

—◆— London —◆— >3k lines (a) —◆— National



Part 4

- Policy issues

Policy reflections – general

- Return on investment
- Passive and active remedies
- Matching the remedy to the market circumstances
- No requirement to deploy copper in parallel
- Past investment – legacy issues
- A fibre-friendly USO.

Thoughts on the draft Recommendation

- Recognition of risk – need for return on investment, risk premium
- Regulatory certainty
- Transparency and migration
- Level of detail / prescription
- Over-emphasis on passive remedies
- Importance of active remedies

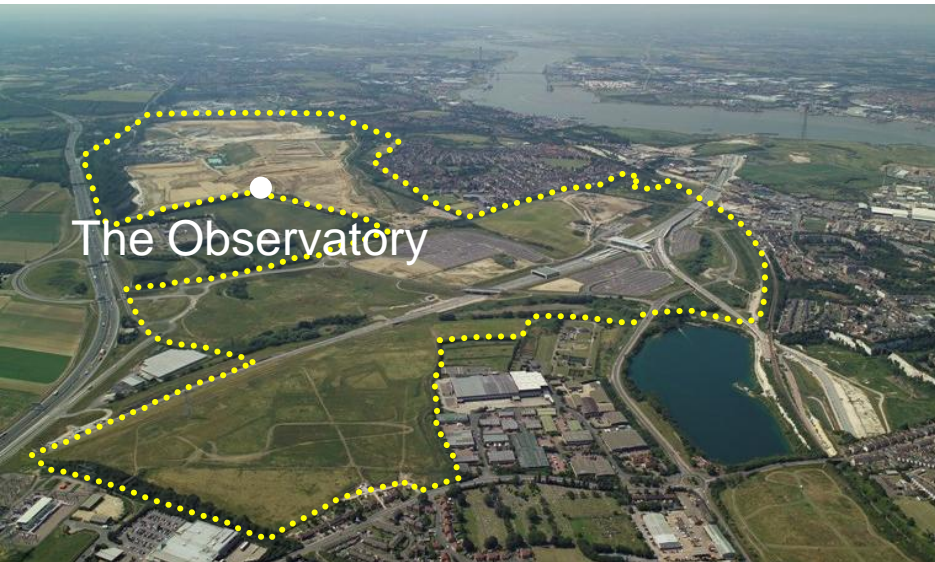
Passive remedies – a remedy, not THE remedy ?

- Commission promotes – reduce cost to entry, encourage alternative networks
- UK – BSG notes cost of civils / possible cost reductions by sharing
- But in reality will only be of interest in limited areas
 - % of costs relate to build; feasibility / availability of duct
 - economics of sub-loop unbundling
 - In UK network competition achieved without it !
- Most efficient reach through active line access
 - also most open, competitive model
 - will be needed everywhere

Thank you

- Back-ups

Example of transformation - Ebbsfleet



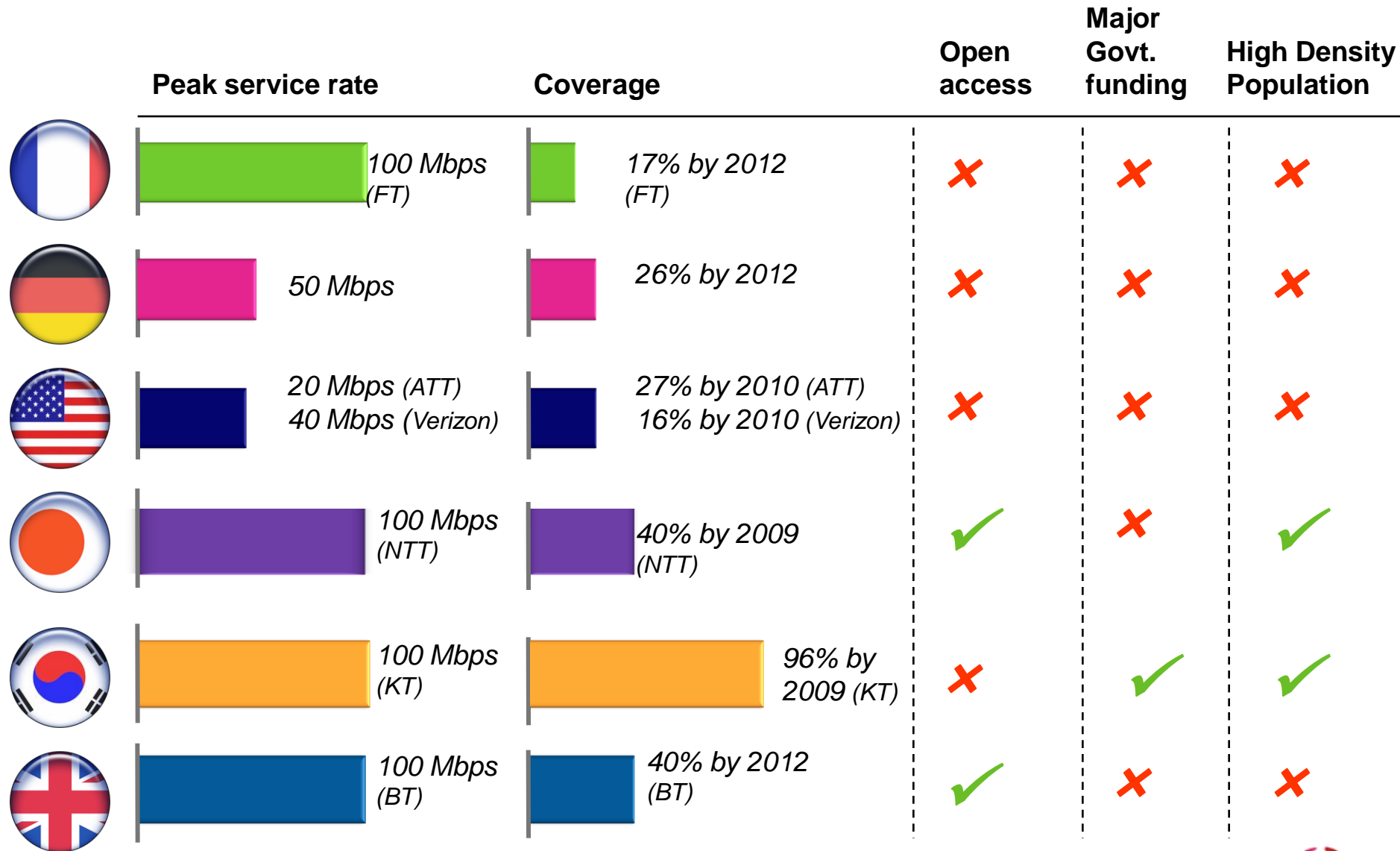
Ebbsfleet Valley will be a new community for the 21st century at the forefront of ICT technology providing a new paradigm of business and community connectivity that will promote value, enhance user experience and actively contribute to economic, environmental, social sustainability



'Images Courtesy of Land Securities'

Openreach is working with the developer and UK Communications Providers to deliver a fibre-only infrastructure to this new community

Planned peak broadband speeds and coverage by country



Source : OECD Telecommunications Database

Note: All countries have a range of speeds

Fibre to the cabinet

- Openreach's proposals published 20 August
 - Offering speeds of up to 40mb/s downstream and 15 mb/s upstream
- 6 week industry consultation now underway, seeking views on
 - Key product attributes and technical specification
 - Pricing and take-up rates
 - Geographical and consumer/business market considerations
- Next steps
 - Further product documentation and summary of responses published in October
 - Pilot phase
 - Final product specification and launch of product available on wholesale basis to all CPs