

Recent Broadband Developments

Meeting with Malcolm Harbour, MEP

Competition Group

1 March 2011

Agenda

- Market developments
- Economic challenges of NGA investment
- Recent regulatory policy initiatives
 - WLA
 - WBA
- Government initiatives
- Ofcom priorities and next steps



Next Generation Access rollout plans

BT

- Plans to rollout NGA to 66% of the UK by 2015
- 25% of this (16.5% of UK) expected to be FTTH
- Responds to Virgin Media and is a key enabler for BT's vision strategy

Virgin Media

- Already offers 100Mb/s to c.50% of UK consumers and is developing 200Mb/s and 400Mb/s products
- Thinking of extending network coverage using PIA*/FTTH, and could go significantly further using government funding

Sky and TalkTalk

- No major commitments but have partnered in a small scale FTTH R&D project in Harrow and TalkTalk is engaged (with Virgin) in Fujitsu's FTTH proposal for the final third

New build and local developments

- Most new build developments now install FTTH
- Increasing number of public and private initiatives

* PIA = Physical Infrastructure Access i.e. BT ducts and poles

New initiatives are using a range of technologies and funding models

Summary of In-Service Fibre Access Projects

Name	Planned Coverage	Technology	Funding
IFNL	25,000	FTTH/GPON	Private
IsRightHere	1,830	FTTP, Ethernet over copper	Private
Titanic Quarter	c. 600	FTTP	Private
Velocity1	10,250	FTTP	Private
Cybermoor	300	FTTP	Mixed
Next GenUs	107,000	FTTH, FiWi	Mixed
Rutland Telecom	200 (Lyddington only)	FTTC	Private
Vtesse	2,700	FTTC, FTTH	Private

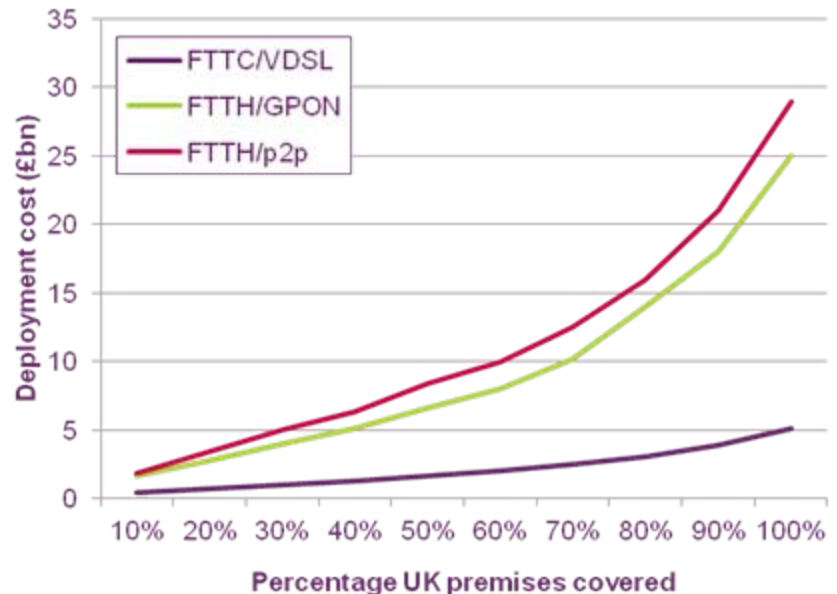
Name	Planned Coverage	Technology	Funding
West Whitlawburn HC	600	FTTH/GPON	Mixed
Gateshead Technology	N/A	FTTP	Public
Manchester DDA	400	FTTP	Public
Fibrespeed	N/A	FTTP	Mixed
NYNet	170,000	FTTP, DSL, radio	Public
Digital Region	540,000	FTTC	Mixed
i3 Group	161,000	FTTP	Private

Source: Analysys Mason research for Ofcom, 2010

Fibre to the Home (FTTH) vs. Fibre to the Cabinet (FTTC)

- FTTH cost significantly more than FTTC (typically 5x as much)
- FTTC is considered to be 'good enough' as it can generally support everything that consumers currently want
- Consumers generally unwilling to pay a significant premium for a better (FTTH) service
- However, FTTC does not work everywhere and therefore FTTH is needed to in-fill
- In the longer term the prospects for more FTTH is likely to depend on the demand for higher speed access

Cost of upgrading the access network

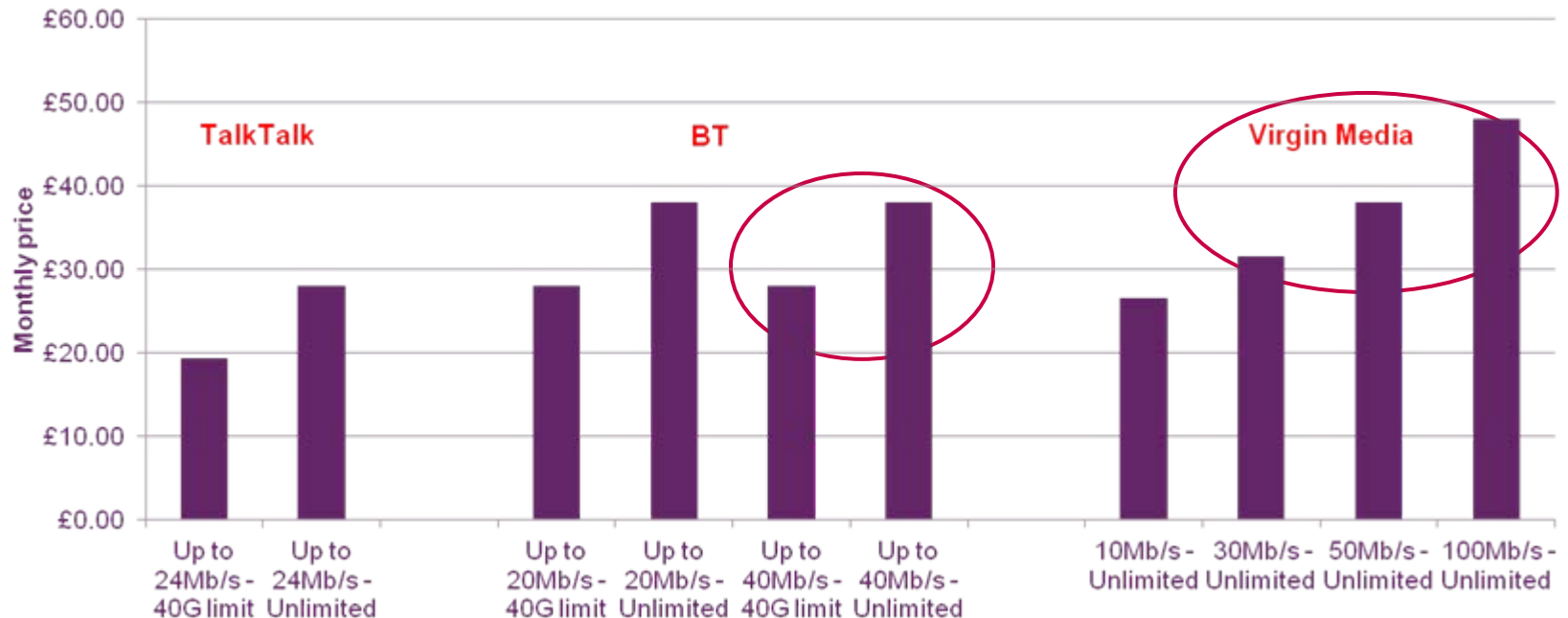


Source: Analysys Mason for BSG, 2008

At present, willingness to pay for higher speeds is limited

- BT has no differential in pricing between LLU offer and FTTC based NGA offer
 - Similar approach to other LLUOs (e.g. TalkTalk)
- Virgin Media has differential pricing based on speed, and no download limited options
 - As of Q3 2010, 79% customers on 10M service (18% on either 20M or 50M)

Retail prices for Bundle of Telephony and Broadband Services

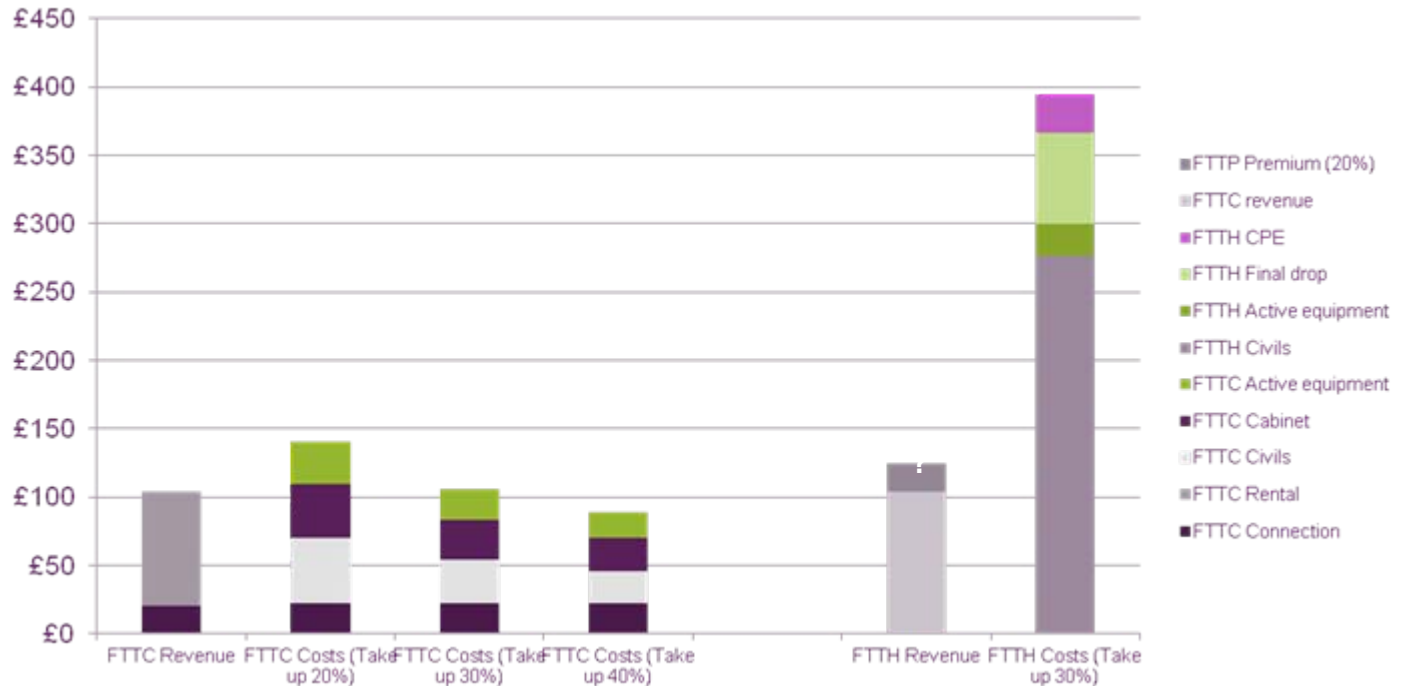




Even with FTTC, the current investment case looks challenging

- Assuming take-up rates of 20-40% (of all homes), the current case for FTTC investment looks marginal
- Despite the longer investment horizon for FTTH costs, annual costs per line for FTTH are still approx 4 times higher than FTTC, and the revenue premium is highly uncertain

FTTC and FTTH revenues and costs per subscriber per year

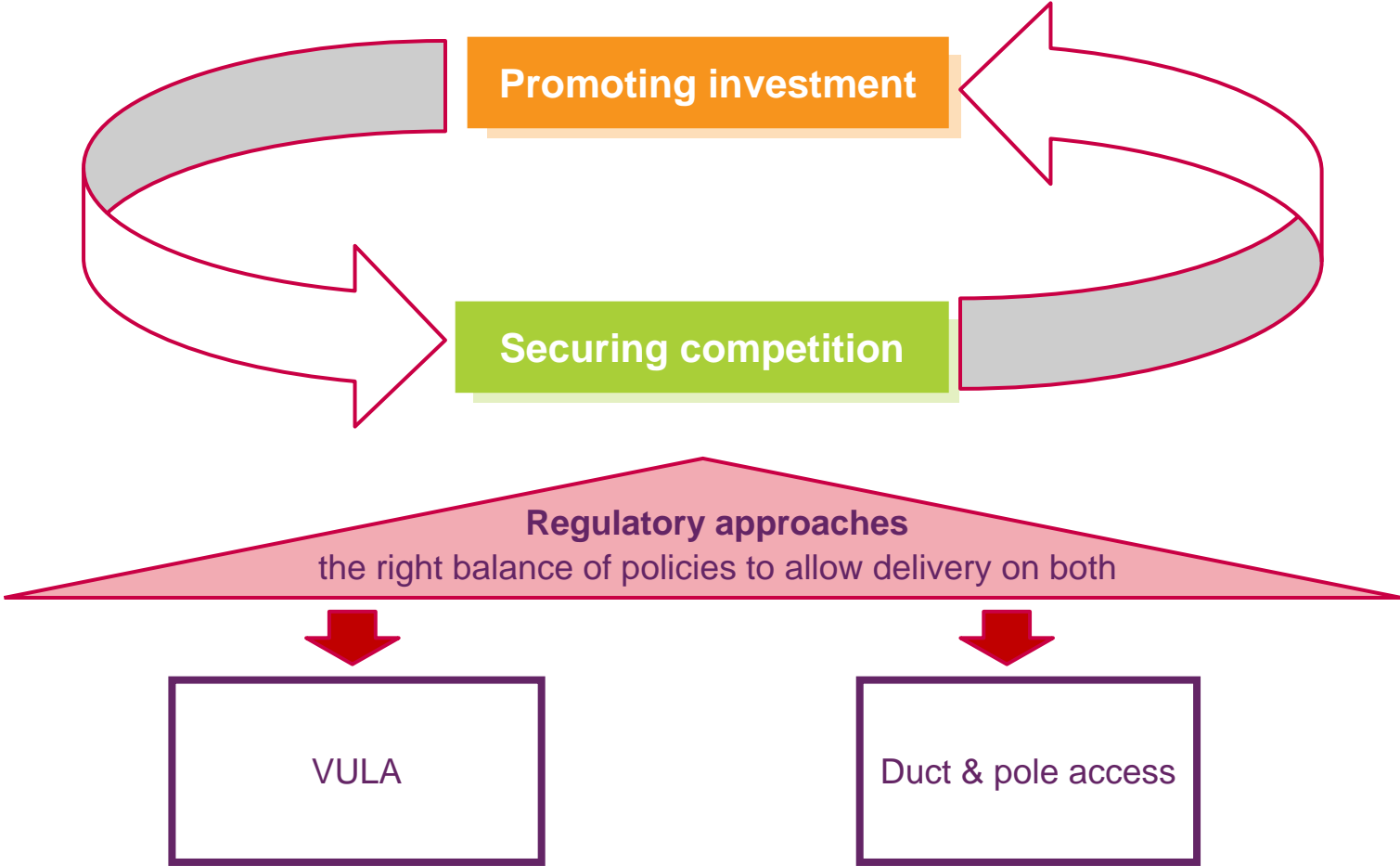


Notes and assumptions

1. Source of data: Analysys Mason for BSG, 2008
2. FTTH GPON topology
3. Cost of capital 12%
4. FTTH revenue premium 20% (over FTTC)



Our approach to NGA is designed to promote investment and competition in the provision of fixed access services





Wholesale Local Access market review imposed new obligations on BT

Promoting competition – using BT's fibre lines

- BT required to let other providers use its new fibre network to offer competing services to consumers
- New wholesale product - virtual unbundled local access (VULA) – intended to maximise innovation and scope for differentiation
- VULA expected to evolve to give providers control over installation process and choice of customer equipment
- BT allowed flexibility in pricing VULA, recognising risky nature of investment

Promoting investment – ducts and poles

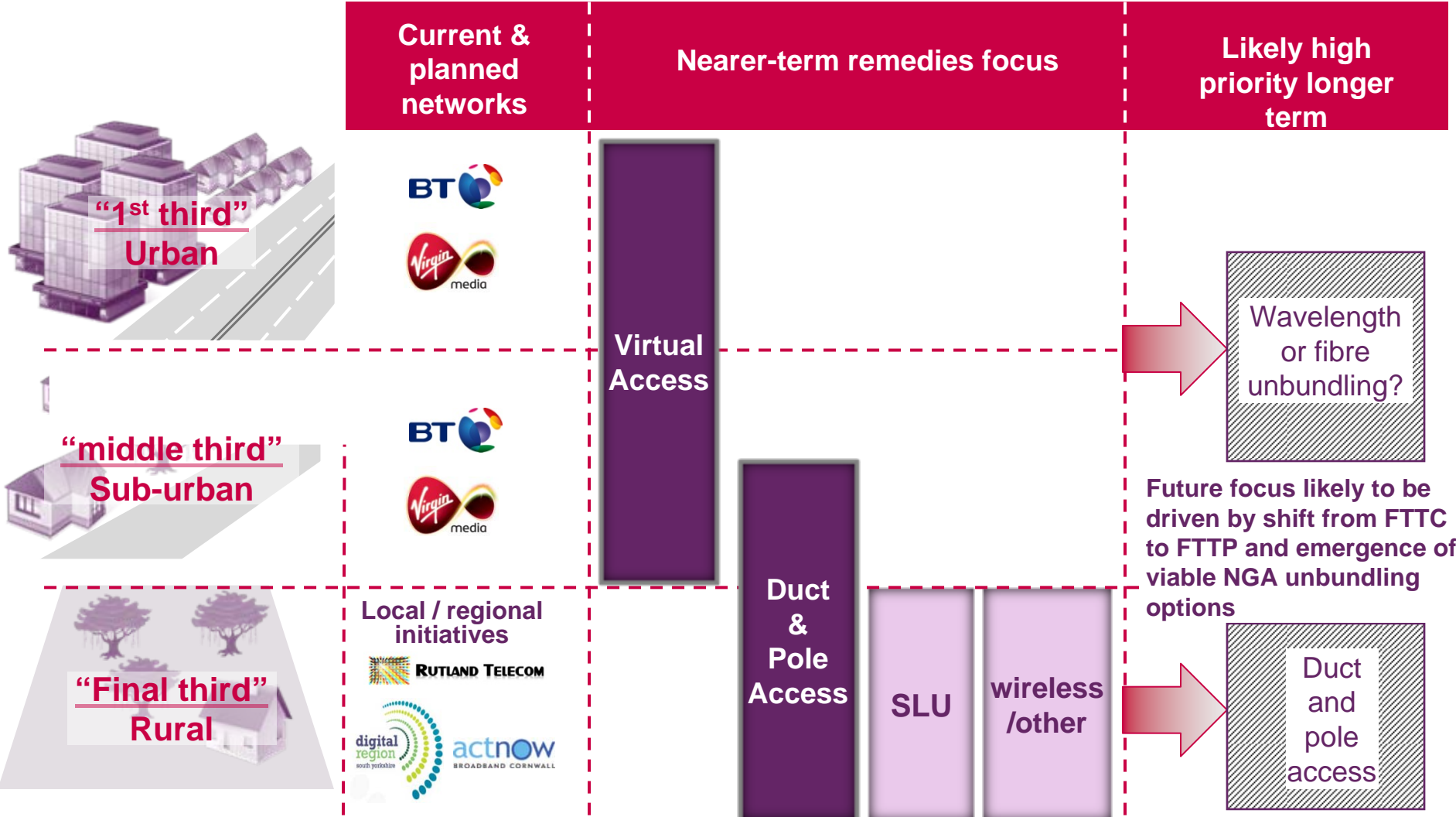
- BT required to let other providers use its duct and pole infrastructure to deploy their own fibre network
- BT will now produce a reference offer for pole access quicker (to align with duct access)



The implications and use of our remedies are likely to vary in different locations

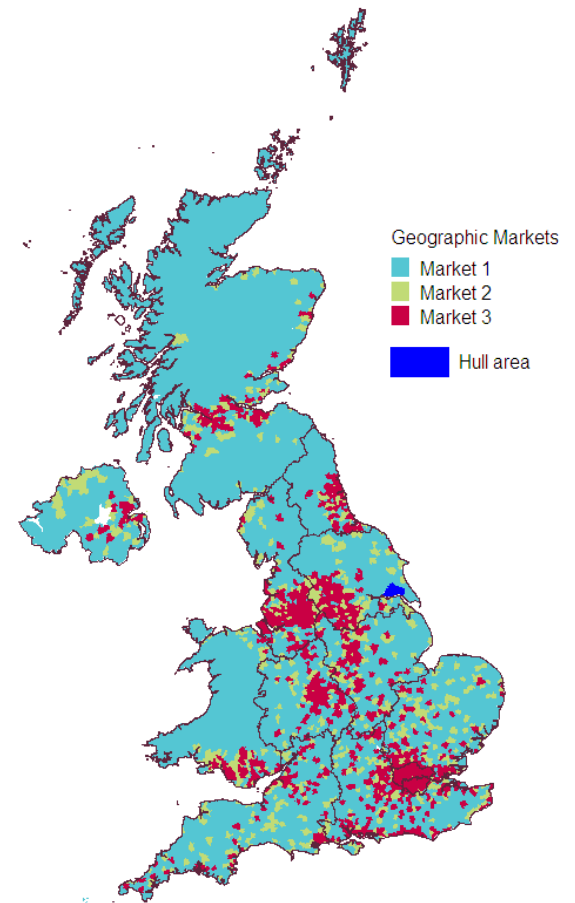
High priority

Low priority



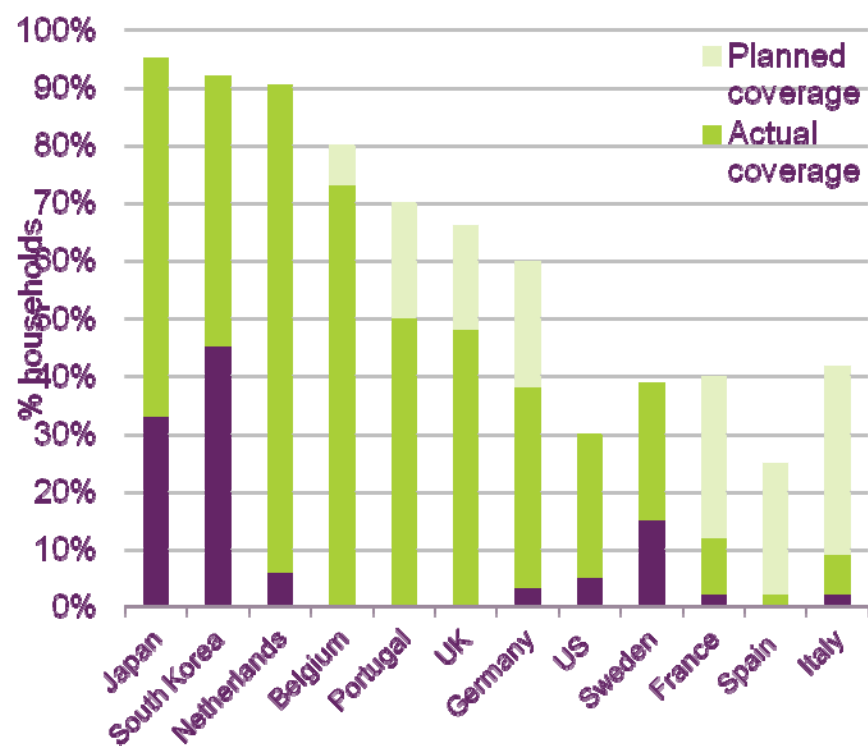
Wholesale Broadband Access market review

- Covers the provision of wholesale broadband services to Internet Service Providers
- Geographic markets reflect variations in competition
- Deregulation (Market 3) extended to 80% of UK premises, where competition based on LLU is effective
- Proposed introduction of charge control in areas where BT is the only supplier (Market 1)
 - We are consulting on a 3-year price cap of RPI-12.75%

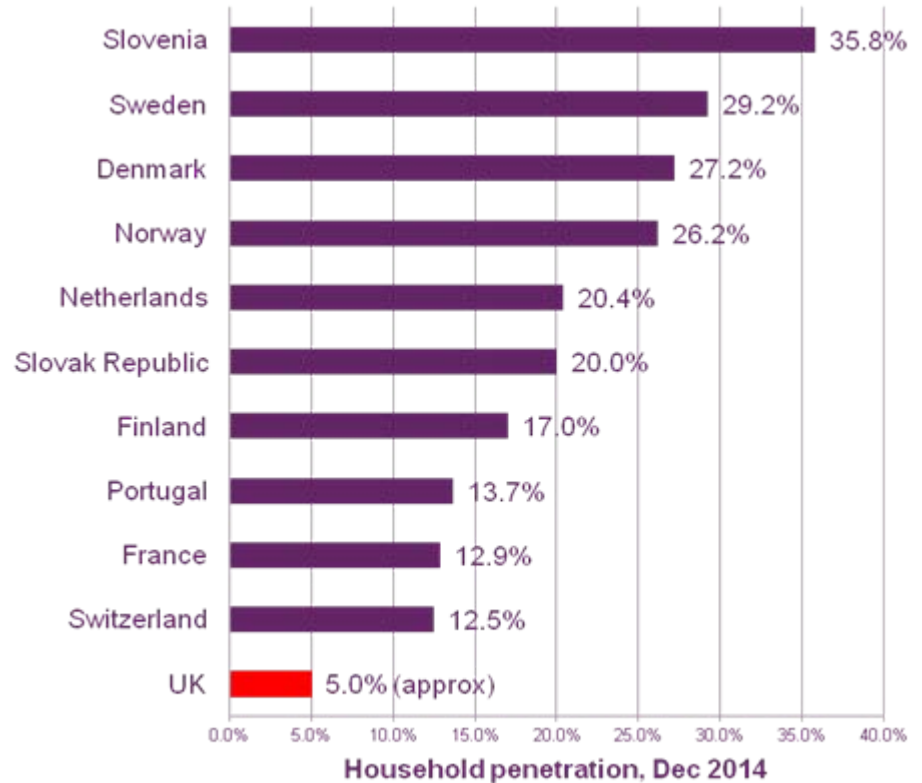


Objective: the best broadband network in Europe by 2015

Actual & planned commercial coverage and current take-up of super-fast broadband



Forecast FTTH penetration, Dec 2014



Government initiatives

- £830m identified for investment in NGA
- Priority appears to be superfast broadband, not USO
- BDUK managing 4 initial trials
- A range of other measures could play a part in boosting investment

Regulatory

- Access to BT's ducts and poles (PIA)
- Infrastructure sharing with other CPs (new Article 12)
- Best practice guidance for new build housing
- Battery back up – ease requirements

Cost reduction

- Infrastructure sharing with utilities
- Ease restrictions on overhead deployment
- Wayleaves - streamline process
- Sharing street works
- Business rates

Revenue enhancement

- Supporting internet TV
- Demand aggregation
- Pre-registration schemes e.g. Race to Infinity
- Race Online
- Support for development of new applications e.g. telemedicine



Ofcom priorities and next steps

- Monitor development and take-up of BT's Virtual Access products
 - OTA feedback due shortly
- Ensure BT ducts and poles access remedy is fit for purpose
 - Product launch expected in June-July
- SLU: Resolve likely dispute between Openreach and Digital Region
- Publish further research on broadband speeds
- Develop approach to use of new powers on infrastructure sharing