Bridging the Digital Divide

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Digital Divides

Does digital matter?

Innovation

Competitiveness

Productivity growth
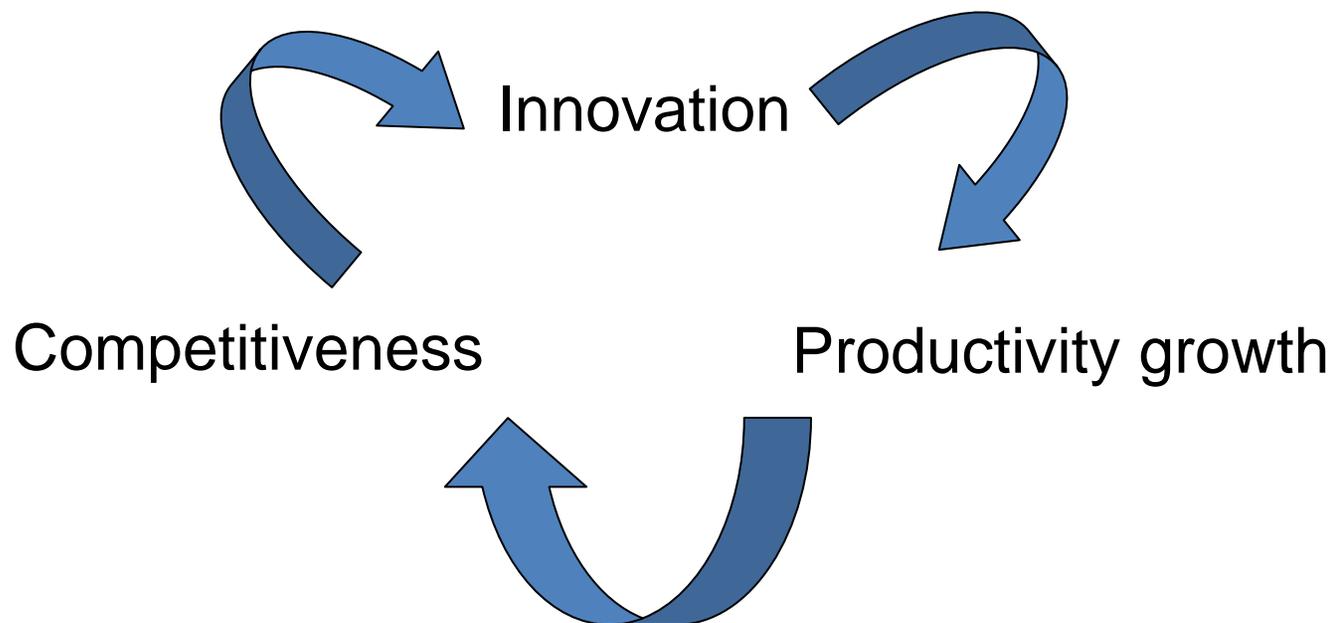
There is now a significant body of economic evidence on the impact of ICT and connectivity

Do divides matter?

Material difference in ability, capability or capacity to engage:

- Benefits of inclusion
- Costs of exclusion
- Potential for long-term structural social and geographic imbalances

- Again, the body of evidence is growing:
  - The economic case for digital inclusion, PWC for DITF, October 2009
    http://raceonline2012.org/sites/all/themes/raceonline/files/pwc_report.pdf

Not always a panacea

- "I lost about £128 because I chose to register my unemployment on line to claim benefits. It confirmed my submission and told me to await a phone call. When the phone call was not forthcoming I went back on line and found my submission had actually failed due to my use of mixed case in a field that failed to be validated, even though the website with the instruction to await a phone call gave the impression my submission must have been successful. When I tried to complain I was told that the rules did not allow for late registration other than for failure of the postal system. I appealed and had my appeal rejected and was told they couldn't change the law. I could have gone to a tribunal but unfortunately I missed the short window available for making further appeals.
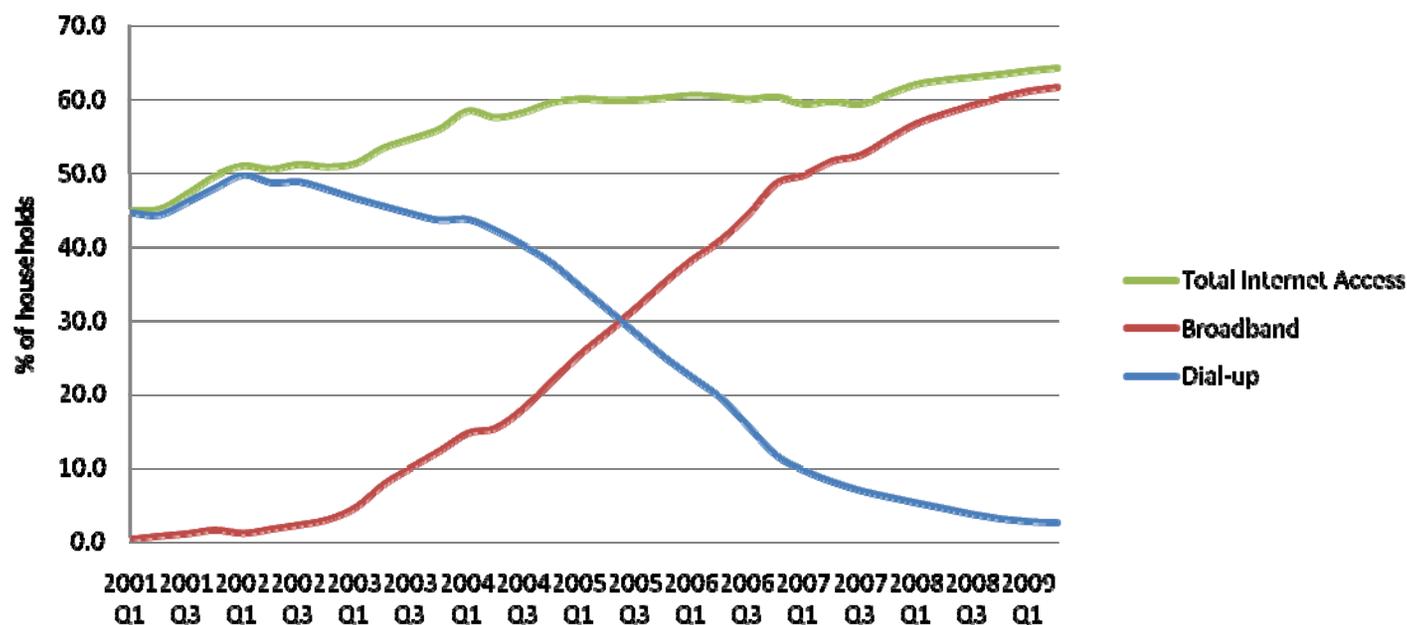
  There's no bloody way in hell I'll use a government website again for anything important until they change the law!"

Today's broadband

Most people are digitally connected

Internet Access - Household Penetration

Source: BSG from OFCOM, Point Topic

Two immediate concerns:
- Take up
- Universality

Digital Britain plan to drive digital participation

4 barriers : Affordability; capability; relevance; availability

- Digital Inclusion Task Force – address older people and 10% most economically and socially excluded.
- Digital Life Skills review – entitlement to training and establishment of ICT as core competence in the primary curriculum
- National Plan for Digital Participation - £12m communications campaign and outreach to those that need support. To be led by consortium
- BBC and C4 to help drive participation and appoint champions

Right objective, not particularly controversial, but many challenges in implementation

Universal Service Commitment – Baseline 2Mbps

- Average speed 4.5 Mbps (Source Ofcom/Sam Knows)
- 15 % of lines are sub 2 Mbps
- Some will be in cable areas
- Some will be addressed by improving home wiring
- Where clustered – potential for fixed line solutions
- Where isolated – more likely to be wireless/ satellite
- Objective would be to future proof where possible (clusters)
- But this will depend on the scale of funding available - £200m
- Switch-over fund; Strategic Investment Fund
- Reverse auction approach seems most likely approach
- But a clear definition of what 2Mbps really means remains illusive

Future broadband (1)

Next Generation Broadband 2009

Virgin Media

- Rollout announced Nov 2008
- 1m homes passed by end 2008
- All homes on network (12m, 48% of UK homes) to be passed by Summer 2009
- 50Mbps service – up to 200Mbps possible
- Could VM extend their footprint?
  - 450k homes to be passed in 2009/10
  - Possible further 20% of homes 'potentially viable'

H2O

- Fibre to the home through sewers in Bournemouth, Dundee
- 160k premises passed; £60m investment

BT

- Investment plans announced July 2008
- £1.5bn for 40% of UK homes (10m)
- Trials in 2009; first homes live in 2010, rollout complete by 2012
- 9 million homes FTTC (40 Mbps),
- 2.5 million homes FTTH (100Mbps)
  - BSG report: FTTC – FTTH transition possible in future
- Remaining areas ADSL (up to 24 Mbps)
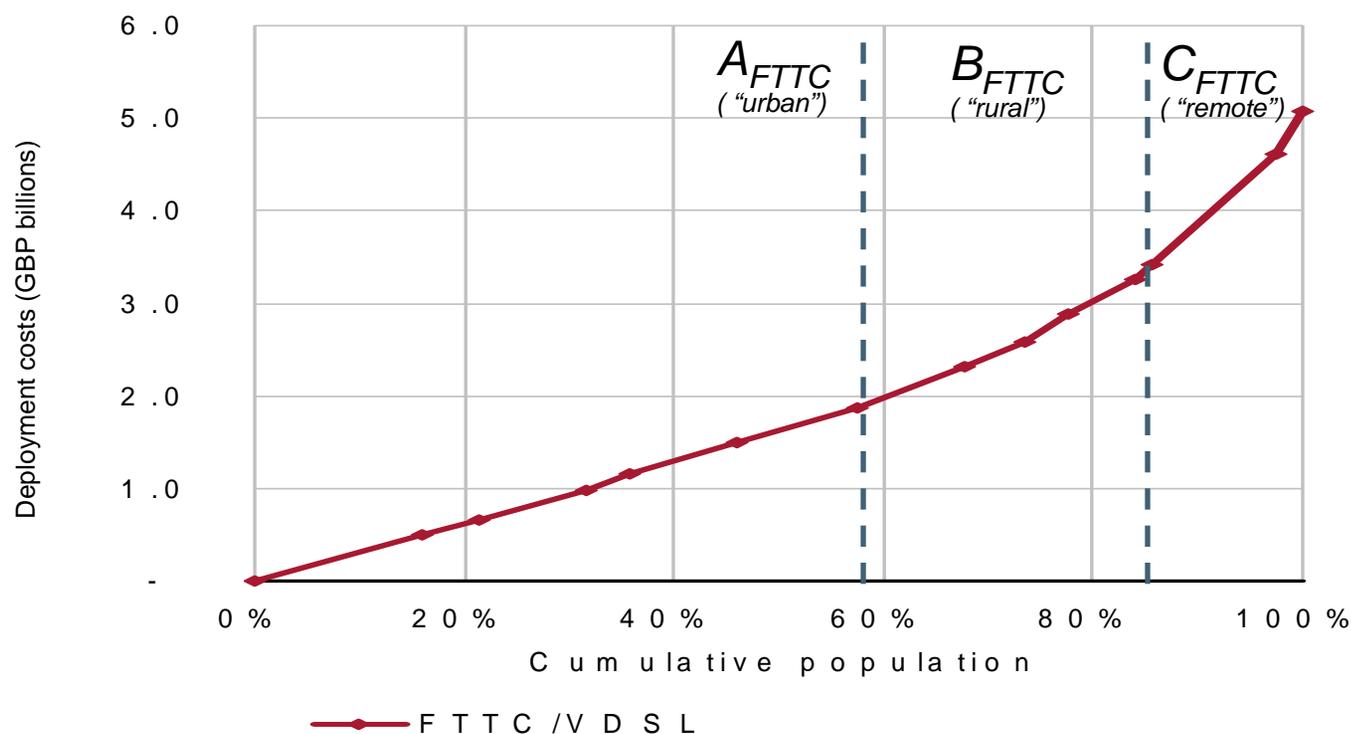- Competition facilitated mainly by wholesale access

Digital Region (South Yorkshire)

- Public sector project, FTTC
- C600k premises passed; c£100m investment

Will it be transformational?

- Hard evidence of transformational benefits not there yet
- Many constraints on today's services aren't in the access networks
- Useless to speculate about what consumers would do with 100Mbps upload speed
- Benefits likely to be about overall quality rather than headline speed
- Ability to deliver assured service would be transformational
- Higher upload speeds would provide significant opportunities for innovation

Next generation broadband – fibre costs

A_{FTTC} ("urban") B_{FTTC} ("rural") C_{FTTC} ("remote")

Deployment costs (GBP billions) vs Cumulative population

FTTC / VDSL

Source: Analysys Mason for BSG

BSG cost modelling report

- Cost per home broadly similar for first 58% of homes

- Where a business case exists, it is likely to be viable up to 58% of homes

- However, remaining 42% (and particularly final 17%) are more expensive, perhaps prohibitively for market

What might this look like?

- Patchwork availability across the UK.

- High density areas, even including centres of small rural towns could be viable

- But costs increase significantly in outlying areas

Source: Analysys Mason for BSG

Legend:
- A_{FTTC} (green)
- B_{FTTC} (yellow)
- C_{FTTC} (red)
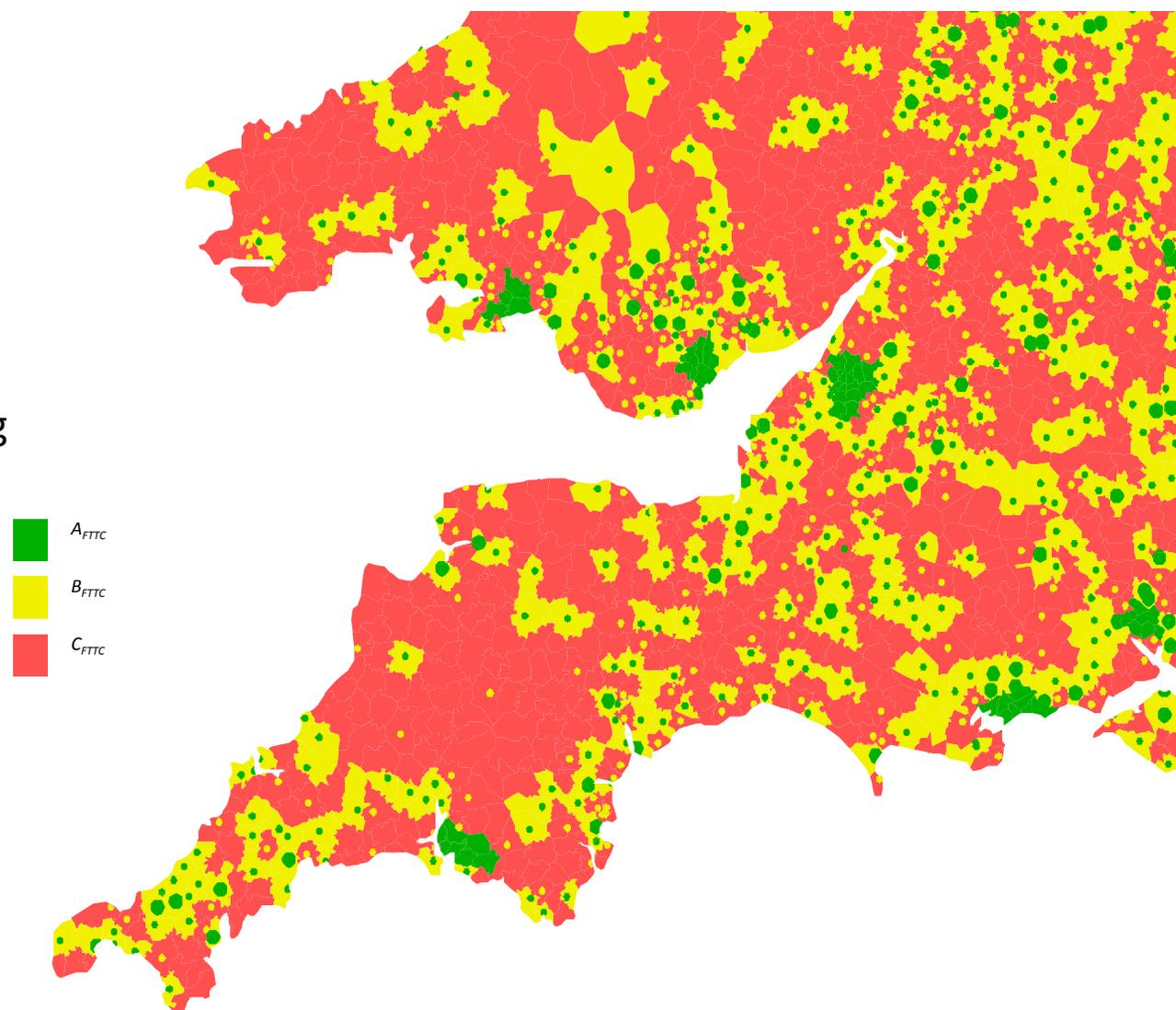
Digital Britain Report – four concerns

- Concern that households and communities without any access to broadband are increasingly disadvantaged against those that do

- Growing concern that digital divide will widen as next generation broadband services are deployed in urban areas only

- Concern that government should take a more active role in encouraging the rapid deployment of next generation broadband to boost productivity

- Concern about allocation issues related to current broadband business models – can investors make a sufficient return?

Next generation broadband fund – illustrative
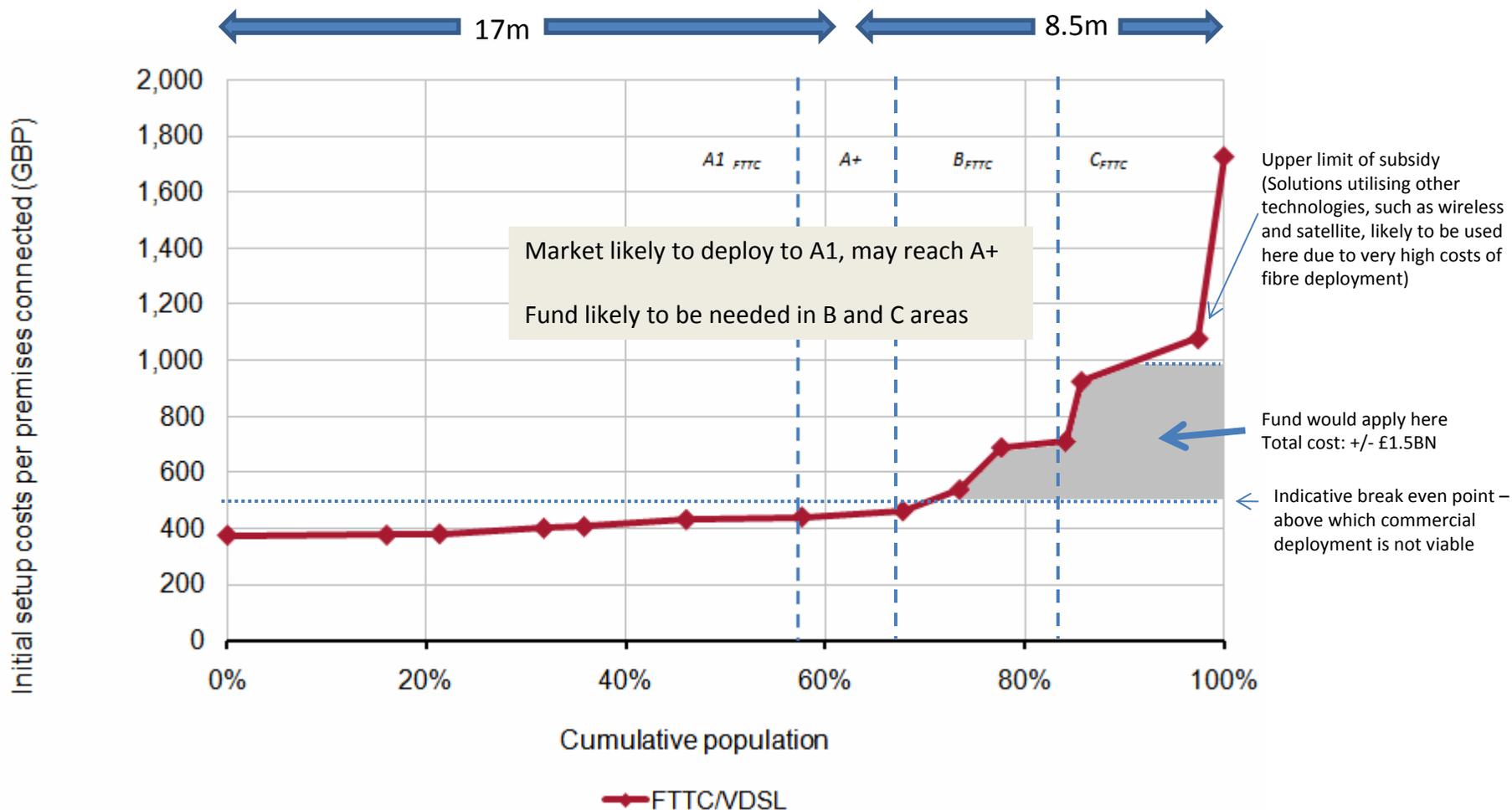
The final third project – 2010 - 2019

- 50p levy would be used to generate a £1.5 bn available over 7 years to support next generation broadband deployment in rural areas

- Implementation through the Network Design and Procurement Co.

- Bias towards fibre deployment (FTTC) but wireless and satellite will clearly be important

- Projects using public funds would need to be open access

- Some complex issues and trade offs will need to be considered

Future broadband (2)

The opposition concerns

- Too soon to predict about how far the market will deploy

- Additional benefits of next generation broadband are uncertain/ undefined, making it impossible to do a full cost benefit analysis at this stage

- Premature intervention will distort the market and chill private investment

- Encouraging competition should be the first priority in a new emerging market (by opening up access to duct and dark fibre)

Final thoughts

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- Two very different views about the digital divide and what to do about it

- Immediate concerns about universal availability and take up of current generation broadband less controversial

- Very different policies emerging on next generation broadband in the run up to the election

- Any new government will need a coherent plan

- Success might come through a combination of small steps rather than a single big leap