

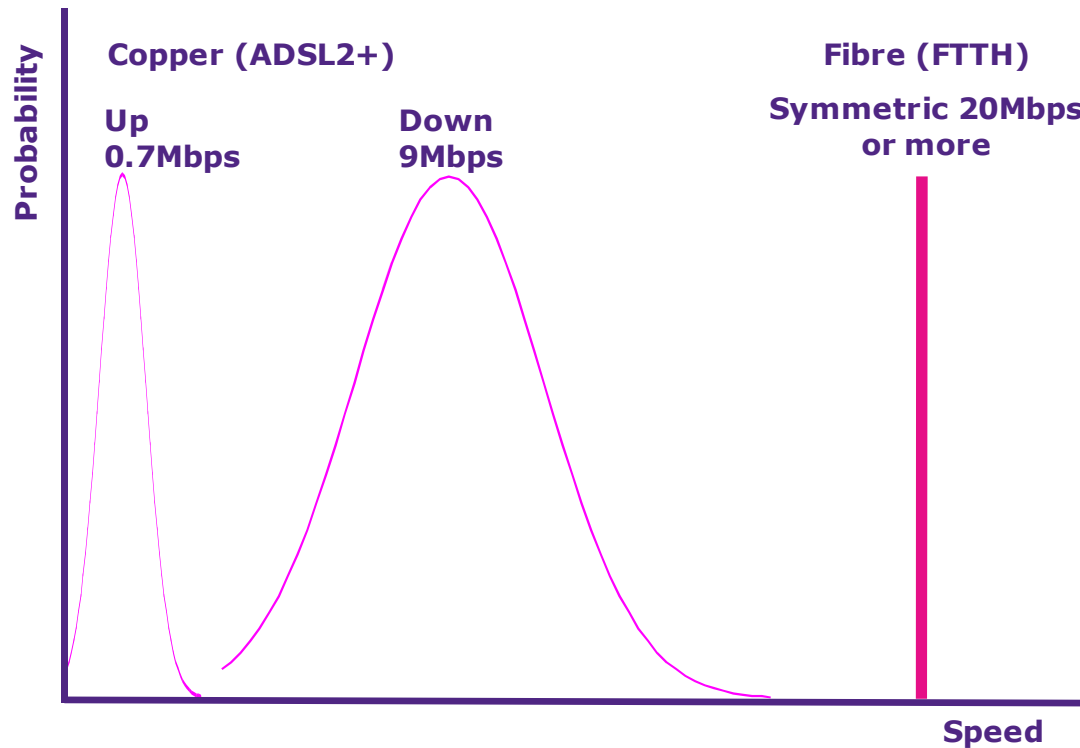
A man in a dark suit is sitting at a white desk in a vast, open field. He is looking at a laptop. The sky is filled with large, white, fluffy clouds against a deep blue background. The horizon is flat and extends across the entire width of the image.

**Will next generation broadband
deliver next generation benefits?**

Structure

- Background
- The cost benefit framework
- Thoughts on timing
- Thoughts on coverage

Value attributes of next generation broadband



Quality not just speed

- Greater consistency
- Higher upload and download
- Greater reliability
- Lower latency
- Lower error rates
- Freedom from radio frequency interference

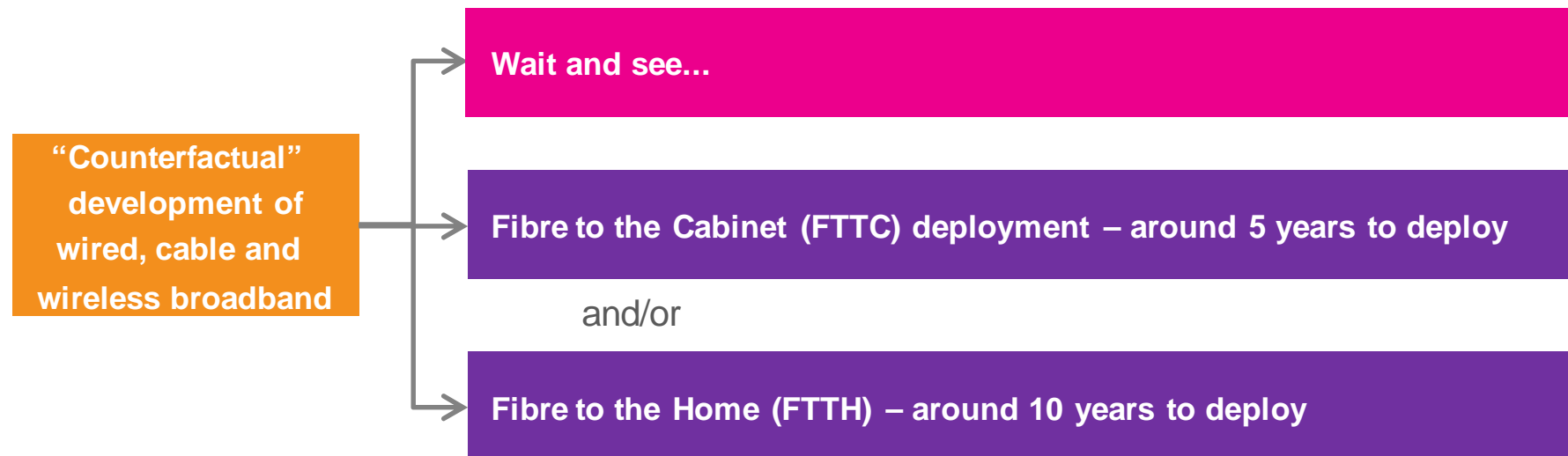
Improving user experience
and service capability

Cost-benefit framework

- Scenarios and counterfactual
- Private costs
- Benefits



Scenarios and counterfactual



Cost assumptions (80 per cent coverage/ 100 per cent take up)

- FTTC £5.3 bn
- FTTH (overlay) £16.1 bn
- FTTH (replacement) £12 bn (assuming 30 per cent opex saving)

Cost assumptions based on international data (mainly United States)

Private value

- Saving time doing existing things (efficiency)
- Doing more existing things (expansion)
- Doing new things (transformation)

Wider economic value

- Non-appropriable private value
- Externality
- Piracy
- Network effects
- Spill-over and virtual agglomeration
- Competition
- Resilience and adaptability

Wider social value

- Educated citizens
- Informed democracy
- Cultural undersnading
- Community and inclusion
- Privacy
- Social capital, resilience and trust

Cost benefit framework

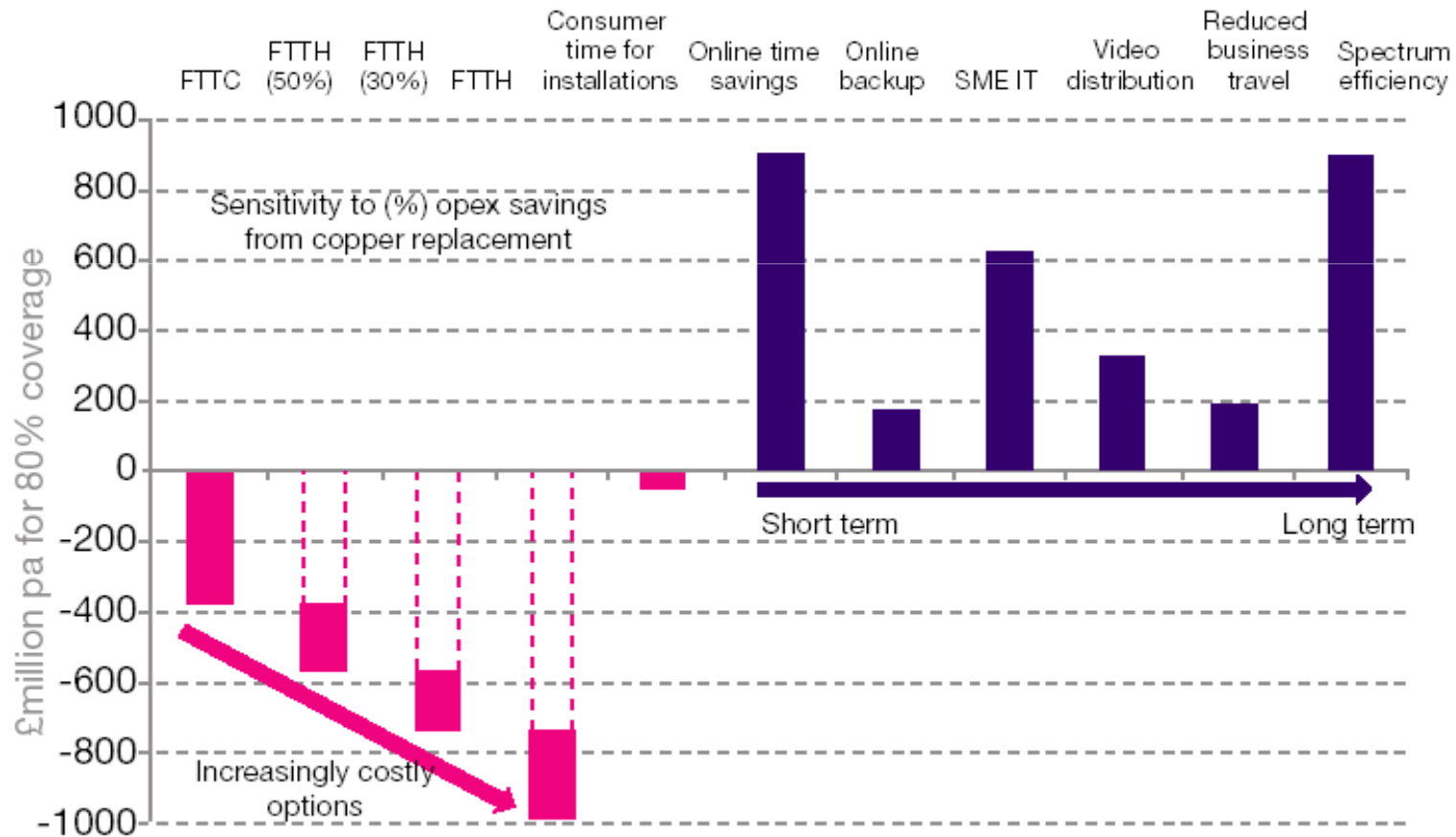
Private	Wider economic	Wider social	Pseudo (not counted)
<p>Private costs:</p> <ul style="list-style-type: none"> (i) FTTC (ii) FTTH (overlay) (iii) FTTH (replacement) <p>Private benefits:</p> <ul style="list-style-type: none"> (i) Saving Time (ii) Doing More (ii) Doing new things 	<p>Non-appropriable private</p> <p>Externality</p> <p>Piracy</p> <p>Network effects agglomeration</p> <p>Competition in telecoms sector and wider economy</p> <p>Resilience, adaptability and policy options</p> <p>Excess burden of taxation</p>	<p>Educated citizens</p> <p>Informed democracy and freedom of expression</p> <p>Cultural understanding</p> <p>Belonging to a community and inclusion</p> <p>Privacy</p> <p>Social capital, resilience and trust</p>	<p>Pseudo externalities</p> <p>Asset price changes (if already captured under private cost-benefit)</p> <p>Employment effects</p> <p>“Competitiveness”</p>

Cost-benefit framework

- Positive in the medium to long-term for the UK



Indicative incremental annual costs and benefits



Other qualitative incremental costs (-) & benefits (+)

Scale	Private	Wider economic	Wider social
(+++)	Un-quantified increase in existing activity Un-quantified new things	Resilience, adaptability and policy options Spill-over and virtual agglomeration benefits	Social capital, resilience and trust
(++)		Competition in wider economy	Educated citizens Belonging to a community
(+)		Value of leased exchange land and buildings Reduced traffic congestion Network effects	Informed democracy
Neutral-unclear		Piracy Competition in telecoms Greenhouse gas emissions	Cultural understanding Privacy
(-)	Core network enhancement Costs of transition from copper to fibre with copper replacement Any change in operating costs associated with FTTC or FTTH overlay	Traffic congestion and other disamenity during fibre build Excess burden of taxation for public funding	

Timing

- jump in now or wait?



Coverage

- should we worry about new divides?



**Matters more to do it right,
than do it right now**



With thanks to:

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