

# **Future broadband**

## Policy approach to next generation access

Ed Richards, Chief Executive  
1 October 2007

## Agenda

Time	Subject	Presenter
10:00 – 10.05	Welcome and Introduction	Ed Richards
10.05 – 10.15	Next generation access: the UK context	Dougal Scott
10:15 – 10.35	Regulatory principles and approaches	Clive Carter
10:35 – 10.55	Discussion/Q&A	Peter Ingram (Chair)
10:55 – 11.05	The case for direct intervention	Dougal Scott
11:05 – 11.15	Ebbsfleet and new build fibre	Clive Carter
11:15 – 11.30	Discussion / Q&A	Peter Ingram (Chair)
11:30	End	

# Next generation access

## The UK context

Dougal Scott, Director of Strategy

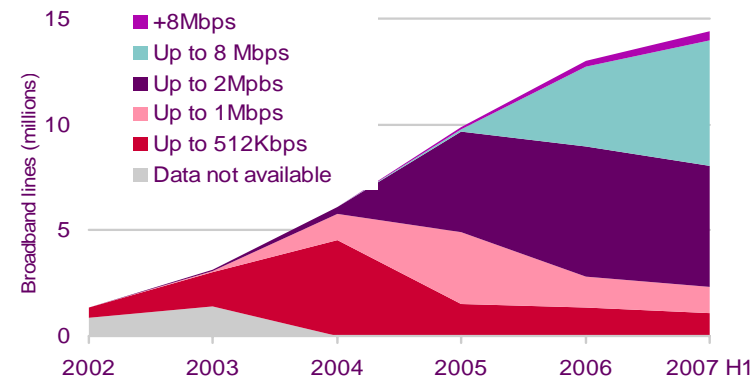
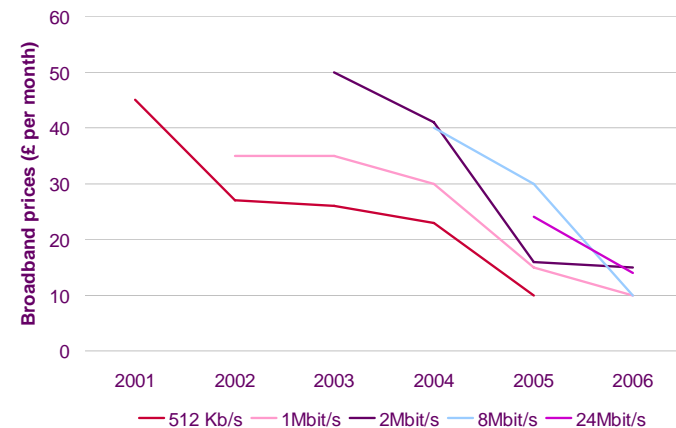
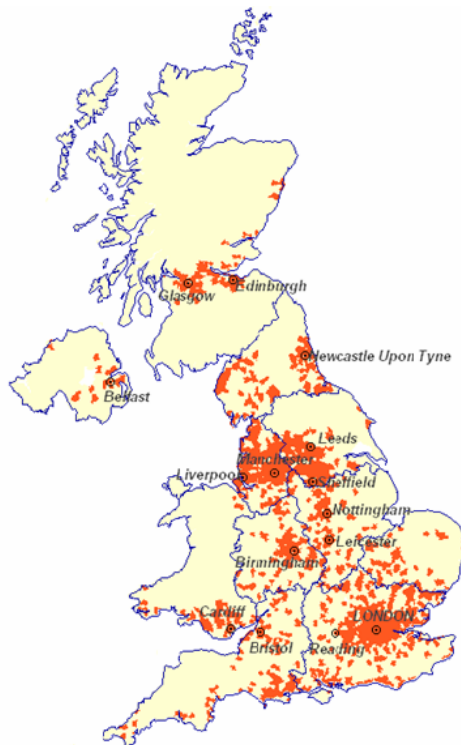
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## The UK has displayed a good performance in terms of current generation broadband...

More than 60% of homes can choose from four or more network providers...

... and competition has driven take-up, price reductions and increased bandwidth

UK LLU coverage, June 2007

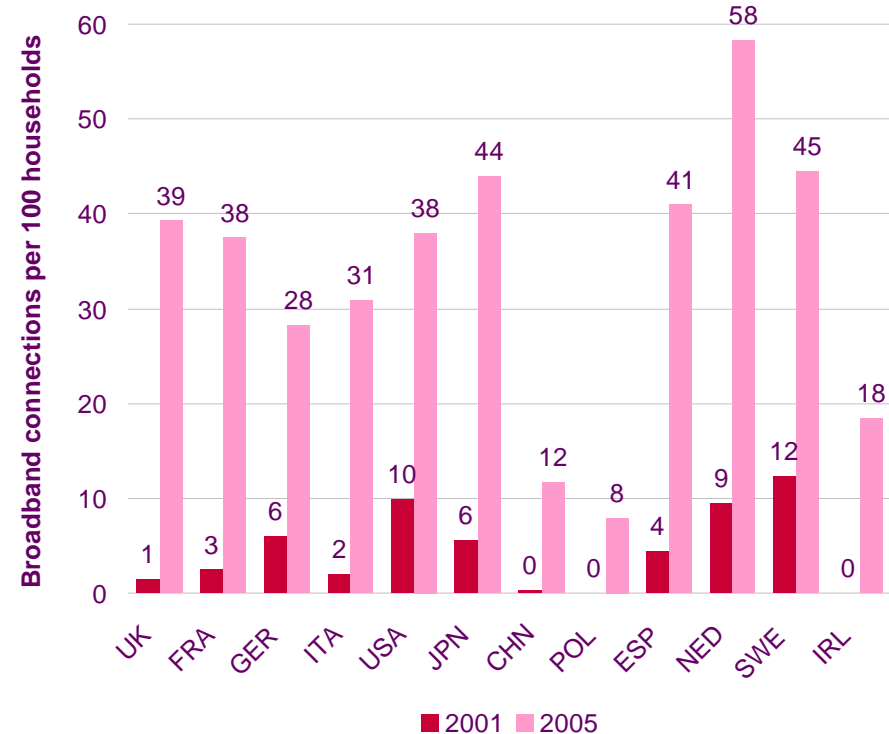


## ... and continues to compare favourably with our international peers

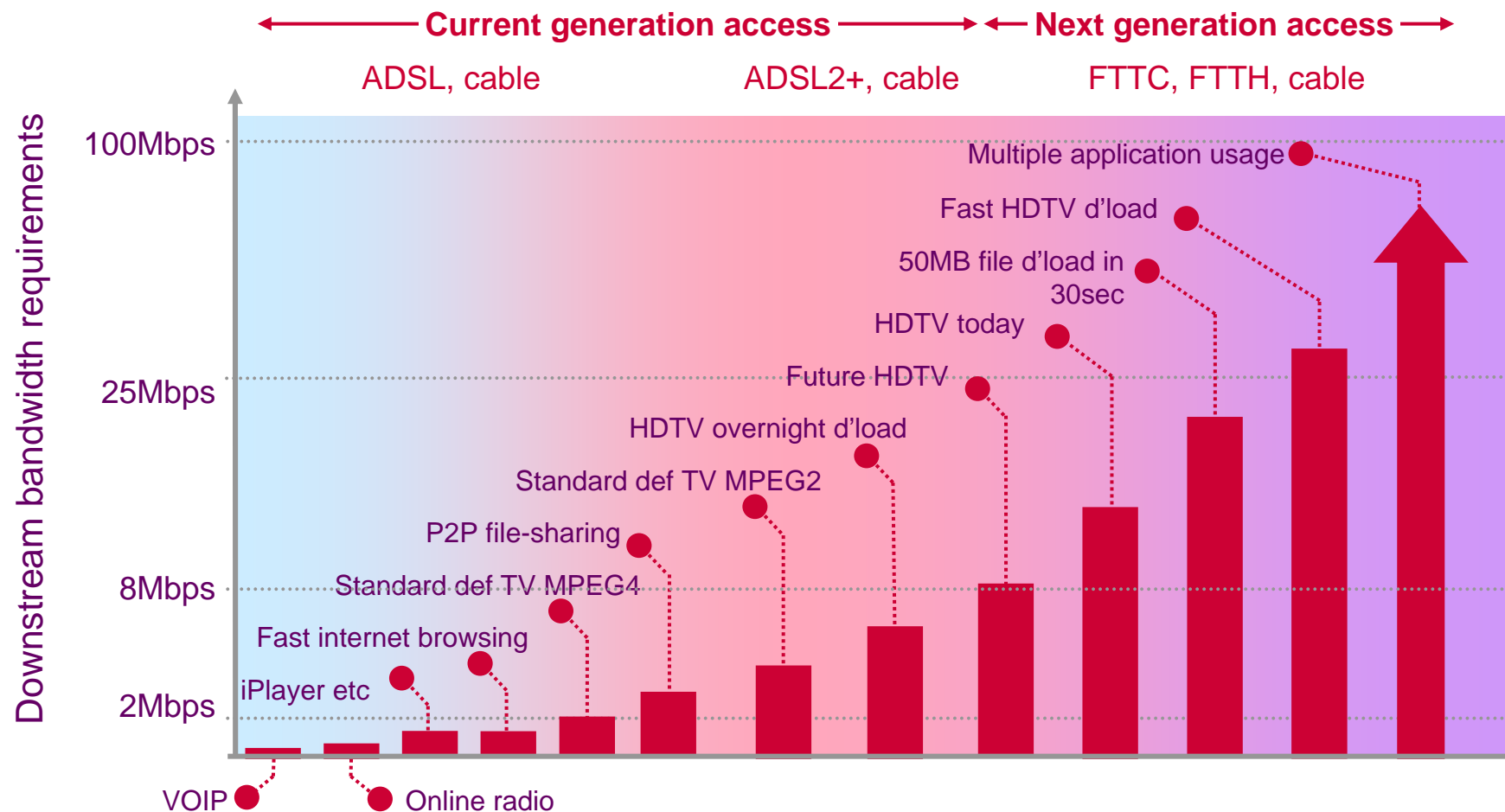
The UK is one of the leading countries in terms of both availability of broadband...



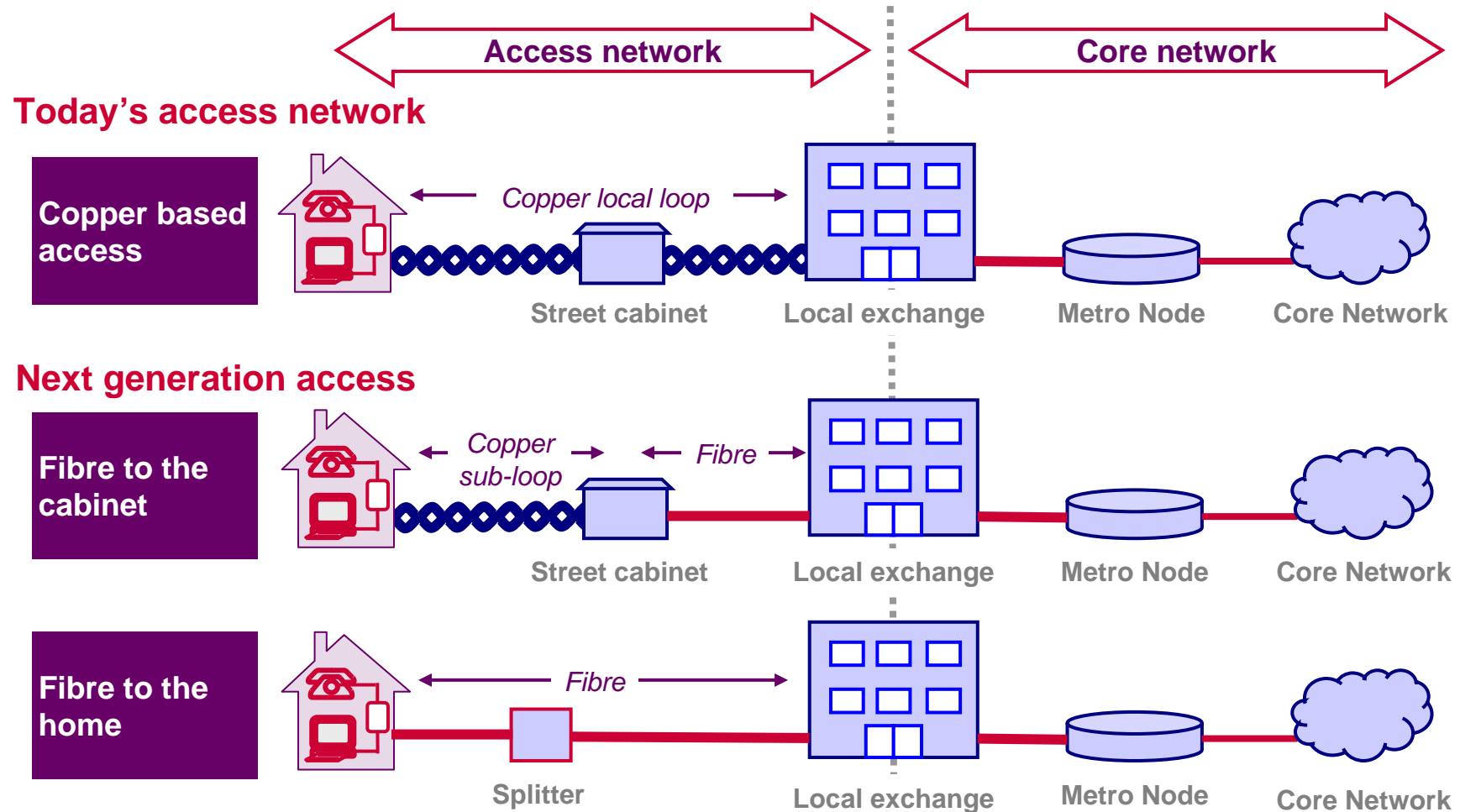
... and is climbing the international rankings on take-up



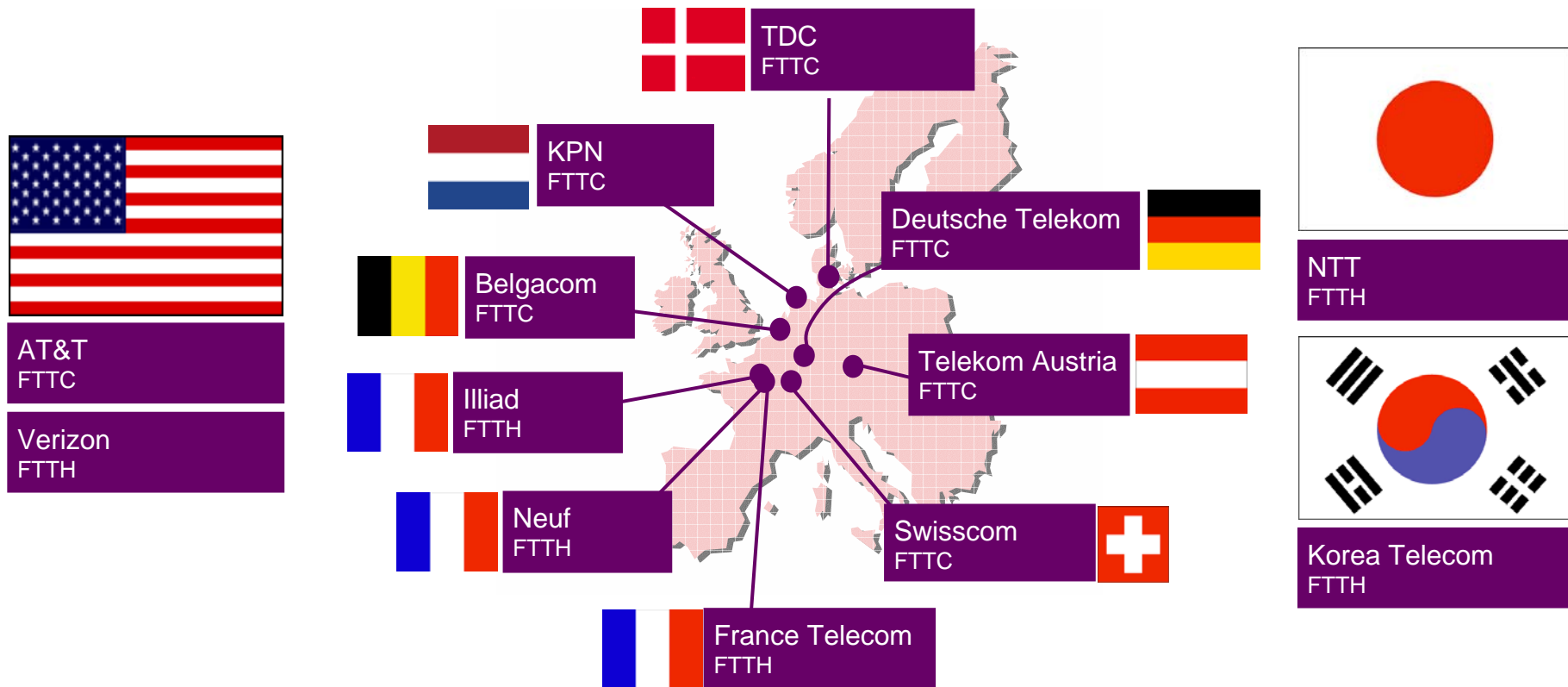
## There will come a time when existing access networks can no longer meet increasing customer expectations




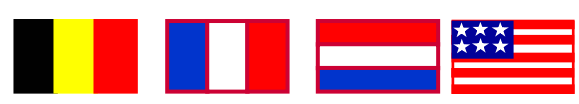
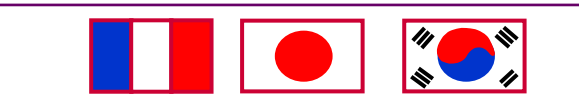



## Evolving consumer expectations will require changes to the existing access network – next generation access



We're starting to see announcements from the market on next generation access in a number of countries



## These announcements are as a result of a range of factors that vary between countries

Driver	Examples	Countries
<b>New revenue opportunities</b>	IPTV and video on demand services in less developed pay TV markets	
<b>Broadband competition</b>	Presence of competitive threat from cable or LLU investment	
<b>Reduced cost build</b>	Use of existing ducting e.g. sewers; use of aerial fibre	
<b>Cost savings</b>	Sale of local exchange buildings; operational cost savings	
<b>Lower quality copper</b>	Investment required to deliver higher current bandwidths	
<b>Public sector intervention</b>	Government or regulatory policy to incentivise investment	

The market and infrastructure characteristics are different in the UK

## **Next generation access is an incredibly broad issue, and it is vital that everyone becomes involved**

- This is not just a debate for Ofcom, but affects a wide range of stakeholders:
  - Communications providers
  - Applications and service providers
  - Consumer groups
  - Business
  - Central government and the Devolved Authorities
  - Local government and regional development agencies
- Ofcom has a role to play both in ensuring there is certainty on the regulatory environment that will apply to next generation access, but also in promoting wider debate on this issue
- To guard against any risk that the UK may be left behind, Ofcom must remain actively engaged with all stakeholders on this issue

# Next generation access

## Regulatory principles and approaches

Clive Carter, Principal  
1 October 2007

## Our consultation focuses on four main issues arising from potential wide scale NGA deployments

Our aim is to put in place the right environment for timely and efficient market led investment that delivers benefits to consumers and citizens, leading to four questions...

In advance of deployments, how do we ensure that there is timely and efficient investment in NGA networks?

Once NGA investments have been made, how do we promote competition in the case where NGA is an enduring economic bottleneck?

Following NGA investments, how should current regulatory policy evolve?

What is the role of regulatory or wider public policy in promoting next generation access deployment?

## The UK's success last time was in part due to a clear regulatory framework based on well defined principles

### Within the TSR, the three most relevant principles were:

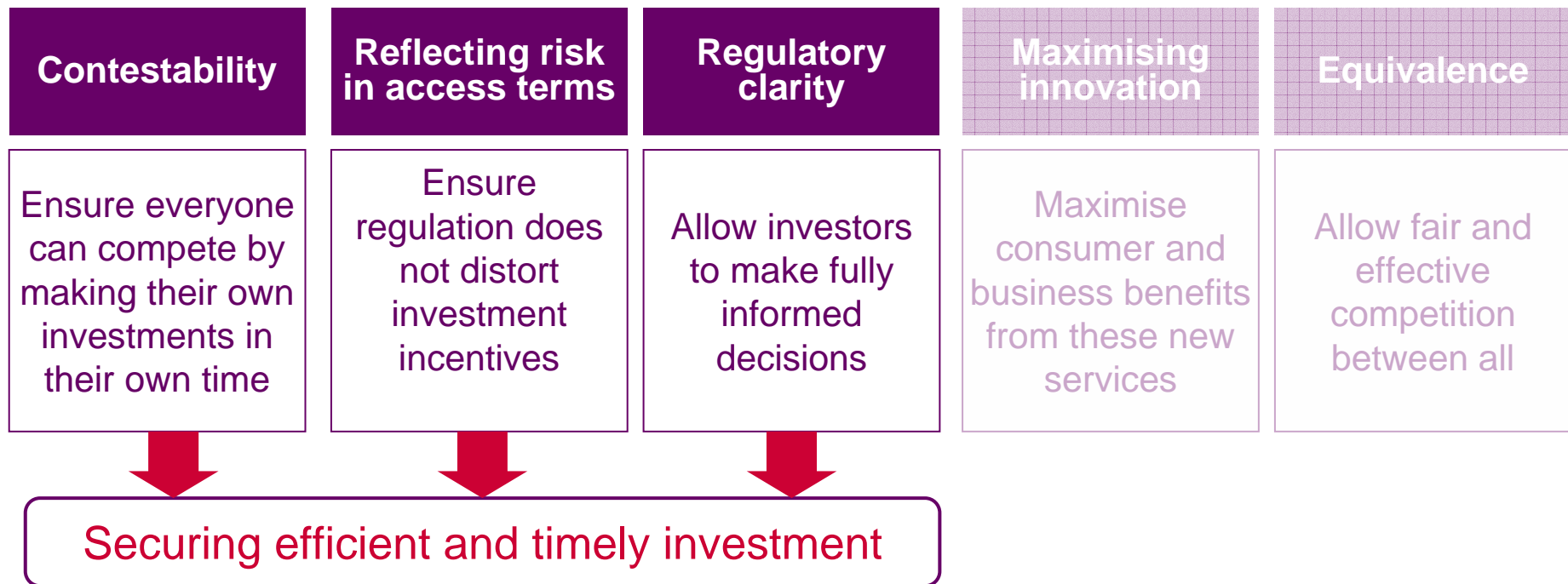
- *Contestable investments* – to ensure everyone can compete by making their own investments in their own time
- *Optimise the scope for innovation* to maximise consumer and business benefits from these new services; and
- *Require equivalence* where operators with market power must make their network infrastructure available to their competitors on the same basis.

### These continue to be appropriate, plus two new principles specific to next generation access

- *Reflect investment risk in regulated access terms* to ensure investment is not disincentivised
- *Provide regulatory clarity* to allow investors to make fully informed decisions

## Our first challenge, and one of our duties, is to secure efficient and timely investment in next generation access

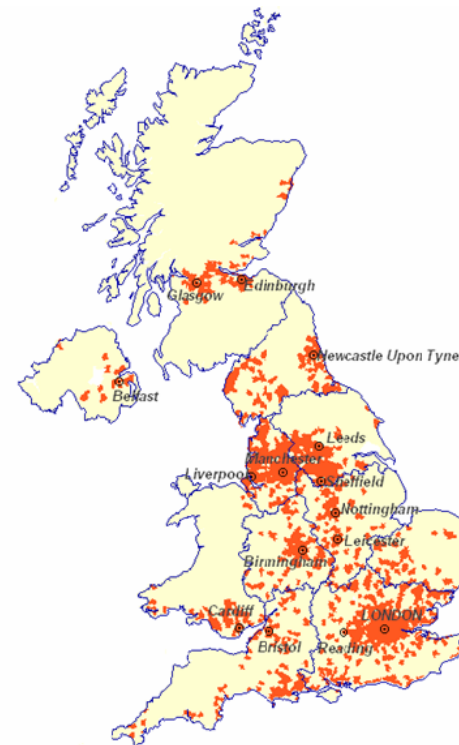
### Principles for regulation in a next generation access world



## Contestable investment opportunities will lead efficient and timely investment and competition

**Contestability can drive investment... ... as displayed in today's broadband**

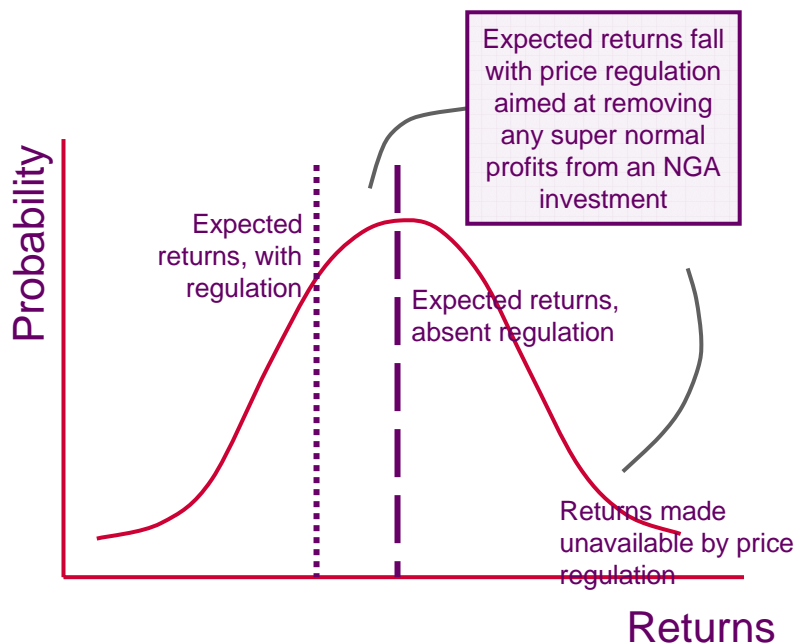
- Contestability enables all operators to deploy next generation access when they see a business case
- For example, new entrants could invest once they have gained sufficient scale
- It also provides existing access network owners with incentives to make timely investments
- Sub-loop unbundling products can support contestability in next generation access



## Regulation should reflect risk in access terms – there are a number of mechanisms to achieve this

The risk of regulation may distort incentives for efficient investments

Each option to reflect risk has its merits and risks



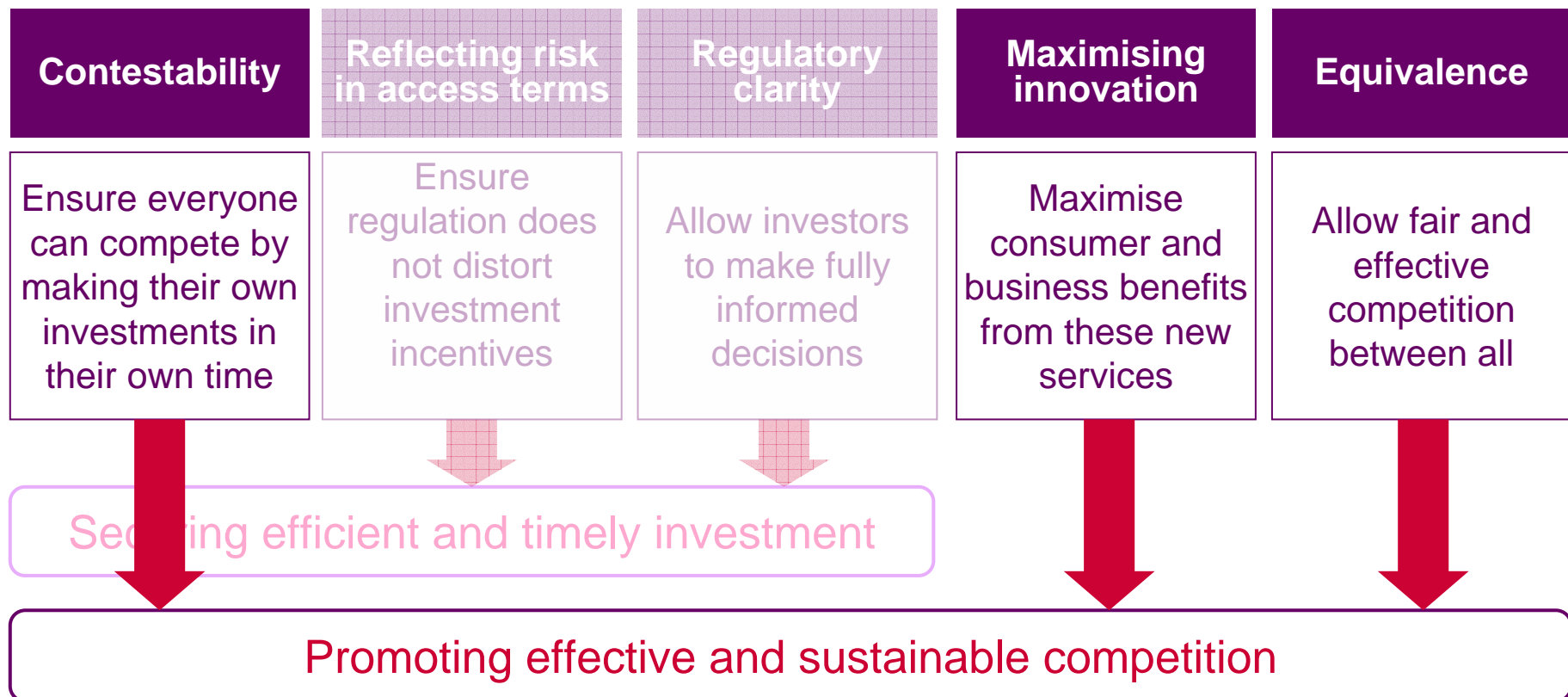
	Advantages	Risks
<b>Adjusted cost of capital</b>	<ul style="list-style-type: none"> <li>• Similar to current approaches</li> </ul>	<ul style="list-style-type: none"> <li>• High information requirements</li> <li>• Risk of incorrect adjustment</li> </ul>
<b>No price setting</b>	<ul style="list-style-type: none"> <li>• Industry assesses risk and prices it in</li> <li>• Returns not capped</li> </ul>	<ul style="list-style-type: none"> <li>• Potential abuse of market power – margin squeeze</li> </ul>
<b>Anchor product regulation</b>	<ul style="list-style-type: none"> <li>• Pricing flexibility</li> <li>• Consumer protection</li> <li>• Pricing restraint</li> </ul>	<ul style="list-style-type: none"> <li>• Need to define anchor</li> <li>• New approach</li> </ul>

## **Risk in next generation access is reduced with clarity on the regulatory environment that will apply**

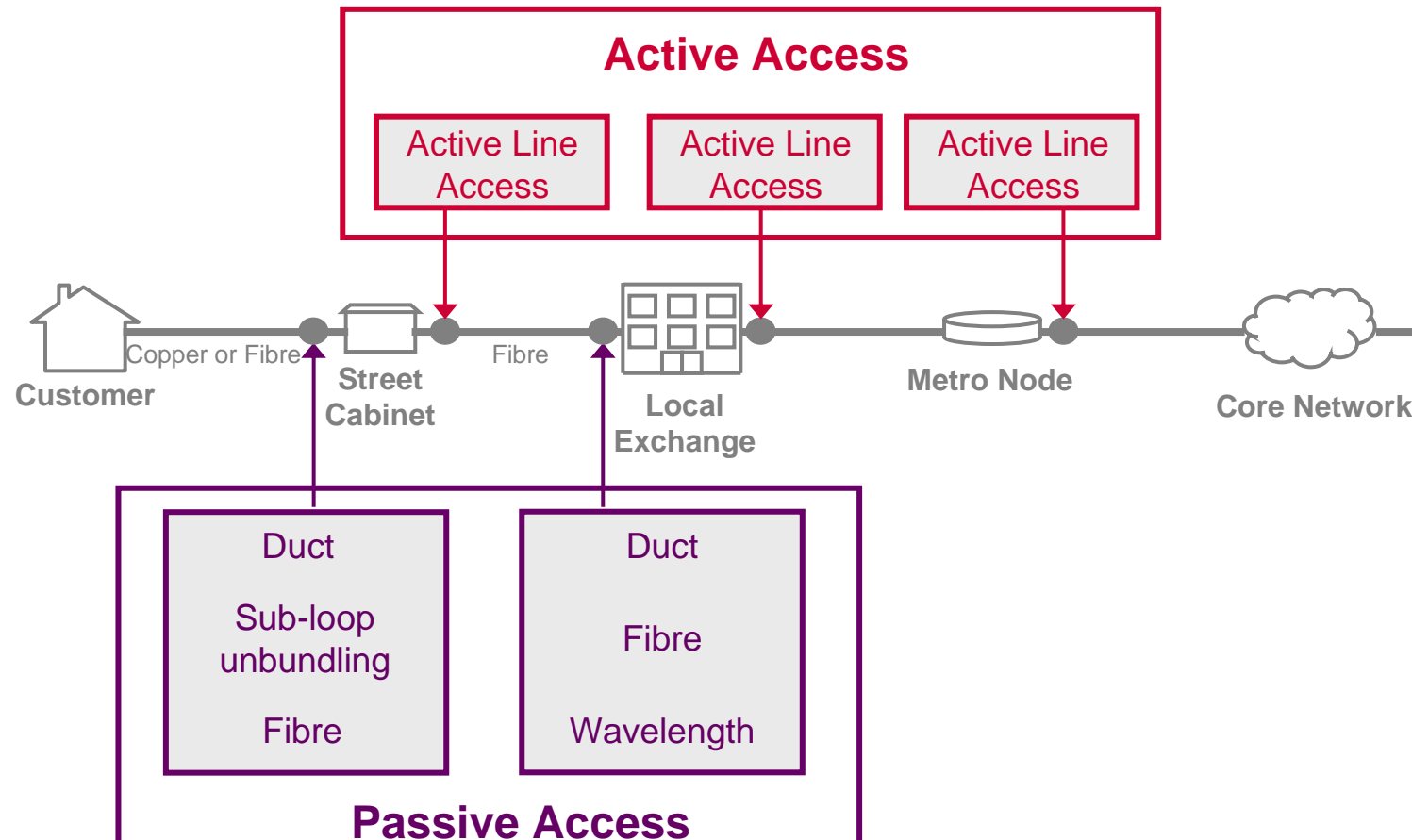
- We have outlined our approach to the regulation of next generation access ahead of commercial deployment to remove regulatory risk. Operators are therefore able to focus on business case
- General regulatory principles less likely to change over time than more detailed (and technology specific) regulations
- We cannot say with certainty that regulatory policies will not change, for example, in response to unforeseen market developments
- We intend to provide more detail on how these principles would be applied in the Spring

## Our second main challenge is to promote competition following next generation access investments

### Principles for regulation in a next generation access world



## Competition can be promoted at many levels and locations through contestability and innovation



## We believe that equivalence and the Undertakings will be the right way to deliver effective competition

Forbearance is not appropriate in the UK given prospects for effective end to end competition...

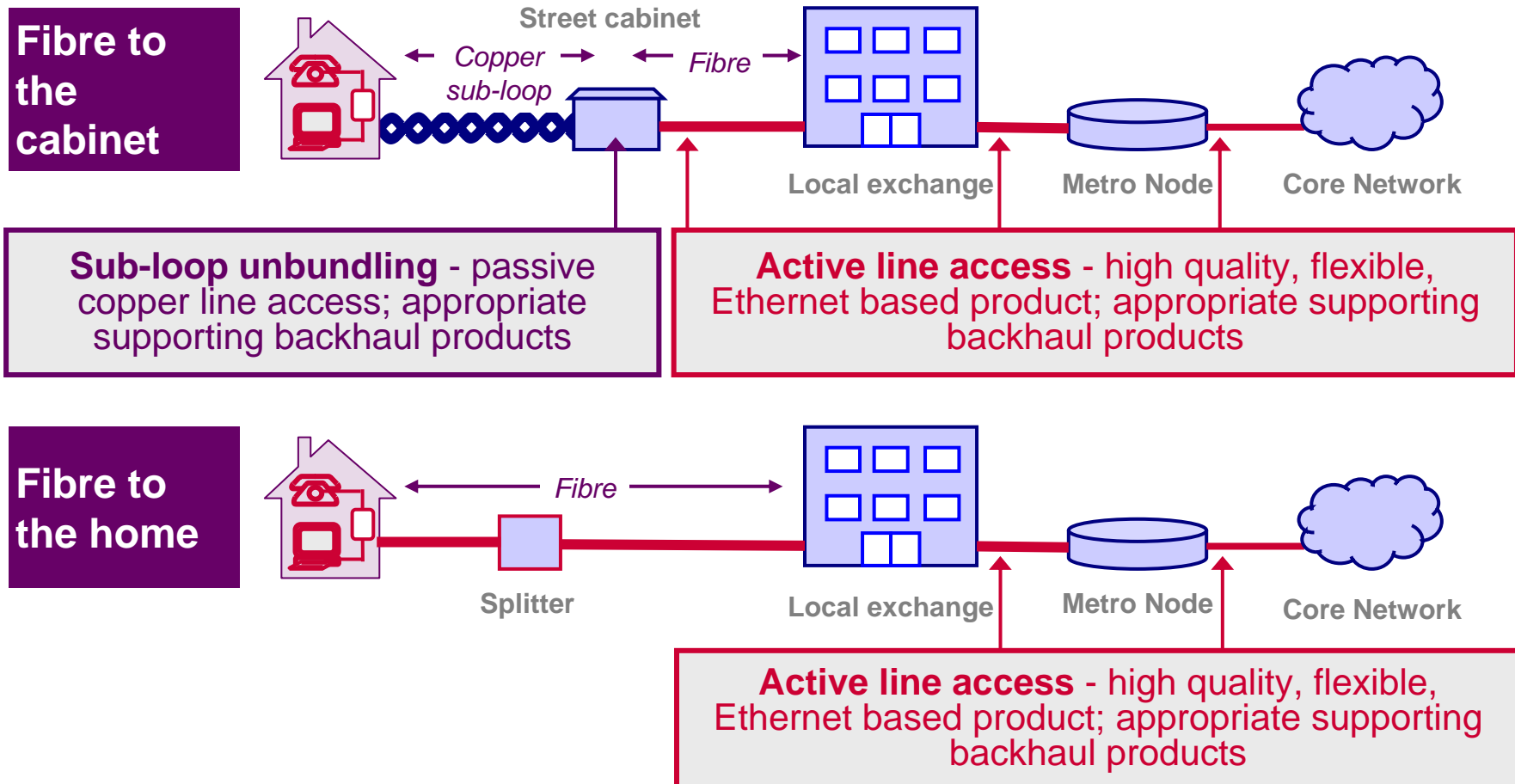


...equivalence is the mechanism to deliver effective competition, via the Undertakings...



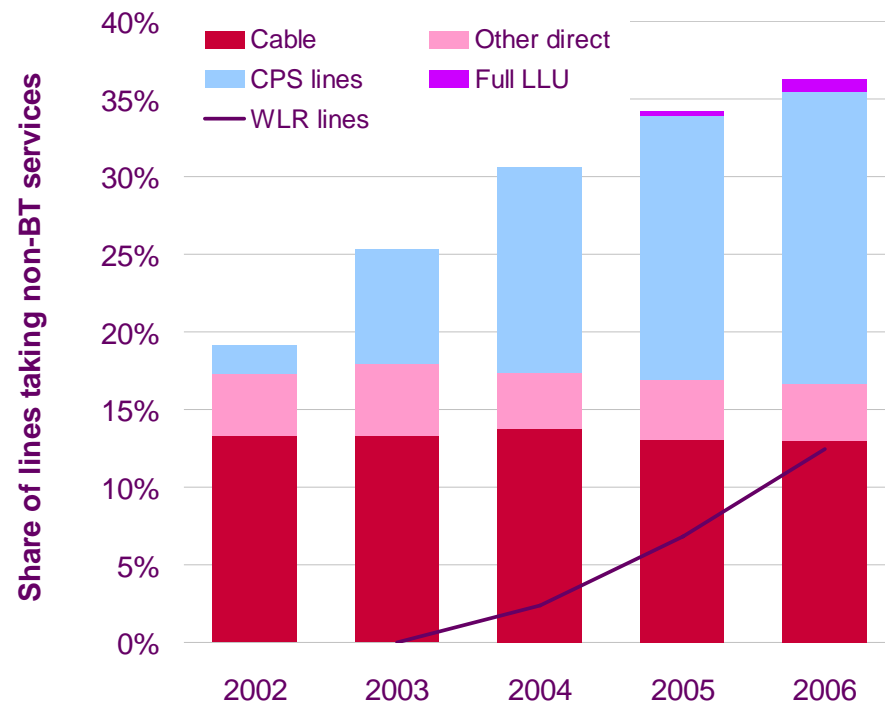
... and this continues to be the right approach for next generation access

Based on these principles, and an assessment of the options for competition, we have outlined two approaches



## Ofcom remains committed to the provision of existing regulatory products that have delivered competition

### Today's regulatory products have led to substantial competition



- Today's operators invested with expectations that regulated wholesale products would remain available for an appropriate period. It is essential to honour these expectations
- At the same time, we cannot live in a time-warp. One day we may need a fair and transparent process for transition. But we are some way away from that
- It is not appropriate to protect against market risks

## Questions and answers

# Next generation access

## The case for direct intervention

Dougal Scott, Director of Strategy  
1 October 2007

## There is enormous excitement and discussion on the benefits that next generation access may bring

### Consumers

Opportunities to communicate, educate, inform and entertain with new and exciting rich media

### Citizens

Opportunities to create, contribute and participate in online communities and a networked society in new and innovative ways

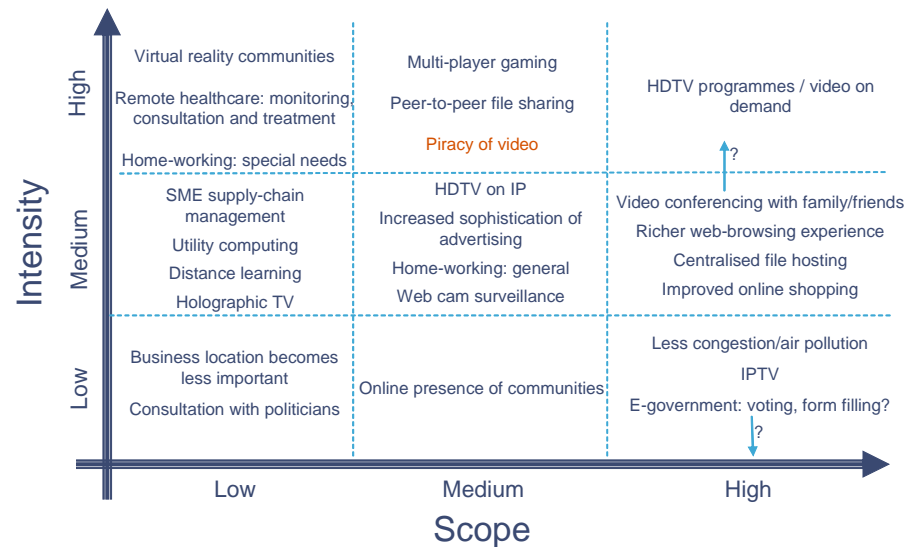
### Economy

Contributions to productivity and competitiveness for small and large businesses and individuals

## While potential for benefits from NGA may be great, the evidence required to support intervention is substantial

- Widely available higher broadband speeds could have profound effects for citizens, consumers and the economy
- However, they will be expensive. To justify any public intervention in this area would require significant evidence in support
- We are yet to see this evidence emerge, even when considering the potential applications supported

### Incremental impacts from high speed broadband remain uncertain



## There are options for regulation to seek accelerated investment, but each has specific drawbacks

Allow higher prices for new services	Allow higher prices for today's services over NGA	Allow higher prices for all services on all networks	Manage prices / margins of current and next generation services	Mandated investment plans (utility style)
Allows network owner greater pricing freedom	Spreads cost of deployment across more customers	Increases further the base of customers paying for upgrades	Regulatory policy could be used to indicate preferred outcome	Clear indication of investment requirements
<ul style="list-style-type: none"> <li>• Demand side risk remains</li> <li>• Price elastic new services?</li> </ul>	<ul style="list-style-type: none"> <li>• Risks investment too early</li> <li>• Many customers cover new network cost even if not consuming services</li> </ul>	<ul style="list-style-type: none"> <li>• Risks investment too early</li> <li>• Risks higher communication service prices – an issue for more vulnerable groups</li> </ul>	<ul style="list-style-type: none"> <li>• Demand side risk remains</li> <li>• Likely to skew investment decisions</li> <li>• May result in inefficient balance of technologies used</li> </ul>	<ul style="list-style-type: none"> <li>• Seeks investment, and not consumer benefit, as an outcome</li> <li>• Regulator unlikely to know most efficient investment</li> </ul>

## There's an important role for public intervention to fill in gaps left by the market – at a later stage

- Wide-scale public policy intervention risks distorting incentives for efficient market led investment
- As in today's broadband, there will be a role for public intervention to fill in the gaps left by the market
- But addressing a prospective digital divide in advance of deployment is risky – we don't know where the gaps will be
- At this stage, we need the market to lead on these investments

*“Government needs to take care not to preempt the market or to distort competition. But, if a government believes that gains from deployment of advanced networks are certain and that current services are inadequate, it can step in”*

[Viviane Reding, 14 May 2007]

*“Some might argue that, if Government believes next generation broadband is so important, why don't we pay for it? We shan't be going down that road. It would ... run the risk of deterring private sector investment – duplicating investment that would have been made by the market, or undermining existing investment. The market must take the lead.”*

[Stephen Timms, 18 September 2007]

# Next generation access

## Ebbsfleet and new build fibre

Clive Carter, Principal  
1 October 2007

## Ebbsfleet is an exciting opportunity to trial these new technologies and develop end customer services

- BT's pilot of GPON technology in Ebbsfleet is an opportunity to experiment with new technologies and business models
- Ofcom welcomes it and encourages CPs to take part...
- ...and Openreach to work closely with CPs to define the technologies and business models to be trialled



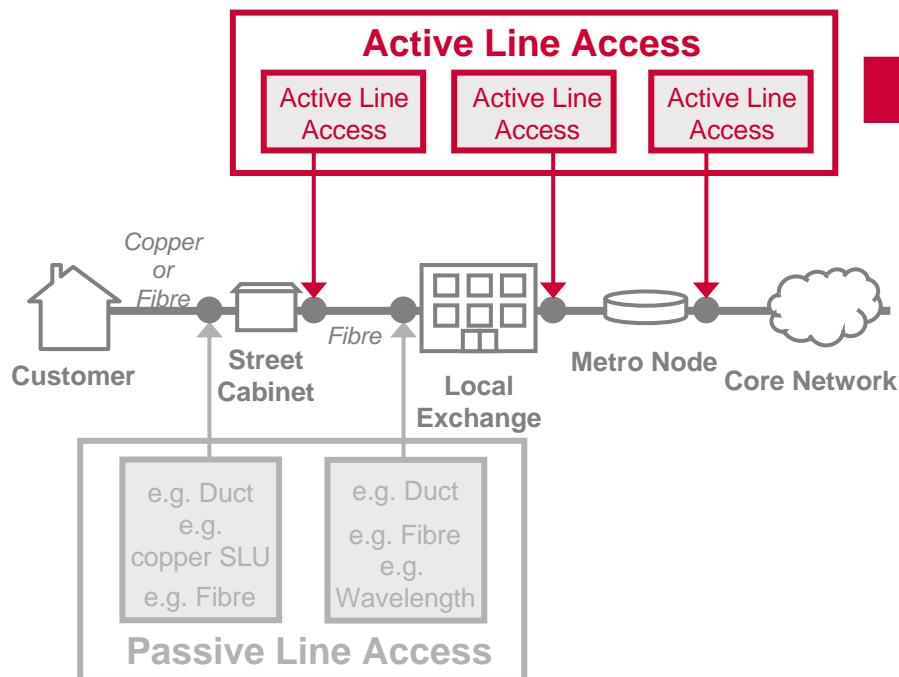
## The developments in Ebbsfleet pose a number of specific regulatory and consumer challenges

- The Ebbsfleet development raises a number of specific regulatory questions, including
  - The General Conditions of Entitlement
  - Universal Service Obligation
  - Wholesale local access and the local loop unbundling remedy
  - Fixed narrowband markets, including indirect access, carrier pre-select and wholesale line rental remedies
- The proposed regulatory approach to Ebbsfleet is detailed in the consultation:
  - this is an interim position only applied to this pilot – it sets no precedents for future regulation
  - there are additional considerations beyond regulation, including the managing the consumer experience

## The development of a high quality Active Line Access product is fundamental to delivering competition

### What would a good outcome be?

A high quality, highly configurable product that gave those relying on it the maximum possible control over the potential for innovation from the underlying network



### Example characteristics of an active line access product

- Flexible aggregation at different points in the network
- Quality of service enabling
- Security enabling
- Multi-cast enabling
- Flexible end user device interface

## We intend to consult on issues posed by wider new build fibre deployments towards the end of this year

### Active Line Access products

- Ofcom seeks to engage with industry to promote consensus on the specification for active line access
- We are planning a number of events in the future – held seminar as part of Carrier Ethernet World Congress
- This work will include input into the needs and design of Openreach's Generic Ethernet Access product

### New build fibre consultation

This consultation will cover the issues raised by the existing regulatory framework and options passive line access including duct access

## Questions and answers