



Department  
for Culture  
Media & Sport

**SUPERFAST  
BRITAIN**

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# Extending Superfast Broadband



## Supplier Engagement

OCTOBER 2013

investing  
in **your** future

European Regional Development Fund

European Union



# Version control

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This presentation has been prepared following the issue of the Prior Information Notice (PIN) with the title “Broadband Delivery In-Fill Consultation” and should be read in conjunction with the PIN. This presentation does not constitute any commitment by DCMS or any local authority to initiate any formal procurement.

The information contained in this presentation is subject to change.

## Presentation details

- Version 1-3: Published
- 7<sup>th</sup> October 2013

# Introductions, agenda, objectives and funding

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Chair

# Agenda

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Time	Activity	
11:00	Welcome, introductions and objectives for the day	Chair
11:15	Approaches and scenarios under consideration	Stephen Frith
11:45	Background and context:	
	<ul style="list-style-type: none"><li>• Describing the challenge</li></ul>	Stephen Frith
	<ul style="list-style-type: none"><li>• Potential approaches</li></ul>	Stephen Frith
	<ul style="list-style-type: none"><li>• Modelled and local outcomes</li></ul>	Mary James
	<ul style="list-style-type: none"><li>• North Yorkshire experience</li></ul>	Andy Lister & John Moore
	<ul style="list-style-type: none"><li>• State aid constraints</li></ul>	Tony Edge
13:00	Open discussion	Chair
13:50	Next steps	Chair
14:00	Close	

# Objectives of today

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- To share current thinking on how to tackle the remaining superfast broadband challenges.
- To characterise what we think the challenges will look like.
- To present the general constraints on the programme, including those relating to State aid.
- To present the high level approaches under consideration.
- To understand the capability of suppliers and their solutions including capacity to deliver.
- To understand the circumstances under which suppliers would be willing and able to take part in any subsequent activities.
- To obtain evidence to help quantify costs, risks and benefits for appraisal of available options.

# Background and context: Funding

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## June 2013 – HMT announcements:

- Investing up to £250 million, **locally match-funded**, to extend **superfast** broadband provision from current coverage plans so that 95 per cent of UK premises will have access to superfast broadband by 2017;
- Exploring with industry how to expand coverage further, using more innovative fixed, wireless and mobile broadband solutions, to reach at least 99 per cent of premises in the UK by 2018.



Funding is from April 2015  
to March 2017

[Source: Investing in Britain's future, June 2013](#)

# The current process

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## Stakeholder engagement

- Purpose
  - Present high level options.
  - Gather evidence from key stakeholder groups to contribute to an objective options appraisal.
- Key stakeholders and specific interests
  - Central government.
  - Local bodies and projects.
  - The supplier community:
    - This event and direct feedback.
    - Questionnaire.

# Approaches and Scenarios

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Stephen Frith





# Describing the challenge

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**The scope of this programme of work is to target the group of premises which will not be able to receive Superfast Broadband services (defined as over 24Mbps) as a result of the commercial broadband deployments and on completion of the current BDUK intervention projects.**

# Describing the challenge

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The challenge is what is left after current activity is finished:

- Commercial deployments:
  - Capable of delivering superfast services.
  - BDUK activity is based on responses to periodic Open Market Reviews (OMRs) of commercial activity from ALL providers.
  - Commercial deployments are on-going.
- BDUK Urban activity:
  - Voucher schemes to stimulate demand in 22 super-connected cities.
- BDUK Rural activity:
  - Call-offs from the Broadband Delivery Framework
  - Individual OJEU procurements run by devolved administrations and local bodies
- Local community schemes

# High level delivery approaches

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## Approach 1 – New central procurement(s)

- Run a new central procurement or procurements inviting suppliers to bid to cover as much as possible of the remaining premises.
- Several procurement routes and commercial configurations are possible.

## Approach 2 – Multiple procurements at a ‘more local’ level

- Facilitate and aid multiple smaller procurements inviting suppliers to bid to cover as much as possible of the remaining premises in a given area.
- Size could vary: Regional, local or both; not UK wide and more than one.
- Several procurement routes and commercial configurations are possible.

## Approach 3 – Extend current arrangements

- Increase coverage through existing contracts.
- New call off activity.

# Flexing the approaches: Scenario A

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## Central procurement emphasis:

- Majority of requirement aggregated centrally.
- New central competition(s).
- Additional local procurement activity.
- Local extensions to current arrangements.

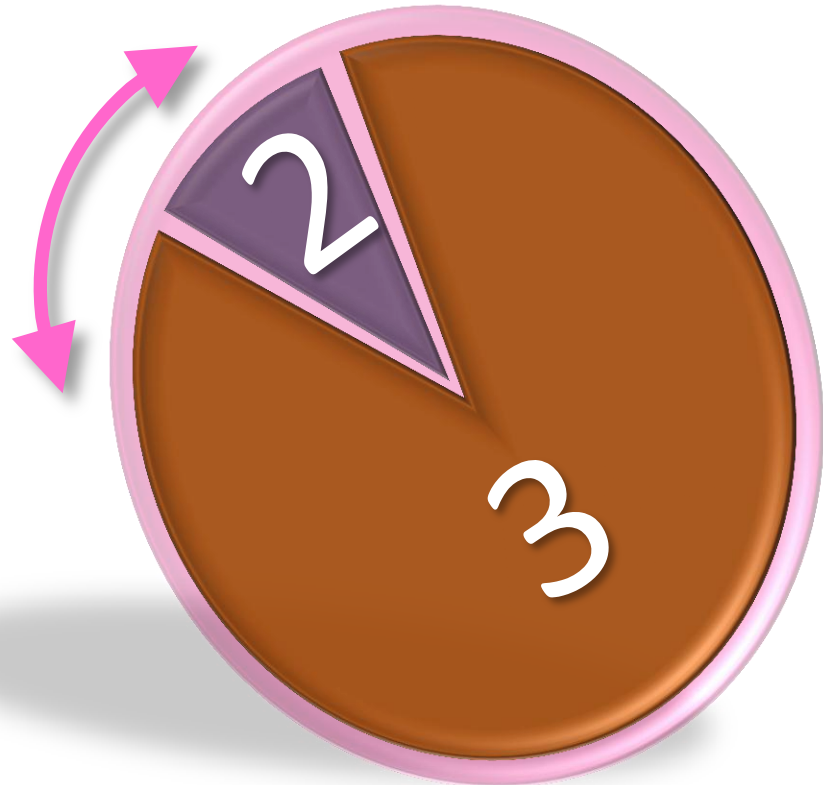


# Flexing the approaches: Scenario B

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Emphasis on extending current arrangements:

- Maximise existing commercial arrangements.
- Additional local procurement activity.
- No new central procurement.

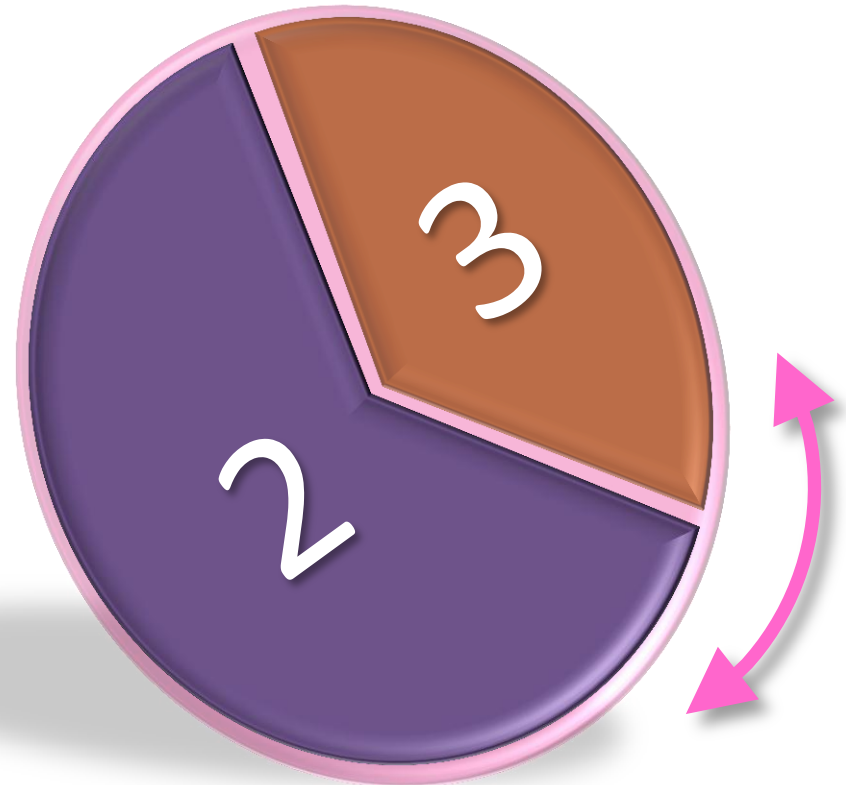


# Flexing the approaches: Scenario C

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## Local balancing:

- Extend current arrangements.
- Local procurements, standardised as appropriate.
- Potentially aggregated to regional level to offer larger opportunities.
- Local bodies identify appropriate mix of approach.



# Evaluation of approaches and timing of information

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# Timing of the approaches

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- £250m available from financial year 2015/6 to 2016/17.
- Current state aid decisions expires June 2015
- Project outcomes (and hence no build areas) not fully known until 2015/16

Timing and next steps depend on chosen approaches:

- Approach 1 would require some time to set up and run a significant procurement (12-18 months) and so would need to commence soon.
- Approach 2 is already happening but is not coordinated (and hence market opportunity is fragmented).
- Approach 3 can commence now. Framework expires June 2014 unless extended.

Approaches are not completely mutually exclusive:

They are combined by both circumstance and strategic choice into various scenarios.



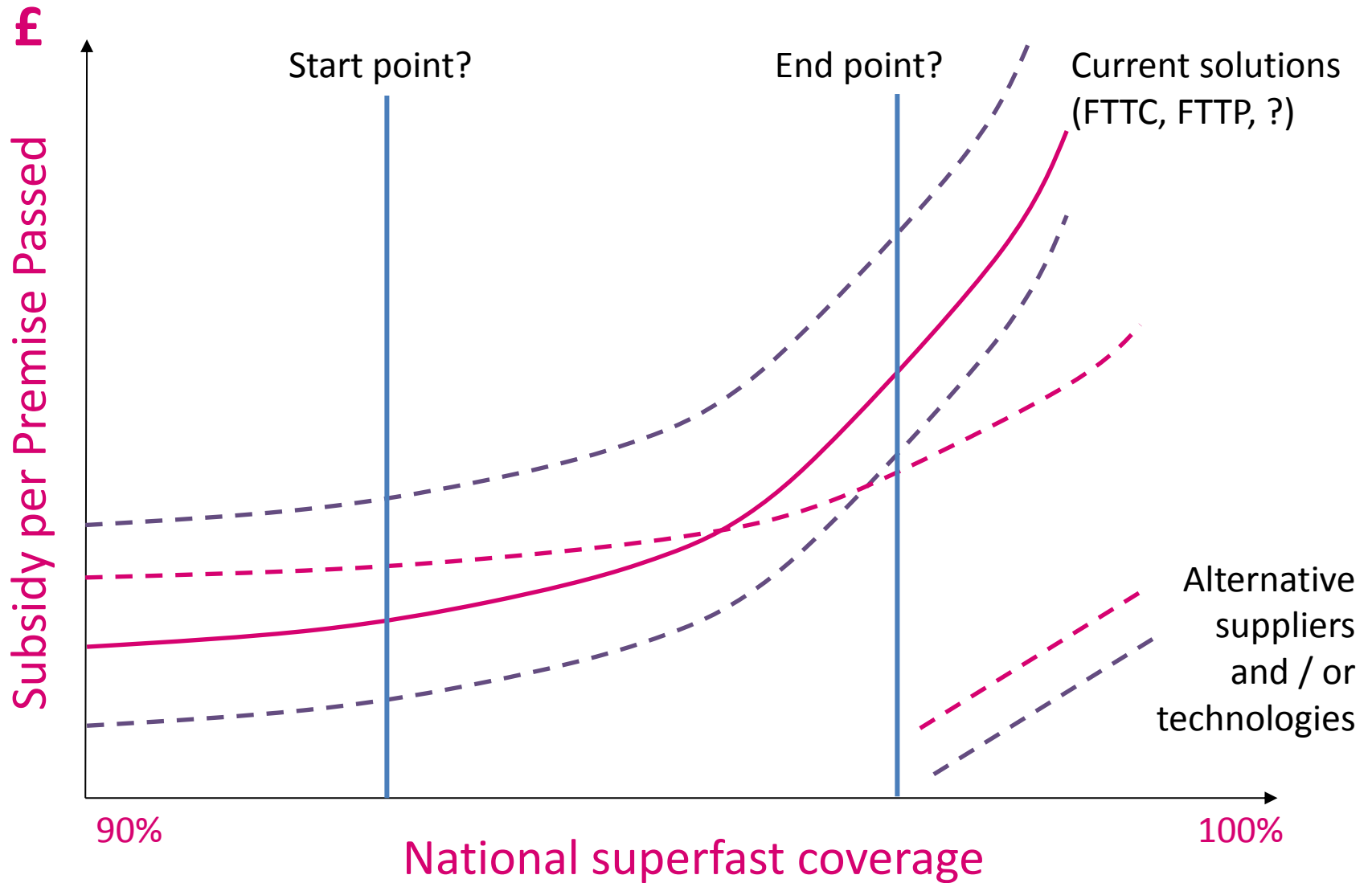
# Example evaluation framework

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Strategic assessment at this stage, likely to include:

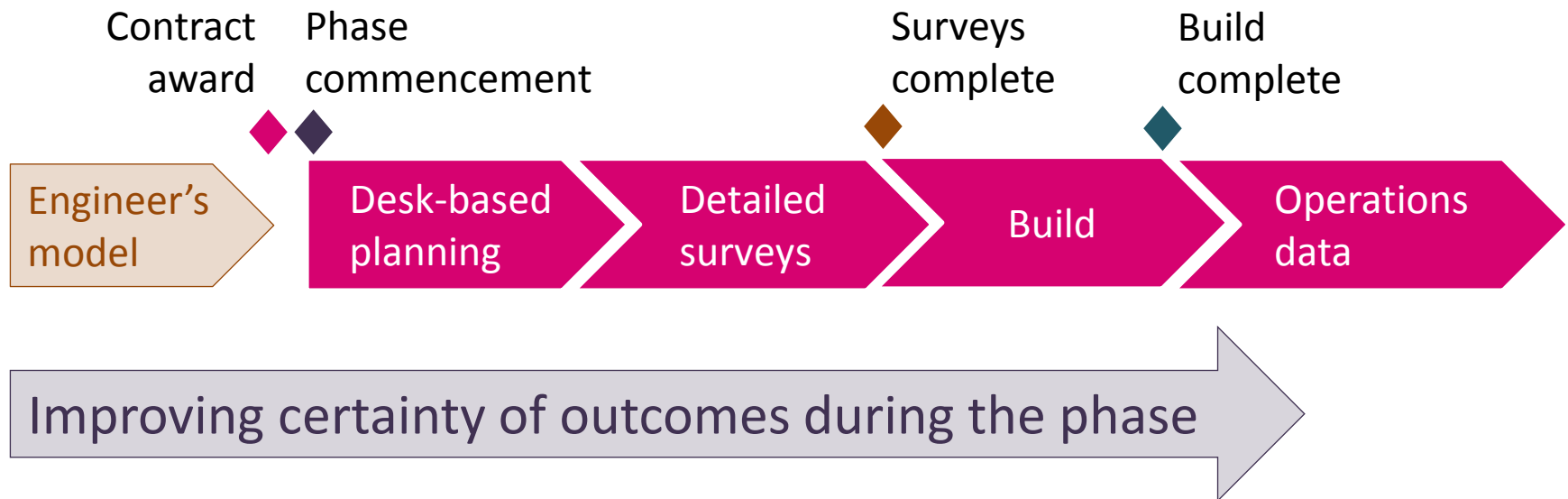
1. Market capability / capacity / willingness to deliver.
2. Level of effective competition in the marketplace.
3. Outcomes in terms of speed coverage, quality, consumer choice, consumer pricing.
4. Integration with the existing route.
5. Risk to achieving targets within timescales.
6. Commercial sustainability.
7. Affordability to government and local bodies recognising funding constraints.
8. Alignment with devolved administration and local body objectives
9. Acceptability of risk allocation between public and private sector.
10. Compatibility with state aid, regulatory, procurement and legal frameworks.
11. Admin overhead costs and efficiency of delivery.

# Evaluating delivery approaches

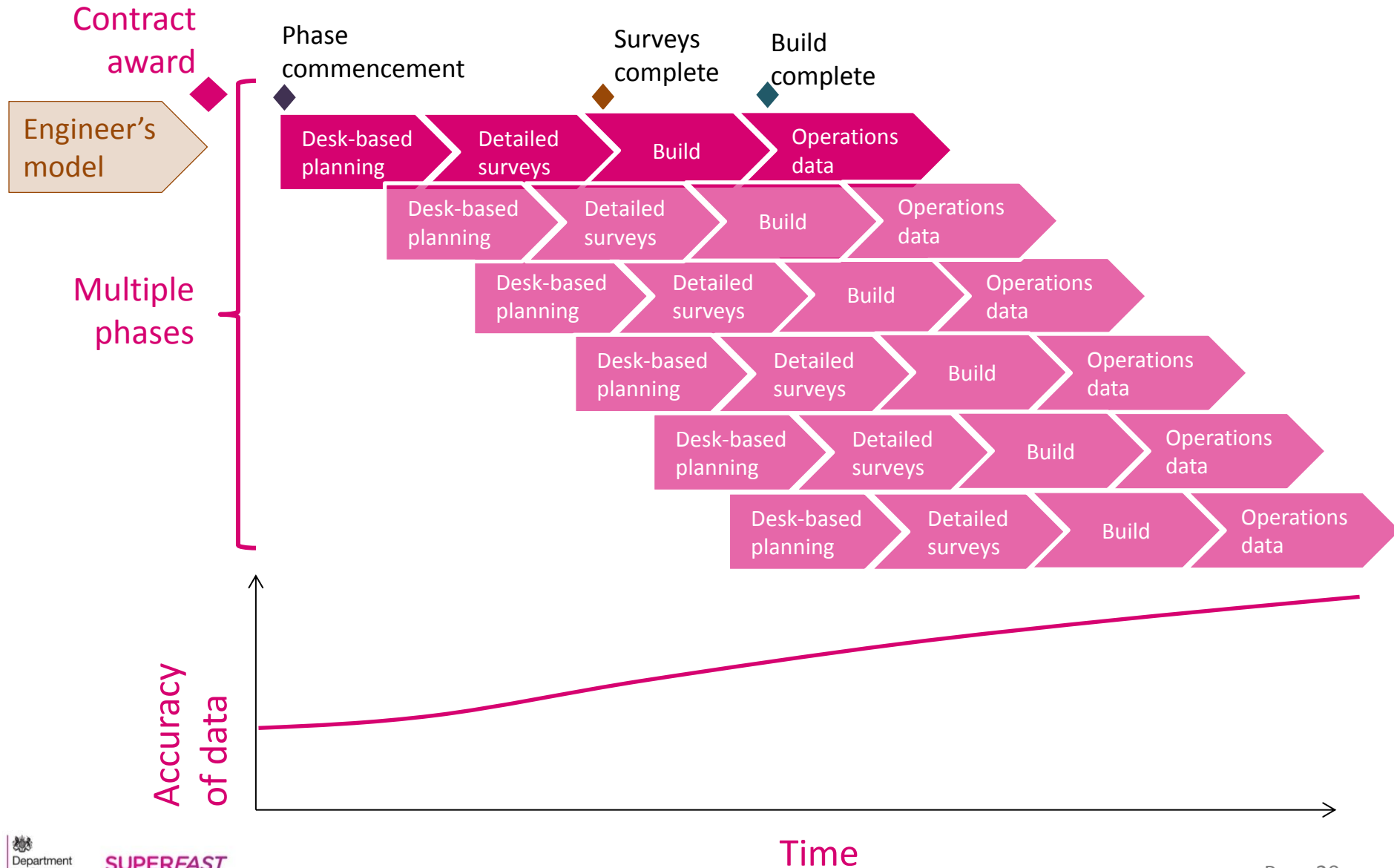


# Certainty in coverage and location increases over time

- Availability of robust information to underpin procurement activity is recognised
- Timing and fitness for purpose is key
- Much of the local project activity is now getting underway and planning information is moving to deployment information
- Currently, most local projects are built up of phases



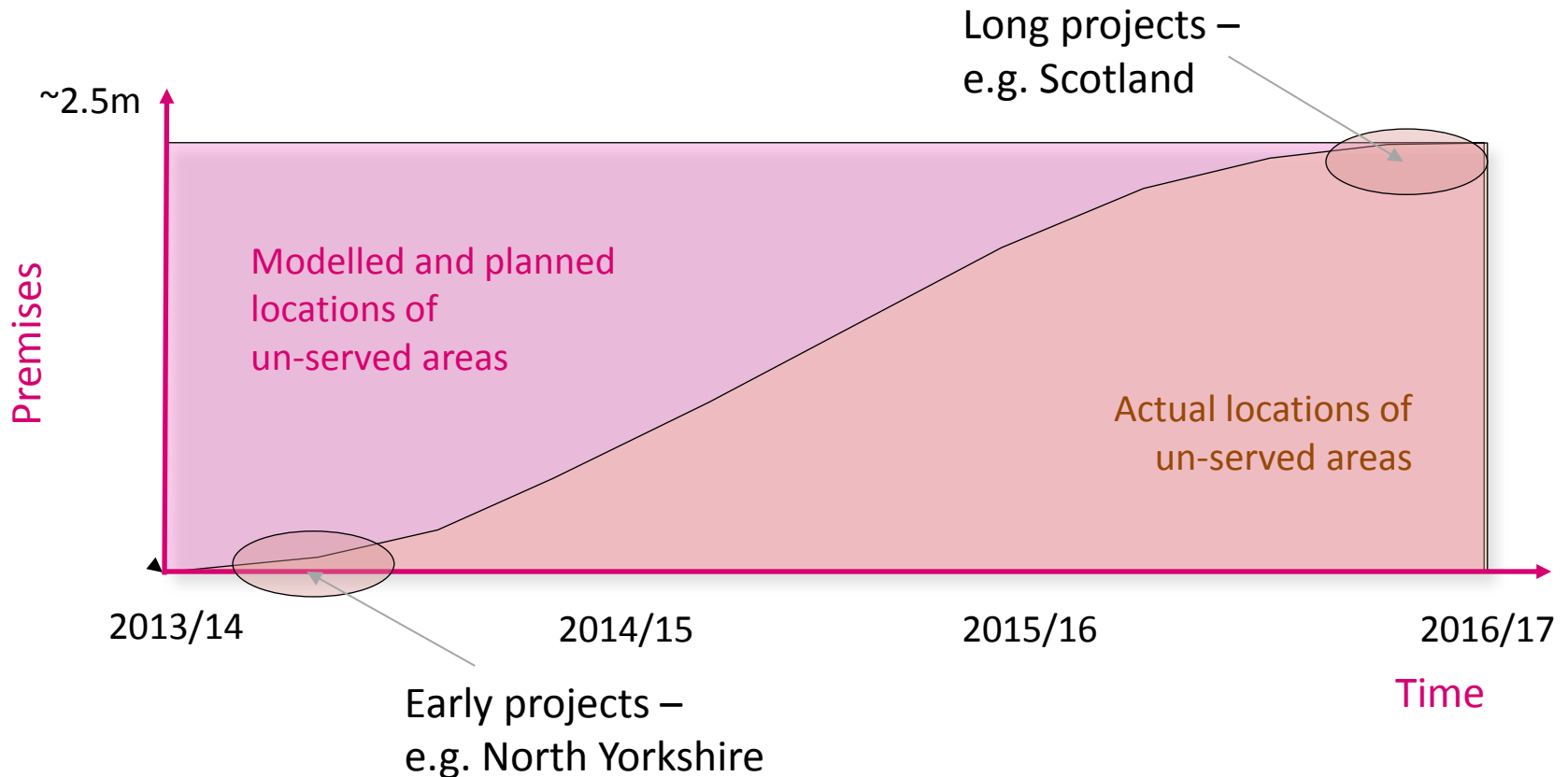
# Data completeness: Local project level



# Data completeness: Programme level

## Location accuracy increases over time

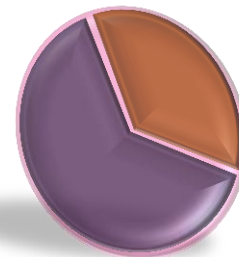
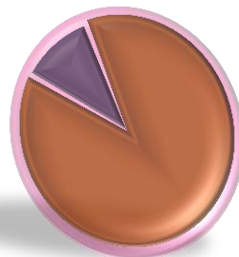
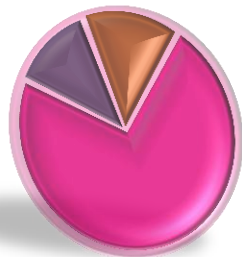
- Projects may have up to 10 phases
- 42 projects are now underway



# Summary so far

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- Objectives:
  - To present the high level approaches under consideration.
  - To obtain evidence to help quantify costs, risks and benefits for appraisal of available options.
- Other stakeholders are also being consulted including local bodies and devolved administrations.
- 3 distinct scenarios under consideration:
  - New central procurement(s)
  - Extend existing arrangements
  - Blend of local procurement activity and extending existing arrangements



# Background and context: Modelled and local outcomes

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Mary James

# Characterising the un-served areas

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## BDUK modelling

- Used to predict where current activities are likely to go
- Tracks real information as it becomes available
- Estimates the potential download speed delivered under different technologies
- Estimates the cost for reaching the remaining premises

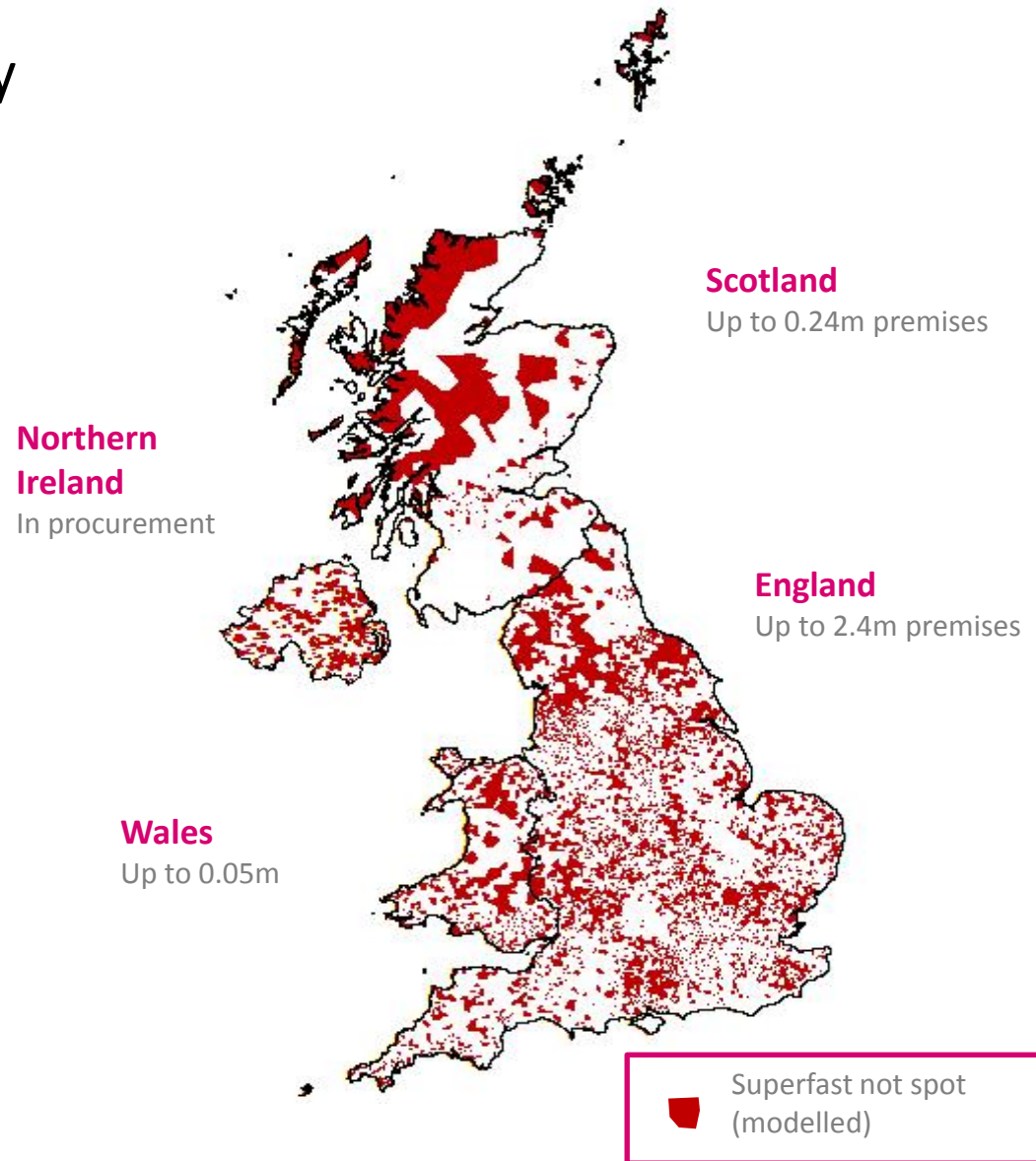
## How many do not have superfast and why

- There are no 'typical' features of an un-served area
- Different reasons for not having superfast
- In some areas the challenge will be significantly smaller than 10% of the premises; in others it will be larger
- Superfast not-spots will exist across urban, suburban and rural areas



# Superfast Coverage (24Mbps) – UK Illustration

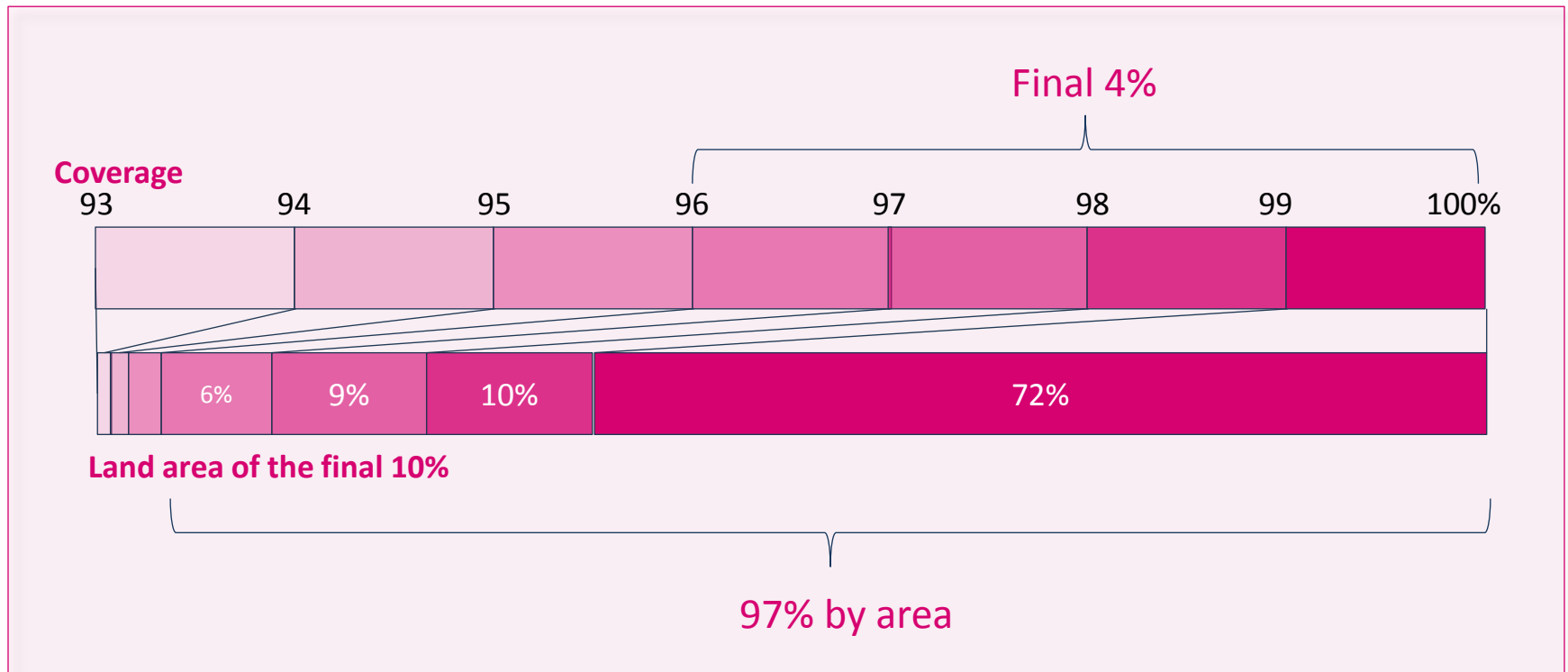
- For illustrative purposes only
- Actual location of delivered services will be different
- Preliminary estimate based on BDUK modelling:
  - line length modelling
  - cost modelling
  - Based on information provided by cable and FTTC suppliers.



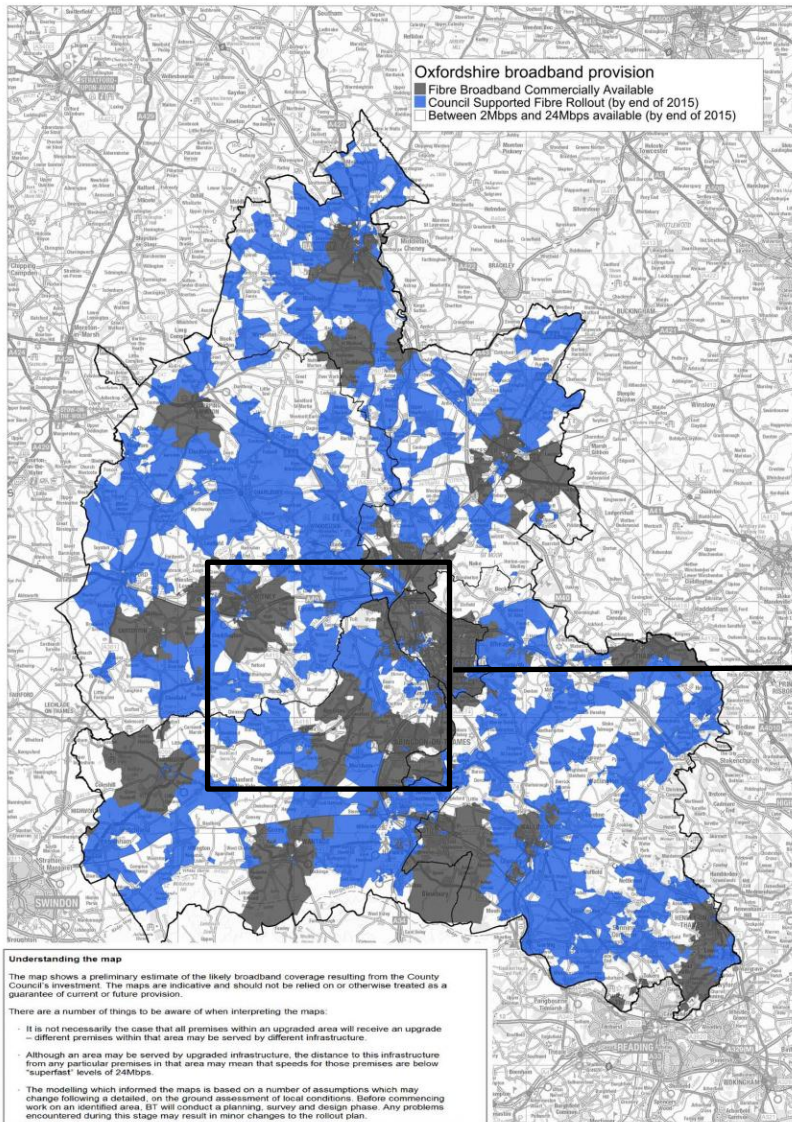
# Supplier Day October 2013 – UK illustration

## Geographic sparsity

Our model currently suggests that the final 4% of UK premises account for 97% of the combined area without access to superfast services.



# Oxfordshire broadband map



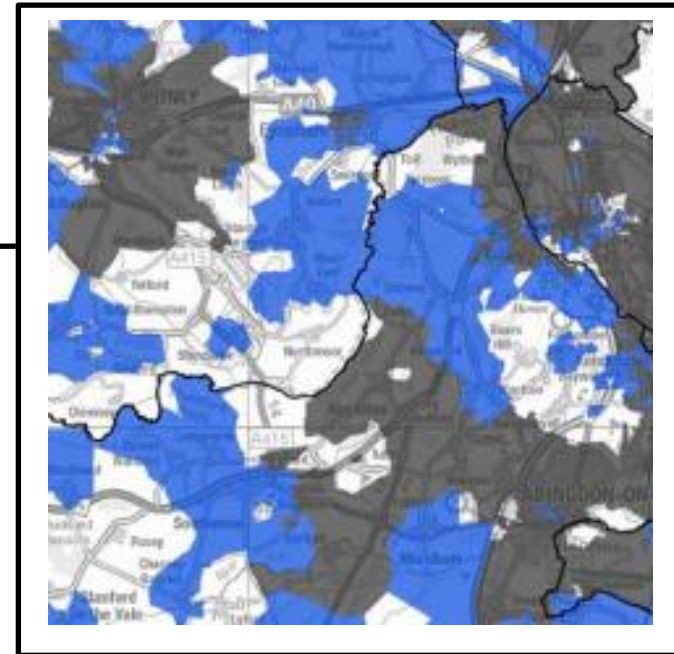
Commercial deployments



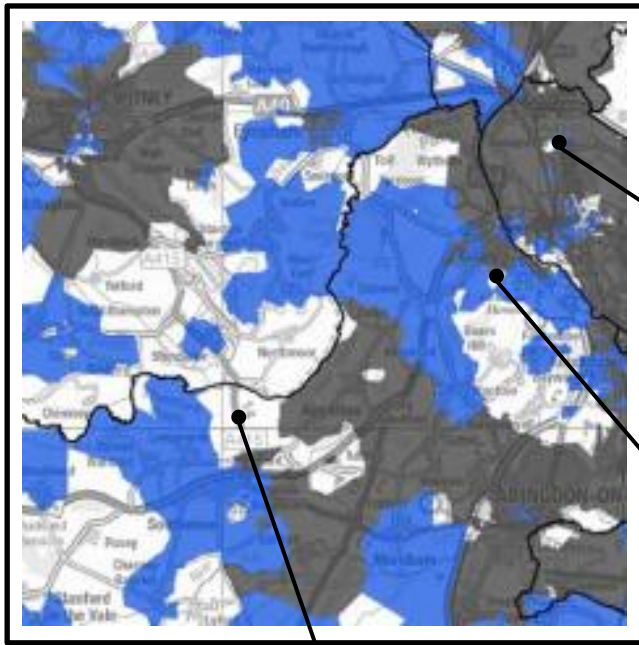
Intervention deployments



2Mbps - 24 Mbps



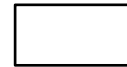
# Oxfordshire broadband map



Commercial deployments



Intervention deployments



2Mbps – 24 Mbps



<http://www.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/communityandliving/BBmap.png>

# Background and context: What is happening in North Yorkshire

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Andy Lister

John Moore



# Superfast North Yorkshire

46% coverage of NGA (>25/5) in North Yorkshire without intervention

Competitive Dialogue that was competitive

“Coverage was King” in terms of evaluation

SFNY contract signed 17 July 2012

FTTC and FTTP, significant impact of FTTC EO Cabinets

## Superfast North Yorkshire

There are 379,757 premises in North Yorkshire

61% of NY premises have NGA (>25/5) as of today

91% coverage of the Intervention Area (176,610 premises) by June 2015

93% coverage (352,912 premises) of NGA in North Yorkshire by June 2015

## The Challenge for Superfast North Yorkshire

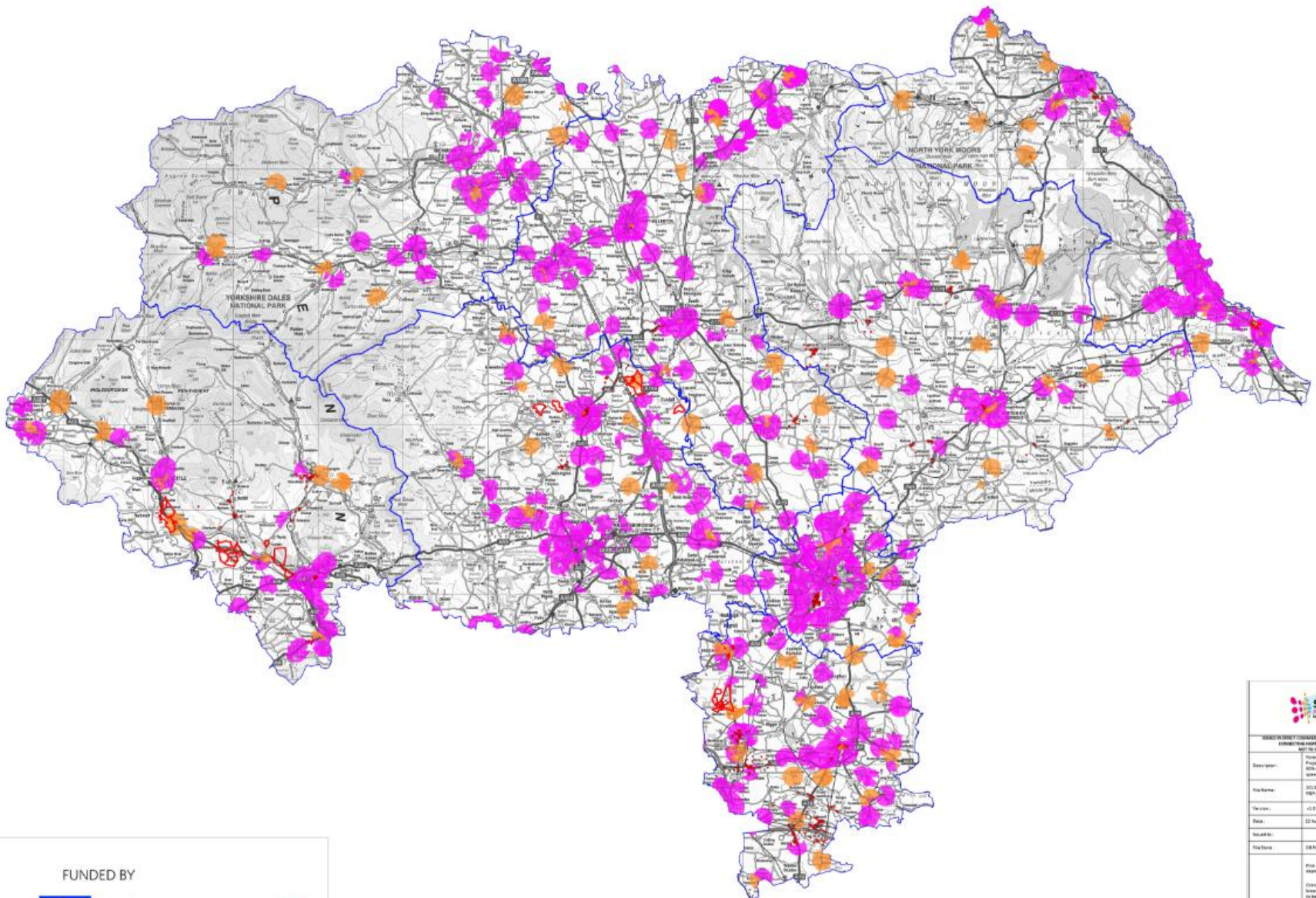
18,122 premises at less than NGA in IA

Of these 18,122 premises:

- 10,000 premises less than 2Mbs
- 6,000 premises on EO lines

Policy objective of 99% NGA by 2017





**SUPERFAST**  
**WEST YORKSHIRE**

WEST YORKSHIRE COMMERCIAL TRADING SUPERFAST 30+ Mbps broadband service rollout coverage map for the development of broadband

Description:	Project description: West Yorkshire Broadband Programme
File Name:	2019-08-27 West Yorkshire County Council Superfast 30+ Mbps coverage map
Version:	1.0.0
Date:	22 Aug 2019
Issued to:	08 Project and IT Implementation
File Size:	104.5 KB

● First installation planned or approved but not yet installed  
● Change in speed or provision to be confirmed in discussion  
● Not yet installed

○ District boundaries  
○ Non-urban areas  
○ Postcodes from postcodes  
○ Postcodes from postcodes

Availability is subject to the technology available and local services provider availability.

FUNDED BY



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# Issues that keep us awake at night

Technical and operational capability of operators (OSS/BSS/Billing/installation) in very rural areas (which are not flat....)

Commercial sustainability of operators

Attracting service providers, little evidence that mass market ISPs will use alternative operators

FWA – availability of mast infrastructure, power and backhaul

## And we are still awake:



Public reticence about alternative operators

Value for money, does 30Mbs set the bar too high?

100% coverage from any solution – no cherry picking

# Background and context: State Aid Requirements

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Tony Edge



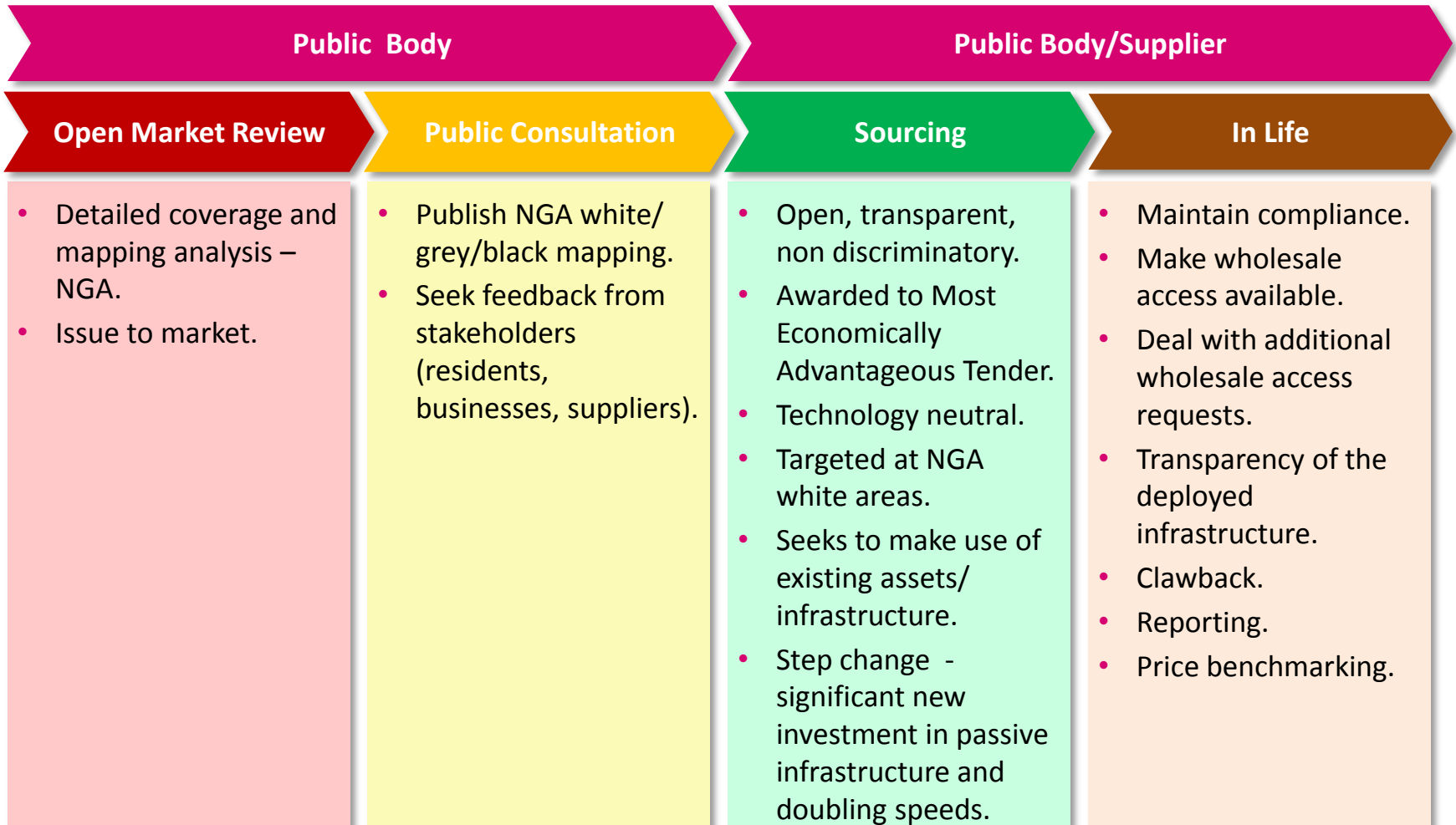
# State Aid - Overview

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- State aid refers to any form of assistance from a public body which has the potential to distort competition and affect trade between members of the European Commission (EU).
- The EU monitors and controls State aid as member states are obliged to notify and seek approval from the Commission before granting State aid.
- The specific State aid rules for the rapid deployment of broadband networks is referenced on the [Commission's website](#).
- The approved National Broadband Scheme for the UK can be referenced on [BDUK's website](#).

# State Aid - Lifecycle

Public Bodies and Suppliers must follow the steps below in order to meet the conditions of the National Broadband Scheme:



# Compatibility with National Broadband Scheme State Aid Decision

## Step Change – BDUK NGA Technology Guidelines Requirement

Demonstrate sustainability

Min 30 Mbps capability

Double access speed

Wholesale access

15Mbps 90% of time<sup>1</sup>

Future proofing

Future capacity

- Any solution must deliver a 'step change' in network capability and service availability and consistently provide a high quality experience to end users.
- Where FWA networks are deployed, there shall be a commitment to upgrade to fibre components at a later stage if it becomes economically viable.

# Minimum wholesale access requirements

Technology	Minimum acceptable access	Recommended additional/ alternative access
<b>Fibre to the home or building (FTTH/FTTB)</b>	<p>One point of physical access: i.e. either duct access or dark fibre on new subsidised infrastructure.</p> <ul style="list-style-type: none"> <li>• One point of active access:               <ul style="list-style-type: none"> <li>– In case of deployment of a point to point network infrastructure full physical unbundling.</li> <li>– In case of deployment of a point to multipoint infrastructure VULA Equivalent.</li> </ul> </li> <li>• Other wholesale access if mandated by Ofcom as a regulatory remedy.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple points of physical access, e.g. both duct access and dark fibre.</li> <li>• Splitter access.</li> <li>• White label.</li> </ul>
<b>Fibre to the cabinet/node (FTTC/N)</b>	<p>One point of physical access: i.e. either duct access or dark fibre on new subsidised infrastructure.</p> <ul style="list-style-type: none"> <li>• One point of active access: i.e. VULA Equivalent.</li> <li>• Other wholesale access if mandated by Ofcom as a regulatory remedy.</li> <li>• SLU if sub loop deployed as part of subsidised project.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple points of physical access, e.g. both duct access and dark fibre.</li> <li>• Cabinet space and power.</li> <li>• White label.</li> </ul>



# Minimum wholesale access requirements

Technology	Minimum acceptable access	Recommended additional/ alternative access
<b>Power line</b>	<ul style="list-style-type: none"> <li>No point of physical access required (physical access already provided by DNO).</li> <li>One point of active access: i.e. VULA equivalent.</li> </ul>	
<b>Wireless/mobile</b>	<ul style="list-style-type: none"> <li>Access to the backhaul network.</li> <li>Mast access.</li> <li>Either Bit-stream or White label.</li> </ul>	
<b>Satellite</b>	<ul style="list-style-type: none"> <li>Either Bit-stream or White label.</li> </ul>	
<b>Cable (DOCSIS v3.0)</b>	<ul style="list-style-type: none"> <li>One point of physical access: i.e. either duct access or dark fibre on new subsidised infrastructure.</li> <li>One point of active access: i.e. VULA equivalent.</li> </ul>	<ul style="list-style-type: none"> <li>Multiple points of physical access, e.g. both duct access and dark fibre.</li> <li>Head end space and power.</li> <li>White label.</li> </ul>
<b>New Duct and New Poles (or other passive network elements)</b>	<ul style="list-style-type: none"> <li>Wholesale open access: New ducts and poles shall supply of any type of wholesale local access and backhaul service used to supply residential and business markets.</li> </ul>	

# State Aid

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- The Commission is obliged to recover any aid that has not been properly notified and approved by the Commission.
- Where it is deemed that illegal aid has been provided this will be recovered from the beneficiary which in the case of broadband projects is the Supplier.
- BDUK Guidance on the use of the National Broadband scheme can be referenced at <https://www.gov.uk/broadband-delivery-uk#state-aid>
- For further guidance: [stateaidforbroadband@culture.gis.gov.uk](mailto:stateaidforbroadband@culture.gis.gov.uk)

# Discussion

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# Summarising the challenge

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## Dispersed and fragmented

- UK wide.
- Often small and non-contiguous.

## Not always 10%

- Forecast superfast coverage varies across local projects.
- Potentially reducing: Commercial deployment activity and Rural intervention activity is on going.

## Complex delivery

- Commercial obstacles, e.g. planning and way leaves.
- Technical and procedural problems.

## Timing of coverage

- The un-served areas become more defined as current activity progresses.

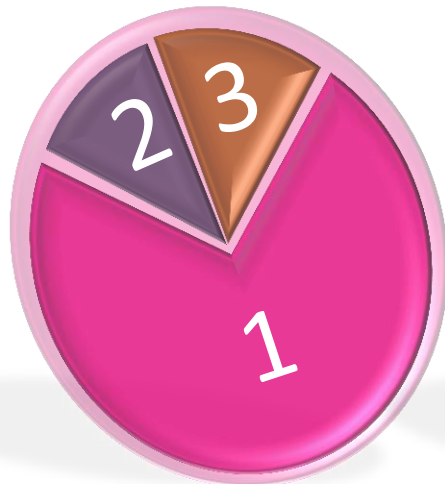
## Location not yet fixed

- Recently procured projects are in survey and planning phases.
- Location of un-served premises will become clearer.

# Delivery scenarios - reminder

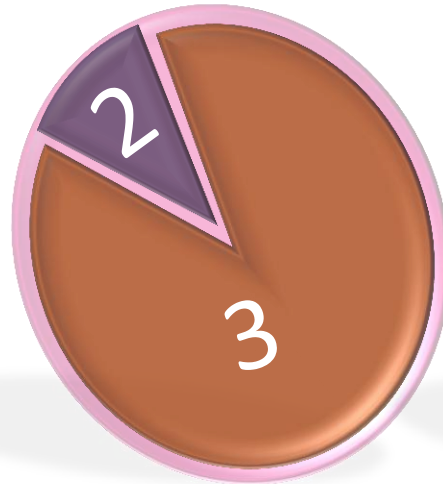
## Scenario A

Central  
procurement  
emphasis



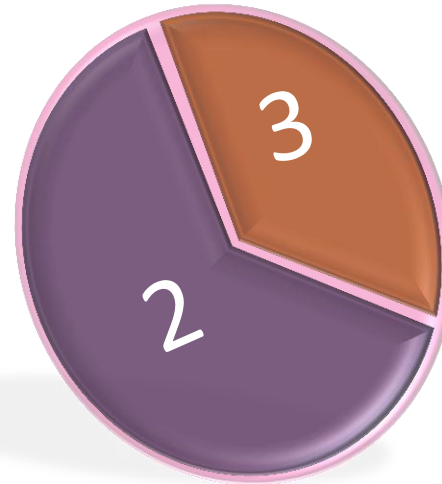
## Scenario B

Emphasis on  
extending  
current  
arrangements



## Scenario C

Local activity  
balanced against  
extending  
current  
arrangements



## Alternatives?

# Discussion topics 1

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- Questions on material presented.
- Any other delivery approaches and scenarios.
- Optimising the blend of approaches:
  - Attractiveness of central procurement.
  - Scalability of multiple non-central procurements.
  - Impact of extending framework activities.
- Pros and cons of the different delivery scenarios

# Discussion topics 2

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- What influences the attractiveness of opportunity to new suppliers:
  - Investment required from suppliers.
  - Scale of opportunity.
- What are the barriers to participation, and what is the ask of Government?
- Will other commercial models come become more appropriate as the cost of delivery rises?
- How to design any procurement process:
  - Procurement lots? Is scale everything, or does the scope and location need to be carefully targeted to maximise competition
- What will make consumers switch to a new network? What could / should Government do to attract major ISPs to new networks?
- How much will it cost to deliver?

# Next steps

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## Supplier questionnaire

- Available on line from 8<sup>th</sup> October 2013.
- Response requested by 23<sup>rd</sup> October 2013.

## Evidencing the potential propositions

- Sufficient detail requested to enable us to present feedback from this supplier engagement on an objective basis to ministers.

## Timescales

- Consolidating supplier feedback – October 2013.
- Local authority and devolved administration consultation – October 2013.
- Options appraisal – during November 2013.