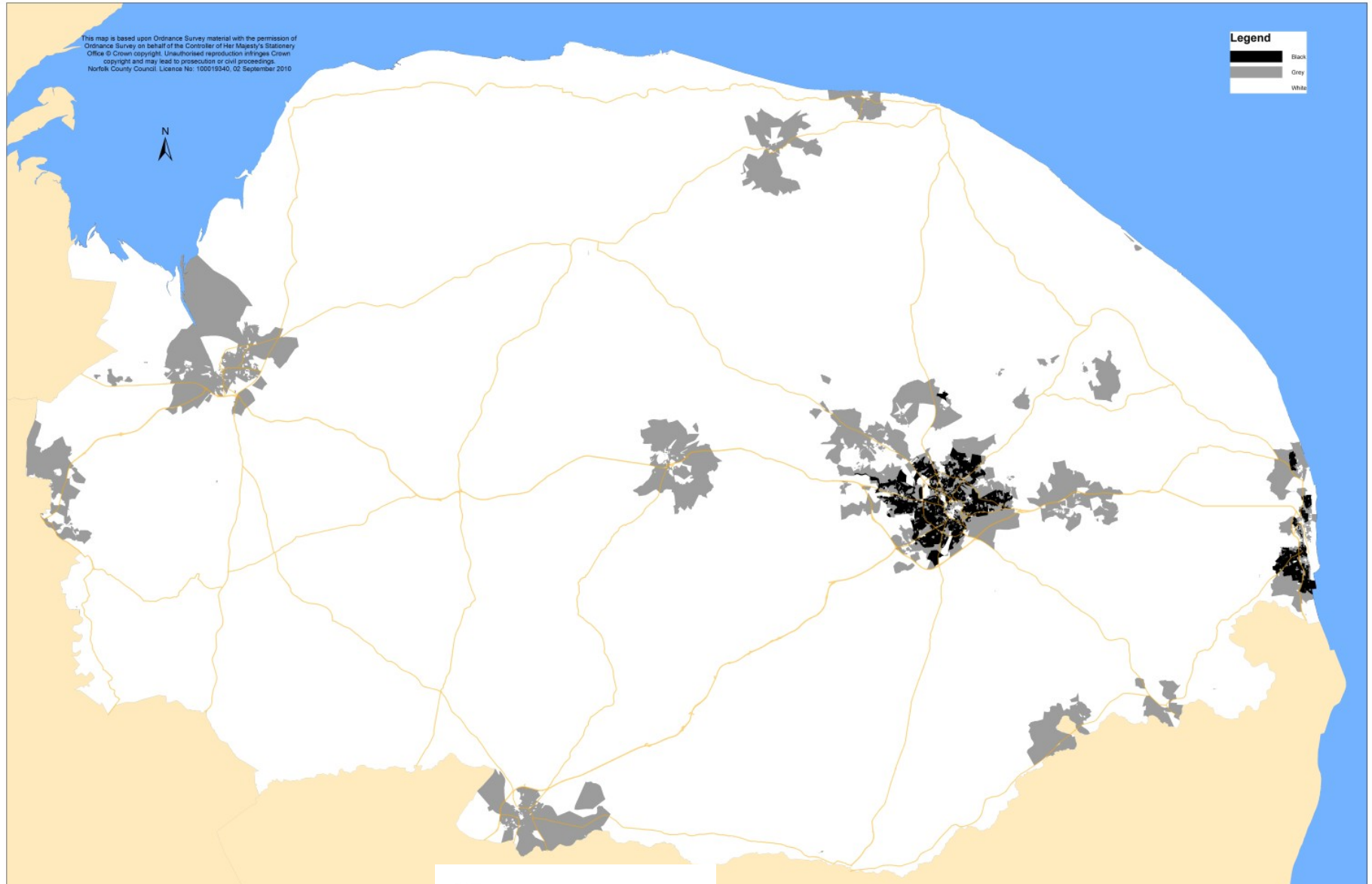


Objectives

- To achieve the maximum Superfast (24Mbps+ download speed) coverage for the available investment.
- No community prioritised over any other. The rollout is based on the cost to provide a specific fibre solution, divided by the number of properties that will benefit to provide a per property cost. Funding is allocated on this basis
- The most efficient rollout, to achieve maximum coverage for the available funding. This means rollout plans are subject to survey and timescales within the overall end date are flexible

Better Broadband for Norfolk overview - coverage



Better Broadband for Norfolk overview - funding

“Gap funding”, so public subsidy funds the cost to deploy the infrastructure, minus the expected revenue generated in the seven years following its implementation.

Better Broadband for Norfolk public sector investment will be £49 million, from:

- Broadband Delivery UK - £24.6 million
- Norfolk County Council - £16 million
- New Anglia Local Enterprise Partnership - £5 million
- Five rural District Councils - £3.6 million

BT will contribute over £15 million capital and all operating costs

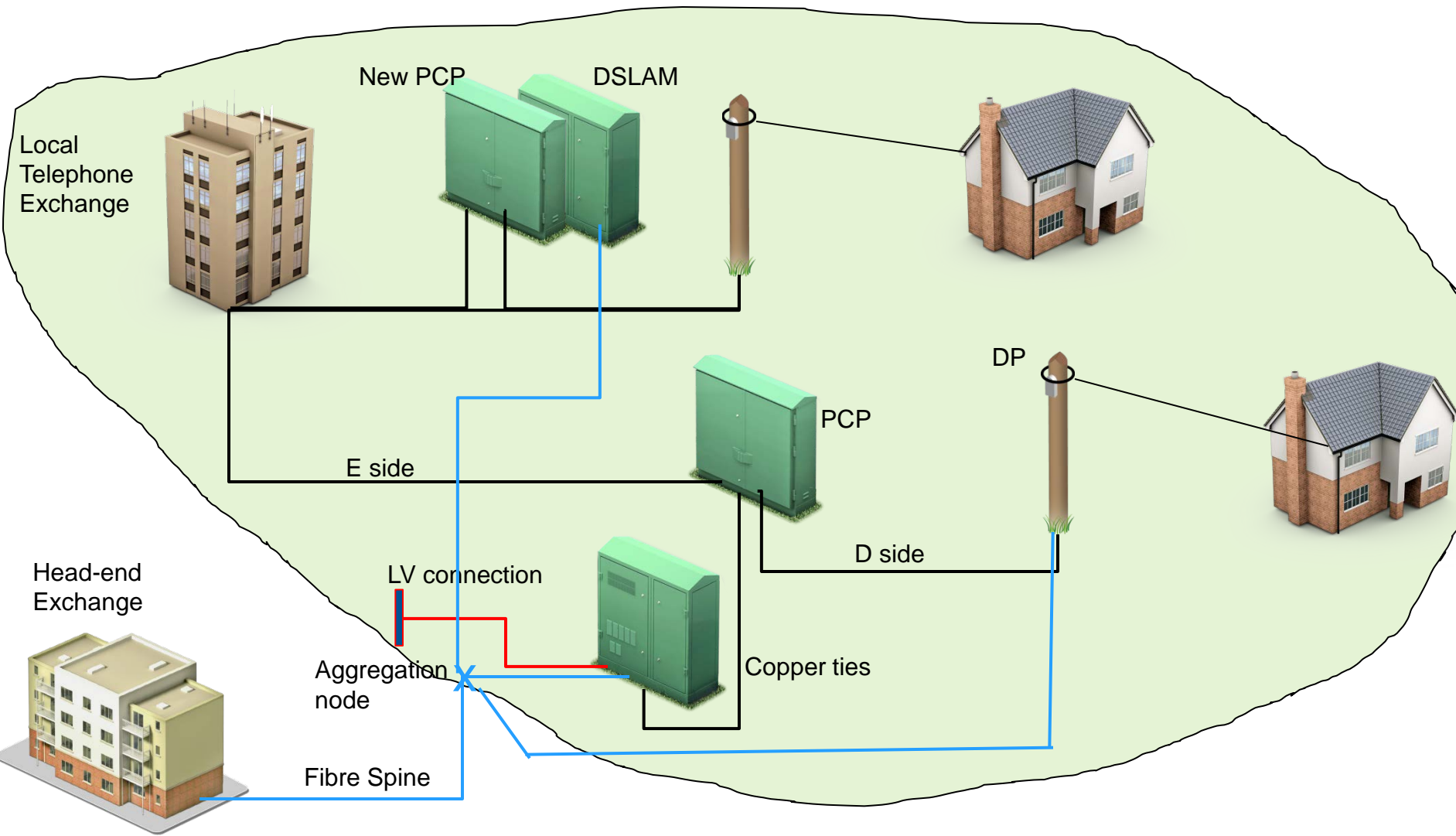
State Aid requirements when using public subsidy

Contract protections prevent over subsidy. If Take-up of services is higher than expected, a unit margin is recovered for each additional property that takes a fibre service, over the number specified in contract – to date this has provided £5.3 million

Only Next Generation Access technology can be implemented, unless properties have a speed of less than 2Mbps. Main points:

- Must provide a download speed of at least 30Mbps
- Must meet specific technical specifications
- Networks must be “Open”, available to any Internet Service Provider to use to deliver services to end users

Technology



Technology

FTTC – Fibre to the cabinet

FTTP – Fibre to the Premises

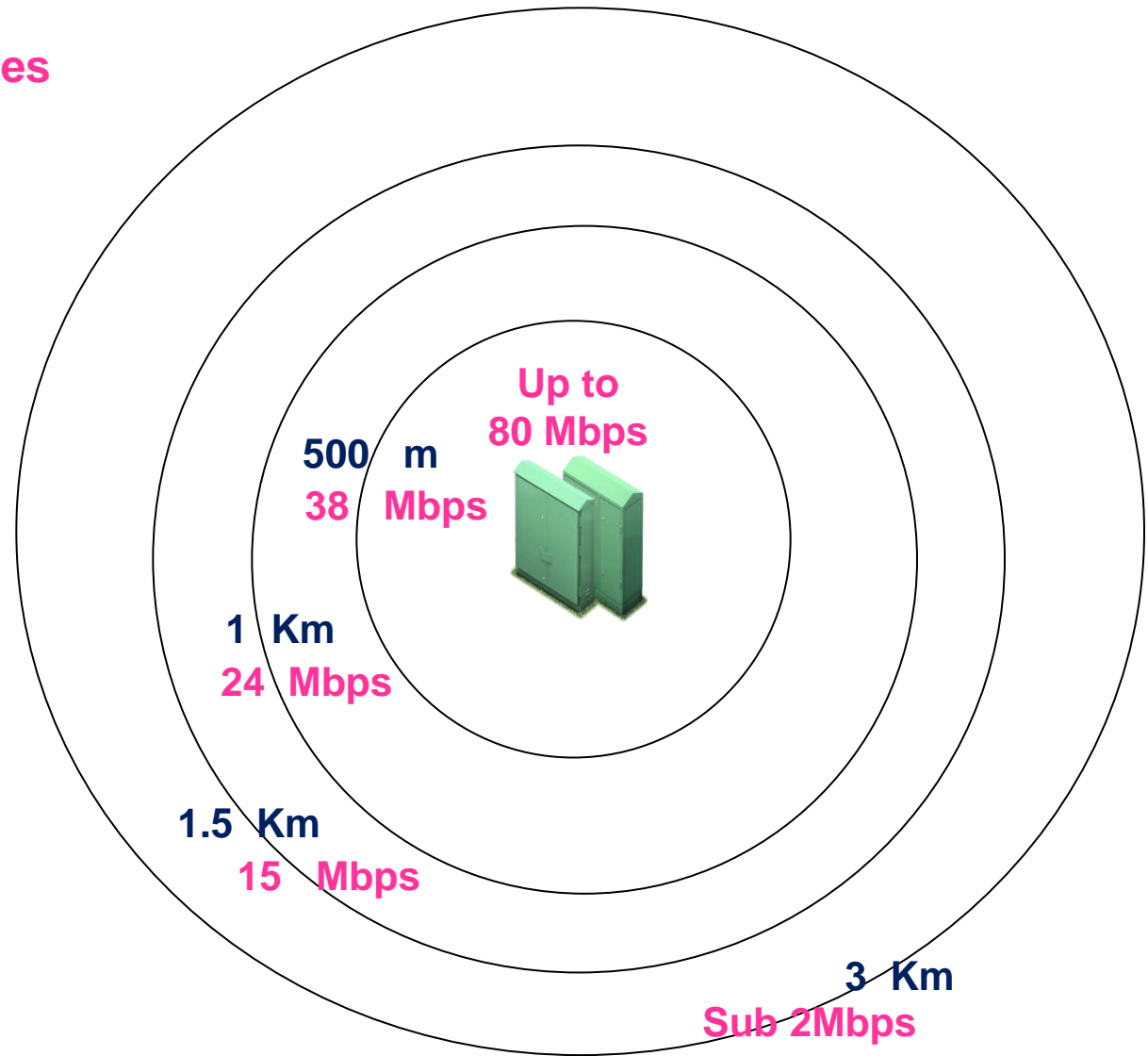
Download speed 330Mbps

Upload speed 30 Mbps

Re-parenting rules

Not between Local
Exchange Areas

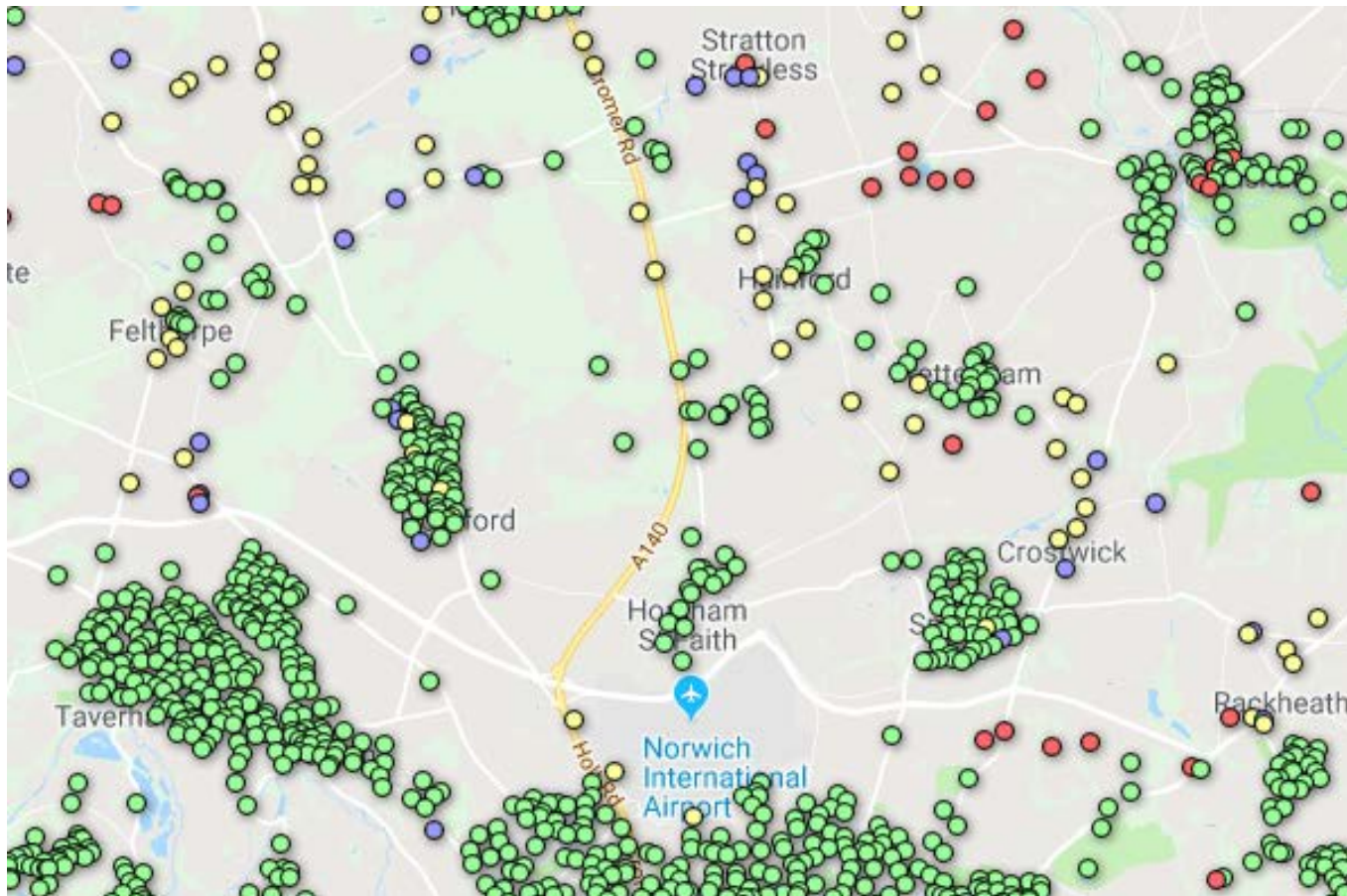
Not if overall copper line
length to Local Telephone
exchange increases,
thereby reducing “Basic”
broadband speeds



Coverage – BBfN website

www.betterbroadbandnorfolk.gov.uk

2014 State Aid consultation identified 27,000 Norfolk postcode, each is colour coded



Some or all properties have access to **15Mbps+**.
Currently no further fibre plans.
Mostly **30Mbps+**

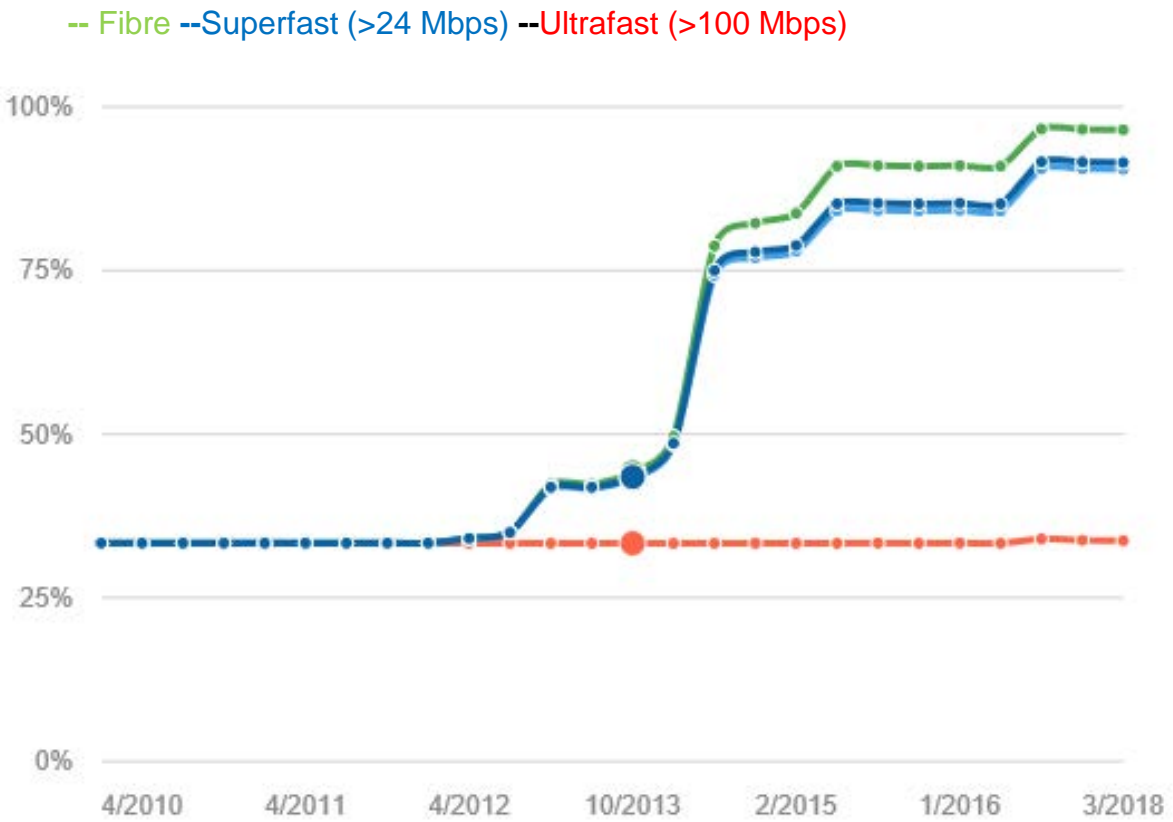
By end March 2020 BBfN plans, subject to survey, to provide **15Mbps+** for every property.

Mostly **30Mbps+**
There is a BBfN solution planned, survey will confirm whether all properties can be served

No current BBfN plans for red postcodes.
Properties will have current speeds of less than 15 Mbps

Broadland Coverage – independent information

<http://labs.thinkbroadband.com/local/broadland,E07000144>



Estimated Maximum Mean Download Speed:
129.8 Mbps

Estimated Take-up:
ADSL 38.7%
FTTC 51.3%
Cable 10%

Superfast UK (>24 Mbps):	91.49%	Below 2 Mbps down:	1.45%
Superfast EU (>30 Mbps):	90.47%	Below 10 Mbps, 1 Mbps up: (Legal USO)	6.11%
Ultrafast (>100 Mbps):	33.72%	Below 15 Mbps: (High Speed Broadband)	6.86%

Coverage – how to check

To find the structure your property is served from:

<https://www.btwholesale.com/includes/adsl/adsl.htm>

- Search using the Address Checker option, then enter your postcode, press submit and select your address from the list
- Once a fibre solution is available a “VDSL” option will be shown

To find an Internet Service Provider:

<https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/costs-and-billing/price-comparison>

Government Universal Service Obligation – draft

By end 2020

A minimum download speed of 10Mbps download / 1Mbps for upload

Download speed was chosen by Ofcom as being the level needed to meet the requirements of an “*average family*”.

Additional quality parameters with minimum standards for latency, a maximum sharing between customers (contention ratio of 50:1) and a data cap of at least 100GB per month

Most of the USO will be delivered via existing FTTC / FTTP based technologies

Fixed wireless and mobile broadband are also likely to have a role to play, although the Government has yet to decide if satellite will be a solution

Government Universal Service Obligation – draft

Proposed cost threshold of £3,400 per eligible property will apply, although it can be aggregated so that communities can work together when requesting a better connection

The current telephone USO has this cost threshold, which means if an install costs more BT can require the customer to pay the extra cost and a standard connection charge. The Government allows this to stop the deployment costs from getting out of control

The costs could be met by industry through a cost-sharing mechanism (levy on subscribers). This will be decided by Ofcom once the specification for the USO has been set in secondary legislation.

The USO will adopt uniform pricing for upfront and ongoing charges. This will aim to ensure that those in areas not currently served would pay no more than those in the rest of the UK.

New BBfN opportunities

- Two **opportunities** to expand NGA broadband coverage which if pursued will need to comply with the 2016 State Aid decision:
 - Further **rebates** based on higher than expected levels of Take-up. BDUK estimate a further £11 million will accrue by the end of the protection period in 2023
 - **DEFRA** Rural Broadband Grants available to Local Authorities who currently lead the roll out of NGA broadband infrastructure:
 - For business properties in “the final 5%”, with a defined business need to enable economic growth
 - A specific list of businesses that meet DEFRA criteria have been developed with County and District Economic Development teams.
 - Proposed £2 million bid which does not require match funding but must be spent by the end of March 2020.

Better Broadband for Norfolk further investment

- When investing public money a competitive procurement process is required
- Contracts must achieve value for money – based in most cases on achieving maximum coverage
- State Aid requirements must be met
- A new contract will be let by the end 2018 to provide coverage for as much of the final 5% as possible
- Implementation expected to start from mid- 2019

Alternatives

For properties with less than 2Mbps a Government Subsidy Scheme provides a voucher towards the cost of installing an alternative “Basic” technology. Details and application form:

www.betterbroadbandnorfolk.co.uk

There are five Norfolk suppliers:

- In Touch Systems (ThinkingWisp)
- Rural Broadband
- SIM Rush
- Symmetris
- WiSpire

Each company offers one or more alternatives 4G, satellite and wireless