

## Item No. 7

### **GREATER MANCHESTER LOCAL ENTERPRISE PARTNERSHIP BOARD**

**SUBJECT:** GM Digital Infrastructure Update

**DATE:** 16<sup>th</sup> January 2017

**FROM:** New Economy, Manchester Growth Company

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#### **1. Purpose**

The purpose of this report is to provide update the LEP on the current position with fixed-line<sup>1</sup> digital infrastructure in Greater Manchester including:

- The progress of delivery of superfast broadband in Greater Manchester (which provides speeds of up to 30 Mbps)
- The current level of take up of superfast services
- Proposed market investment in ultrafast and fibre connections recently announced by BT Openreach and Virgin Media.
- Actions for Greater Manchester to accelerate investment.

LEP views are also sought on the questions posed through the Government's Call for evidence published on 29<sup>th</sup> December for the Digital Infrastructure Investment Fund was announced in the Autumn Statement on 23<sup>rd</sup> November.

#### **2. Context**

Delivering world class digital infrastructure in Greater Manchester was a key component of the outline Digital Action Plan agreed by the Combined Authority on 29<sup>th</sup> May 2015. It is a prerequisite for the expansion of our digital, tech and creative sectors; it drives business growth and investment across our economy; is fundamental to innovation and transformation in public service delivery and is key to social and digital inclusion.

Our aim is to provide the best possible business and residential access to affordable high quality internet infrastructure at the fastest possible speeds<sup>2</sup>

#### **3. Overview of UK Performance & Challenges**

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<sup>1</sup> Internet connectivity carried over fixed cables rather than wireless/ mobile (4g/5g).

<sup>2</sup> Considered to be Fibre to the premises (FTTP)

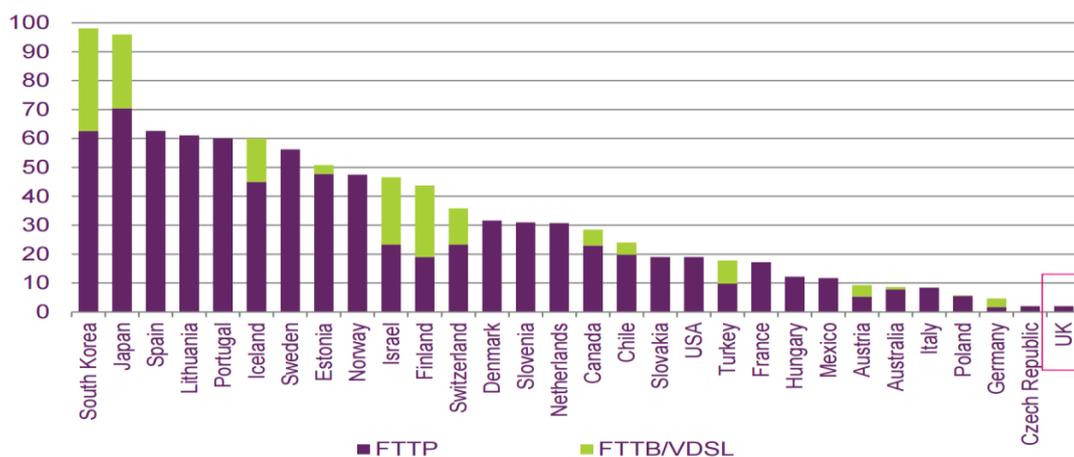
The UK<sup>3</sup> currently has the 12<sup>th</sup> fastest average connectivity speeds of European countries. Outside of Europe, the UK is well behind South Korea and Singapore which benefit from having a full fibre infrastructure to the premises (FTTP) as standard.

The two principal infrastructure providers in the UK, BT Openreach<sup>4</sup> and Virgin Media have, until recently, only provided fibre to the street cabinet as standard. The “last mile” from the street to the premises is usually a copper/coaxial cable, which puts a ceiling on the speeds that can be achieved. Both providers have developed new technologies that have increased this ceiling from 30 Mbps<sup>5</sup> to speeds of (up to) 300Mbps – widely considered to be close to the upper speed limits of copper. It is clear that future focus needs to be on FTTP which would provide virtually unlimited speeds for our business and residential communities so that they can take full advantage of a range of bandwidth hungry applications and services<sup>6</sup>

However, evidently the UK has some catching up to do. The recent Ofcom review of the telecoms industry confirmed that the UK is well behind its competitors in investment in FTTP (currently 2%) as illustrated below.

**Source: Ofcom (March 2016) – (FTTB/VDSL is Fibre to the Building for multi occupied premises)**

% of premises passed



Ofcom announced on 29<sup>th</sup> November that it had triggered formal proceedings to pursue a legal separation of BT Openreach within the BT Group. Ofcom stated that this legal split is the best way to deliver improved competition and accelerate investment in fibre. Under these arrangements Openreach would become a distinct company with its own Board which would comprise a majority of non-executive directors, including the Chair, not affiliated with BT. This action would make Openreach more independent and freer to work collaboratively with other

<sup>3</sup> Akamai State of the Internet Q1 2016

<sup>4</sup> BT Openreach is the infrastructure provider within the BT Group, which includes a retail arm which sells its services on Openreach infrastructure together with other retail providers including Talk Talk and Sky. It is heavily regulated by Ofcom.

<sup>5</sup> Megabits per second

<sup>6</sup> including video streaming (e.g. 4kTV), an exponentially increasing number of internet connected objects (e.g. household items, lighting, fridges etc.) and the exploitation of big data by businesses.

providers and should help to drive fibre investment. It stops short of the complete split, which BT had said would limit the ability of Openreach to invest due to costs, disruption and inheritance of significant BT Group pension liabilities. Discussions are still continuing between BT and Ofcom whilst the formal process of EU Commission notification is proceeding.

#### **4. Digital Infrastructure Investment Fund**

The Government announced in the Autumn Statement that it intends to invest £400m in the creation of a new Digital Infrastructure Investment Fund matched by private sector investment over four years. It is understood that the Fund will be focused on supporting smaller infrastructure providers with the aim of creating increased competition to BT Openreach and Virgin Media.

The Call for Evidence for the Digital Infrastructure Investment Fund was published on 29<sup>th</sup> December with a deadline of 31<sup>st</sup> January 2017. It is seeking the following:

- Evidence of local approaches in the UK or internationally that have been successful in stimulating the market delivery of full fibre networks
- Evidence of the effectiveness and potential of demand side approaches including public sector demand aggregation and voucher schemes; supply side approaches including making public sector assets available (e.g lamp posts, rail lines etc.), direct funding fibre in uneconomic areas and potential pilots
- **Views on an effective and efficient delivery model that Government can use to deliver investment in full fibre networks across the UK**
- Views on changes that are needed to reduce the cost of full fibre roll out e.g. changes to wayleaves and street works.

This evidence will inform how the Fund will operate and is likely to be announced in the Budget on 8<sup>th</sup> March 2017.

It should also be noted that the Autumn Statement included an announcement for 100% business rates relief for new full-fibre infrastructure for a 5 year period from 1 April 2017 as an additional incentive to the industry.

#### **5. Good “superfast” broadband coverage in GM**

Over 98% of GM premises will benefit from 25Mbps to 70Mbps download connectivity by March 2017 (district breakdown is shown under Appendix A). This has been achieved by market investment together with subsidised support via the Get Digital Faster programme (GDF) which is two thirds funded by public resources (Broadband Delivery UK, ERDF and GM districts) and was delivered in GM by TfGM. The remaining one third has come from BT Openreach - the supplier selected following OJEU procurement. The GDF programme will increase connectivity to infrastructure capable of delivering superfast broadband speeds from 94.7% to at least 99.4% across the eight participating districts. Some gaps remain, particularly in Salford and Manchester which, for state aid reasons, could not benefit from GDF funding. Both local authorities are now

working closely with BT Openreach, Virgin Media and other providers to address those gaps. Virgin Media, which is extending its network for the first time in twelve years, intends to bring an additional 150,000 GM residential and business premises into its network by 2020<sup>7</sup>. It has indicated that it will invest some of the £75m it has allocated for GM to address the gaps in connectivity access in Manchester and Salford.

## **6. Supported by extensive demand stimulation activity**

Having access to a high speed broadband network is only part of the solution. There must also be a demand from business and individuals to use that network. A great deal of work has therefore been undertaken by GM local authorities working with TfGM to increase take up of superfast services in GM, particularly by the private sector.

Revenue from the GDF programme funded a BT led Demand Stimulation programme which finished in June 2016. This marketing activity promoted the take up of faster speeds to businesses and residents as cabinets became live.

GM local authorities, with TfGM, led the implementation of the BDUK Connection Voucher scheme which ran from December 2013 to October 2015 and covered all of GM and Cheshire East. The Scheme was part of the Government's Super Connected Cities initiative. Over 6,000 vouchers, each up to £3,000 in value were issued to SMEs. This has led to an increased take up of services and an estimated increase of £90m in business turnover for beneficiary businesses<sup>8</sup>. There is also good evidence that it has a positive impact on the local market, resulting in increased competition amongst providers and leading to new entrants.

Local Authority districts have also been successful in aggregating business and consumer demand working in business parks and with landlords of residential blocks to create a more attractive proposition for providers.

These initiatives have been effective in increasing take up, but figures from both BT Openreach and Virgin Media suggest that the level of take up of superfast broadband in GM is currently between 25% and 30%. This is still quite low and it is therefore important that we maintain momentum.

Making the demand case for full fibre investment is quite different from the challenge we faced to encourage take up of "superfast" services. We will need to demonstrate that fibre is the only long term solution to meet emerging demand across the GM economy. In this context there is an important role for the public sector to show how fibre digital infrastructure is a prerequisite for us to deliver our public service reform ambitions e.g. through GM Connect and connected health care. The GMCA has recently commissioned consultants Arup to undertake work that will draw upon its international experience in other cities to set out how GM can best deliver its digital ambitions in this context.

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<sup>7</sup> It is investing £3bn in expanding from 47% to 65% premises coverage in the UK

<sup>8</sup> Regeneris Study 2016

## **7. Market Investment in Ultrafast (high speed copper) connections (200Mbps to 300Mbps)**

BT Openreach and Virgin Media currently consider ultrafast to be the next generation connectivity solution. Virgin Media has announced that it will be offering ultrafast connectivity of up to 200Mbps to its residential and business customers on its existing infrastructure. Similarly BT has also announced plans to connect 10m homes with ultrafast connectivity by 2020 which it says will deliver speeds of up to 300Mbps. Both providers have confirmed that investment priorities for ultrafast upgrades will depend on evidence of early demand. Other GM providers including Gamma, Metronet and Hyperoptic would rightly claim that they have been delivering these speeds for some time<sup>9</sup>. However, we should be encouraged that the scale of investment proposed by Virgin Media and BT Openreach is likely to accelerate the process for these speeds to become standard.

## **8. Accelerating Investment in Fibre to the Premises (1Gbps+)**

The recent European Digital Cities Index<sup>10</sup> confirmed that in order to be taken more seriously as a leading global digital city we need to move to having a full fibre infrastructure as quickly as possible.

The announcement of the Digital Infrastructure Investment Fund in the Autumn Statement is recognition from Government that intervention is required to accelerate UK investment in the full fibre infrastructure so that we will be competitive internationally into the future.

The fund is small (£400m) given the scale of the challenge and the details are still quite scant but it is understood that they will be designed to boost the financing of emerging fibre broadband providers looking to scale up. A call for evidence from the Government is expected shortly to inform how this fund will be implemented. In GM we intend to consult widely with our existing and emerging providers. There is a strong argument that the best returns on investment for this fund will be delivered in the major cities where the small providers are already active and can more easily build from available fibre backbone infrastructure.

The recent announcement by BT Openreach that it will be rolling out fibre to the premises (FTTP) to up to 2m premises in the UK by 2020 is welcome. It also plans to connect all new residential developments of 30+ houses with FTTP free of charge. GM is one of nine UK cities selected for its new FTTP product for businesses in high streets and business parks which is being rolled out over the next six months. Virgin Media has similarly announced plan to have FTTP

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<sup>9</sup> Metronet provide an alternative “over the air” connectivity solution for businesses across GM. They are active in areas/business parks where there are no other high speed connectivity options. Other providers in GM include Gamma (which also focuses on the business market) and Hyper Optic (which provides fibre connectivity to residential blocks).

<sup>10</sup> Produced by NESTA - Manchester was ranked 16<sup>th</sup> out of 60 EU Cities overall – but in line with all UK Cities surveyed it scored poorly on digital infrastructure (35<sup>th</sup>) – The highest ranked UK City was Oxford in 31<sup>st</sup> – London was 40<sup>th</sup>.

available in 2m homes by 2020 and expected to announce its own plans for FTTP investment for businesses and new development sites shortly.

New Economy has been working closely with providers to share new development site information emerging from the Greater Manchester Spatial Framework. This should aid forward planning to encourage provider competition on new development sites at the fibre infrastructure level.

## 9. Conclusions

The Autumn Statement has marked a significant shift in Government Policy. Whilst it still recognises that there are interim (ultrafast) technologies that deliver faster speeds over copper infrastructure, there is now clear Government focus is now on accelerating market investment in full fibre infrastructure.

It is important that Greater Manchester takes advantage. We know that our broadband connectivity is on a par with other major UK cities but, most critically, we are in a poor position relative to our peer Cities internationally.

We therefore need to develop a pathway working with the grain of the market and leveraging intervention opportunities, including the Digital Infrastructure Investment Fund, to ensure our businesses and communities have access to fibre connections as quickly as possible, as well as stimulating the take up of those services.

In particular we need to work with BT Openreach and Virgin Media and other providers to make the case for GM to leapfrog from “superfast” to FTTP infrastructure. This is because there is a significant risk that wide implementation of “ultrafast”, whilst satisfying short term demands, will delay the investment in fibre we need to realise our ambition to become a top 20 global digital city.

In this context there are a number of practical actions we can take to accelerate this investment. This includes:

- a. Putting forward a compelling vision for providers about how GM public sector reform and the levers of control we have through devolution will drive early demand for full fibre infrastructure.
- b. Strengthening demand evidence, particularly across our business base, for very high speed services - working with providers to promote the availability of high speed services (e.g. building on successful projects to working with residential landlords and business parks).
- c. Maximising take up of existing superfast broadband services across GM, supported through improvements to digital skills<sup>11</sup>.
- d. Minimising the barriers to implementation including:
  - i. Use of blanket wayleave agreements to speed up access to premises.
  - ii. Streamlining the highway works approval process

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<sup>11</sup> This is part of the GM Digital Skills Framework which is currently being finalised and will be considered by WLT shortly.

- iii. Giving providers early sight of new development sites so that they can be included within investment plans.
- e. Working with providers to develop/pilot innovative approaches that can accelerate fibre investment through the Government's Digital Infrastructure Investment Fund.

A number of GM local authorities are already active in these areas and are making positive progress<sup>12</sup>. This experience needs to be shared and developed for collective benefit and BT and Virgin Media will be invited to present to local authority economic development leads via TMEDL on their GM investment plans. Local authorities will then be able to take a collective approach which can include sharing best practice experiences – with a view to establishing action plans designed to speed up investment by BT, Virgin Media and other GM providers.

The Business Growth Hub will also play a critical role in supporting businesses to exploit new digital technologies and thereby driving up connectivity demand from the GM business community. This demand intelligence will be shared with providers.

## **8. RECOMMENDATIONS:**

1. That New Economy works with GM infrastructure providers to shape the GM response for the Government call for evidence for its new Digital Infrastructure Investment Fund.
2. LEP Board considers its response to questions raised in the Government's Call for Evidence to inform the Greater Manchester response.
3. That local authority economic development leads (through TMEDL, overseen by the Greater Manchester Infrastructure Advisory Group) develop collaborative action plans with key infrastructure providers aimed at speeding up investment in Fibre to the Premises connectivity and that embedding FTTP policy for new development is fed into the next stage of the development of the Greater Manchester Spatial Framework.

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<sup>12</sup> For example Manchester has been engaging with providers to share information about connectivity gaps and priorities, landlord contacts and new build proposals. . Stockport has also been working across its industrial estate to aggregate demand to attract provider investment

## **APPENDIX A**

### **Current connectivity coverage in Greater Manchester<sup>13</sup>**

(excludes bespoke business connections)

Local Auth.	Speed			
	Current Superfast Coverage (above 30Mbps)	Ultrafast Coverage (100Mbps)	BT Openreach Fibre 100Mbps+	Below 10Mbps coverage
<b>Bolton</b>	98.5%	86.57%	0.02%	0.51%
<b>Bury</b>	98.6%	40.74%	0	0.35%
<b>Manchester</b>	93.6%	58.21%	0	0.60%
<b>Oldham</b>	98%	64.87%	0	0.63%
<b>Rochdale</b>	98.7%	56.02%	0	0.23%
<b>Salford</b>	96.5%	77.12%	0	0.51%
<b>Stockport</b>	98.5%	86.77%	0	0.35%
<b>Tameside</b>	98.5%	45.17%	0	0.25%
<b>Trafford</b>	98.4%	66.51%	0.01%	0.66%
<b>Wigan</b>	98.4%	88.52%	0	0.34%

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<sup>13</sup> Nov 2016 <http://labs.thinkbroadband.com/local/index.php?area=E08000005>