

Oxford Super Connected Cities Plan

Additional Information

Introduction

This Paper responds to the letter from BDUK dated 19th October 2012 requesting additional information on the Oxford Super Connected Cities Plan submitted on 17th September 2012. This should be read alongside the full bid as it adds to information already provided (e.g. direct business growth and job creation resulting from UBF funding)

Information is presented in the following sections:

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| 1. Economic Impacts | providing greater detail on the positive economic impact that ultrafast broadband and wireless will have on the city |
| 2. State Aid and Value for Money | providing further information on our State Aid Strategy and value for money issues where there is potentially only one service provider |
| 3. Risk Register and Mitigation | providing a detailed risk register outlining description of risks, likelihood, impact, overall risk and counter measures |

Section 1 – Economic Impacts

- 1.1 Oxford is a national economic asset and essential to the future of the UK and the regional economy as a whole. The city contributes £4.7bn to the UK economy and has the fifth highest GVA per capita of all UK cities – significantly higher than the national average.
- 1.2 It is the diversity of Oxford's economy which is one of its biggest strengths and has undeniably helped the city to weather the worst of the impact of the recession. This diversity includes high value knowledge-based enterprises, research and education, healthcare, manufacturing and public sector services. Its function as a significant regional centre for professional services is also important. However, future growth and success cannot be assured.
- 1.3 There is a need to support the continued growth of Oxford's knowledge economy; to ensure that new and existing companies are able to establish, develop and expand within the city and the region; and this includes addressing infrastructure constraints such as access to **ultrafast broadband and wireless infrastructure** that are holding back growth.
- 1.4 Oxford is competing in a global environment where businesses, researchers and students are internationally mobile. Oxford's "offer" needs to stand up against not only other UK cities such as Cambridge but international competitors such as Boston, Palo Alto, and Sophia Antipolis.
- 1.5 The quality, speed and accessibility of broadband are increasingly key considerations for any

business. In a global economic environment, Oxford is not simply competing with other medium sized UK cities but also internationally. Cities such as New York and Boston are investing heavily in enhancing their connectivity to support business growth and university industry links. Increasingly, a key factor in the competitiveness and liability of international cities is their digital communications infrastructure, with cities such as Helsinki leading the way.

- 1.6 If Oxford is to be successful in growing its knowledge economy then providing businesses with the broadband infrastructure they need is critical. In a city which is constrained by more traditional infrastructure capacity, ultrafast broadband is a key enabler.
- 1.7 Oxfords' concentration of knowledge focussed business locations and science parks and links to similar locations throughout Oxfordshire such as Harwell Science Park and wider Science Vale Enterprise Zone and Milton Business and Science Park – which recently supported a £10 million bid inside the City by John Radcliffe Hospital for research incubators – already place it in a unique position to attract business investment. Together with a future proof ultrafast broadband network, these locations will be high on the list for any business looking to locate in the South East.
- 1.8 The opportunity is not just business facing. Enhanced broadband can also be a tool for improving services and increasing economic opportunities for residents. Improving the accessibility and impact of education and other public services but also opening up new economic opportunities for residents.
- 1.9 Technological changes will continue to be key drivers of growth. Most obviously, digital technologies continue to change, at an accelerating pace, in every sector of the global economy. The internet has created a new segment of the economy which in the G20 countries alone was worth \$2.3trn in 2010 and is expected to be worth \$4.3trn by 2016¹. Another key area of change for Oxford is in the field of low carbon technologies. BIS estimates that the global market for low carbon and environmental goods and services was £3.2trn in 2009 / 2010, £116bn of which was in the UK alone². New technologies such as 3D printing and developments in fields and sectors where Oxford has strengths (such as biotechnology, nanotechnology) will continue to develop and mature over time. The effect of all of these trends will be to generate new employment and business opportunities. But the broadband infrastructure must be in place to ensure that Oxford and Oxfordshire can be best placed to benefit in the growth opportunities
- 1.10 A major shift is underway in Oxford's publishing houses from printed to electronic delivery, especially in the academic and specialist sectors. For example, 70% of Oxford University Press' revenue now stems from electronic material³. There is also some cross-over with the digital and computer games industry. Investments to ensure that broadband infrastructure matches the best in the world will be critical. Digital technology can allow dispersal of activity in the sector, but it is essential for the city, and Oxfordshire as a whole, to retain the sectors' critical mass which ensures that it can continue to attract and develop the best skills and workforce.

¹ BCG (2012) The Connected World: The \$4.2 trillion opportunity – the internet economy in the G20

² BIS (2011) Low Carbon and Environmental Goods and Services (LCEGS) – report for 2009 / 2010

³ Oxford Inspires (2011), *The Economic Impact of the Cultural and Creative Industries*

- 1.11 Oxford is the sixth most visited city in the UK by international visitors, and is a major regional tourism hub and a gateway to the region's tourism. It attracts more than 9.5 million visitors a year, around half of them international, and generates £770 million of income for local Oxford businesses⁴. Ultrafast broadband and wireless infrastructure and connectivity will enhance the visitor experience and enable further economic growth in this key sector.
- 1.12 Oxford has a variety of commercial creative industries. It has a particular strength in computer games and software, which crosses over with its electronic publishing industry; and to businesses specialising in digital advertising and social media. Oxford also has strong video and film-related activity. Access to ultrafast broadband is key to these sectors and will allow them to compete and grow in the global market.
- 1.13 Ultrafast broadband also brings the potential for establishing new businesses. Oxford's unrivalled research base, knowledge focussed sector strengths and skilled workforce place it in a strong position to capitalise on the opportunities for business creation brought about by cloud computing for example. Cloud computing will better enable the transition from research idea to commercialisation where small scale research teams can exploit the opportunity to establish home based businesses and collaborate with other researchers and investors from around the world.

Section 2 – State Aid and Value for Money

Fixed Fibre

- 2.1 Our plan is focussed on providing affordable ultra-fast fibre based services to SMEs. It is built on the Digital Birmingham proposal which asserted that although Ethernet and Leased Lines services could be run out to business in our target area, the cost to SMEs is prohibitively high and the bandwidth offered often much greater than their actual needs. To remain competitive into the future Oxford's SMEs require access to affordable broadband speeds in excess of 80mb i.e. ultra-fast broadband. Our plan is to provide these services to all SMEs which cannot currently get this level of service at an affordable price in the target area. We understand that operators have appealed against the Digital Birmingham notification and will be keeping a close watching brief on developments. Should it prove to be the case that our approach constitutes grey area overbuild and is prohibited, we will be ready to amend and narrow the scope of our plans, for instance by focusing on White area (Superfast) postcodes alone and a voucher approach, described below, for the wider area.

Wireless

- 2.2 Our wireless scheme will complement the proposed fibre investment by providing a mobile service across our most busy centre. Our objective here is to provide entrepreneurs, visitors and residents (including our large number of students) with blanket access which allows them to work seamlessly across institutions, locations and sectors. In the first instance Oxford will pursue a wireless solution based on a concessionary approach, particularly for the central area of the city where there is high foot fall. We will in parallel continue to

⁴ Oxford Inspires (2011), *The Economic Impact of the Cultural and Creative Industries*

pursue a subsidised solution which we understand will require State Aid approval and will monitor the evolving situation accordingly.

Working together and being flexible

- 2.3 Throughout this whole process Oxford City Council is very keen to work closely with BDUK and other Super Connected Cities. We are ready to work together to forge a clearer State Aid position either through co-ordinated submission to Europe or an umbrella notification. **We remain committed to achieving our plans but flexible in how we get there.**
- 2.4 Oxford City Council will be happy to host a workshop that brings together the successful SCC Wave Two cities, BDUK and others to explore joint working on key issues to implementation (including State Aid).

Vouchers

- 2.5 Although our core proposal does not rely upon vouchers as a potential delivery mechanism. We are ready to explore this route as a means to quickly meet our objectives without incurring long state aid approval delays. Vouchers would not provide us with the strategic intervention that is our preferred approach and instead risk leading to a piece-meal solution. Nevertheless it would be a demand driven approach and could potentially get to market much more quickly. We are also ready to explore a collaborative approach to vouchers, sharing overheads costs with other cities where savings can be made.

Value for Money

- 2.6 Our detailed cost modelling and planning allow us to negotiate hard with potential bidders. We are able to refresh our cost estimates in light of arguments put forward by bidders and to engage in detailed location specific negotiations. We will continue to use our detailed cost modelling and estimates to negotiate with potential suppliers should we find ourselves in a single bidder situation.
- 2.7 We have spoken to colleagues from pilot areas to learn from their experiences - these include Cumbria, Surrey, Lancashire and Rutland. We've also spoken to Westminster City Council about their experiences in delivering a wireless concession. We will continue to ensure that we can learn from areas and cities that have already gone through similar processes to ensure that we are best prepared for all eventualities.

Section 3 - Risk Register and Mitigations

Main Risks and Counter Measures		Likelihood	Impact	Overall (1-5)	Counter Measures
Main Risk					
Design Risks					
Ultrafast broadband overtaken by other advances in technology; requirements for network capacity increase due to developments in technology and applications.	L	M	2		Future proofing to provide capacity and extend services will be built into our procurement objectives. This risk is limited as fibre is a long term tried and tested step-change in technology.
Development & Planning Risks					
Failure/delay in obtaining state aid notification.	M	H	4		Plans are being made to secure State Aid approval from the EC building upon the recent Birmingham State Aid approval. Revert to contingency plan focused on white areas only if Birmingham State Aid appeal upheld.
Legal challenge from unsuccessful bidders delays the programme.	M	M	3		A robust procurement strategy is being prepared, backed by legal advice and support from with Oxford City Council.
Financial shortfall and budgetary controls	L	H	2		We have worked hard to confirm partner contributions The resources partners have ear-marked for our scheme are secure and committed.
Access to Infrastructure for Wireless is restricted	L	H	2		Initial review of infrastructure availability has been completed. This includes City County and University assets. Key asset stakeholders are on project board.
Disagreements among partners lead to delays in delivery.	L	M	2		The governance structure is clearly set out and a core set of partners will be engaged formally and early in the process to ensure differences of focus are addressed. We have worked with our partners at Oxford City Council to share resources where it makes sense and to align our plans.
Procurement Risks					
Failure to attract a suitably qualified broadband supplier or business support provider.	L	H	3		Early market engagement is now taking place and lessons will be learnt from other partnerships proceeding in advance of us to minimise this risk.
Unable to achieve sufficient private sector investment.	M	M	3		We will continue to collate evidence on demand and develop the business support component of our initiative to provide comfort on likely level of uptake.
Implementation Risks					
Costs of delivery of infrastructure increase.	M	L	2		Robust analysis to accurately forecast costs and develop realistic objectives has been undertaken. The competitive dialogue process will insulate Oxford City Council from cost over-runs.
Delivery by private sector does not meet standard or	L	M	2		Strong contract management, close contact with suppliers. KPIs and

● Oxford Super Connected Cities Plan – Additional Information ●

expectations.					performance standards will be built into the contract.
Planning permission/way leaves leads to delays in delivery on the ground.	L	L	1		Strong commitment to roll out programme from Oxford City Council and Oxfordshire County Council to ensure coordination and compliance. There is a Telecommunications SPD that sets out relevant guidance.
Delivery costs exceed available budget due to unforeseen challenges.	M	L	2		Clear expectations set out in contracts, robust contract management, and phased delivery.
Delay in roll out of infrastructure.	M	M	3		Milestones will be integral to contracts and monitored closely through contract management. Our team will establish clear milestones for delivery and assertively manage the contract with the network operator. We will work to be flexible in the rollout but will firmly focus attention on meeting what we know will be demanding timelines.
Access to Highways booking delays roll out	M	L	2		A member from OCC Asset Management has already been invited to Project Meetings to integrate them into the project early on to help highlight any potential problems the project may in counter further down the line. Set road booking process has been established inline with Countywide broadband project.
Limited supplier capacity lead to delays.	M	M	3		Early market engagement will ensure supplier anticipation is progressively built up.
Key member of the project team leaves organisation	M	L	2		A central folder has been created with the relevant information and regular project team meetings have been established. Also a Project Initiation Group and Project Board has been set up to discuss high level issues.
Demand & Impact Risks					
Take up lower than anticipated, may impact upon income generation for supplier and economic benefits to businesses.	L	M	2		Demand stimulation measures will be built into business support services. Oxford has a strong economy which is attractive to many start-ups and footloose businesses. Our indigenous businesses base has a strong core of digital hungry businesses which the public sector is committed to supporting.
Ultrafast broadband benefits lower than projected for businesses, affecting anticipated business performance impacts and discouraging take up.	L	L	1		The business support offer will be designed to ensure broadband is central to driving up ICT use in businesses.
Termination risks					
Network operation is discontinued at the end of the project.	L	M	2		The gap funding model ensures that funded infrastructure becomes part of a commercial operation.