department for
culture, media
and sport

BDUK Broadband Delivery Project

Local Broadband Plan template

Award Round Spring 2011

Guidance on the Application Process is available at: www.dcms.gov.uk

Bids should be no more than 30 pages long. In addition you may append mapping information and project plans.

Please note this document should only be completed by those local bodies who are submitting a bid for funding as part of the Spring 2011 Award Round

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APPLICANT INFORMATION

Project Name:

Broadband Delivery Plan for Greater Lincolnshire LEP

Lead organisation - *include address with and postcode and type of organisation (e.g. Local Authority, LEP)***:**

Lincolnshire County Council
Economy and Culture
Beech House
Waterside South
Lincoln
LN5 7JH

Local Authority

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Economy and Culture
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If the bid is a joint proposal, please enter the names of all participating bodies and specify the co-ordinating authority

Participating bodies - Lincolnshire County Council and North East Lincolnshire Council
Co-ordinating authority – Lincolnshire County Council

Start Date of Project: *(day/month/year)*
On receipt of BDUK approval
See project plan – some activity is already underway

End Date of Project: *(day/month/year)*
31/12/2017

SECTION A – PROJECT OVERVIEW

Note –The Lincolnshire LEP area comprises the local authority areas of Lincolnshire County Council and North East Lincolnshire Council. Lincolnshire in this document refers to the Lincolnshire LEP area (unless otherwise stated*).*

A1. Vision and strategic context

Digital connectivity and Lincolnshire

The Lincolnshire LEP area has a critical strategic need for investment in enhanced digital connectivity to ensure universal coverage of at least 'standard' speed broadband by 2015 and provide every community with access to superfast broadband by 2017. Current levels of digital connectivity are holding back economic growth and the transformation of public services, limiting the county as a place to do business and impacting on quality of life.

Approximately 15% of the LEP area's population has a less than 2mbps broadband connection or no connection at all. Around half of the population is at high risk of not benefiting from private sector investment in NGA[1]. The spatial distribution of residents and business across very many, and very small settlements makes the provision of the necessary infrastructure to underpin improvements to digital connectivity expensive, making the area less attractive for private sector investment.

The benefits that enhanced digital connectivity will bring to the Lincolnshire LEP area will be huge and they will directly tackle the economic, demographic and service delivery and access challenges that it faces. These challenges include:

a. Managing the consequences of the spatial and demographic distribution of the population, in particular providing access to key services
b. Driving up GVA by supporting businesses to move up the 'value chain'
c. Breaking the 'lower wage / lower skills / lower productivity' cycle

The Lincolnshire LEP area has a rapidly growing and increasingly ageing population that is sparsely distributed across a very large geographic area. Demand, particularly for health and care services is increasing and resource availability remains constrained. This makes providing good and equitable access to services a major challenge. Enhanced digital connectivity has huge potential to transform access to and delivery of public and private services, realise efficiency savings and improve sustainability.

The prevalence of SMEs and the current low broadband penetration mean that the Lincolnshire economy has significant capacity to grow to close the 'GVA gap' through the provision and adoption of enhanced digital connectivity. People with good ICT skills have been shown to earn between 3% and 10% more than people without such skills. Good broadband coverage can open up access to on-line training and courses that would have been difficult to access through traditional means. Faster

[1] NGA – Next Generation Access

and more widespread digital connectivity can drive business demand for higher level, more highly paid skills and enabling those who were formerly digitally excluded to gain more valuable skills.

Corporate Plans and the Transformation of Public Services

Public bodies in the Lincolnshire LEP area recognise the pivotal importance of digital connectivity to improving public services in their strategies and corporate plans. The Lincolnshire Sustainable Community Strategy 2030 'Big County, Big Skies, Big Future – shaping Lincolnshire together', prioritises '*good connections between people, services, communities and places*', '*convenient access to services*' and '*widespread use of digital technology*'.

Better service access through digital connectivity and enhancing the speed and coverage of broadband available to residents and businesses are key parts of Lincolnshire County Council's Business Plan 2010-13. Further, Lincolnshire County Council and District Councils, through its IT Strategy Group, are focusing on three common areas;

a. Building the ICT Foundations: upgrading existing ICT infrastructures to support the vision
b. Transformation of Services through ICT: reducing duplication and routine processing, leveraging delivery capacity and streamlining processes
c. Delivering better customer service through more effective ways of working

All partners recognise the need for greater flexibility in employees' work styles and location, the use of physical assets and making greater use of technology, especially digital connectivity. Public bodies are not only planning for technical improvements to connectivity but also promoting equitable access to on-line services.

Although public service providers in the Lincolnshire LEP area have been proactive in utilising digital connectivity to promote more efficient access to public services over a large rural region, the number of 'not spots' and 'poor spots' in the region, together with the very limited coverage of mobile services and superfast broadband constrains further developments. Lack of universality is a particular constraint and low speeds inhibit the adoption of new service delivery technologies.

Public bodies have a track record and current plans to continue working together to deliver enhanced digital connectivity, which are summarised in Section A2, and provide a solid basis for successfully managing the investment from BDUK that will be necessary to deliver universal 'standard' broadband and maximise 'superfast' coverage. Further, specific examples of public bodies' plans for service transformation and use of enhanced digital connectivity are detailed in Appendix A.

Digital Connectivity and the Lincolnshire Economy

There is a critical need for investment in digital connectivity to support Lincolnshire firms, not only in terms of helping them climb the 'value chain' and drive up GVA, but also to overcome the significant connectivity barrier to doing business in rural areas. This is recognised in local plans and strategies.

Lincolnshire's Local Enterprise Partnership has identified enhanced digital connectivity as a priority for the Lincolnshire economy, stating; *"Digital connectivity could contribute significantly to the County's growth; we will work to obtain an extensive network of high speed broadband."* Lincolnshire County Council's Business Plan (2010-13) identified digital connectivity as being critical to developing clusters of economic success.

Although the Lincolnshire economy includes innovative and market leading firms, particularly in food and farming, its reliance on 'traditional' industries means it has not kept pace with growth in the national economy, creating a significant 'GVA gap'.

Lincolnshire's economy is characterised by a preponderance of SMEs, which make up over 90% of the local economy and have been shown to particularly benefit from enhanced digital connectivity[2].

Wages in Lincolnshire are 14% lower than the national average[3] and more adults have no qualifications. The 'digitally excluded' are most likely to find themselves in insecure, low skill low income occupations.

Digital Connectivity and Lincolnshire's Demography

The demographic profile of Lincolnshire is such that those aged 65 and over make up a larger proportion of the county population than nationally. 20% of the Lincolnshire's LEP population are aged 65 and over, rising to 24% in East Lindsey district, compared to 16% nationally. By 2030, this age group is projected to make up nearly 30% of the overall population of the area. This increasingly ageing population will mean a significant increase in the cost in the provision of services to this age group, in particular health care.

Rural and coastal areas have the highest concentrations of older residents who don't use the internet and research has shown that these are one of three specific priority audiences who would particularly benefit from access to the internet[4].

Benefits of this improved accessibility would include:

a. Better health and well-being outcomes on the basis that there is evidence that shows links between poor health and digital exclusion[5]
b. Better support for older people to continue living independently in their own homes[5]
c. A reduction in social isolation through better online communication channels (e.g. skype, social networking) and access to goods and services that would otherwise be difficult to reach (e.g. online grocery shopping, online banking)[5]
d. Savings for public service providers through improved access to health information and services, reductions in direct care costs.

A combination of broadband enablement and encouragement of internet usage has the potential to generate both significant savings for local and national government and many positive outcomes for the economy, individuals and communities, supporting a good quality of life.

More details on the strategic need for broadband investment to address economic and social issues in the Lincolnshire LEP area are included in Section A3.

The Lincolnshire LEP Vision

[2] Britain's Superfast Broadband Future, BIS & DCMS, December 2010

[3] Annual Survey of Hours and Earnings 2010

[4] Manifesto For A Networked Nation

[5] Delivering Digital Inclusion – An Action Plan for Consultation, DCLG 2008

Our vision is to achieve universal broadband coverage of at least 'standard' speed and access to 'superfast' digital connectivity in every community because it has significant potential to tackle many of the area's economic, demographic and service delivery challenges. However, the area's spatial characteristics that contribute to those challenges also hold back securing the private sector investment that is required without public sector leverage.

VISION

"*By 2017 our lives and life chances will be transformed by the availability and use of digital technologies that supports a healthy sustainable economy and vibrant communities, enriches people's lives, and gives access to high quality, efficient public services*.
The vision will be achieved through:

a. universal coverage of Next Generation Broadband (NGB), also known as superfast broadband[6]with easy, affordable access
b. facilitating the infrastructure required by the private sector to maximise coverage of mobile connectivity and other digital services
c. active citizens, businesses and communities who are digitally included"

Our Vision is aligned to the two main policy documents by the EU and UK Government: EU Digital Agenda[7] and Britain's Superfast Broadband Future[8]. In support of the vision, we have set four objectives that represent the enormous benefits that timely and well planned investment in digital connectivity will bring.

a. Healthy, sustainable, growing economy

Lincolnshire businesses will enjoy a competitive advantage and increased productivity through improved access to markets, digital applications, ecommerce opportunities and more flexible working patterns. A high standard of digital connectivity will encourage new businesses to start and existing businesses to flourish.

b. Vibrant, empowered, included communities'

Communities in Lincolnshire will be empowered with the knowledge and skills to take advantage of greatly enhanced digital connectivity to build stronger connections, share ideas, innovate and determine their own futures. No community will be disadvantaged by lack of access to superfast broadband.

c. High quality, accessible, efficient public services

Public services will evolve and respond to an increasing public demand for communicating and doing business on-line. Public services in Lincolnshire will be delivered more efficiently and accessible to every community in Lincolnshire. Roll-out will ensure that no-one will be disadvantaged in access to public services.

d. Sustainable futures

[6] 30mbps or greater

[7] European Broadband - investing in digitally driven growth 2010-2020' (20/09/2010)

[8] Britain's Superfast Broadband Future, December 2010

Lincolnshire will be 'greener' and more sustainable with reduced needs to travel through the growth of more flexible working patterns, greater take-up of 'on-line' services and exchange of information.

OUTCOMES

Subject to securing the necessary BDUK investment, the implementation of the Lincolnshire Broadband Plan will deliver a range of outcomes by 2015 and 2017, in accordance with the phasing of the Plan. The outcomes are stretching, relate directly to the Plan's objectives and provide a means of monitoring progress towards them. They are credible, according to the SMART principles (Specific, Measurable, Achievable, Realistic, and Time-bound). They are informed by what we are seeking to achieve for Lincolnshire, what is technically feasible and what is realistically affordable.

….By 2015

a. Every residential, business, community and public premise in Lincolnshire will be able to connect directly to an affordable service delivering broadband of at least 'standard' speed (2mbps).
b. Access to mobile broadband connectivity will increase to 90% of land area

…By 2017

c. Every community in Lincolnshire to have access to superfast broadband (30mbps) through a 'fibre hub' or alternative technology (wireless or satellite) for around 10% of premises
d. All local authority and public sector partner 'transactional' services will be available on-line and every community will be able to benefit directly or through a community hub
e. The percentage of internet users of 55 and over will equal or exceed the national average (ONS stats)

We will further monitor progress on broadband implementation using the 'best in Europe scorecard' being developed by BDUK to monitor the overall progress of the UK, if the statistics can be meaningfully disaggregated to a local level. We are ambitious and plan to perform to a higher level than the UK average on broadband

Section A3 gives more information on the economic and social conditions of the LEP area and the context for our broadband plan.

A2. Background

The Lincolnshire LEP area has poor coverage and speed of broadband. There are large areas of the county with broadband access speeds of 2 megabits per second or less (see Map 'A' in Appendix A).

At present 15% of premises (around 60,000, made up of 2,500 business and 57,500 households) in the Lincolnshire LEP have internet speeds of less than 2mbit/s compared to on average 9% nationally[9]. Of these, a third have no internet access at all.

Broadband speeds of 30mbit/s and above are currently only achievable in cabled areas in Grimsby, Lincoln and Grantham, accounting for just over a third of all premises (146,000). Thus two-thirds of households and businesses do not have superfast broadband

The LEP area is underserved, in the bottom quartile in terms of UK provision. On fixed phone lines, the 727 settlements of the Lincolnshire LEP area are served by 133 BT exchanges. Of these,

a. two (Market Deeping and Stamford) are included in BT FFTC announcements for September 2011 *(check NE Lincs)*
b. 15 have Virgin media services, including parts of all 7 BT exchange areas in North East Lincolnshire
c. 14 exchanges are local-loop unbundled (LLU) (including some areas that are also in b. above

Data from BDUK indicates that there are 406,143 premises in the LEP area comprising 388,766 residential premises and 17,377 business premises. The 15% of premises in the LEP area with below 2mbit/s broadband is consistent for both residential and business premises and exceeds the national level of 9%. The balance between residential (96%) and business (4%) premises in the LEP areas mirrors the national figures.

Table 1: Residential / Business Split

	Total	**<2MB**		**2MB+**		**Cable**
	Count	Count	Percent	Count	Percent	Count
LEP						
Residential	388,766	57,735	15%	331,031	85%	141898
Business	17,377	2,568	15%	14,809	85%	4249
Total	406,143	60,303	15%	345,840	85%	146147
National						
Residential	26,200,680					
Business	1,205,536					
Total	27,406,216	2,333,705	9%	25,072,511	91%	

Source: BDUK data

There are two community schemes underway in Lincolnshire. Fibrestream (http://www.fibrestream.co.uk/) have begun work to deliver fibre optic broadband to Ashby De La Launde and Bloxholm near Lincoln. The two villages can receive Fibre-to-the-Home (FTTH) speeds up to 100Mbps, through nextgenus, (http://www.nextgenus.net), a Community Interest Company. Villagers in the neighbouring village of Digby are connected to Ashby via wireless link, giving them access to the superfast connection too. Whilst there are other communities who are concerned about broadband and wish to get involved in making improvements, at present we are not aware of any actively pursuing solutions.

[9] BDUK data

On mobile services, Lincolnshire has patchy 3G coverage, though generally is in line with the rest of the country. Roll out of next-generation mobile services is expected to occur more slowly in Lincolnshire than other areas due to the lack of availability of fibre, which can often lower the cost of internet backhaul services to transmission masts. Map G (Appendix A) shows mobile coverage for Lincolnshire CC area (June 2010).

Prospects for improvement

The DCLG/DEFRA report on Next Generation Access (NGA) risk by Analysys Mason aimed to identify those areas most at risk of being left behind in the roll-out of 'NGA', or superfast broadband through fibre solutions. The report clearly demonstrates that Lincolnshire will not benefit equitably from a national uplift. Table 2 shows the percentage of population in each risk category for each local authority. Achieving 90% population coverage of NGA in the UK translates to only 52% of the LEP population. East Lindsey would be the most lagging district with only 18% of the population forecast to be at low risk of not receiving superfast broadband by 2017.

Table 2: Next Generation Access (NGA) risk

District Name	Red	R%	Amber	A%	Green	G%	Grand Total
Boston	5531	9	26540	45	26926	46	58999
East Lindsey	63692	45	51501	37	25614	18	140807
Lincoln	0	0	5657	6	82834	94	88491
North East Lincolnshire	2553	2	23933	15	130655	83	157141
North Kesteven	16121	15	42856	41	46697	44	105674
South Holland	30042	36	25247	30	28814	34	84103
South Kesteven	33021	25	18878	14	79348	60	131247
West Lindsey	32815	37	27773	31	28016	32	88604
Grand Total	**183775**	**21%**	**222385**	**26%**	**448906**	**52%**	**855066**

Source: LRO/2009 ONS population estimates/Analysys Mason 2010

A possible advantage for Lincolnshire is the availability of widespread fibre such as MOD civil ducting and other assets, which could potentially reduce the cost and accelerate the deployment of broadband and NGA services. BT plc and the Ministry of Defence have formed a joint venture to develop MOD telecommunications infrastructure [known as DFTS/Defence-Fixed-Telephony-Service http://www.armedforces-int.com/suppliers/bt-defence.html]. Partners would wish to see such assets included in the Physical Infrastructure Access offer (PIA) and available to all operators at viable cost, and will seek to influence the partners.

The legacy of Onlincolnshire

From 2003 to 2008, Lincolnshire County Council developed and delivered a £15million programme to make Broadband and ICT services available and support that helped small and medium enterprises (SMEs) and community enterprises to utilise them. The Council achieved significant leverage with its investment funding.

Most funding was directed to supporting businesses through connection subsidies, independent ICT advice and grants. This demand stimulation facilitated and encouraged investment from service providers. Provision focused on what then was 'advanced' broadband internet services (up to 2 Mbps with a high upload speed) for concentrations of businesses in parts of the County designated

for European Regional Development Funding (ERDF). The advanced services were more appropriate for more sophisticated business applications. Any business can buy ICT networks and services – but dedicated networks are often out of the financial reach of SMEs (Small to Medium Sized Enterprises) that make up over 90% of Lincolnshire's economy.

The Council went to market with a competition for subsidy requirement to make these services available. This was a complex process involving state aid clearance, major OJEU tendering and contract management of the selected provider, BT. That provider chose to deliver the services using wireless technology.

The programme provided over 1,000 connection subsidies, over 600 advice reports and 435 ICT innovation grants. All managed workspaces in which LCC had an interest in Lincoln, Gainsborough, Skegness, Mablethorpe and Boston were provided with high bandwidth connectivity. Other features of the approach were to put together ICT, Programme Management and Marketing expertise which included private sector telecommunications specialists.

The programme supported over 1300 jobs and resulted in an increased turnover of £16.5m amongst the businesses assisted, according to an independent evaluation by the University of Lincoln.

In 2008, British Telecom PLC reported that Lincolnshire was by far the biggest user of their business symmetric internet services in the UK and, in spite of "not spots", the county was identified as the 3rd most switched-on for broadband in England. However BT moved away from wireless delivery and sought agreement from the County Council to deliver the requirements of their contract using a version of ADSL – Bonded DSL.

This project has left a legacy of knowledge about the circumstances of supply and demand across the county, as well as experience with state aid processes, procurement and demand stimulation.

Since 2010 Lincolnshire County Council has been leading a strategy with Community Strategy partners to improve broadband availability to NGA levels and support widespread use of digital technologies.

Work has been undertaken to understand the picture of connectivity, to agree the vision with partners, and to influence the replacement of public sector networks. The website, www.onlincolnshire.org, has been completely revised to give information, and to act as a demand registration system and a forum for discussion.

Further, Lincolnshire County Council has secured £1.2m of European funding for the most excluded areas (ERDF PA2) to match BDUK investment, create a digital business cluster, 'wire-up' events, develop i-visitor resources and to use digital technologies in arts and culture events on the coast to improve awareness and skills. Target areas are areas of low take-up. In the urban areas of Lincoln and Boston this correlates with high levels of social exclusion, and in the rural areas with social exclusion coupled with lack of supply. A range of community level interventions will be trialled in the first 6 months and a programme rolled out in the target areas for the remaining duration of the project. Examples are community and business volunteers providing peer to peer mentoring, local information days, and publicising success stories.

Supply measures will test a range of solutions to digital connectivity in areas of disadvantage, and where there is market failure. There will be support and information to promote self-help. The pilots

will demonstrate the potential and provide local exemplars for other communities to follow, and stimulate private providers and social enterprises to develop local solutions throughout the area of market failure

The targeted support for self-help and business cluster activities are designed to reach out to particular geographical areas and business sectors within the EDF Priority Axis 2 districts where there is a lack of supply and a high level of social exclusion.

A3. Local Broadband Context, Evidence of Need/ Gap Analysis

The spatial, demographic, topographical, economic and social profile of the Lincolnshire LEP and the consequent scale of investment required mean that ensuring universal coverage of standard broadband and providing every community with access to 'superfast' broadband will not be delivered by the private sector without public investment. This section adds further detail to the evidence provided so far on the need for investment and the potential gap between the objectives of the local broadband plan and what will be delivered by projected private sector investment.

Lincolnshire LEP: Spatial context and population

The Lincolnshire Local Enterprise Partnership (LEP) area is situated on the east coast of the country (See Map B in Appendix A) and, at 6,124 sq. km, includes the county of Lincolnshire (the fourth largest county in England) and the unitary authority area of North East Lincolnshire. Its population, which currently stands at 855,000 people, has undergone significant growth over the last decade at 10% compared to 6% nationally. The population is dispersed across 727 settlements.

Despite this high growth, Lincolnshire LEP still has only 140 people per sq. km, compared to 398 in England. Because of this population sparsity factor, Lincolnshire is one of the most rural counties in England. Of the eight local authorities within the Lincolnshire LEP, four (East Lindsey, North Kesteven, South Holland and West Lindsey) are classified by DEFRA as "Rural-80", the most rural category in which 80% of the population live in a rural area.

Lincolnshire is known as a flat county. However, whilst the fens around the Wash are indeed flat, much of the rest of the county is undulating, especially the Lincolnshire Wolds Area of Natural Beauty. The Broadband Stakeholders Group recognise that such areas '*present a particular challenge with respect to the delivery of next-generation broadband*'. Where the optimum solution cannot be provided by fibre, it will be necessary either to seek to minimise the visual intrusion associated with wireless and/or satellite services. Alternatively, we will investigate ways to roll-out fibre solutions, for example working with the plans of the electricity companies to underground their cables, and to make use of existing ducts.

As shown in Map C (Appendix A), unlike other sparsely populated areas of the country there are no vast tracts of the Lincolnshire LEP area that are unpopulated either by households or by businesses. Even where residential premises are few, for example in the South East of the county, there are a large number of nationally important food manufacturing and packaging businesses illustrating both the importance of universal coverage and the scale of the challenge.

Current Telecommunications Infrastructure and Public Sector Assets

The current telecommunications infrastructure of exchanges, services, cabling, public sector assets and community networks is detailed in Section A2 as is current broadband and mobile broadband coverage.

The communications infrastructure is shown on maps in Appendix A;

- Map A details current 'standard' broadband coverage and not spots
- Map G details current mobile broadband coverage
- Map H details exchanges by type, cable coverage, public sector assets and community networks

Lincolnshire County Council's corporate and schools public sector networks are due to be renewed in 2012. Initial options work has been carried out, suggesting a jointly procured PSN will deliver significant benefits. An options appraisal has been commissioned from Analysys Mason to identify the optimum role of the PSN in contributing to the wider NGB coverage objectives. *(Interim results may be available to add after 16th June)* Separately, there is a significant Ministry of Defence estate in Lincolnshire with fibre connectivity.

Regional Assets – Transport Infrastructure

The Lincolnshire LEP area has an extensive road network with approximately 9,500km of roads. However there are no motorways in the Lincolnshire LEP area. Sixty five percent of the roads in the LEP area are classed as either 'C Road Rural' or 'Rural Unclassified' compared to 48% nationally. There are a significant number of navigable inland waterways in the LEP area, particularly in the south Lincolnshire fens. The LEP area's transport infrastructure is depicted in Map I in Appendix A. The dispersed settlement pattern presents a major challenge to implementing a comprehensive public transport network.

Part of the far west and south of the LEP area has access to the A1/East Coast Main Line north/ south transport corridor. However, the economic potential of much of the LEP-area, particularly that which lies to the east of the A15, is restricted by its peripherality and relative inaccessibility. Further investment in telecommunications and transport infrastructure can mitigate the impact of peripherality and stave off a slow decline in parts of the area.

Economic and Social Profile of the LEP Area

The dispersed spatial pattern of settlement distribution and lack of advanced communications infrastructure in the large and predominantly rural Lincolnshire LEP area influences the state of the local economy and social conditions.

The economic and social condition of the LEP area and the potential benefit of enhanced digital infrastructure are summarised in Section A1 and described in more detail below.

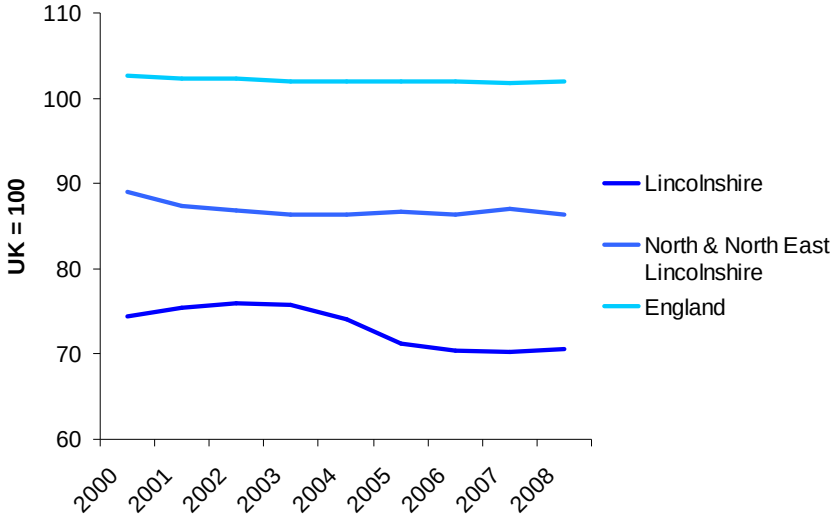
The Economy of the Lincolnshire LEP Area

The economy of the Lincolnshire LEP area is characterised by a low connectivity, low wage, low skill and low productivity equilibrium, which has considerable potential to benefit from enhanced digital connectivity.

Productivity

Figure 1 below [10]demonstrates that as a result there is a sizeable gap between local and national economic performance arising from strong reliance on established industry clusters. The Lincolnshire economy is in the bottom five performing areas nationally for GVA.

Figure 1: Gross Value Added per head (UK=100)
Source: Office for National Statistics



Even discounting the county's lagging broadband coverage into account, based on calculations using national and regional figures, Lincolnshire would experience a GVA uplift of somewhere in the region of between £47m and £66m per year over the next 5 – 7 years through the introduction of superfast broadband. Similarly, North East Lincolnshire would experience a GVA uplift of somewhere in the region of between £15m and £21m a year over the same period.

The East Midlands Small Business E-Adoption Survey 2006 concludes that Lincolnshire, 'amongst the larger counties, is positioned a little behind the other counties on a number of e-business indicators'. The indicators include broadband connection, off-site use (e.g. homeworking), website, Customer Relationship Management, and e-selling, reflecting both the lack of supply and awareness of the benefits of digital technologies for their business, and as a consequence a relatively underdeveloped ICT/digital sector. A growing arts and culture clusters tend to require high specification connectivity.

Skills

As well as restraining growth in GVA, Lincolnshire LEP area's strong reliance on traditional industries has also played a role in it having a lower skilled workforce and lower wages than the national average. The average wage of workers in Lincolnshire is 14% lower than the national average[11], whilst 34% of those aged 16-74 in the county have no qualification compared to 29% nationally[12].

Those who are digitally excluded are most likely to find themselves in low skill low income occupations, characterised by high rates of turnover, higher risk of cycles of unemployment and short-term unemployment[13]. Broadband enablement across the county has the potential to help address these issues in a number of ways.

[10] (GVA data is only available down to NUTS3 level and hence North East Lincolnshire's economic performance based on this measure can not be shown

[11] Annual Survey of Hours and Earnings 2010

[12] Census 2001

[13] The Economic Case for Digital Inclusion

People with good ICT skills have been shown to earn between 3% and 10% more than people without them. If the currently digitally excluded employed people got online they would increase their earnings by an average of over £8,300 over their lifetime[14]. Broadband access opens doorways to on-line training and courses that would have been difficult to access through traditional means. Estimates suggest that if the county was able to up-skill an additional 3% of the working age population (nearly 13,000 people), to a level 3 or higher skills category by 2015, this would add £300m to the value of the county economy[15].

As the county acts as a net exporter of young skilled people, with a net loss of over 1,000 people aged 15-29 every year and only a quarter of students studying at Lincolnshire's higher education institutions finding work in the county at the end of their studies, a higher skilled and higher wage economy enabled by superfast broadband would also help to retain younger people and their skills.

Digital inclusion can encourage and help individuals back into work, through increasing employment prospects by providing access to online job searches and applications, as well as information about job vacancies and opportunities through the enhancement of skills.

Finally, superfast broadband can attracting new business and investment to the Lincolnshire LEP area, in particular from the knowledge based industries, which in turn would create higher skilled jobs paying higher wages and would provide an incentive for employees and employers alike to break out of the lower wage / lower skills equilibrium[16].

Social Issues in the Lincolnshire LEP Area

Deprivation

Sparsity, peripherality, lack of connectivity and a strong reliance on traditional industries influence social issues in the LEP area, particularly levels of deprivation. Map D (Appendix A), uses the Indices of Multiple Deprivation 2010, which indicates that the east of the county appears to be suffering greater levels of deprivation than the west, with levels highest on the coast in and around Grimsby (which contains an area that is the second most deprived in the country), Skegness, Mablethorpe, and Boston, with areas further inland being less deprived. In the west of the county, the more deprived areas are by and large confined to the urban areas of Lincoln, Grantham and Gainsborough.

Lack of connectivity particularly impacts on the ability to access services and employment. Map E (Appendix A) looks at the Geographical Barriers Sub Domain of the Barriers to Housing and Services Domain. With the vast majority of areas in the Lincolnshire LEP in the top 10% most deprived nationally on this measure, the area is likely to continue to face a major accessibility challenge.

Enabling e-services in these areas will potentially make a significant difference, especially when supported by demand stimulation. For individuals, this would mean the ability to access services that

[14] The Economic Case for Digital Inclusion

[15] emda Experian Regional Forecasting Model

[16] Skills in Areas Affected by Rural Decline, Warwick Institute for Employment Research, Lincolnshire Research Observatory

are increasingly provided over the internet and can be difficult to access through traditional means. E-services are also more environmentally sustainable, saving time and energy.

The drivers of social exclusion include unemployment, low skills, low income, and bad health. Evidence from a range of sources points to a strong correlation between digital exclusion and social exclusion, with approximately 40% of adults who have never used the internet also suffering severe social exclusion[17]. Social exclusion can also be exacerbated by physical or geographical exclusion, with the ability to access services or networks which could make a difference diminished in remote areas.

'Not spots', or areas with less than 2mbits/s connection speeds, in the Lincolnshire LEP are by and large typified by small villages, remote communities with poor access to public and commercial services. The people living in these areas tend be on lower incomes and middle aged, villagers with few well paid alternatives to agricultural employment, though rural families with high incomes often from city jobs, and retirees (some also with high incomes) reside in these areas[18].

Digital exclusion is twofold. First, some beneficiaries in the rural areas are excluded because of lack of supply. Second, beneficiaries who are socially excluded tend to be digitally excluded too, due to lack of awareness, skills, and access to ICT facilities. Some beneficiaries will fall into both categories – lacking supply, and awareness, skills and access.

Research into the potential of areas across the country to get left further behind as next generation access (NGA) networks get rolled out, and as a result increasingly digitally excluded, identifies distance and deprivation in particular as contributing factors increasing risk,

The distances involved in rolling out superfast/ next generation broadband to rural areas means higher costs whilst deprived areas potentially result in lower revenues for telecoms companies as people in these areas are less likely to be able to afford broadband services[19]. These issues increase the risk that rural and urban coastal area s of the LEP will be left further behind in superfast roll out (see maps D and E, Appendix A). Map F (Appendix A), demonstrates that there are a number of areas particularly along the coast, and in urban areas in and around Gainsborough, Louth, and Boston, that are in the top 20% most deprived areas nationally as well as being at a high or medium risk of digital exclusion.

Investment Gap Analysis

Our project is informed by 'worst' and 'best' case scenarios of private investment. The 'worst case' scenario assumes that there will be minimal new investment in the county beyond the plans currently announced. The 'best case' draws on Analysys Mason's UK model applied to Lincolnshire. The two maps of 'black', 'grey' and 'white' areas for State Aid purposes are Maps J and K in Appendix A.

The business and residential premises classed as 'white' in the two scenarios are shown in the table.

[17] The Economic Case for Digital Inclusion, October 2009, PricewaterhouseCoopers

[18] Experian

[19] An assessment and practical guidance on next generation access (NGA) risk in the UK, Analysys Mason, March 2010

Table 3 : Worst and Best Case Scenarios for State Aid

1. Worst case	'White' area			
LAD	Residential Premises	Non-Residential Premises	Total No. of Premises	% of White Premises
Boston	28001	1159	29160	100%
East Lindsey	61590	3699	66919	98%
Lincoln	1343	374	44467	4%
North Kesteven	27956	967	48643	59%
South Holland	37884	1527	39449	100%
South Kesteven	27810	986	61390	47%
West Lindsey	32612	1413	41611	82%
North East Lincolnshire	3092	158	74504	4%
Lincolnshire LEP	220288	10283	406143	57%

2. Best case	'White' area			
LAD	Residential Premises	Non-Residential Premises	Total No. of Premises	% of White Premises
Boston	9341	321	29160	33%
East Lindsey	34340	1488	66919	54%
Lincoln	2092	130	44467	5%
North Kesteven	18818	582	48643	40%
South Holland	16558	695	39449	44%
South Kesteven	22590	691	61390	38%
West Lindsey	23042	789	41611	57%
North East Lincolnshire	3092	158	74504	4%
Lincolnshire LEP	129873	4854	406143	33%

(Source: BDUK, Adit North, Analysys Mason)

In the 'best case', Analysys Mason have used the 'geotype' approach described in their work for the Broadband Stakeholder Group[20] to forecast which exchanges could be upgraded by 2015 in order to meet the two-thirds of premises target. It is assumed that BT will deploy NGB in the cheapest 'geotypes' first, and move to the next least expensive 'geotype', until the return on investment is unacceptable. This does not take account of local factors such as demand and take-up that may impact on investment decisions. Some of the 'grey' areas in the 'best case' scenario along the coast and in Boston are also in the most socially excluded areas, and areas of lowest take-up of current broadband.

A4. Scope of Project (describe your project).

The vision and objectives are given in section A1. Demand and digital exclusion activities will cover all of the LEP area, with activity targeted at areas of greatest need – areas of high social exclusion and to those aged 65+. The supply project, utilising BDUK funds, will take place in the 'white' areas described above.

[20] www.broadbanduk.org/component/option,com_docman/task,doc_view/gid,1036/

Modelling by Analysys Mason shows that the deployment costs to achieve deployment to 100% of Lincolnshire premises in the 'best case' white area (excluding NE Lincolnshire) could be between £50.57m for FTTC only to £281.2m for FTTP. Costs of fibre for the last 10-15% are excessive. Comparable figures for 90% of premises are £29.47m (FTTC) and £160.87m (FTTP). The nature of our rural area means that whilst it may be possible to achieve some FTTP, FTTC to 90% is a more realistic option.

Thus, in order to achieve the supply project of universal coverage and to facilitate the infrastructure to maximise mobile connectivity, the scope of our project is

- Procurement(s) to seek
  i) fibre solutions for as much of the 'white' area as possible, including maximising reuse of existing fibre and triggering investment in mobile connectivity and
  ii) a mix of technologies including wireless and satellite in the most difficult to reach areas, seeking to maximise the number of premises with NGB.
  We predict this will achieve 10-20% FTTP, a network of fibre and wireless 'broadband hubs', and areas of satellite service
- Encourage and assist local communities, in partnership with Community Lincs, to implement 'last mile' community projects from the 'broadband hubs'
- Assist community groups who choose to solve their own connectivity issues prior to 'broadband hubs' being created to implement resilient, robust solutions

We have based our cost assumptions on a gap funding model of 90% fibre/10% other to between 134,730 and 230,570 premises (see table *4*). The solutions must be open access with a choice of internet service providers available to businesses and consumers.

Over the next five years, the project team will implement the following key activities to support the supply project, subject to BDUK and other funds.

- Ensure State Aid clearance to invest in 'white areas'
- Coordinate activities to stimulate increased investment with procurement of PSN to maximise the benefit of public funds
- Undertake a procurement (or series of procurements) which maximises private investment, stimulates a range of provision and supports community solutions to extend coverage.
- Stimulate demand and usage through www.onlincolnshire.org and local campaigns where average household take-up is less than 50%
- Engage with local communities to encourage and harness interest in participation in broadband projects, working with Community Lincs. Assist those who choose to solve their own connectivity issues to implement resilient, robust solutions (subject to funds including RDPE)
- Influence suppliers' investment plans, including sharing facilities such as ducts and poles, and the existing extensive fibre networks
- Seek further ERDF funds to connect all major business sites and premises in 'white areas', and RDPE funds for community projects

- Draw down and administer public funds (BD-UK, EU, LCC/partner) against the milestones agreed with the suppliers and partners, overseen by a governing board and democratic structures
- Investigate 'digital proofing' of public services, for example through promoting a toolkit of guidance and standards, supporting and monitoring transformations of public services
- Promote Raceonline 2012, the UK-online centres and 'buddies' *(check with stephanie)*
- Influence development and infrastructure through an online information and guidance resource for planners, highways, developers and architects (project underway)
- Develop a 'digital cluster' of local firms with ERDF funds, run wired events, and develop i-visitor resources (project – underway)
- Put in place sufficient and effective project and contract management to ensure expertise is available to maximise impact of investment and uptake in Lincolnshire to benefit the economy and residents

  We recognise that demand for broadband is not static and supply solutions will be dynamic. Thus, the work of the team will evolve and change to meet changing circumstances.

The project plan attached shows the phases of the project. The roll-out is tied to our economic regeneration priorities. The first priority will be coastal areas, due to the high levels of deprivation and exclusion, and the growth areas of Gainsborough, greater Lincoln and Grantham. The second priority will cover the remainder of the LEP area. Within these two priorities, the phasing of the roll-out will be agreed in consultation with the supplier(s).

Community consultation and development of 'last mile' projects will be targeted initially at East Lindsey and rural Boston districts, linked to the ERDF Online Revolution project. The project aims to test a range of solutions to digital connectivity in areas of disadvantage, and where there is market failure. There will be a range of community pilots that will demonstrate the potential and provide local exemplars for other communities to follow, and stimulate private providers and social enterprises to develop local solutions. The pilots are programmed to be implemented between September 2011 and March 2012, ahead of or in parallel with the LEP-wide supply procurement(s).

Maps J and K in the appendix of the best and worst case scenarios show an analysis of our communities, and the availability of potential broadband hubs. 'Reuse of existing fibre' is likely to include PSN fibre connections in locations where they exist and there are no other alternative hubs. The maps show premises within 1.2km of a telephone exchange or public sector site, and other settlements classified according to their size and sparsity. More than 10% of all premises in the LEP area are in settlement groups that are more than1.2km from an identified hub location (area (DEF&G on the maps). Their distance from a hub indicates that they will potentially require a last 'last mile' solution to achieve NGB. The analysis gives an early indication of the areas that we would target for community 'last mile' projects, though this will be dependent on the actual solutions, local conditions and appetite for community self-help.

SECTION B – CUSTOMER AND COMMUNITY ENGAGEMENT

B1. Demand stimulation

Point Topic data suggests that population penetration of broadband is about 28% across the LEP area, compared to 31% in England. Average household take-up is around 57% in the LEP area, though there is significant variation from exchange to exchange, ranging from 40% to 75%, but still, on average, lower than the national figure of 64%. Business take-up, defined as total business broadband lines in the area divided by the number of business premises, is close to 100% in most districts but averages at 98%, again less than the national level of 110%. This implies that there is significant potential to increase both household and business broadband take up.

Table 4: Broadband take-up

	Household take up	**Business take up**	**Population penetration**
LEP area	57%	98%	28%
National	64%	110%	31%

Source: Point Topic data 2011

New national figures on internet usage show that, whilst internet take-up in younger age groups is better that the national average, those in the older age groups from 55 years and over are less likely to have used the internet than in the UK as a whole. For those over 65 the difference is significant – 66% compared to 58%. The older age groups will be the target for our digital inclusion measures *The* Lincolnshire Library service was involved in 'Spring Online' and trained volunteers and staff to assist people to be able to use the internet and e-mail. These activities are now a continuing part of their work. Library users are often those in the older age groups or without internet access at home, and so can be effective at reducing digital exclusion, especially in combination with community organisations that reach out to the community.

Table 5: Non-internet users by age, Quarter 1 2011

	Lincolnshire		**UK**
	thousands	**%**	**%**
16-24	0	0%	1%
25-44	2	1%	3%
45-54	7	7%	10%
55-64	23	23%	21%
65+	88	66%	58%

Source: ONS 2011

The demand stimulation is already underway. www.Onlincolnshire.org aims to assist residents, businesses and community groups to maximise their use of digital technologies and to promote demand for and supply of services. It seeks to encourage commercial suppliers to invest in next generation broadband infrastructure in Lincolnshire, by stimulating and registering demand for next generation broadband services.

‘Onlincolnshire’ provides information to help businesses and communities make informed choices about digital connectivity. It sets out examples of how digital connectivity can s benefit businesses, public services, individuals and communities who want to work together. Users can sign up for a weekly newsletter and take part in a discussion forum. Registrants and users can be analysed through back-office facilities, which can also be used to identify areas of low demand and to follow-up users for additional information.

‘Onlincolnshire’ includes a ‘register my demand’ facility that enables users to register demand for next generation broadband. The site is designed to ensure ease of access from low bandwidth connections, though it is also possible to register by telephoning Lincolnshire County Council’s customer services, or by using a People’s Network machine in libraries.

Onlicolnshire.org is already proving popular despite minimal promotion until staff restructure changes are in place in July (see E1). A programme of demand stimulation will be developed in the next quarter, working with partners and other intermediaries, such as business representative organisations, the third sector and public sector partners to raise awareness and demand registration by businesses, residents, and community groups.

Community consultation will be undertaken in the remainder of 2011 as part of the ERDF Online Revolution project to assess interest and demand from residents and businesses, and gain evidence of how the community pilots will transform the locality. LCC has considerable experience of delivering community development work, notably through the EU Objective 2 projects of Racol and Revive and Thrive. Plans for the ERDF activity include local targeted promotion through parish newsletters, notice boards and parish websites; Face to face and telephone meetings with community group activists to identify solutions, broker discussions with suppliers and put the groups in touch with other advisors and sources of assistance.

Activities to stimulate demand will include testing marketing and communications methods in the first 6 months of the programme to reach the hardest to reach communities i.e. those in high risk areas for supply, low take up and high levels of multiple deprivation. Methods will be to work through existing community organisations and groups, e.g. residents groups, childcare nurseries, libraries, community council. Campaigns will use traditional marketing methods e.g. of success stories in newsletters and the press, as well as identifying and providing support for ‘digital champions’ in communities and for business sectors – as advocated by race2012.

The methods of local promotion, piloting ways of working through community organisations, and promoting ‘digital champions’ and volunteer networks, have been chosen because they are advocated by national research into digital exclusion[21] . Demand support will be targeted at businesses and residents in areas of low take-up, regardless of availability of services. Low take-up generally correlates with areas of high social exclusion. Experience with and evaluation of the

23. [21] ‘Delivering Digital Participation’ Consumer Communications Panel, May 2010

24. ‘The Journey to Digital Participation’ Consumer Communications Panel May 2010

25. ‘Introducing another World: older people and digital inclusion’ AgeUK

targeted support for supply and demand in the ERDF project will inform our plans and activities in the remainder of the LEP area.

By November 2011, Lincolnshire County Council will prepare a guide to support the work of planning, highways, utilities and developers in Lincolnshire that will promote works and new developments being planned, designed and built with digital technologies in mind, applying established best practice. This will be hosted on the 'Onlincolnshire' site and proactively disseminated.

The demand stimulation and registration campaigns will be carried out by the project team (see E1), using www.onlincolnshire.org as a key tool. Targeted work with communities in the ERDF project districts will be tendered to community development specialists in the next quarter, and funded by the ERDF project. Activities in the remainder of Lincolnshire county area will be a carried out by through a partnership between the project team and Community Lincs through an SLA and associated revenue funding (see E1). Community Lincs, the Rural Community Council for Lincolnshire, are part funded by DEFRA and are encouraged to take an active roll in rural broadband.

B2. Demand registration – evidence of demand

Residents and communities - Community Lincs surveyed their 'rural voice' contacts in 2010. There were 71 replies from across rural Lincolnshire. The results confirmed that poor connection is an issue in parts of the county, and animation is required to boost self-help. The results were:

- 33% said that their broadband connection was poor or non existent
- The majority had not considered self-help solutions
- 4 in Boston, 5 in East Lindsey and 1 in Lincoln, said, on behalf of their communities, that they would be interested if there was help available
- 62% said that inadequate speed of connections will prevent them getting maximum benefit in the future
- Homeworking is widespread - 63% used broadband for work from home
- 60% used broadband for school and education uses
- 10 respondents located in the PA2 area said they would be interested in being involved in a project to solve connectivity issues in their community.

In the parish of Legbourne in East Lindsey, one resident has been able to investigate the technological issues in his locality, and prompted the parish to carry out a survey of their residents and businesses in 2009. They found that 'most residents were unhappy with the coverage that all the main operators are able to offer in regard to the very slow speed of Broadband' and some of the 20 businesses in the parish were seriously affected. The parish activist concluded that 'that Broadband speeds in Legbourne are too slow and are holding back both business and social development.'

A resident of Sutton-on-Sea campaigning for Fibre Optic services in the local telephone exchange commented 'Myself and my team campaigned long and hard around the local area in BT's Race to Infinity where our exchange finished 12th overall with a percentage of 47% . We were promised that our efforts would be taken into account regarding future rollout plans' but that has not proved to be the case'.

The Digital Property Group reported early in 2011 that over 50% of people currently browsing for homes online are thinking of moving to the country in the next six months mainly seeking an improved quality of life. One of the major on-line property agents, Right Move, are proposing to add information on speed to their property details. Anecdotally, we are aware that those seeking to buy property in Lincolnshire are beginning to take broadband speeds into account when making decisions. Plans to improve broadband are crucial to maintaining quality of life and continuing to be attractive to those relocating.

Business - A snapshot survey of Lincolnshire businesses by the University of Lincoln in March 2011 found that more than 80% agreed or strongly agreed that universal access to superfast broadband is important for the local economy. Seventy three percent agreed or strongly agreed that it is important for the future of their own business.

However, experience from previous projects has shown that our SMEs are very sensitive to the price they have to pay for broadband. A survey of businesses in West Lindsey, North Kesteven and Lincoln in 2010 found that 56% were not willing to pay more for a high speed internet connection and 23% were undecided. Just over half of companies were paying between £16 and £50 a month for their internet service, and around one in five were paying less than £16 a month.

Comments have been received from many businesses about the impact of poor connectivity on their business, for example through the LEP, and the Forum for Agriculture and Horticulture whose members are increasingly required to file returns to government online. Three SME cases illustrate the issues and strength of feeling.

Leverton Farms Ltd, based in Burton and also Ingleby, Lincolnshire

Operating from its two bases in Lincolnshire, Leverton Farms Ltd illustrates what the “Lucky Dip” of broadband provision really means for rural businesses.... Based at the firms premises in Burton, Director Fred Myers can only access less than 0.5Mbps broadband, with high rates of connection failure– and has to download emails using the barely adequate mobile connectivity on his Blackberry mobile phone.

A few miles away, Company Secretary Moyra Hope connects to the web at around 5 – 6 Mbps from their Ingleby base. “Not blisteringly fast, but adequate at the moment. Fred has to come over to these offices to use the web, it’s just too slow at Burton for him to be able to do anything” says Moyra.

Fred says “We’ve got redundant farm buildings at Burton that we want to convert to offices, encouraging jobs within the rural areas and helping to reduce travel and the carbon footprint, but without good broadband, they just won’t be attractive to businesses” he continues. “Even holiday let cottages are now being advertised as having broadband connectivity!”

As Fred is also Chairman of Burton Parish Council, he has decided to have the issue added to the agenda of every meeting.

He adds “Good quality broadband is not just a business issue – important as that is – but also a quality of life issue too. I fully support the County Council in its bid to help improve the broadband provision of the county.”

Prima PR & Marketing, Gelston, Grantham, Lincolnshire

Established in 1991 by Maggie Taylor, Prima PR & Marketing are a full service agency that works with companies ranging from blue-chip multinationals through to professional practices and public bodies. As part of their services to clients, Prima work with other specialist agencies to deliver the exact PR that their customers need. As Maggie explains "the PR and marketing business is heavily dependent on online activity and interaction, with large file transfers and onsite content management the norm."

"Simply transferring large graphic files from our PCs to clients and other specialist agencies has always been an issue – but it's getting worse, as file sizes get larger. Other city-based businesses are starting to automatically assume that you've got really fast broadband and can handle the huge files they transmit – but for us, slow broadband just causes our PCs to lock whilst the file ever- so-slowly downloads....."

Maggie is firmly convinced that poor broadband in Lincolnshire is a major barrier to growth for many firms: "We have lagged desperately behind the rest of the UK for too long. We waited years for broadband delivery here in Gelston, when broadband finally arrived, it was at a maximum speed of 0.5Mbps. This speed is still the same, 7 or 8 years later, without any likelihood of increased speeds"

She continues "The rural areas of Lincolnshire are great places to live and work, but they do have disadvantages. We're 3 ½ miles from the nearest bus stop so you need a vehicle to survive (and petrol prices are ever rising). I hate commuting, and think it's a waste of resources, but in previous years we had an office in Nottingham, where broadband speeds of 20Mbps were the norm. The speed disparity is making it a hard decision to continue to operate in this rural area.

We urgently need to secure better broadband services if we are to secure any future for our rural areas as places to both live AND work. I hereby confirm my support for the County Council's bid to Broadband Delivery-UK to fund superfast broadband in Lincolnshire."

Purle Ltd, Lincolnshire

Purle Ltd, set up in 1997 by Rob Purle, was originally developed to create custom databases. The firm has developed into offering a range of IT solutions for Lincolnshire businesses, such as integrating backend office systems and websites. They also help other businesses use technology in gaining a competitive advantage.

Rob says "My role is to work with clients to provide the IT systems infrastructure that will allow them to develop and grow. Poor broadband is a real problem for us all, and it's just going to get worse unless the issue is addressed in Lincolnshire."

He explains: "For example, I'm working with a group of five businesses, all based within the same building in rural Lincolnshire. A sixth business in the group is based in the North East, with further growth planned.

They are investing heavily in a central database and other functionality, are exploring Cloud Computing and need to be able to allow remote access to more and more remote users for each of the companies."

Rob continues "They've got 15 staff working out their premises at the moment – but they've already got staff based in Derbyshire, the North East, Yorkshire as well as other areas of Lincolnshire who remotely access their servers. The businesses are all growing, employing new staff, they really want to encourage remote working but the current leased line broadband, at 2Mbps symmetrical, just isn't

good enough – they can't get anything better though. They already pay about £7,000 per annum for this."

He adds "As an example, they recently tried to conduct a training course via video conferencing with staff here and others in the North East, Derbyshire and Yorkshire. The course went well – but the video conferencing didn't really work, it kept dropping the connection and other issues, all due to the broadband not being broad enough! As they see video conferencing as an ideal way to be more cost effective and to reduce their carbon footprint, they were disappointed.

It just reinforced to me what a real restriction to growth poor broadband will soon become for firms like these. That's why I fully support the County Council in what they are trying to achieve with their bid!"

Public Sector organisations – see section A3 for evidence of demand and constraints.

B3. Stakeholders

Since September 2009 a Digital Connectivity Board has overseen the project in Lincolnshire. Originally conceived as a task-and-finish sub-group of the Lincolnshire Assembly to develop a digital strategy for the county, the Board, following a review of membership and terms of reference, will take on governance of the LEP Broadband Delivery Plan. Membership – to list

New members – Business representatives (IOD) and NE Lincolnshire

List of partners who support the bid – letters attached from MPs, MEPs, Board partners, LEP/business organisations ….

Lincolnshire County Council, North East Lincolnshire Council and latterly North Lincolnshire Council are working together to support the Greater Lincolnshire LEP. As the broadband plan is rolled out there will be close liaison with North Lincolnshire Council to ensure that residents and businesses are signposted effectively, and that there are no gaps or duplication of services. Depending on the solutions proposed for each area, we will work with all adjacent authorities on cross boundary issues (Norfolk, Cambridgeshire, Leicestershire, Rutland, Nottinghamshire).

Lincolnshire County Council is well practiced in working with stakeholders to reduce streetwork related disruption. Highways staff assisted the community in the Ashby de la Launde community project. As the highway authority, the Council has a duty to protect the rights of the public to the use and enjoyment of the road and footpath network. The Council also has a duty to ensure that public rights of way are open and safe for use, free from obstruction and clearly marked. As the street authority, the Council has a duty to co-ordinate works on the highway, including the works of Statutory Undertakers (i.e. Gas, Electricity, Water Board) in the interests of safety, public convenience, the protection of the structure of the street and the integrity of apparatus in it.

It is therefore proposed that any proposed street works would be managed and co-ordinated by our team of Highways Officers located throughout the county. The County Council would follow the procedures of its private licence process which allows 3rd party stakeholders to enter into the highway to place and retain equipment or apparatus through prior agreement. The same process is used where it is proposed to place any cables over the highway. The private licence process allows

Lincolnshire County Council to ensure the quality of work taking place within the public highway, and co-ordinate it's activity accordingly.

SECTION C – FINANCIAL INFORMATION

C1. Funding Requirements

Our vision for supply is to achieve universal coverage of Next Generation Broadband (NGB), also known as superfast broadband[22]with easy, affordable access, and to facilitate the infrastructure required by the private sector to maximise coverage of mobile connectivity and other digital services. Independent modelling has shown that to achieve the vision, could cost between £70m and £100m. Our bid is based on an expectation of private sector investment of between 38-50%, so that the funding gap is between £30 and £50m.

Scenario 1 assumptions – worst case state aid map, 50:50 public/private gap funding, worst case estimates of funds for community development and projects, and/or low interest from communities

Scenario 2 – best case (Analysys Mason) state aid map, much lower % of private match in first 90%, continuing demand and support for community projects, and funds

Funding Table

Total funding required (GBP)	*Best case*	*Worst case*
£	millions	millions
Private sector (Telecom Company) investment	30	44
Sub Total		
BDUK funding		
Other funding (Local Authority/PCT)		
Sub Total	32	48.7
Other funding (European/ERDF)	1	5.3
TOTAL	63	98

Explain status of all match funds
- ERDF approved
- LCC capital to 2012/13 agreed. 2013 on subject to …

[22] 30mbps or greater

Factors that will influence the level of and timing of funding required..

LCC needs to own something to revenue-ise capital funds for project management…

SECTION D – COMMERICAL INFORMATION

D1. Commercial Case

D2. Market engagement

SH to complete

D3. Procurement Strategy

Lincolnshire County Council will procure one or more private sector broadband partner.

Section needs to talk about BDUK framework currently being developed – we will look at it, but depending on timescale and the extent to which it meets our needs, we may or may not use it.

The local authorities in Lincolnshire have a joint specialist team called “Procurement Lincolnshire” which will provide technical advice on the procurement and will manage the milestones and process of the procurement, following OJEU legislation and using advice from the OGC’s procurement information.

We will undertake a full procurement which will be agnostic on technology, but will instead outline the intended outputs of the BDUK/LCC investment. To date LCC has invested significant time and resource in defining our strategy and outputs which are contained in this bid. We have used an “intelligent client” service to undertake some pre-market assessment alongside specialist technical consultancy and strong elected member input in order to set clear parameters for our digital strategy. We will continue to refine this in the period between submitting our BDUK bid and starting the procurement, ideally with BDUK technical input if funding is approved. Putting effort into defining our strategy and intended outputs at this stage –and therefore our tender specification- will enable us to run a standard procurement ? *restricted procedure?* rather than enter into a competitive dialogue which will take time during the procurement phase.

It is unlikely that we will enter into a joint venture agreement but will instead have a clear contract with our subcontractors.

The contract will contain clear specifications such as extent of coverage, timing by which outcomes should be achieved, and ability for retail digital service providers to use the network. These factors, as well as cost, track record/ability to deliver, and understanding of the situation in the Lincolnshire area will form the basis of the criteria used to evaluate tenders.

Value For Money will be another important criteria. The detailed tender specification will be formed with value for money considerations in mind. For example, understanding the likely competition for the contract in order to seek a competitive price will be part of the consideration. In addition, added value will be sought in the contract, for example through inviting potential contractors to deliver effective solutions to areas that a fibre to the cabinet./fibre to the premises approach would not be able to help.

We will establish a project team and process (see below) with project management, technical knowledge, and policy skills to ensure that the evaluation of tenders is done in an informed manner.

The project team will have the client role with the contractor, and will review progress against clear milestones on a regular basis in accordance with council procedures.

SECTION E – DELIVERABILITY

E1. Project management, resourcing and funding

Delivering this project is a County Council priority, as shown by the preparatory work over the last year. The council has a clear Project Management (PM) Standard which defines how all projects are to be managed within Lincolnshire County Council (LCC). It informs officers of the requirements, provides guidance and advises on best practice.

Effective project management provides one of the cornerstones of good corporate governance. By ensuring:

- Transparency on how investment is used to deliver benefits and outcomes
- Resources are used effectively to deliver and in line with corporate priorities.

The PM Standard used good practice from PRINCE2®, Managing Successful Programmes (MSP®) and Association of Project Management (APM) to develop LCC's project management methodology and processes.

Project Categorisation

LCC has many different types of projects from small, low-risk, low-cost, through to large, high risk, complex major investments. So that the degree of project management controls reflects and is appropriate for the scale, size and risk involved in each project a scalable approach to project management has been developed. As a result, LCC has adopted a four category approach. Simple projects are Category 1, with larger, more complex projects classed as Category 4. Through our scoring matrix, this project has been identified as a Category 4 Project, which means it will receive high priority within the Council.

Project Lifecycle

The LCC Project Lifecycle covers the duration of a project from concept through to closure. Projects are split into five lifecycle stages with decision points provided at the end of each stage to ensure they are delivered in a controlled manner. These project lifecycle stages are: Concept, Planning, Development, Delivery and Closure. See Figure 1: Lincolnshire County

The lifecycle creates a structure for setting up, running, completing and closing a project. At each stage, a project is expected to carry out and produce a distinct set of activities and deliverables. It is designed to be scalable and to be applied in an appropriate manner depending on the category of the project. Templates are available for all key project management documents and include guidance to assist effective completion.

LCC's Stage Review and Gateway Review processes are tools used for examining projects at the end of their lifecycle stage to ensure successful delivery. They are a means by which progress, results and the ability to succeed are evaluated and reviewed. This provides assurance that the project can progress successfully to the next stage and ultimately through to the successful closure of the project. In simple terms they:

- Highlight the risk associated with a project
- Anticipate any potential problems
- Assess whether the project is capable of successful delivery with all benefits and outcomes achieved to the required standard, on time and within cost.

A Stage Review is an informal process carried out by an appropriate decision making authority already involved in the project (i.e. member of Project Board etc).

A Gateway Review is a formal process and is carried out by independent subject matter experts who are not directly involved in the project. These independent subject matter experts may be internal or external to LCC.

In addition to the normal project management approach, this projects's progress will be reported to a quarterly meeting of senior councillors and council directors, and it will receive additional dedicated support from the council's Programme Management Centre who specialise in project and programme management.

Further guidance on the delivery structure has been taken from the BDUK Programme Delivery Model publication.

Resourcing

Our bid outlines that the council will put significant staff resource, with the appropriate policy, management, and technical knowledge, into the project. The funding for this staff resource has been approved, and the project team staff are in place from 1st July 2011.

<u>Project Team</u>

The Project Team will comprise of LCC staff (Principal Rural Policy Officer, Principal Development Officer, Senior Project Officer) alongside expert and community contractors (including Community Lincs). They will carry out the day-to-day work of the project, and will incorporate the following roles:

- Managing procurements
- Oversee delivery of procurements
- Liaise with the industry, services and market expertise (engaging experts as required)
- Information, promotion and maintenance of www.onlincolnshire.org
- Policy and funding analysis
- Consultation and communication, demand stimulation and registration campaigns
- Pilot project implementation (ERDF)
- Management information and financial record keeping

Expert Contractor – technical specialists contracted to LCC

The contractor side project manager will manage the detailed relationship between LCC and private sector partner(s), to ensure compliance with contract, to promote linkages to other digital initiatives at a practical level. They will provide technical knowledge of implementing rural broadband schemes, programme management, telecommunications sector experience at a senior level

Support for Community projects

It is our intention to agree an SLA with Community Lincs (CL) – the Rural Community Council for Lincolnshire, subject to further discussion. They would provide a broker service that enables effective joint working between the project team and communities including ensuring the use of plain English and consultation at times to suit the community. Their work will be modeled on the CL Rural Housing Enablers, who work with communities through parish councils and the use of household surveys, to identify need for affordable housing. This is then translated into a delivery plan, which includes a call for land, the development of a local lettings policy and liaison with the planning authority. CL's RHEs are seen as independent of the Local Authority and the RSL developers and as a result are able to encourage high levels of public involvement in the whole process. Subject to discussion and agreement, likely roles are:

1. Community Lincs
    - Facilitation of meaningful dialogue between communities, LCC and Broadband Providers. Identify skills gaps within the communities, provide advice and information and broker in training if required.
    - Support for the recruitment of local champions and the development of local broadband steering groups and to ensure informed decisions are taken by the steering group and community.
    - Work with the parish council to inform them of the approach, options and their potential role.
    - Help the steering group to identify local appetite for getting involved in the delivery of the project to help keep the costs down.
    - Help groups to stimulate registered demand, develop a proposed solution and hold a community referendum.
    - Provide advice and guidance to communities on project planning, enterprise models, consultation and demand stimulation.
    - Identify with the community and register the potential for in-kind contributions to the overall project. To work with the community to identify potential sources of funding, from within the community

- Advise / broker advice on the most appropriate structure for any community enterprise. to provide advice on legal structures and the processes required to develop them.

2. Project team

- Provide information and resources via www.onlincolnshire.org, including community project areas on the forum, model survey forms, way leave agreements, case studies, training events etc
- Source un-biased technical information that can be used to develop appropriate solutions to their broadband development needs, and help communities access it.
- Identify potential sources of funding from local/ national/European sources and assist with the development of funding applications.

Governance

Greater Lincolnshire LEP

The Greater Lincolnshire LEP was approved in the first round of Government LEP announcements and NE and North Lincolnshire have recently joined the private sector led partnership. The LEP will provide strategic advice, challenge – both to market suppliers and the programme team and champion broadband connectivity and uptake objectives. NELC and LCC Executive Directors and Executive Members are on the LEP Board.

BDUK/PSN Programme Board

Composition – LCC senior councillors and managers within various departments with a responsibility for digital provision, service transformation, ICT and Finance. The Board will receive advice from the Partnership Board and has overall responsibility for decision making on the plan, allocation of resources and signing off an SLA with NE Lincolnshire.

Broadband Delivery Partnership Board

Broadband Delivery Partnership Board, (formerly the Digital Connectivity Project Board) is responsible for advising the project team, championing the project in their organisations, and communicating with all stakeholders, business and communities. It will meet regularly during delivery of the plan and will ensure the activities remain on course to deliver against the Broadband Delivery Plan.

Composition –
Project Sponsor (Chairperson),
Programme Board
ITSG/Lincolnshire District Council representative
NE Lincolnshire lead body for SLA
NE Lincolnshire and Lincolnshire public service representatives (including Fire and Police)
PCT/NHS
University of Lincoln
Further Education
Third sector representative – Community Lincs
Business/LEP representative – Institute of Directors

BDUK input –potentially as a member of the Programme Board - would be most welcome; advice and support will be drawn from BDUK as available for example on state aid notice and procurements

Project Team and Programme Resource funds (Revenue) £	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Advisors						
Targeted support - ERDF project	9,125	27,375				
Expert assistance, including community support	44,063	72,000	72,000			
Demand Stimulation (onlincolnshire.org)	86,700	10,000	10,000	6,000	6,000	6000
Project Team	90,544	90,544	92,355	94,202	96,086	98,008
Programme Manager	33,333	100,000	100,000	16,667	-	-
TOTAL	263,765	299,919	274,355	116,869	102,086	104,008

E2. Timetable

Key milestone*	Expected date
Project definition approved by local bodies	
Initial EU Structural Fund approval	
Issue of PIN (if used)	
Issue of OJEU Notice	
Prequalification complete	
Final tenders submitted	
Preferred bidder selected	
State Aid approval confirmed	
EU Structural Funding approval confirmed	
Contract award	

Commencement of implementation	
Implementation complete	

*Add in other lines / milestones as appropriate

E3. Expected Strategic Benefits

Our vision, objectives and outcomes are detailed in Section A1 and outline the strategic benefits that BDUK funding would unlock. Our objectives break down the vision into four components that we will need to achieve to realise our vision. Our outcomes quantify what we want BDUK/other public and private funding to deliver, by when, that will contribute to achieving our objectives. The outcomes are stretching, relate directly to the objectives and provide a means of monitoring progress towards them. They are credible and 'SMART', and informed by what we are seeking to achieve for Lincolnshire.

Outcome	**How we will measure it**
….By 2015	
Every residential, business, community and public premise in Lincolnshire will be able to connect directly to an affordable service delivering broadband of at least 'standard' speed (2mbps).	Point Topic /BDUK and/or Contractor data/ BT/Onlincolnshire.org data mining
Access to mobile broadband connectivity will increase to 90% of land area	Repeat 2010 exercise with mobile suppliers
…By 2017	
Every community in Lincolnshire to have access to superfast broadband (30mbps) through a 'fibre hub' or alternative technology for around 10% of premises	Point Topic /BDUK and/or Contractor data/ BT/Onlincolnshire.org data mining
All local authority and public sector partner 'transactional' services will be available on-line and every community will be able to benefit directly or through a community hub	Review of public sector strategies and services, through monitoring digital proofing guidance
The percentage of internet users of 55 and over will equal or exceed the national average	(ONS Omnibus Survey http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=5672&Pos=1&ColRank=2&Rank=816)

We are ambitious and plan to perform to a higher level than the UK average on broadband. Therefore, if the BDUK 'Best in Europe' scorecard can be meaningfully disaggregated, we will also track progress using its measures.

E4. Risk management/log

The likelihood of a project succeeding is heavily dependent on the quality of the risk management practiced by the Project Manager throughout its delivery.

There are many definitions of risk, but for simplicity it can best be understood as:
"Risks are things that may happen at some point in the future and may require proactive management to reduce the likelihood of them happening and their impact on the project."

The LCC approach to project management requires that the Project Manager maintains a full Risk Log to keep track of all the risks that have been identified and controlled throughout the lifecycle of the project.

Below is a table highlighting the initial risks to this project:

Risk Log Table:

ID	Risk Title/ Description	Risk Owner	Likelihood (1-Low, 5-High)	Impact (1-Low, 5-High)	Score (0-10)	Mitigating Actions
1	Failure to secure funding	Programme Board	3	5	8	Ensure bid is comprehensive
2	Lack of expert support availability	Project Manager	2	4	7	Procure in a timely manner
3	Lack of Community Involvement	Partnership Board	2	3	5	Ensure that benefits to them are relevant and marketed
4	Interdependent activity issues	Partnership Board	2	2	4	Ensure visibility of activity through the board
5	Project Team Resource availability	Sponsor	2	3	5	Forward plan for availability and continuity planning
6	Cost over-run	Sponsor	2	3	5	Utilise LCC project management standards
7	Time over-run	Sponsor	2	3	5	Utilise LCC project management standards
8	Failure to meet objectives	Sponsor	2	3	5	Utilise LCC project management standards

CEO sign off/Section 151 officer/Executive Member (portfolio holder)

a) Submission: **In submitting Local Broadband Plan, I verify that the proposal fits with corporate policy**	
Signed:	
Name:	
Job Title	Date: