



Social Study 2015

The Economic Impact of BT
in the United Kingdom
& the North East



A report prepared by
Regeneris for BT Group



1 Contents

2	Introduction	3
3	Our Report	5
4	An Overview of BT	6
5	The Economic Impact of BT in the UK	7
	Economic Impacts	9
	Total Impact in the UK	11
6	BT in the North East	12
A	Technical Appendices	34

Regeneris Consulting is an independent economics consultancy that provides research-based advice to major corporates, developers, national government bodies and local government. Regeneris specialises in preparing robust assessments of economic impact, focusing on the impact of new technology, physical developments, policy changes, investment programmes and corporate economic footprint. Regeneris work across the UK from their offices in London and Manchester. See: www.regeneris.co.uk for further information.

2 Introduction



BT is the UK's major provider of telecommunications networks and services, and the work we do is key to the country's continued economic and social prosperity. Across the North East we are making connections, creating new possibilities and helping businesses to grow, communities to flourish, and people to get more out of life.

As a key UK communications services provider, we use the power of communications to make a better world. We bring together the expertise of our people and the best networks and technologies. We support employment in every part of the UK through our direct workforce and, indirectly, through our extensive supply chain. We seek to centre our procurement and expenditure within the UK's local economies.

This report concentrates on and highlights the direct economic contribution BT makes across the English regions,

Scotland, Wales and Northern Ireland, in numbers and through case studies. It estimates BT's total Gross Value Add (GVA) to the UK economy, combining the direct, indirect and induced impacts of our activities and spending. In the North East BT's GVA for 2014/15 is estimated to be £492 million.

BT continues to make significant investments for the long-term benefit of both the company and the UK. Our most significant investment has been in superfast broadband, and today our network covers more than three-quarters of the UK. This includes premises in rural and hard-to-reach areas that we have been able to reach following competitive tendering for public funds as part of the Government's Broadband Delivery UK programme (BDUK).

Our fibre investment has delivered one of the fastest rollouts in the world, and we are on budget and ahead of schedule. The number of premises connected has risen by more than 50 per cent during 2014/2015. We will continue to work with governments to increase fibre coverage to 95 per cent of the UK's homes and businesses by end of 2017.

2

We are not stopping there, we have also announced our plans to move from superfast to ultrafast (G.fast technology) with speeds of 300-500Mbps. This will be another significant investment for BT, again helping to ensure that the UK remains at the forefront of digital communications with a vibrant internet economy. Gosforth, is one of two sites in England chosen for the new “G.fast” technology trial.

BT people live, play, work and do business in their local communities the length and breadth of the UK. As a result, BT is often best placed and most able to support local technology-neutral programmes and projects, wherever they are. We are proud to work in partnership with local authorities, devolved government offices, and community and business organisations to develop next generation solutions for areas where a commercial investment is not immediately justifiable. We have also brought affordable internet access to residents of more than 9,000 social housing properties across the UK to help people make the most of the benefits the internet can bring. We also support a number of other initiatives to ensure as many people as possible are digitally connected, and not missing out on opportunities at work, home and in the community.

This year we announced the proposed acquisition of EE, the UK’s leading mobile operator. We plan to combine the UK’s most advanced 4G network with the UK’s most extensive superfast broadband network to provide a full range of innovative communications services.

Through our BT Sport investment, we are transforming the face of televised sport. BT Sport channels are now seen in more than 5.2 million homes, offering customers more choice and further demonstrating the benefits of fibre broadband. At the heart of our sports service is The Supporters Club, which works to build a better world by bringing people together through sport and change the lives of disadvantaged young people in communities across the country.

We understand the importance of connectivity to social wellbeing and economic growth, and we seek to add value wherever we operate. This report highlights our economic and social activities, and shows that BT is a key player across the whole of the region.

Farooq Hakim
BT Regional Director for the North East
September 2015

3 Our Report

The Economic Impact Report 2015 has been prepared independently by Regeneris Consulting, working closely with BT Regions to draw upon their data and information.

Impact calculations are in accordance with Government guidelines and the HM Treasury's Green Book Guidance for appraisal and evaluation, and are consistent with the Office for National Statistics' national accounts. Details of our approach are shown in Appendix A.

Estimates in this report relate to BT's activities in the UK during the financial year 2014/15. Note that the economic impact figures presented throughout this report are expressed to three significant figures. This means they have been rounded up or down as appropriate and, as a result, may not sum exactly to the totals presented.

The narrative includes announcements up to and including end of September 2015.

Economic Impact Report 2015

This study shows BT's economic contribution to the UK national economy and to regional economies in terms of jobs, output and Gross Value Added (GVA) supported. The report covers several effects of BT's activities:

Direct impact: people employed directly by BT (including contractor employees) who receive wages and salaries.

Indirect impact: income and employment created with suppliers as a result of BT's spending on goods and services.

Induced impact: further income and employment generated as wages created directly and indirectly are spent within the economy.

BT's wider social and community contributions are covered in summary in this report. Further details can be found in the Delivering our purpose report 2015, available online at: www.bt.com/deliveringourpurpose

4 An Overview of BT

BT's stated purpose is to use the power of communications to make a better world.



BT is one of the world's leading communications services companies



BT is Europe's largest telecoms services wholesaler by revenue



BT provides managed networked IT services for many of the largest global companies



BT is delivering one of the world's fastest rollouts of fibre broadband for the UK



BT is the leading provider of voice and broadband services to UK SMEs & consumers



Every day BT touches the lives of millions of people, helping them communicate, do business, be entertained & informed

BT has five customer facing lines of business - BT Global Services, BT Business, BT Consumer, BT Wholesale and Openreach - supported by an internal service unit, BT Technology, Service & Operations.

Full details available within the BT Group plc Annual report which can be found at www.bt.com/annualreport

5 The Economic Impact of BT in the UK

The figures below show the number of employees working in each English region, Scotland, Wales and Northern Ireland.
Note: Figures are rounded to 3 significant figures.

	Working	Living	Total direct GVA £m
East of England	10,400	10,700	1,240
East Midlands	4,070	4,370	381
London	13,300	12,000	1,510
North East	3,750	3,790	352
North West	9,450	9,370	869
Northern Ireland	3,110	3,120	290
Scotland	6,930	6,970	655
South East	10,300	11,000	1,110
South West	5,800	5,750	587
Wales	2,950	3,410	276
West Midlands	6,380	6,210	632
Yorkshire and The Humber	6,580	6,440	636

Source: Regeneris Consulting

UK Key Points

72,200

Employees directly working for BT and 10,900 contractors (Full Time Equivalent – FTE)

217,000

Total FTE jobs supported (including indirect and induced effects)

£2.9 billion

Total income of BT employees (including contractors)

£6.5 billion

Spend with suppliers based in the UK

£18 billion

Total GVA impact associated with BT activities (including indirect and induced effects)



Across the UK...

- BT directly employs 1 in every 230 employees in the private sector across the UK, and 1 in every 10 in the IT and Communications sector
- BT directly creates £1 in every £180 of GVA in the UK
- As a result of the full economic impact of BT, the firm supports £1 in every £80 of GVA in the UK economy and 1 in every 110 employees working in the UK economy

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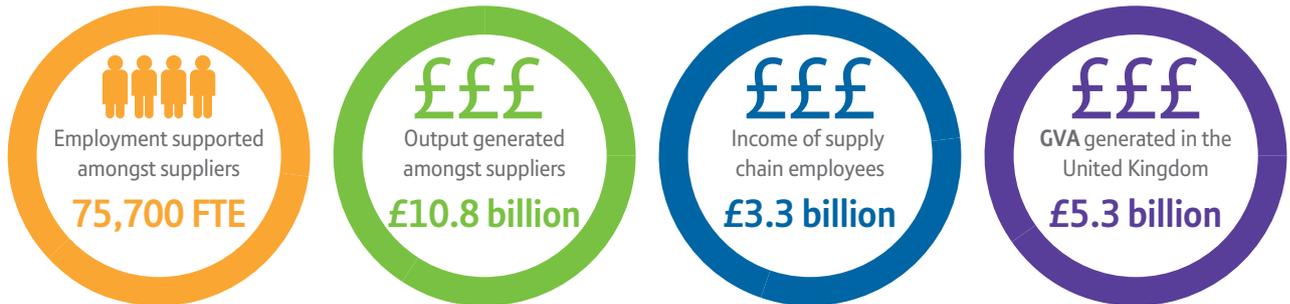
Economic Impacts

Direct Impact

BT directly employs a total of 72,200 people in the UK, with a further 10,900 employed as contractors. This results in £2.9 billion in wages and salary spend across the country. 77% of BT employees are equipped to work flexibly on any given day.

Procurement Impact (Indirect)

BT spent a total of £6.5 billion with UK based suppliers in 2014/2015. This results in significant benefits for the UK economy, including knock-on benefits further down the supply chain, which results in additional employment and output. This is summarised below.



BT Supply Chain Spend in the United Kingdom = £6.5 billion

Figure 5-1: Indirect (supply chain impacts) in the UK

Source: Regeneris Consulting

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Impact of BT and Supplier Employee Expenditure (Induced)

BT employees and contractors based in the UK earned around £2.9 billion in 2014/15 before tax. In turn, the expenditure of BT employees, contractors and the employees working for firms within BT's supply chain supports further employment and output in consumer industries. Through these knock-on effects, BT supported further jobs and turnover as shown below.



Salaries of BT Employees and Contractors in the UK = around **£2.9 billion**

Figure 5-2: Induced (wage expenditure) impacts in the UK

Source: Regeneris Consulting

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Total Impact in the UK

Combining BT's direct impact and employment with the indirect supply chain and induced wage expenditure impacts gives the total impact of BT operations in the UK. This is summarised in the table below.

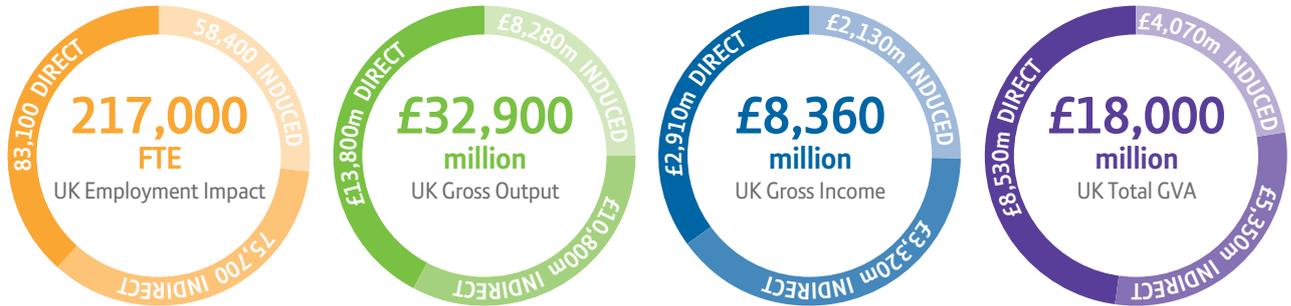


Figure 5-3: Total Impact of BT in the UK

Source: Regeneris Consulting

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North East

North East Key Points

3,790

BT employees live in the region (FTE)

3,750

BT employees work in the region (FTE)

£120 million

Total income of BT employees working in the region

£51 million

Spend with suppliers based in the region

£492 million

Total GVA impact (including indirect and induced effects)



Across the North East...

- BT employs 1 in every 170 employees working in the private sector, and 1 in every 6 employees working in the IT and communications sectors
- £1 in every £130 of GVA is generated directly by BT
- BT supports 1 in every 100 employees working in the private sector and £1 in every £90 of GVA as a result of the firm's full economic impact
- BT's full employment impact is larger than the region's civil engineering sector

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Regional Impact

Direct Impact

BT directly employs a total of 3,170 people in the North East, with a further 579 employed as contractors. This results in £120 million in wages and salary spend across the region.

77% of BT employees are equipped to work flexibly on any given day.

Procurement Impact

BT spent around £51 million with suppliers based in the North East in 2014/15. The majority was spent on telecommunications, as illustrated in this chart.

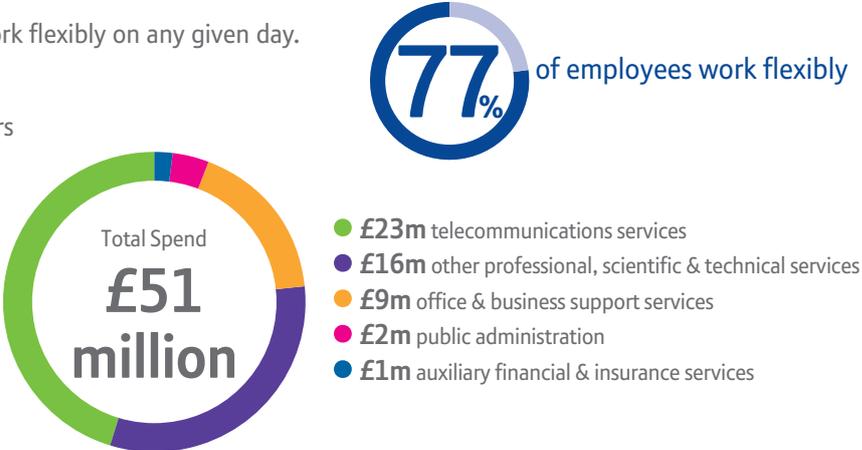


Figure 6-19: Top Five Supplier Sectors in the North East by Value of Expenditure

Source: BT Procurement data

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BT's spend with suppliers results in significant benefits for the North East economy, including knock-on or multiplier benefits as a result of supplier spend. This is summarised below.



BT Supply Chain Spend in the North East = £51 million

Figure 6-20: Indirect Supply chain impact in the North East

Source: Regeneris Consulting

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Impact of Employee Expenditure

BT employees and contractors living in the North East earned £122 million in 2014/15. In turn, their expenditure supports further employment and output in consumer industries in the region. **Figure 6-21** below illustrates the wider induced employment and output supported through this employee expenditure.



Salaries of BT Employees and Contractors = **£122 million**

Figure 6-21: Induced (wage expenditure) impacts in the North East

Source: Regeneris Consulting

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Total Impact in the North East

Combining BT's direct impact and employment with the indirect supply chain and induced wage expenditure impacts gives the total impact of BT operations in the North East. This is summarised in **Figure 6-22** below.

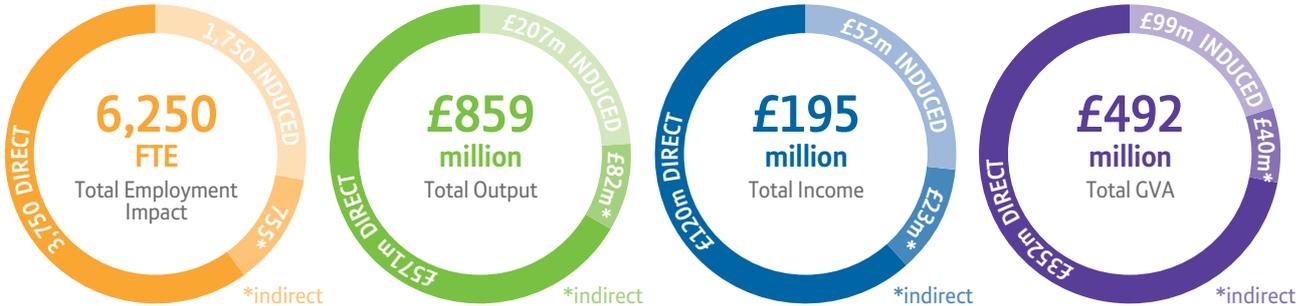


Figure 6-22: Total Impact of BT in the North East

Source: Regeneris Consulting

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Sub-regional Impact

The table below illustrates the impact BT has at a sub-regional level in the North East.

	BT Employees & Contractors		Total Impact		
	Work in area	Resident in area	Employment	Output £ million	GVA £ million
Durham	65	372	326	41	21
Northumberland	71	422	243	32	17
Tees Valley	606	615	1,220	156	87
Tyne and Wear	3,010	2,380	4,460	631	367

Table 6-8: Sub-regional Impact - North East

Source: Regeneris Consulting

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Local Enterprise Partnerships (LEPs) are business-led partnerships and are intended to play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs. Two Local Enterprise Partnerships† fall within the North East region and the economic impacts which relate to these areas are shown below.

	BT Employees & Contractors		Total Impact		
	Work in area	Resident in area	Employment	Output £ million	GVA £ million
Tees Valley	606	615	1,220	156	87
North Eastern	3,140	3,170	5,030	703	405

Table 6-9: LEP Impact – North East

Source: Regeneris Consulting

† The information provided on LEPs and Enterprise Zones is correct at the time of publication of this report (as at August 2015). We have used information published by the Government which is available at the following location: <https://www.gov.uk/government/publications/local-enterprise-partnerships-local-authority-mapping>
 Note that in some cases part of the LEP areas fall outside of the region. These are marked with an asterisk (*).

- 1 in 8 employees working in the IT and communications sector in the **Tees Valley LEP** is directly employed by BT.
- £1 in every £5 of GVA in the IT and communications sector in the **North Eastern LEP** area is generated directly by BT.

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Local Impacts

This map illustrates the locations of key BT sites in the North East. It demonstrates the importance of Newcastle, South Shields and Middlesbrough as key employment centres for BT.

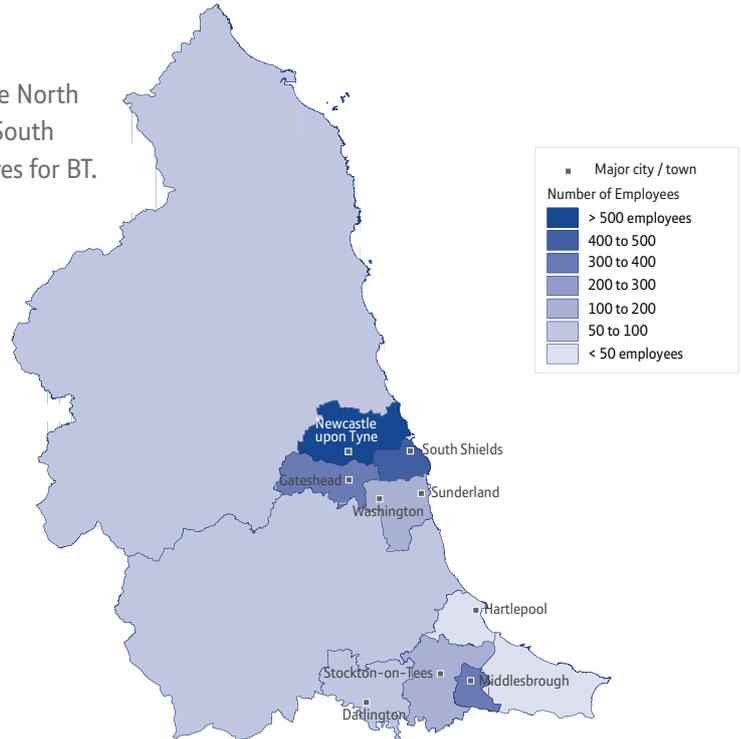


Figure 6-23: BT Employees Place of Work – North East

Source: Regeneris Consulting

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Figure 6-24 also demonstrates the broad geographical spread of the workforce, which lives throughout the region.

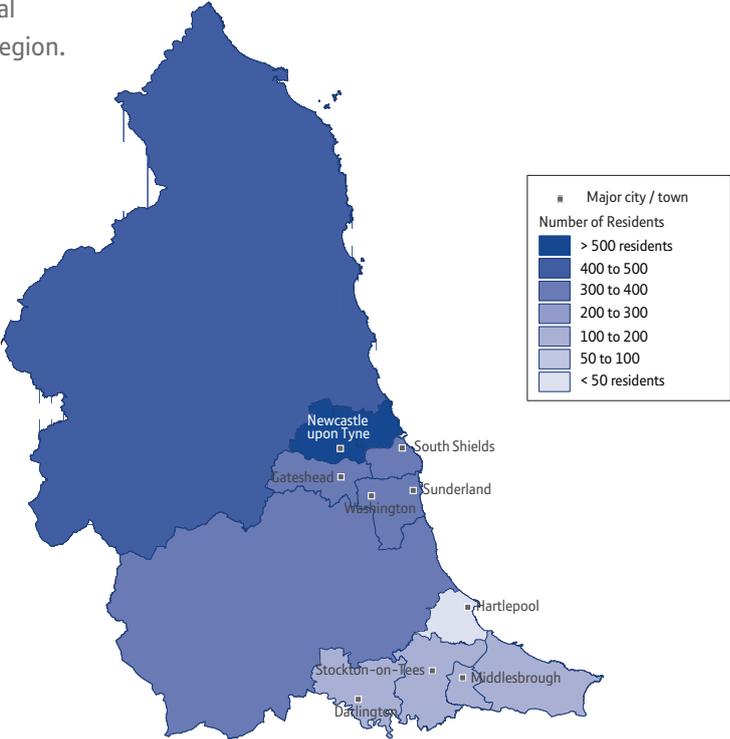


Figure 6-24: BT Employees Place of Residence – North East

Source: Regeneris Consulting

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Keeping the North East Connected

BT has extensive networks in the UK. BT's fixed-line network is one of its most valuable assets and their investment in fibre broadband is key to delivering modern, superfast services to customers. To meet the demand from businesses, BT is continuing to expand the availability of Ethernet. And when customers are away from their home or office, they can use one of BT's Wi-fi hotspots.

A range of high speed technologies provides broadband services in the North East:

Next Generation Broadband

BT's commercial rollout alone is bringing fibre-based broadband to 74 exchanges in the region, serving more than 800,000 homes and businesses.

- Fibre to the Cabinet (FTTC) will be the main technology deployed. FTTC can currently deliver wholesale downstream speeds of up to 80Mbps, and upstream speeds of up to 20Mbps.
- Fibre to the Premises (FTTP) technology can currently deliver faster wholesale speeds of up to 330Mbps, and upstream speeds of up to 30Mbps..

ADSL2+ offers up to 20Mbps next generation copper-based broadband services and is available from 99 exchanges, and more than 843,000 homes and businesses in the region can benefit.

ADSL offers up to 8Mbps broadband services and is available from every exchange in the North East.

Ethernet services offer higher bandwidth for businesses and organisations. The North East has 49 live nodes in the region.

Wi-fi – BT has the UK's largest Wi-fi network with over 5 million hotspots. The company has already introduced Wi-fi into a number of UK city centres including Newcastle and Gateshead in this region, Brighton, Cardiff, Carlisle, Glasgow, Gloucester, Nottingham and Plymouth with more in the pipeline.

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Investing in Next Generation Broadband

More than 99 per cent of UK homes and businesses already have access to ‘first generation’ broadband. BT’s investment of around £3 billion in fibre means more than 23 million homes and businesses now have access to high speed broadband services. BT’s commercial network upgrade programme is widely recognised as one of the biggest and fastest in the world.

BT is also working with the Department of Culture Media and Sport’s (DCMS) Broadband Delivery UK (BDUK) programme and is on track to meet the target of 90 per cent of premises by the end of 2016. BT successfully tendered for 44 BDUK phase 1 projects that aim to bring superfast fibre to more than two million homes and businesses in hard-to-reach rural communities across the UK. BT can bring faster speeds to the remaining premises by deploying alternative broadband technologies.

BT announced that it will be making £129 million available to extend the roll-out to more BDUK homes and businesses, earlier than planned and at no extra cost to the taxpayer (this is due to take up exceeding 20%).

BT is also in the planning phase for the BDUK phase 2 contracts that they have won across the UK. These contracts are part of the Government’s Superfast Extension Programme, designed to ensure 95 per cent of Britain has access to superfast fibre broadband by the end of 2017.

Fast, reliable broadband connectivity can provide a major economic boost to local communities. Many reports highlight the range of benefits businesses can gain by using superfast broadband, and case studies from across the UK stand testimony to how companies large and small are now building their success on fibre.

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Case study – Shepherds Walks

Shepherds Walks is the North East of England's largest provider of bespoke walks and tours. All their booking systems and databases are now online using fibre broadband. As well as supporting all aspects of their walking business, superfast broadband has helped them expand into new markets, providing financial as well as operational benefits. Jon Monks, Proprietor said, *“Where slow broadband used to hold us back, we are now an effective rural business growing because we have world class connections. Superfast broadband has been life-changing for us. It has literally revolutionised our business.”*

BT retains its longstanding concerns about exclusion. Some of the groups that could benefit most from the internet, both economically and socially, have never been online. Many of the UK's digitally excluded people are elderly or on low incomes, and it is estimated that the socio-economic value to a new user of being online is some £1,064 each year*. Helping people to use the internet for the first time can transform their lives and help to generate around £6.8 billion within UK society and the economy.

* 'Digital Inclusion: the social return on investment, Just Economics for BT, June 2014'

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Fibre Partnerships

BT has unrivalled experience in overcoming the challenges of geography, topography and distance and has been working with local communities through four fibre partnership projects in the North East:

Northumberland

The first phase of the multi-million pound iNorthumberland project is bringing fibre broadband to around 90 per cent of homes and businesses in Northumberland by December 2015. Northumberland has also secured funding from the Government's Superfast Extension Plan which will be used to further expand coverage in some areas not already included. A charity in Blyth helping unemployed people get back to work is reaping the benefits since upgrading to superfast fibre broadband. The Blyth Resource and Initiative Centre (BRIC), supports hundreds of unemployed people each year, helping them to gain the digital skills vital in today's job market. As well as teaching basic online activities such as sending emails and searching for jobs, the centre offers a range of vocational courses most of which depend on reliable internet access. Fibre broadband has made a "huge difference" to the number of people who could be supported by the charity and allowed the centre to expand its range of courses. Cath George, Centre manager explained, *"The lack of digital skills is a massive issue. All unemployed people claiming Jobseekers Allowance are now required to use an online job search site, but with no digital skills even this is virtually impossible and that's before they even try to apply for a job. We provide IT related courses to teach people these vital skills and help them back to work. To do that effectively we need fast and reliable internet and now we have it."*

Durham

The Digital Durham project has rolled out fibre broadband to more than 70,000 households and businesses across the county. By mid-2016, Digital Durham aims to bring superfast broadband speeds to at least 94 per cent of the programme area, with a minimum of 2Mbps for all. A second phase of fibre deployment is already planned that will rollout fibre to an additional 12,000 homes and businesses beginning in 2017. By the end of the roll-out, 97 per cent of premises within the programme area will have access to fibre broadband. Freelance computer games designer Chris Kirby is already reaping the benefits of fibre. Chris,

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lives and works in the rural village of Trimdon in County Durham and his family love the countryside. However, there was a time when Chris thought he would have to move back into the city to take advantage of the faster broadband speeds. Chris said, *“My business needs superfast broadband because I work as a virtual team member with other people around the world and we’re exchanging huge data files to each other on a daily basis.”* But with the arrival of faster fibre broadband in Trimdon the Kirby family haven’t looked back. *“Superfast broadband means I can upload huge great data files so quickly,” says Chris, what used to take overnight now takes ten minutes.”*

Rothbury

Rothbury was the first community in the UK to rollout fibre broadband using the Government’s Rural Community Broadband Fund (RCBF). A unique partnership project involving the Department for Environment, Food & Rural Affairs, Northumberland County Council, local consultants, the community and BT created a solution to deploy fibre broadband and transform broadband speeds for one of the most rural areas of Northumberland. The project was completed three months ahead of schedule and communities in and around the town can now get some of the fastest broadband speeds in the country. One local business realising the benefits is MadeByGrandad. The firm launched by Roy Stephenson sells handmade bags, satchels and cases both locally and via Etsy, so having a good internet connection is vital. Roy said, *“For me, it was mainly the upload speed that previously caused me difficulties. Much of my work involves sending out illustrations to customers, which often involves sending quite large files. My upload speed is now twenty-four times faster since I upgraded to superfast, which has helped me hugely.”*

Newcastle-upon-Tyne

Go Digital Newcastle has made a real impact in the North East. The BDUK deal signed between Newcastle City Council and BT will extend the availability of high-speed fibre broadband to 97 per cent of premises by the end of Summer 2015. The project has already passed 8,749 premises.

NB: Figures quoted correct as of 12 August 2015

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Innovation, Research and Development

Innovation, supported by research and development (R&D), is at the heart of BT's business. BT is one of the UK's largest investors in R&D, investing £502 million in 2014/15.

BT uses its world-class expertise to lead and encourage innovation, generate new ideas and help keep the UK a step ahead. BT combines its expertise and resources at its main UK research facility at Adastral Park, near Ipswich. From pioneering work in optical technologies and digital switching, through to work in advanced software techniques and protocols, Adastral Park is recognised as one of the leading centres of technical innovation in the world of communications technologies.

BT has set out its ultrafast broadband vision for the UK. G.fast is an innovative technology that uses higher frequencies than FTTC to provide faster broadband speeds over copper lines. It will help BT realise its ambition to transform the UK broadband landscape from superfast to ultrafast, via a widespread deployment of G.fast. Trials in the East of England, North East and South Wales will build on tests at Adastral Park – Gosforth has been chosen as a trial site for the new G.fast technology. G.fast is designed to help BT deliver ultrafast speeds of up to 500Mbps. Deployment could start in 2016/17, reaching 10 million homes and smaller businesses by the end of 2020 and the majority of premises within a decade. A 1Gbps service will be provided for those that want even faster speeds. The connections on offer would be a combination of FTTP technology as well as new G.fast technology, which uses existing FTTC technology.

BT works with universities through UK Research Councils, collaborative programmes and directly funded research. At any one time, BT is typically involved in between eight and 12 collaborative projects. BT works with its academic partners to help create industry-relevant proposals to Research Councils that offer real impact, and also demonstrate the significance

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of academic research for the UK's ICT sector. BT plays a full part in Research Council-funded projects, providing expert steering and advice, academic placements, access to real problems and unique data sets, and the opportunity to test networks. The Government's Summer Budget, 2015, announced funding for six new multidisciplinary research centres to drive forward the UK's Digital Economy research, knowledge and skills – three of these will be supported by BT Research including the one at Newcastle University.

BT funds a range of university research in the UK and beyond. The company supports some 30 UK-based PhDs with a mix of collaborative awards and direct funding. BT has links with around 30 UK university partners, working with them on projects of immediate relevance to BT's operations, as well as on speculative developments that may take as long as 20 to 30 years to come to fruition.

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Developing Talent and Championing Skills

BT invests in its own future success by continually developing the skills and knowledge of its people. To keep pace with the speed of innovation, BT selects talented people and provides them with opportunities to develop and improve their skills.

More than 500 apprentices and 229 graduates joined BT in 2014/15, and BT plans to recruit a further 1000 graduates and apprentices in 2015/16. BT has an excellent track record of employing ex-armed forces personnel, particularly within Openreach where more than 200 roles have been filled. Working with Transition Force, BT provides ex-military people with training and support in writing CVs, presentation skills, and attending job interviews.

In 2014/15 BT recruited 18 apprentices, and had 44 traineeships ongoing in the North East.

BT recognises that for the UK economy to grow it is essential for everyone to develop the skills for success at work. BT supports a range of programmes including providing more than 500 traineeships in 2014/15. BT also offers work placements and work experience opportunities, and supports the development of technology skills in schools. In 2015/16 BT will be offering up to 1,000 vocational and work experience placements to 18-24 year olds as part of the UK-employer-led initiative 'Movement to Work'.

In March 2015 BT announced the launch of a new, ambitious programme to build a culture of tech literacy for the UK. This is a long-term commitment for BT with an ambition to inspire 5 million young people to connect with tech concepts by 2020 to benefit young people and the UK economy. Through the Barefoot Computing Project's initial phases (May 2014-July 2015) BT has already supported 850 workshops, 2,400 schools, 12,500 teachers and reached 340,000 pupils across the UK.

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A Purposeful Business

BT recognises the importance of connectivity to social wellbeing and to economic growth. Wherever BT operates, it works to extend the value it can add to communities and to society at large, by finding new ways for its products and services to bring social and economic benefits.

In 2014/15, BT invested £32.5 million in sustainable and responsible business activities, a full 1.15 per cent of its adjusted profit before tax.

In 2014/15 BT invested more than £600,000 in sustainable and responsible business activities in the North East, which also benefited from UK-wide activities funded at over £13 million. As part of a four year national partnership with The Lord's Taverners, BT has provided £25,000 funding in 2014 and in-kind support to Hadrian School, Newcastle upon Tyne. BT has also provided support and funding for four projects through The Supporters Club, including £77,250 for the Newcastle United Foundation.

Creating a Connected Society

BT helps people across the UK to develop the skills, knowledge and confidence they need to use the internet safely and securely. BT has shared with all its customers the 'parental controls' internet safety feature that comes free with BT Broadband. This helps families limit access to undesirable content and remain secure while still using BT's products and services and internet capability to the full. In partnership with UNICEF, through 'The Right Click: Internet Safety Matters' programme, BT has delivered a series of workshops across the UK on how to keep children safe online.

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By the end of April BT had delivered 100 workshops. BT volunteers are supporting the programme by delivering “Train the Teacher” sessions followed by an interactive workshop delivered to parents and children. Ten workshops have already been completed in the North East.

BT has also been making the internet affordable to people with lower incomes, people with disabilities, and the elderly. The company has also inspired small businesses to tackle digital exclusion locally.

Delivering Environmental Benefits

BT uses its technologies to respond to the global climate change challenge. For the sixth successive year, BT has reduced its UK net carbon emissions (CO²e) by sourcing renewable electricity, using more efficient vehicles and reducing its energy consumption. BT helps customers reduce their own carbon emissions too. The company also invests in innovative, energy-saving products and services, and plays a full part in engaging stakeholders to influence national policy development, to help reduce the risk of serious climate change impacts.

BT is a major partner in MK:Smart, a UK-based Internet of Things (IoT) programme in Milton Keynes. The project is addressing the challenge of supporting economic growth without exceeding the capacity of urban infrastructure, for example, by using sensors that assist city centre vehicle parking and reduce traffic congestion. BT is working with North East-based Envirowatch who developed the air quality mote with Newcastle University. Using Openreach poles, a trial is running to test the effectiveness of the air quality equipment. Once the data is uploaded to MKSmart, it can be readily shared and fused with other data sets, such as weather, to allow interested stakeholders including local councils, to use the data in various applications and planning decisions. If the trial proves a success, Openreach may offer poles and other street furniture as sensing assets around the UK.

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Supporting Charities and Communities

BT provides its technology, time and expertise to help thousands of charities with their fundraising and to work more efficiently.

Two BT contact centres in the North East, at Gosforth and Newcastle, have provided the telephony, call centre infrastructure, network management, online support and taken donation calls for telethons such as BBC Children in Need and Comic Relief.

MyDonate is a commission-free online fundraising service for UK charities, with no set up fee or monthly charge - this service from BT has helped raise more than £50,000 for charities in the North East. The BT Community Web Kit has also helped small charities across the region build over 300 websites.

Volunteering is a key part of BT's support for charities and the community. BT believes that volunteering is good for its people, and BT's employees can volunteer in many different ways, sharing their professional skills and helping to raise funds. As well as benefiting charities and the communities they support, this strengthens BT's business profile. BT's volunteering programme enables employees to contribute up to three days of working time each year to community or charitable work. In 2014/15, BT volunteers provided more than £15.7 million of in-kind support and assistance - some 50,500 days - with one in four employees choosing to volunteer during the year.

In the North East, BT people provided more than £600,000 of in-kind support and assistance, some 2000 days.

Case Study- Emergency Response Team

BT's Emergency Response Team (ERT) is made up of highly-skilled BT engineers. These volunteers provide on-the-ground support, as well as remote advice to restore damaged communications in both the UK and around the world. Linden Dunlop, based in Gateshead, is an ERT volunteer who helped design the ERT network. One of the things that appealed to Linden about the team was the technology. He said *"BT works with the latest comms technology and as I had a bit of knowledge in that area I thought that I could help them progress and so we went on to build the voice and data network over satellite"*. Linden has been involved in many deployments including preparing kit to be shipped to Haiti following the typhoon and also configuring the kit to be taken to Pakistan following the floods. He was also deployed to the Philippines for two weeks after first spending a week building the kit and testing it. He said, *"It was amazing what BT did, and it was also quite humbling as these people literally had nothing left. When the team first arrived none of the aid agencies had any comms, so the speed at which we reacted was crucial to get them up."*

More detailed information can be found at www.bt.com/deliveringourpurpose

6

Other Impact in the Region

BT Global Services has been winning business with genuine partnerships based on flexible models, which deliver innovation and efficiency savings.

BT is improving economic prosperity in South Tyneside through job creation and regeneration of South Shields' riverside. The BT Business centre at Harton Staithes is one of the most celebrated developments in the Newcastle area, and helping to bring employment to the area. The £10.5 million business centre, houses BT lines of business that employ around 500 people.



Technical Appendices

Here we set out the methodology used to estimate the economic impact of BT and the data sources that have been drawn upon.

Definitions

There are three sources of economic impact that a company like BT generates.

Direct impacts

These are the impacts arising as a direct consequence of the company's activities, in the form of output and wealth creation, employment within the firm and associated employment income.

Indirect impacts

Also known as the supply chain impact, this contribution arises from BT's purchasing of goods and services from suppliers in the UK, who in turn make further purchases from their suppliers, and so on. This chain of procurement spending resulting from BT's initial expenditure injection creates further wealth, and supports jobs and income.

Induced impacts

Further economic activity and employment is created as BT employees and those whose jobs are supported through supply chain effects spend their wages and salaries on goods and services. The economic effects from this consumer spending are known as the induced effect.



Throughout the report these impacts are measured using four key indicators:

Output

This refers to the turnover/sales revenue that is generated directly within BT or within other firms in the economy through indirect and induced effects.

Gross Value Added (GVA)

This is the key measure of wealth creation within an economy and is used by the government to monitor economic performance. It refers to the residual value created by firms once non-labour costs have been paid, which is then distributed to owners/shareholders in the form of profits and to employees via wages and salaries. It is measured in two ways:

- GVA = turnover minus bought in goods and services (known as the *production* approach)
- GVA = gross operating profit + depreciation and amortisation + taxes less subsidies on production + compensation of employees (i.e. wages plus social security contributions) (known as the *income* approach)

Employment

This is the quantity of jobs supported by BT's activities. Since these jobs are a mix of full time and part time positions, throughout the report we refer to Full Time Equivalent (FTE) posts, in order to express all jobs in a common currency.

Employment Income

These are the gross wages and salaries paid to employees whose jobs are supported by BT, including NI and pension contributions, and PAYE taxes.

Note that the economic impact figures presented throughout this report are expressed to three significant figures. This means they have been rounded up or down as appropriate and, as a result, may not sum exactly to the totals presented.



Methodology and Data Sources

The methodology used to estimate BT's economic impacts for 2014/15 has been designed to be consistent with previous reports. Further information is provided below.

Direct impacts

The two data sources used to estimate this are BT's financial accounts for 2014/15 and BT's HR database.

Output has been taken directly from the accounts, as revenue from external customers in the UK. This removes both internal revenue resulting from internal transfers between BT group companies and sales made outside the UK.

GVA has been calculated using the income approach, as the sum of gross operating profits before tax, interest, depreciation and amortisation, and compensation of employees. We have estimated UK gross operating profit using global EBITDA* from the accounts, and estimated the UK portion by factoring down by the UK share of total revenues. Compensation of employees has been estimated using data on gross wages and salaries (sourced from BT), plus social security costs (sourced from BT).

Employment numbers have been sourced from a snapshot of information provided by BT, with data on the number of people employed directly by BT and the number of contractors employed through agencies, along with their contracted hours. These have then been converted to FTE posts based on one full time job being equivalent to a 36 hour per week contract. The data indicates both the place of residence and place of work of each employee. For direct employment we have used workplace based figures. The employment numbers are consistent with those in the 2014/15 annual accounts.

* Earnings Before Interest, Tax, Depreciation and Amortisation



The BT data provided the home and workplace postcode for each employee. These were used to allocate employees to regions and local authorities for the residence and workplace based analysis. Home postcodes were not available for agency staff and contractors. The assumption was made that these members of staff were resident in the same Local Authority and Region as their workplace.

Information on contractor staff was supplied by BT.

Employment income has been estimated using data from BT, using gross wages and salaries of employees and contractors by place of work, again adjusted to be consistent with the averages wages and salaries bill quoted in the accounts in the same way as for employment numbers.

Indirect Impacts

The data source used to estimate indirect impacts has been provided by BT by location and by sector. Each supplier was allocated to a region and local authority based on the invoicing address. Suppliers were then allocated to sectors using the following process:

- All suppliers common to both 2015 and 2013 procurement data were allocated to the same sector as they had been in the 2013 economic impact assessment. This provided a sector allocation for covering 79% of total spend.
- Suppliers not included in the 2013 procurement data were allocated to sectors based on a brief review of each supplier's business activities using information available on company websites. This manual allocation was completed to ensure that c.90% of procurement spend in each region and all suppliers where invoices totalled £10 million or more were covered.



- The remaining suppliers were assumed to be operating in the telecommunications sector.

As expenditure on contract and agency staff is encompassed by the employment element of the direct impact assessment, all identifiable procurement expenditure with employment agencies has been removed from the supplier spend analysis, in order to avoid double counting.

Impacts have been estimated using Regeneris Consulting's input-output tables for the UK and the regions.

Induced Impacts

Data on wages and salaries of BT employees and contractors by place of residence has been used to calculate induced impacts, along with the employment income of indirect employees estimated above.



The regional and local dimension

Estimating regional and local impacts

The results are presented for the former Government Office Regions as well as the recently formed Local Enterprise Partnership (LEPs). Wherever possible this has been informed by actual data for these areas, but where this data is not available, we have apportioned results to local areas using suitable apportionment factors, drawn from other BT data. This should therefore be borne in mind when interpreting results at these geographical levels.

The HQ effect

National procurement contracts are often allocated to a location according to the supplier's HQ address. However, it may be that these services are actually provided from a series of locations around the country. This process of allocating the procurement expenditure to the HQ location, rather than the location of the depot where activity is taking place, may skew impacts to the HQ region and consequently under-estimate impacts elsewhere. We have adopted this approach as in previous year's assessment. It does mean that the results pertaining to indirect impacts in particular may be subject to significant margins of error, particularly at the local level.



Benchmarking the Results

The report sets the key results in their wider socio-economic context, in order to illustrate the relative scale of BT's contribution to the local, regional and national economy. To do this we have drawn down nationally published statistics. The data sources used are as follows:

1. Total employees in employment: The total number of people employed by all businesses with operations in the area. This excludes working proprietors and is presented as Full Time Equivalent employees (it excludes the self-employed). (Source: ONS, BRES, 2013).

2. Total IT and Communications sector employees in employment: The total number of people employed by ICT businesses with operations in the area. This excludes working proprietors and is presented as Full Time Equivalent employees (it excludes the self-employed). (Source: ONS, BRES, 2013).

3. Total private sector employees in employment: The total number of people employed by private sector businesses with operations in the area. This excludes working proprietors and is presented as Full Time Equivalent employees (it excludes the self-employed). (Source: ONS, BRES, 2013).

4. Total gross earnings from all residents in employment: This has been derived using the total number of residents in employment (source: Annual Population Survey, 2014) multiplied by the average gross annual pay for all employees in that geographical area (source: Annual Survey of Hours and Earnings, 2014)



5. Total gross earnings from all employees in employment: This has been derived using the total number of people employed by businesses in the area (source: BRES, 2013) multiplied by the average gross annual pay for all employees in that geographical area (source: Annual Survey of Hours and Earnings, 2014)

6. Total GVA - Total Gross Value Added generated by businesses based in the area: GVA data has been provided for regions and selected LEP areas (Source: ONS, Headline Workplace Based GVA at Current Basic Prices, 2013 and ONS, GVA for Local Enterprise Partnerships, 1997-2013).

Offices Worldwide

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