The Economic Impact of BT Group plc in the North of England

2018 Edition

HATCH REGENERIS

A report by Hatch Regeneris for BT Group plc

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Hatch Regeneris creates economic and social insight to help clients make a positive impact on people, places and economies. As part of the Hatch Group, Hatch Regeneris provides clients with a full range of support and know-how from concept to completion. See: www.regeneris.co.uk for further information.

2 Introduction

Across the North of England we are helping transform lives, connecting homes, businesses, families, individuals and ideas. We're using our products and services to help even more people take advantage of an increasingly digital world. Access to the internet opens opportunities for better education, healthcare, jobs, economic growth and new ways of working. We're helping to build an inclusive digital society to make sure no one is left behind. We've a big part to play as the UK's digital champion, helping to build the infrastructure and skills needed to develop a world-leading digital economy that works for everyone.

In this report we look at the direct economic contribution of BT Group throughout the North of England and show that BT is a key player across the breadth of the geography, making a very significant impact on the economy. We support employment across every part of the region through our direct workforce and indirectly, through our extensive supply chain, with our procurement and expenditure within the local economies.

For the period 2017/18 the total Gross Value Added (GVA) to the North of England economy, combining the direct, indirect and induced impacts of our activities and spending, is estimated to be £3,850 million.

The UK has the highest share of GDP generated by the digital economy of any country in the G20. It also has higher superfast availability and take-up than any major European peer. We're playing our part in this success story by building and running the largest superfast network in the country. Openreach Limited, now a distinct and legally separate company within BT Group, is connecting homes and businesses, and building a fixed fibre network that will be the backbone of the UK's digital economy for generations to come.

Openreach's Community Fibre Partnerships (CFP) programme brings fibre broadband to businesses and homes by building customised solutions. The programme enables those not included in any fibre broadband roll-out plans, to jointly fund an upgrade to fibre. 'The Impact of High-Speed Broadband for Communities' report estimates that the CFP programme will be worth £33.5 million to the region over the next 15 years. For the North of England businesses, improvements in productivity, efficiency, flexible working, innovation and finding new markets and customers are expected to be worth more than £13.5 million, whilst households get economic and social benefits worth about £20 million.

We have the UK's biggest and fastest 4G mobile network through EE and provide 4G coverage across more than 90% of the country. EE aims to expand 4G to reach 95% of the UK's geography by the end of 2020. The work we're doing to extend 4G coverage will support the

new communications network we're helping to create for Britain's emergency services. People in remote areas will also benefit from the extended coverage. We intend to lead the market with 5G too with the UK's first live 5G trial launched in October 2018, and Manchester, Newcastle, Liverpool, Leeds, Hull and Sheffield announced as launch locations for 2019. We were UK pioneers with 4G, and with the UK's first live connections on 5G this marks a huge step forward for the country's digital infrastructure. Manchester, Newcastle, Leeds and Sheffield, as well as Bradford, Doncaster, Gateshead, are also amongst the first UK cities to benefit from the InLinkUK from BT service which offers the UK's fastest free public wi-fi plus a range of digital services.

The value of digital technology to society is expected to reach £222 billion in the UK by 2025. Government data shows that one in ten adults in the UK have never used the internet and risk being left behind.

We're helping more people, including the elderly, disabled and those on low incomes, get online in the UK and beyond to help them reap the benefits of internet access. We also offer specialist products and services that help people who may otherwise struggle to use technology. In our role as an advisor to the UK Government's Digital Skills Partnership, we're helping to shape the work of the public sector, industry and NGOs to enable people to overcome barriers.

Almost three-quarters of large companies and half of the UK's smaller businesses are facing a tech skills gap. This gap is likely to grow and we're convinced that improving young people's tech literacy is the best way to fill it. Within the next 20 years, 90% of all jobs are expected to involve digital skills. We cannot solve the tech literacy challenge alone, which is why we partner with others and get stakeholders involved e.g. the Barefoot Computing Project we run with our partner BCS to support primary school teachers. We're working closely with the UK Government to support the national digital skills strategy and we are a member of the Government's Digital Skills Partnership. We know that the opportunities for individuals and the economy are enormous as technology transforms the way we live and work.

Whilst we understand the positives from today's digital world, we also recognise there are hazards. Cyber security professionals play a vital role keeping critical national infrastructure safe and we're working with the UK Government to promote careers in this field. We're one of the country's largest employers and hired more than 2,100 apprentices, supporting the UK Government's aim to fund 3 million apprentices by 2020. We're also one of the largest investors in research and development in the UK, spending c£510 million last year.

Our strategy of innovation and investment will continue to help us lead and shape the digital future in the years to come.

Kieran Charleson
BT Group Regional Director, North of England
December 2018

3 Our Report

The Economic Impact Report 2018 has been prepared independently by Hatch Regeneris, drawing upon data for BT Group.

Estimates in this report relate to BT Group plc activities in the UK during the financial year 2017/18. BT Group plc includes all wholly owned subsidiaries, including Openreach Limited and EE (now part of BT Consumer)

In the last financial year BT Group also paid £1.1bn in taxes and were the 5th highest tax contributor in the UK, thereby making an even greater impact on the UK economy. The impact of this tax contribution has not been assessed in this report.

Further information about BT Group's activities can be found in the 2018 BT Group plc Annual Report and Delivering our Purpose Report.

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.

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.

Economic Impact Report 2018

This study shows BT Group'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 Group's activities:

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

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

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

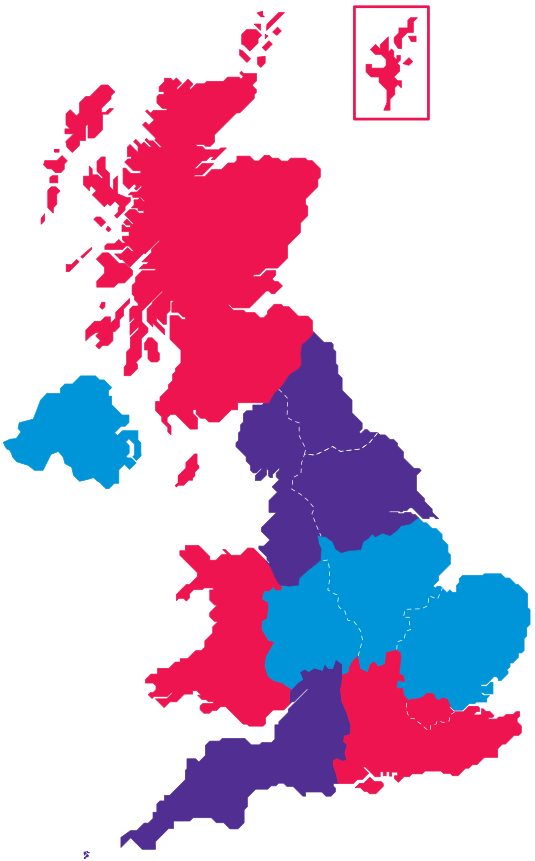
4 The Economic Impact of BT Group plc in the UK

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 Income £m	Spend with Suppliers £m	Total direct GVA £m
London & the South East	**23,400**	**23,300**	**1,020**	**5,940**	**3,170**
London	12,700	11,500	592	3,360	1,850
South East	10,600	11,800	424	2,580	1,320
Midlands & East of England	**23,500**	**22,000**	**856**	**1,420**	**2,670**
East of England	12,400	10,100	477	993	1,490
East Midlands	5,310	5,950	171	135	534
West Midlands	5,780	5,960	208	296	650
North of England	**24,800**	**25,300**	**726**	**1,010**	**2,270**
North East	9,250	9,320	238	39	743
North West	9,130	9,420	294	416	919
Yorkshire & The Humber	6,410	6,580	194	554	604
South West	**7,880**	**7,990**	**278**	**211**	**867**
Scotland	**7,700**	**7,990**	**253**	**178**	**790**
Wales	**4,400**	**4,980**	**142**	**302**	**444**
Northern Ireland	**3,230**	**3,300**	**103**	**154**	**323**

Source: Hatch Regeneris

4 Key points



Across the UK in 2017/18

82,500 employees directly working for BT Group, and **12,300 contractors** (Full Time Equivalent – FTE)

290,000 total FTE jobs supported (including indirect and induced effects)

£3.4 billion total income of BT Group employees (including contractors)

£9.2 billion spend with suppliers based in the UK

£22.8 billion total GVA impact associated with BT Group activities (including indirect and induced effects)

BT Group directly employed **1 in every 230 employees** in the private sector across the UK, and **1 in every 12 in the IT and Communications** sector

BT Group directly created **£1 in every £165 of GVA** in the UK

As a result of the full economic impact of BT Group, the firm supported **£1 in every £75 of GVA** in the UK economy and **1 in every 90 employees** working in the UK economy

4

Economic Impacts

Direct Impact

BT Group plc directly employs a total of 82,500 people in the UK, with a further 12,300 employed as contractors. These employees have an associated £3.4 billion in wages and salary spend.

Procurement Impact (Indirect)

BT Group plc spent a total of £9.2 billion with UK based suppliers in 2017/18. 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.

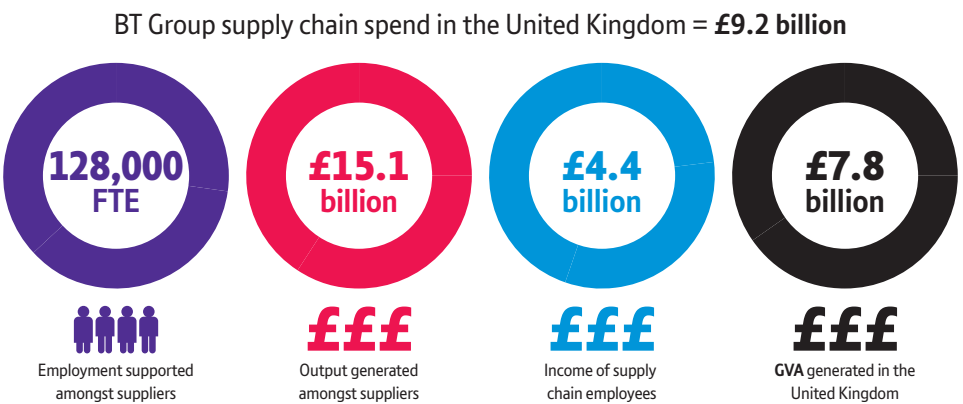


Figure 4-1: Indirect (supply chain impacts) in the UK

Source: Hatch Regeneris

Impact of BT Group and Supplier Employee Expenditure (Induced)

BT Group employees and their contractors based in the UK earned around £3.4 billion in 2017/18 before tax. In turn, the expenditure of these employees, contractors and the employees working for firms within BT Group's supply chain supported further employment and output in consumer industries. Through these knock-on effects, BT Group supported further jobs and turnover as shown below.

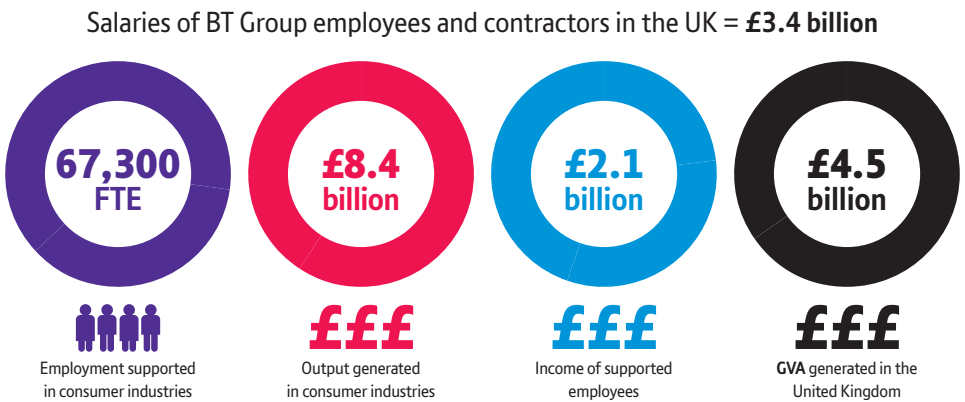


Figure 4-2: Induced (wage expenditure) impacts in the UK

Source: Hatch Regeneris

Total Impact in the UK

Combining BT Group's direct impact and employment with the indirect supply chain impact and induced wage expenditure impact gives the total impact of BT Group's operations in the UK in 2017/18. This is summarised in Figure 4-3 below.

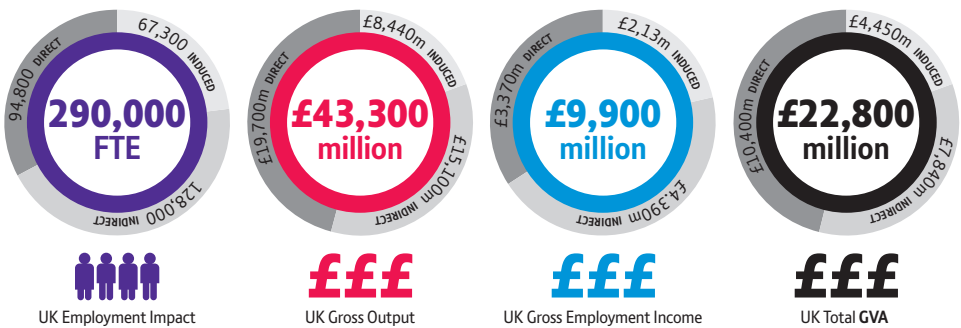
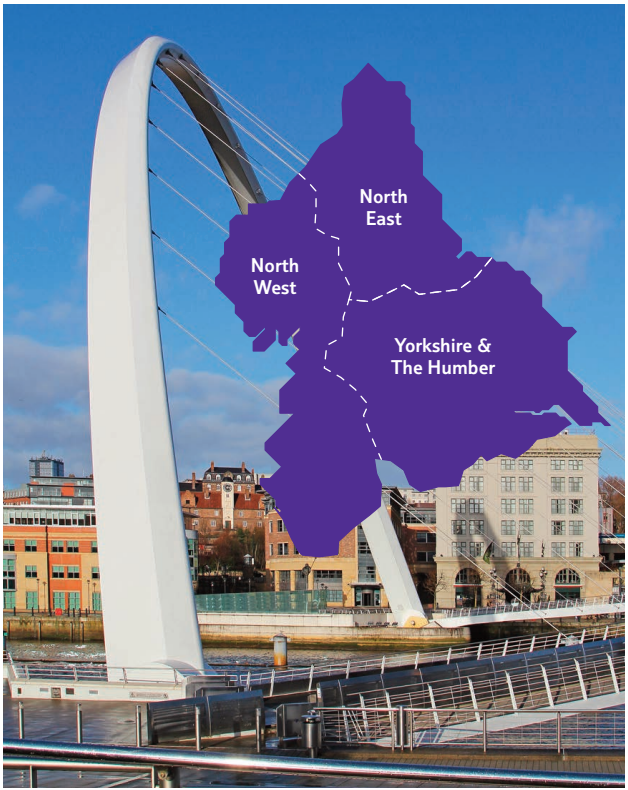


Figure 4-3: Total Impact of BT Group in the UK

Source: Hatch Regeneris

5 North of England



Across the North of England in 2017/18

25,300 BT Group employees live in the region (FTE)

24,800 BT Group employees work in the region (FTE)

£726 million total income of BT Group employees working in the region

£1,010 million spend with suppliers based in the region

£3,850 million total GVA impact associated with BT Group activities (including indirect and induced effects)

BT Group directly employed **1 in every 190 employees** working in the private sector and **1 in every 6 employees working in the IT and Communications** sectors

BT Group directly created **£1 in every £20** of GVA in the region's IT and Communications sector

As a result of the full economic impact of BT Group, the firm supported **£1 in every £90** of GVA in the region's economy and **1 in every 90 employees** working in the region's private sector

5 North East

Across the North East in 2017/18

9,320 BT Group employees live in the region (FTE)

9,250 BT Group employees work in the region (FTE)

£238 million total income of BT Group employees working in the region

£39 million spend with suppliers based in the region

£973 million total GVA impact associated with BT Group activities (including indirect and induced effects)

BT Group directly employed **1 in every 100 employees** working in the private sector and **1 in every 4 employees working in the IT and Communications** sectors

BT Group directly created **£1 in every £70** of GVA in the region

As a result of the full economic impact of BT Group, the firm supported **£1 in every £50** of GVA in the region's economy and **1 in every 50 employees** working in the region's private sector

5

Regional Impact

Direct Impact

BT Group directly employs a total of 8,130 people in the North East region, with a further 1,130 employed as contractors. This results in £238 million in wages and salary spend across the region.

Procurement Impact

BT Group spent around £39 million with suppliers based in the North East in 2017/18. The majority was spent on construction, as illustrated in the chart below.

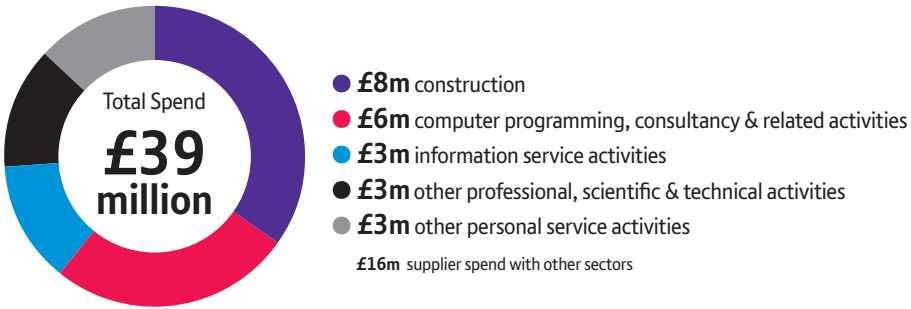


Figure 5-21: Top Five Supplier Sectors in the North East by Value of Expenditure Source: BT Group Procurement data

5

BT Group'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.

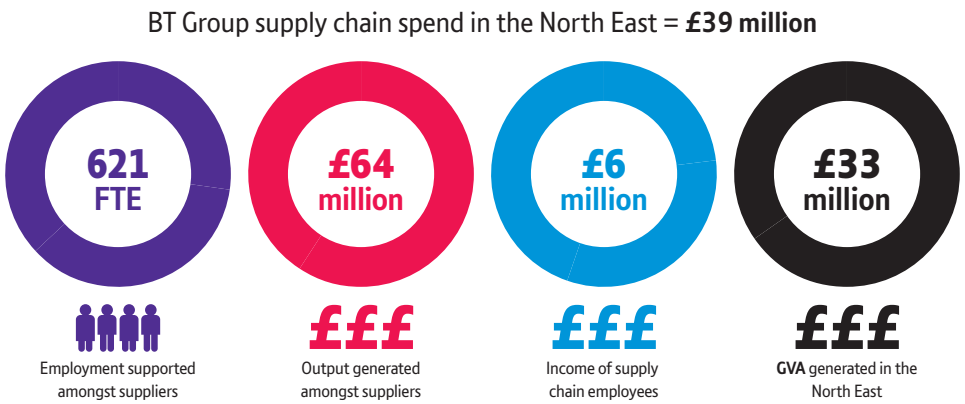


Figure 5-22: Indirect (supply chain impacts) in the North East

Source: Hatch Regeneris

Impact of Employee Expenditure

BT Group employees and contractors living in the North East earned £240 million in 2017/18. In turn, their expenditure supports further employment and output in consumer industries in the region. **Figure 5-23** below illustrates the wider induced employment and output supported through this employee expenditure.

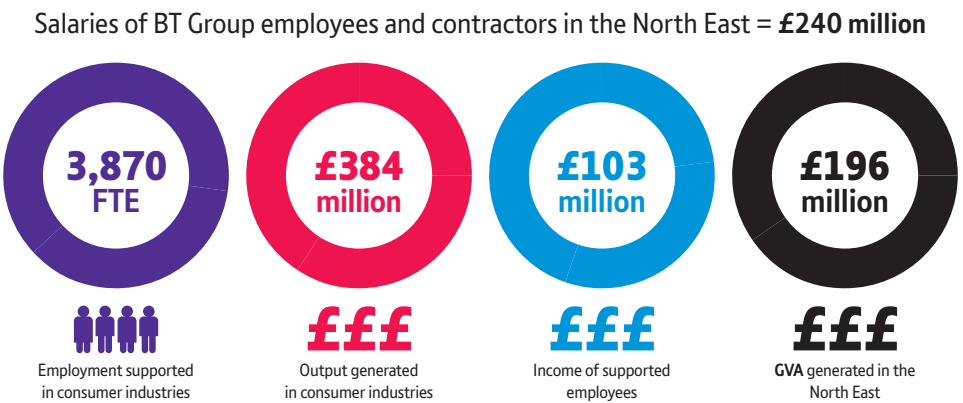


Figure 5-23: Induced (wage expenditure) impacts in the North East

Source: Hatch Regeneris

Total Impact in the North East

Combining BT Group's direct impact and employment with the indirect supply chain impact and induced wage expenditure impact gives the total impact of the firm's operations in the North East. This is summarised in **Figure 5-24** below.

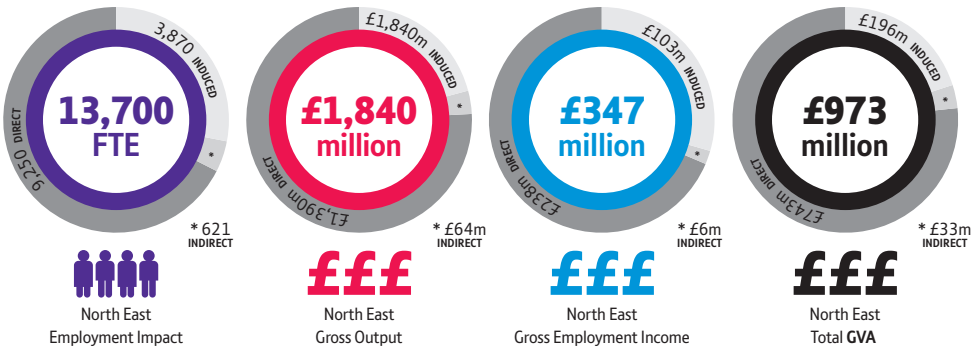


Figure 5-24: Total Impact of BT Group in the North East

Source: Hatch Regeneris

5

Sub-regional Impact

Table 5-11 below illustrates the economic impact of BT Group at a sub-regional level in the North East.

	BT Group Employees & Contractors		Total Impact		
	Work in area	**Resident in area**	**Employment**	**Output £ million**	**GVA £ million**
Durham	68	1,120	602	65	34
Northumberland	67	953	96	13	7
Tyne and Wear	6,350	4,970	8,370	1,150	610
Tees Valley	2,770	2,280	4,680	609	322

Table 5-11: Sub-regional Impact – North East

Source: Hatch Regeneris

5

Local Enterprise Partnerships (LEPs) are locally-owned partnerships between businesses and local authorities and 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 Group Employees & Contractors		Total Impact		
	Work in area	Resident in area	Employment	Output £ million	GVA £ million
Tees Valley	2,770	2,280	4,680	609	322
North Eastern	6,490	7,040	9,070	1,230	651

Table 5-12: LEP Impact – North East

Source: Hatch Regeneris

† The information provided on LEPs and Enterprise Zones is correct at the time of publication of this report (as at December 2018). 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 asterix (*).

- 1 in 2 employees working in the IT and communications sector in the **Tees Valley LEP** was directly employed by BT Group.
- 1 in 4 employees working in the IT and communications sector in the **North Eastern LEP** was directly employed by BT Group.

5 North West

Across the North West in 2017/18

9,420 BT Group employees live in the region (FTE)

9,130 BT Group employees work in the region (FTE)

£294 million total income of BT Group employees working in the region

£416 million spend with suppliers based in the region

£1,600 million total GVA impact associated with BT Group activities (including indirect and induced effects)

BT Group directly employed **1 in every 250 employees** working in the private sector, and **1 in every 10 employees working in the IT and Communications** sectors

BT Group directly created **£1 in every £180** of GVA in the region

As a result of the full economic impact of BT Group, the firm supported **£1 in every £105** of GVA in the region's economy and **1 in every 110 employees** working in the region's private sector

5

Regional Impact

Direct Impact

BT Group directly employs a total of 7,460 people in the North West region, with a further 1,670 employed as contractors. These employees earned £294 million in wages and salaries.

Procurement Impact

BT Group spent around £416 million with suppliers based in the North West in 2017/18. The majority was spent on telecommunications, as illustrated in the chart below.

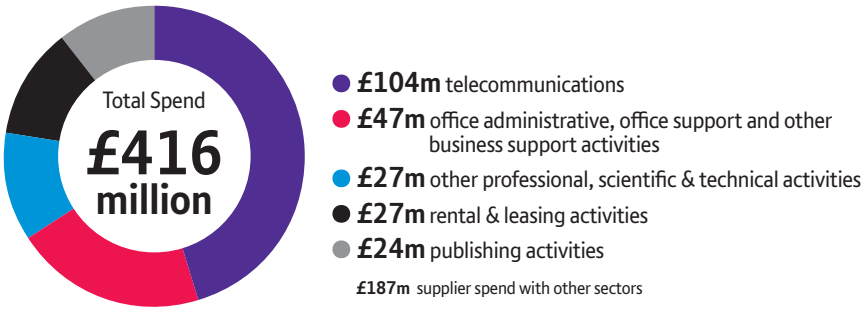


Figure 5-25: Top Five Supplier Sectors in the North West by Value of Expenditure Source: BT Group Procurement data

5

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

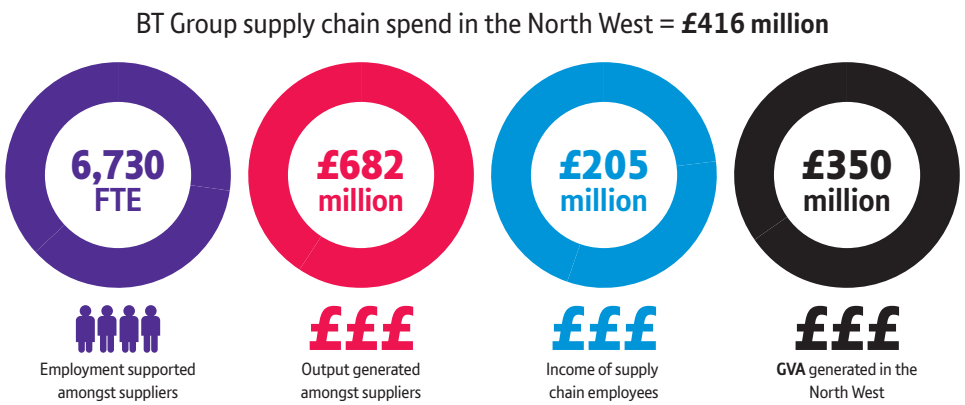


Figure 5-26: Indirect (supply chain impacts) in the North West

Source: Hatch Regeneris

Impact of Employee Expenditure

BT Group employees and contractors living in the North West earned £305 million in 2017/18. In turn, their expenditure supports further employment and output in consumer industries in the region. **Figure 5-27** below illustrates the wider induced employment and output supported through this employee expenditure.

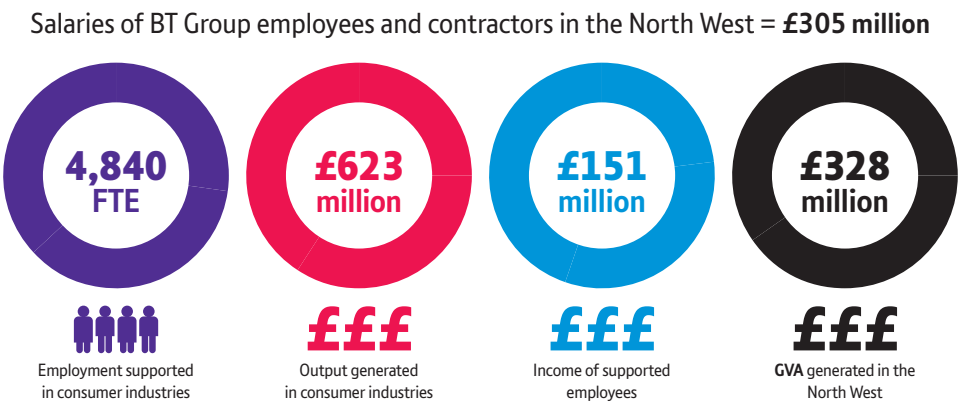


Figure 5-27: Induced (wage expenditure) impacts in the North West

Source: Hatch Regeneris

Total Impact in the North West

Combining BT Group's direct impact and employment with the indirect supply chain impact and induced wage expenditure impact gives the total impact of the firm's operations in the North West. This is summarised in **Figure 5-28** below.

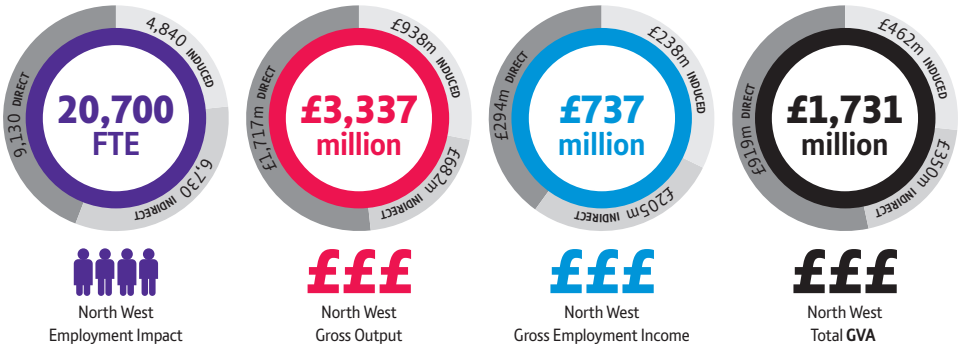


Figure 5-28: Total Impact of BT Group in the North West

Source: Hatch Regeneris

5

Sub-regional Impact

Table 5-13 below illustrates the economic impact of BT at a sub-regional level in the North West, focusing on key local authorities and areas across the region.

	BT Group Employees & Contractors		Total Impact		
	Work in area	**Resident in area**	**Employment**	**Output £ million**	**GVA £ million**
Cheshire East	126	245	620	81	42
Cheshire West and Chester	306	259	623	96	51
Cumbria	379	406	500	77	41
Greater Manchester	3,620	3,760	8,030	1,200	634
Lancashire	2,000	2,020	3,830	581	308
Merseyside	1,720	2,000	2,530	410	218
Warrington	959	518	4,410	561	294

Table 5-13: Sub-regional Impact – North West

Source: Hatch Regeneris

5

Local Enterprise Partnerships (LEPs) are locally-owned partnerships between businesses and local authorities and play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs. A total of five Local Enterprise Partnerships† fall within the North West region and the economic impacts which relate to these areas are shown below.

	BT Group Employees & Contractors		Total Impact		
	Work in area	Resident in area	Employment	Output £ million	GVA £ million
Lancashire	2,000	2,020	3,830	581	308
Cheshire & Warrington	1,390	1,020	5,650	737	387
Liverpool City region	1,740	2,200	2,680	428	228
Cumbria	379	406	500	77	41
Greater Manchester	3,620	3,760	8,030	1,200	634

Table 5-14: LEP Impact – North West

Source: Hatch Regeneris

† The information provided on LEPs and Enterprise Zones is correct at the time of publication of this report (as at December 2018). 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 asterix (*).

5

- 1 in every 8 employees working in the IT and communications sector in the **Lancashire LEP** area was directly employed by BT Group.
- £1 in every £70 of GVA in the **Cheshire and Warrington LEP** was generated by BT Group's full economic impact.
- 1 in every 8 employees working in the IT and communications sector in the **Liverpool City Region LEP** area was directly employed by BT Group.
- 1 in every 8 employees working in the IT and communications sector in the **Cumbria LEP** area was directly employed by BT Group.
- 1 in every 10 employees working in the IT and communications sector in the **Greater Manchester LEP** area was directly employed by BT Group.

5 Yorkshire & The Humber

Across Yorkshire & The Humber in 2017/18

6,580 BT Group employees live in the region (FTE)

6,410 BT Group employees work in the region (FTE)

£194 million total income of BT Group employees working in the region

£554 million spend with suppliers based in the region

£1,280 million total GVA impact associated with BT Group activities (including indirect and induced effects)

BT Group employed **1 in every 250 employees** working in the private sector across the region, and **1 in every 8 employees working in the IT and Communications** sectors

BT Group directly created **£1 in every £190** of GVA in the region

As a result of the full economic impact of BT Group, the firm supported **£1 in every £90** of GVA in the region's economy and **1 in every 100 employees** working in the region's private sector

5

Regional Impact

Direct Impact

BT Group directly employs a total of 5,990 people in Yorkshire & The Humber, with a further 423 employed as contractors. These employees earned £194 million in wages and salaries.

Procurement Impact

BT Group spent £554 million with suppliers based in Yorkshire & The Humber in 2017/18. The majority was spent on electric power generation, transmission, and distribution, as illustrated in the chart below.

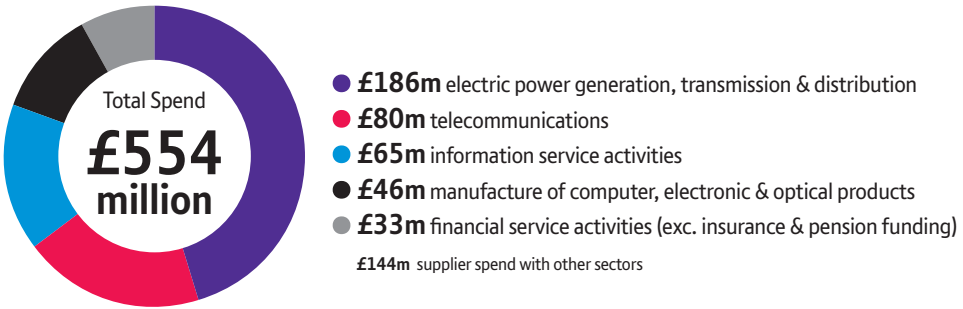


Figure 5-29: Top Five Supplier Sectors in Yorkshire & The Humber by Value of Expenditure Source: BT Group Procurement data

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BT Group's spend with suppliers results in significant benefits for Yorkshire & The Humber's economy, including knock-on or multiplier benefits as a result of supplier spend. This is summarised below.

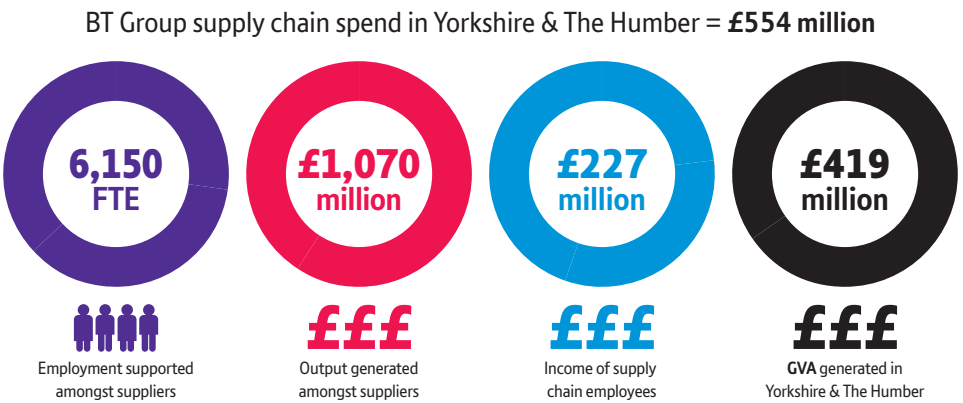

Figure 5-30: Indirect (supply chain impacts) in Yorkshire & The Humber

Source: Hatch Regeneris

Impact of Employee Expenditure

BT Group employees and contractors living in Yorkshire & The Humber earned £200 million in 2017/18. In turn, their expenditure supports further employment and output in consumer industries in the region. **Figure 5-31** below illustrates the wider induced employment and output supported through this employee expenditure.

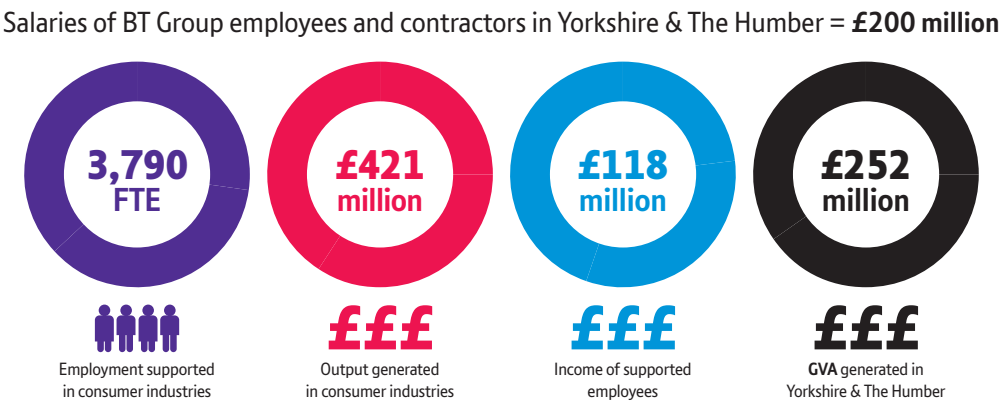

Figure 5-31: Induced (wage expenditure) impacts in Yorkshire & The Humber

Source: Hatch Regeneris

Total Impact in Yorkshire & The Humber

Combining BT Group's direct impact and employment with the indirect supply chain impact and induced wage expenditure impact gives the total impact of the firm's operations in Yorkshire & The Humber. This is summarised in **Figure 5-32** below.

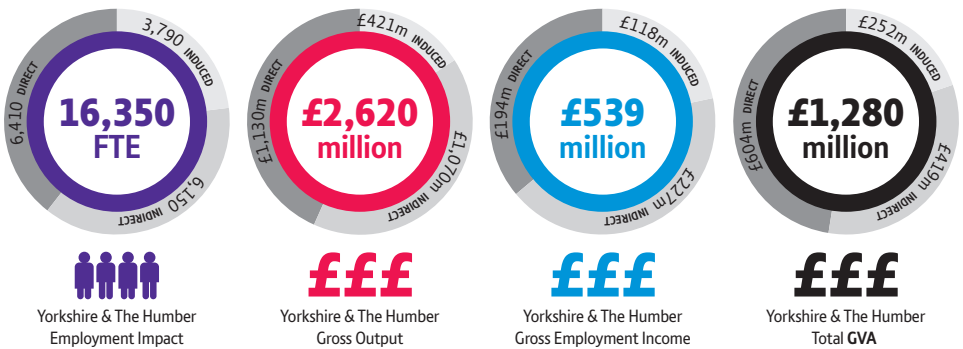

Figure 5-32: Total Impact of BT Group in Yorkshire & The Humber

Source: Hatch Regeneris

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Sub-regional Impact

Table 5-15 below illustrates the economic impact of BT at a sub-regional level in Yorkshire & The Humber, focusing on key counties and local authorities across the region.

	BT Group Employees & Contractors		Total Impact		
	Work in area	**Resident in area**	**Employment**	**Output £ million**	**GVA £ million**
East Riding of Yorkshire	63	148	92	15	8
North Yorkshire	809	1,035	2,560	408	196
South Yorkshire	2,850	2,780	3,230	527	277
West Yorkshire	2,500	2,350	9,670	1,550	738
Kingston upon Hull	21	53	612	92	42
North East Lincolnshire	140	99	144	24	13
North Lincolnshire	25	105	30	6	3

Table 5-15: Sub-regional Impact – Yorkshire & The Humber

Source: Hatch Regeneris

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Local Enterprise Partnerships (LEPs) are locally-owned partnerships between businesses and local authorities and play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs. A total of five Local Enterprise Partnerships† fall within the Yorkshire & The Humber region and the economic impacts which relate to these areas are shown below.

	BT Group Employees & Contractors		Total Impact		
	Work in area	Resident in area	Employment	Output £ million	GVA £ million
Greater Lincolnshire *	783	939	1,060	161	86
Humber	249	404	879	137	65
Leeds City region	3,030	3,150	11,900	1,900	905
York & North Yorkshire	872	1,180	2,650	423	204
Sheffield City region	3,560	3,450	4,070	682	360

Table 5-16: LEP Impact – Yorkshire & The Humber

Source: Hatch Regeneris

† The information provided on LEPs and Enterprise Zones is correct at the time of publication of this report (as at December 2018). 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 asterix (*).

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- 1 in every 8 employees working in the IT and Communications sector in the **Greater Lincolnshire LEP** was directly employed by BT Group.
- 1 in every 18 employees working in the IT and communications sector in the **Humber LEP** area was directly employed by BT Group.
- 1 in every 10 employees working in the IT and communications sector in the **Leeds City Region LEP** area was directly employed by BT Group and 1 in every 80 employees working in the private sector was supported by BT Group's full economic impact.
- 1 in every 10 employees working in the IT and communications sector in the **York and North Yorkshire LEP** area was directly employed by BT Group.
- 1 in every 4 employees working in the IT and Communications sector in the **Sheffield City Region LEP** was directly employed by BT Group and £1 in every £90 of GVA was generated by BT Group's full economic impact.

A Technical Appendices

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

Definitions

There are three sources of economic impact that a company like BT Group 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 Group'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 Group's initial expenditure injection creates further wealth, and supports jobs and income.

Induced impacts
Further economic activity and employment is created as BT Group 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 Group 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** = 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)

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Employment
This is the quantity of jobs supported by BT Group'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 Group, including NI and pension contributions, and PAYE taxes.

Methodology and Data Sources

The methodology used to estimate BT Group's economic impacts for 2017/18 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 Group's financial accounts for 2017/18 and BT Group'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 Group), plus social security costs (sourced from BT Group).

* Earnings Before Interest, Tax, Depreciation and Amortisation

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Employment numbers have been sourced from a snapshot of information provided by BT Group, with data on the number of people employed directly by BT Group and the number of contractors employed through agencies, along with their contracted hours. These have then been converted to FTEs based on one full time job being equivalent to a 37.5 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 2017/18 annual accounts.

The BT Group 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 Group.

Employment income has been estimated using data from BT Group, 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 Group by location and by sector. Each supplier to BT Group 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 were matched to the Companies House Database. This provides the sector for each supplier at the 2 digit Standard Industrial Classification (SIC) code.

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 Hatch Regeneris' input-output tables for the UK and the regions.

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

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The regional and local dimension

Estimating regional and local impacts

The results are presented for the former Government Office Regions as well as 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 Group 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 Group'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, 2017).

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, 2017).

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, 2017).

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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, 2018) multiplied by the average gross annual pay for all employees in that geographical area (source: Annual Survey of Hours and Earnings, 2018)

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, 2017) multiplied by the average gross annual pay for all employees in that geographical area (source: Annual Survey of Hours and Earnings, 2018)

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, 2017 and ONS, GVA for Local Enterprise Partnerships, 1997-2017).

Offices Worldwide

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