

## **17 SOCIO-ECONOMICS**

### **17.1 Introduction**

17.1.1 This Chapter of the Environmental Statement (ES) has been prepared by Lichfields on behalf of the applicant, AESC UK (the applicant). It assesses the potential effects of the proposed development described in Chapter C in relation to socio-economics.

17.1.2 The baseline situation is considered before the likely environmental effects of the proposed development are identified during its construction and operational phases. Mitigation measures to reduce any negative environmental effects are identified as appropriate, before the residual environmental effects are assessed.

17.1.3 The socio-economic effects covered in this assessment include:

- Employment and economic output generated during the construction phase of the proposed development;
- Employment and economic output generated during the operational phase of the proposed development;
- Effect of the proposed development on the labour market;
- Effect of the proposed development on commuting; and
- Effect of the proposed development on deprivation levels in the local community.

#### ***About the Author***

17.1.4 This Chapter has been prepared by James Robertson, BA (Hons) MIED, Senior Economics Consultant, and Ross Lillico, Economics Director, BA (Hons) MIED, MEDAS, both of Lichfields. Lichfields has an extensive track record of preparing Socio-Economic Assessment in an Environmental Impact Assessment context. It has prepared more than 100 Socio-Economic Assessments over the past decade.

17.1.5 Lichfields holds corporate membership of the Institute of Economic Development (IED) with approximately 25 registered members. The IED establishes the firm's professional standing, knowledge and expertise in the area of economic development practice. Employees undertake regular Continuous Professional Development (CPD). Individual members of staff are also MIED.

### **17.2 Policy Context**

17.2.1 This section sets out the legislation, national and local policy, and guidance of relevance to the technical assessment in this Chapter.

## **National Policy**

### *National Planning Policy Framework (2023)*

- 17.2.2 The National Planning Policy Framework (NPPF) was revised in December 2023 and sets out the Government’s planning policies for England and how these are expected to be applied. Paragraph 7 of the NPPF outlines that: *“The purpose of the planning system is to contribute to the achievement of sustainable development.”*
- 17.2.3 Achieving sustainable development means that the planning system has three objectives – economic, social, and environmental. The economic objective involves helping to build a strong, responsive, and competitive economy by ensuring that sufficient land of the right types is available in the right places. The social objective involves supporting strong, vibrant, and healthy communities with accessible services that reflect current and future needs and support communities’ health, social and cultural well-being.
- 17.2.4 Chapter 6 of the NPPF is focussed on building a strong, competitive economy. Paragraph 85 sets out that: *“planning policies and decisions should help **create the conditions in which businesses can invest, expand and adapt.**”* (Lichfields emphasis)
- 17.2.5 It places significant weight on the need to: *“**support economic growth and productivity,** taking into account both local business needs and wider opportunities for development.”* (Lichfields emphasis)

### *Build Back Better: Our Plan for Growth (2021)*

### *Industrial Strategy: Building a Britain fit for the future (2017)*

- 17.2.6 The Government published its Industrial Strategy in November 2017. The Strategy outlines the aspiration to create an economy that boosts productivity and earning power throughout the UK. It recognises that every region in the UK has a role to play in boosting the national economy and states that the Government will continue to build the Northern Powerhouse to help create prosperous communities throughout the UK. The Government aims to do this, in part, by agreeing Local Industrial Strategies that build on local strengths and deliver economic opportunities.
- 17.2.7 The Strategy identifies five ‘foundations of productivity’, one of which acknowledges the importance of ‘place’. It identifies that strong local economies around the world tend to have key attributes which include having a good supply of skilled labour; and being well connected.

*UK Government: Levelling Up White Paper (2022)*

17.2.8 The Government published its Levelling Up White Paper in February 2022. The paper outlines the aspiration to end geographical inequality across the UK, ensuring that all areas benefit equally from economic prosperity. It outlines four overarching themes:

1. Boost productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging;
2. Spread opportunities and improve public services, especially in those places where they are weakest;
3. Restore a sense of community, local pride and belonging, especially in those places where they have been lost; and
4. Empower local leaders and communities, especially in those places lacking local agency.

*Net Zero Strategy: Build Back Greener (2021)*

17.2.9 The Government's Net Zero Strategy was published in 2021, prepared by the Department for Business, Energy & Industrial Strategy (BEIS), and sets out the plans and ambitions for reducing emissions across each sector in the economy, with the ultimate aim of achieving net zero by 2050. The document details the delivery pathways, policies and proposals for achieving a decarbonised economy by 2050, supporting green jobs and economic opportunity.

17.2.10 The strategy outlines eight key target areas for supporting this ambition, covering:

- Power;
- Fuel Supply & Hydrogen;
- Industry;
- Heat and Buildings;
- Transport;
- Natural Resource, waste and fluorinated gases;
- Greenhouse Gas Removals (GGRs); and
- Supporting the transition with cross-cutting action.

17.2.11 Within the Transport target area, the strategy sets out the Government's ambition for delivering greener, cleaner, and healthier transport solutions. Within this, the Zero Emission Vehicle (ZEV) mandate sets out a commitment to end the sale of new petrol

and diesel cars by 2030 and a commitment for all cars to be fully zero emissions capable by 2035. As part of this, the Government outlines ambition to support the automotive industry to support the transition to electrification of UK vehicles and support the supply chain and support cutting edge technologies and capture jobs.

### **Regional Policy**

#### *North East Local Enterprise Strategic Economic Plan (2022)*

17.2.12 The North East Local Enterprise Partnership (NELEP) published the first version of its Strategic Economic Plan (SEP) in April 2014. A refreshed SEP was launched in January 2022, although it should be noted that only an Executive Summary is in the public domain. The refreshed SEP sets out two headline targets:

- To increase the number of jobs in the North East economy by 100,000 by 2024; and
- To ensure that 70% of the jobs growth will be 'better' jobs (managerial, professional and technical roles).

17.2.13 In addition, the Plan identifies four target areas of strategic importance for the NELEP area which all involve closing the gap to the national average, supporting the regions levelling up ambitions. These targets include:

- Reducing the gap in private sector employment density<sup>1</sup> by 50% by 2024;
- Closing the gap in the employment rate for people aged 16-64 by 100% by 2024;
- Reducing the gap in economic activity for people aged 16-64 by 50% by 2024; and
- Reducing the gap in productivity by 50% by 2024.

17.2.14 The SEP sets out a programme of delivery centred around five key themes areas, underpinning initiatives and projects that will deliver the ambitions of the Plan, these include:

1. Business Growth;
2. Innovation;
3. Skills, employment, inclusion, and progression;
4. Investment and Infrastructure; and
5. Transport Connectivity.

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<sup>1</sup> Employment density is defined as the number of jobs in an area divided by the resident population aged 16-64. A figure of 1.0 would mean that there is one job for every resident aged 16-64. There are fewer private sector jobs per head (16-64 population) in the North East than in England (excluding London).

### **Local Policy**

#### *Sunderland Core Strategy and Development Plan 2015-2033 (2020)*

17.2.15 The Development Plan for Sunderland consists of the Core Strategy and Development Plan (CSDP), this plan outlines relevant planning policies to guide development in Sunderland up to 2033.

17.2.16 The CSDP notes that: *“Advanced manufacturing and particularly the automotive sector are a key part of the local economy... The sector employs 30,000 people regionally. To support the continued growth of this sector, the IAMP will be developed on land to the north of the existing Nissan plant. It is anticipated that the IAMP would create approximately 7,850 new jobs and would be a significant driver for the regional economy and the automotive sector within the UK”*.

17.2.17 Policy SP3 emphasises that *“economic growth will be focused in identified Employment Areas (Policies EG1 and EG2) and at the IAMP”*, demonstrating the importance of IAMP for Sunderland’s Economy, with Strategic Priorities 1 and 5 of the CSDP are also focused on unlocking economic growth by *“supporting developments which enhance automotive industries and advanced manufacturing, particularly at the IAMP; and supporting development of key sectors such as education, health, high-tech and knowledge-based industries”*.

#### *Sunderland City Plan 2023-2035 (2023)*

17.2.18 Sunderland City Council’s City Plan outlines the authority’s vision and ambitions up to 2035. The City Plan seeks to increase the number and quality of jobs in the city whilst improving the qualifications and skills of local people, with one of the main ambitions of the plan being that *“Residents’ skills and qualifications enable them to secure good jobs matching the needs of employers in the city’s key sectors”*. Furthermore, another ambition of the City Plan is that *“Sunderland will play its role in tackling the global challenge of climate change, working together across the city to be carbon neutral by 2040”*. The indicative timeline of the City Plan supports and recognises the ongoing development and growth of IAMP as part of the plan moving forward.

## **17.3 Assessment Methodology & Significance Criteria**

### **Assessment Methodology**

17.3.1 This section outlines the methodology used to assess the socio-economic effects of the proposed development, including the adopted Area(s) of Impact (AOI) and significance criteria for the assessment.

17.3.2 The assessment first establishes the baseline position in relation to the relevant receptors before examining the potential effects of the proposed development and their significance during the construction and operational phases, respectively. This draws on economic impact analysis underpinned by Lichfields' proprietary economic impact framework, 'Evaluate'. Opportunities for the mitigation of any adverse effects (and to maximise any beneficial effects) are then examined, including any built-in mitigation elements of the proposed development, where applicable. Finally, residual effects are considered.

17.3.3 The sources of information used to establish the socio-economic baseline of the AOI include the Annual Population Survey, Business Register and Employment Survey, and Census 2021 (and 2011 where this represents the latest available data). Where the availability of data allows, the baseline position of the AOI is benchmarked against regional (North East) and national (Great Britain) data.

#### ***Area(s) of Impact***

17.3.4 The site lies within the administrative area of Sunderland City Council. It is located on land to the west of International Drive and north of the A1290 at the International Advanced Manufacturing Park (IAMP), Washington.

17.3.5 The Sunderland City Council area has been selected as the 'local impact area' for assessing socio-economic effects. Identification of the local impact area is based upon the nature of the proposed development and the location of the site in relation to Sunderland and the surrounding local authority areas.

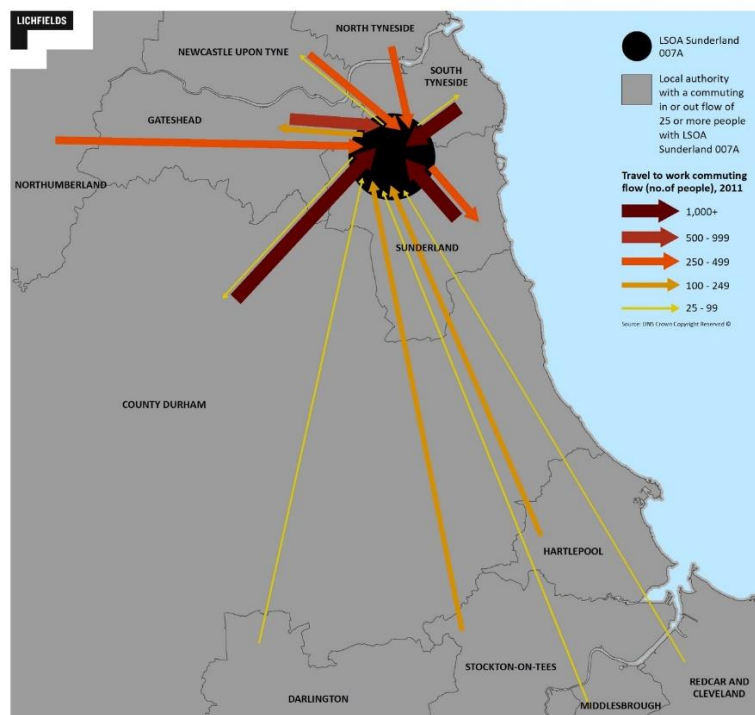
17.3.6 Having regard to the potential scale of impact of the proposed development and taking into consideration commuting patterns, it is possible to identify where further effects might be observed beyond the local authority boundary. As such, a wider AOI has also been identified and comprises of the area from which the majority of the workforce will be drawn. The current criteria for defining travel to work areas are:

- At least 75% of an area's resident workforce must work in the area;
- At least 75% of the people who work in the area must live in the area; and
- The area must have a working population of at least 3,500.

17.3.7 Applying this methodology to data from the 2011 Census relating to commuting patterns, it is possible to define the wider AOI as comprising of the local authority areas of Sunderland, County Durham, South Tyneside, Gateshead and Newcastle.

17.3.8 Analysis of this data (as shown in Figure 17.1), reveals that, in 2011, there were

approximately 9,780 people working within the Sunderland 007A Lower Super Output Area (LSOA) identified above. Of these workers, the data indicate that 42.2% were residents in Sunderland and 21.4% in County Durham, 10.9% in South Tyneside and 8.8% in Gateshead (in combination accounting for 83.3% of the area's residents – above the 75% methodological threshold). Of the combined resident population across the LSOAs (estimated to be in the order of 715), 55.8% work in Sunderland, 15.1% in Gateshead and 9.9% in Newcastle upon Tyne (in combination accounting for 80.8% of the area's residents).



**Figure 17.1 – Commuting Flows at Local Authority Level**

17.3.9 It should be noted that the wider AOI is unlikely to include the entirety of the Local Authority areas given their size. The functional economic relationships with the areas immediately surrounding site are likely to be stronger in certain parts of each authority than across the whole district/county. Analysis of LSOA level commuting data supports this and suggests that relationships are likely to be stronger in the following locations: (and shown in Figure 17.2):

- North of County Durham (Chester-Le-Street and Bournmoor);
- The A19 Corridor (Seaham/Peterlee);
- East of Gateshead (Pelaw/Felling and Birtley); and
- South Tyneside (Boldon Colliery/West Boldon).

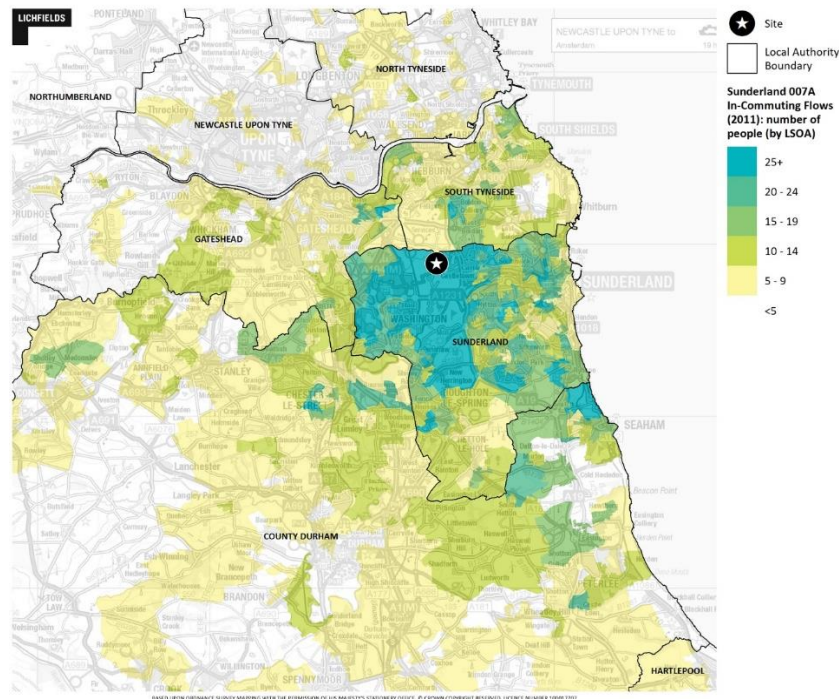


Figure 17.2 – Commuter Heatmap

**Significance Criteria**

- 17.3.10 Since there are no standard criteria for assessing the significance of socio-economic effects, they are assessed based on the scale of change relative to the baseline position, as well as the nature and context of the impacts (taking account of the sensitivity of the identified receptor). Where relevant, the location of the impact and its likely duration has been taken into account. In some cases, this cannot be quantified or measured, so the nature and context of the effects are considered more generally, taking account of qualitative factors.
- 17.3.11 The socio-economic effects of the proposed development are identified as ‘beneficial’, ‘negligible’, or ‘adverse’ (Table 17.1).

Table 17.1: Definition of Effects	
Criteria	Definition
Beneficial	A positive and/or advantageous effect to a minor, moderate or major magnitude
Negligible	No obvious effect on a receptor or environment
Adverse	A negative and/or disadvantageous effect to a minor, moderate, or major magnitude

- 17.3.12 The terms presented in Table 17.2 are used to define the significance of the effects identified.

Table 17.2: Definition of Significance of Effects	
Significance of Effects	Definition
Major	Where the proposed development could be expected to have considerable effects



<b>Significance of Effects</b>	<b>Definition</b>
	(by extent, duration or magnitude) or of more than significance on the existing population, level / types of employment, levels of deprivation and economic characteristics of the area.
Moderate	Where the proposed development could be expected to have noticeable effects, which may be considered significant on the existing population, level / types of employment, levels of deprivation and economic characteristics of the area.
Minor	Where the proposed development could be expected to result in a small, very short or highly localised effect on the existing population, level / type of employment, level of deprivation and economic characteristics of the area.
Negligible	Where no discernible effect is expected as a result of the proposed development on the existing population, level / type of employment, level of deprivation and economic characteristics of the area.

17.3.13 The duration of a socio-economic effect is either defined as temporary or permanent. Owing to their nature, all operational effects are considered to be permanent unless otherwise stated. In terms of temporary effects, the duration can be determined to be short-term (less than 5 years), medium-term (5-10 years) or long-term (more than 10 years).

17.3.14 The sensitivity of receptors is also considered. Sensitivity varies between receptors and, in some instances, qualified judgment is required to establish where receptors place on a scale from low (easily adapt to change) to high sensitivity (do not easily adapt to change). In identifying sensitivity, factors including the capacity to accept or respond to change, local economic and population characteristics and local needs are taken into account.

17.3.15 The scale of effects is determined by the sensitivity of the receptor and the magnitude of the predicted change (impact). The magnitude of change is assessed by considering the predicted deviation from baseline conditions. The criteria for the assessment of the magnitude of change, which can be either beneficial (positive) or adverse (negative) ranges on a scale from low to high.

17.3.16 A matrix identifying the significance of potential effects is set out in Table 17.3, below. Effects of Moderate or Major significance are considered as ‘Significant’ in EIA terms, whilst effects of Negligible or Minor significance are considered to be ‘Not Significant’. Where the matrix identifies a range in the significance of effect, professional judgement is used to come to a view on a single effect level associated with the impact.

		Sensitivity of Receptor / Environment to Change or Impact			
		High	Medium	Low	Negligible
Magnitude of Change	High	Major	Moderate to Major	Minor to Moderate	Negligible
	Medium	Moderate to Major	Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible to Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

**Consultation**

17.3.17 This Chapter has been prepared having regard to existing knowledge of the site and expertise in undertaking socio-economics assessments. The scope of this socio-economic assessment follows the approach that Lichfields has undertaken in the preparation of the other socio-economic assessments for IAMP. No discussions have taken place with Sunderland City Council in relation to the scope of this assessment.

**Assumptions and Limitations**

17.3.18 The limitations of the assessment are identified, where applicable. In particular, baseline data used from third-party sources has not been verified by Lichfields. Furthermore, whilst the latest available data at the time of preparation has been used, it should be noted that many data sources are frequently updated and could be subject to change since the time of drafting or during the planning application process.

17.3.19 Assumptions are also identified, where relevant, within the remaining sections of the chapter. The key assumptions include:

- The assessment of employment associated with the construction period is based on an estimated construction cost provided to Lichfields by the cost consultants appointed to the wider project delivery team;
- The assessment of employment during the operational period is based upon estimates provided by AESC UK (based on their previous operational experience) and sense-checked by applying national employment density assumptions to the proposed quantum of development; and
- The assessment of economic output generated during construction and operation draws upon Experian data regarding average Gross Value Added (GVA) per employee for the relevant sectors.

**17.4 Baseline Conditions**

17.4.1 The following outlines the current socio-economic conditions within the local and

wider AOIs (defined in Section 17.3) relating to the proposed development. This includes a summary of the current demographic profile, local economic conditions and labour market conditions. In most cases, this is benchmarked against the regional and national level.

**Current Conditions**

*Demographic Profile*

17.4.2 The Office for National Statistics (ONS) estimates that the resident population of the local AOI in 2021 stood at 274,211, which represents a contraction of 0.6% over the period 2012-2021. By way of comparison, the population across the wider AOI grew by 1.2%, whilst the regional and national populations grew by 1.7% and 5.2% respectively over the same period.

17.4.3 The proportion of working age (16-64) residents in the local AOI stood at 61.8% in 2021, which is marginally lower than the wider AOI and Great Britain (both 62.9%), but in alignment with the North East (61.8%). The absolute size of Sunderland’s working age population contracted by 5.2% over the period 2012-2021, a greater contraction than that observed across the wider AOI and the North East (both 2.2%). By way of comparison, Great Britain experienced a rise in the working age population in the order of 3.2%.

**Local Economic Conditions**

*Economic Output*

17.4.4 Data from ONS provides an estimate of balanced GVA (a measure of economic output) at a local authority level. When considered in conjunction with the number of jobs (ONS Jobs Density) for the same base year, this can provide an indication of the level of productivity (or GVA per job) for a given area across all sectors of the economy. Table 17.4 indicates that, in 2020, GVA per job within the local AOI was £51,634. This is higher than the corresponding figures for both the wider AOI (£43,733) and the North East (£44,348), but lower than Great Britain (£53,722).

Table 17.4: Balanced gross value added and GVA per jobs (2020)				
	Local AOI	Wider AOI	North East	Great Britain
Total GVA	£6,919,000,000	£30,919,000,000	£54,593,000,000	£1,877,963,000,000
Total GVA per job (2020)	£51,634	£43,733	£44,348	£53,722

*Deprivation*

17.4.5 Deprivation at the local level is measured by the Index of Multiple Deprivation (IMD),

which uses a series of datasets to rank geographic areas across seven domains that range from income to health. These categories in combination produce a multiple deprivation score for each local area.

17.4.6 The latest English Indices of Deprivation (2019) provides a composite measure of deprivation at a local level, where a ranking of 1 represents the most deprived and a ranking of 317 represents the least deprived authority, nationally. The results show that Sunderland (local AOI) is ranked 35<sup>th</sup> out of 317 local authorities. This places Sunderland within the 15% most deprived local authority areas within England. Almost a quarter (22.7%) of all LSOAs within the local authority area fall within the 10% most deprived, nationally.

17.4.7 Similarly, the wider AOI is also characterised by high levels of deprivation with each of the constituent Local Authorities ranking within the top 20% most deprived authorities, nationally, and a significant proportion of the LSOA's falling within the top 10% most deprived, nationally. This is summarised, below, by the following:

- Sunderland - Ranked 35<sup>th</sup>, 22.7% of LSOAs placed in 10% most deprived, nationally;
- County Durham - Ranked 62<sup>nd</sup>, 12.0% of LSOAs in 10% most deprived, nationally;
- South Tyneside - Ranked 27<sup>th</sup>, 24.5% of LSOAs in 10% most deprived, nationally;
- Gateshead - Ranked 47<sup>th</sup>, 16.7% of LSOAs in 10% most deprived, nationally; and
- Newcastle upon Tyne - Ranked 41<sup>st</sup>, 25.7% of LSOAs in 10% most deprived, nationally.

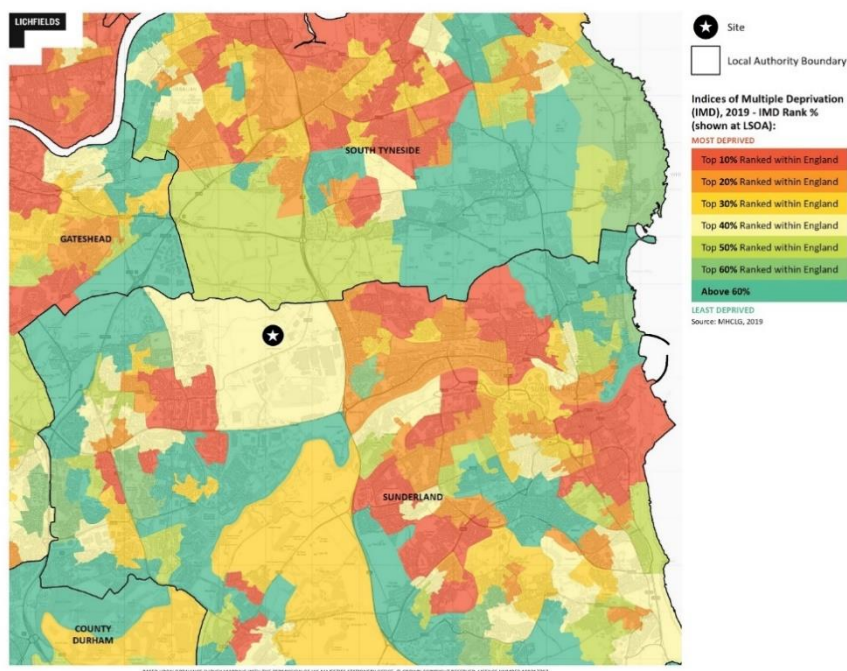


Figure 17.3 – Deprivation Map

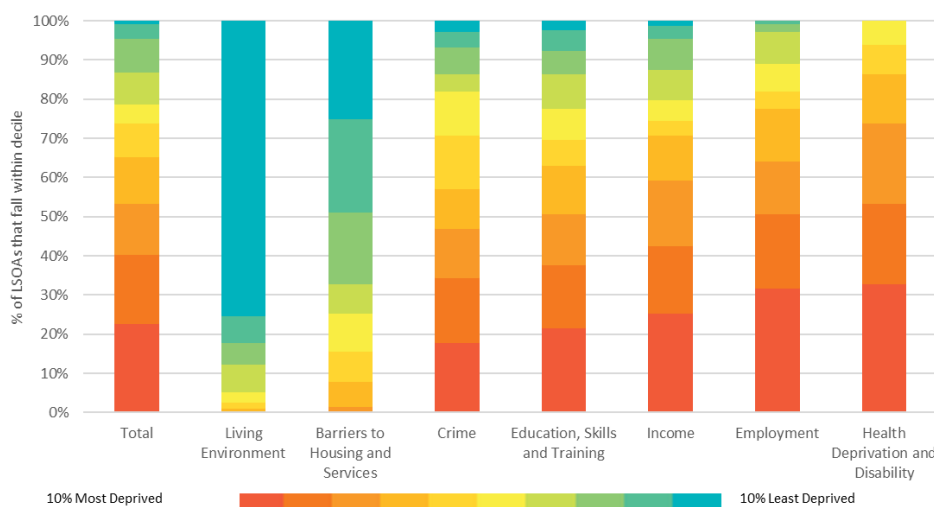
17.4.8 Analysis of these data at a more local level demonstrates that 42 of the 185 (22.7%) LSOAs within Sunderland fall within the 10% most deprived, nationally. This indicates that Sunderland has a disproportionately high representation of LSOAs with acute levels of deprivation. As demonstrated in Figure 17.3, there are pockets immediately surrounding the site characterised by high levels areas of deprivation, notably Hylton and Sulgrave.

17.4.9 Figure 17.4 contains IMD data disaggregated by the individual deprivation domains across the local AOI. It shows the proportion of LSOAs that fall within each decile, where 1 (red) indicates the most deprived decile and 10 (blue) indicates the least deprived decile. The performance of the local AOI varies considerably across the indicators. It most evidently performs particularly well with regard to:

- Living Environment: 97.3% of the LSOAs fall within the 50% least deprived LSOAs, nationally, including 75.1% within the 10% least deprived. None of the LSOAs fall within the 10% most deprived, nationally; and
- Barriers to Housing and Services: 84.3% of the LSOAs fall within the 50% least deprived LSOAs, nationally, including 24.9% within the 10% least deprived. None of the LSOAs fall within the 10% most deprived, nationally.

17.4.10 In contrast, the local AOI performs less well with regard to:

- Health Deprivation and Disability: 94.1% of the LSOAs fall within the top 50% most deprived LSOAs, nationally, including 33.0% within the top 10% most deprived. None of the LSOAs fall within the top 10% least deprived, nationally;
- Employment: 82.2% of the LSOAs fall within the top 50% most deprived LSOAs, nationally, including 31.9% falling within the top 10% most deprived. None of the LSOAs fall within the 10% least deprived, nationally; and
- Income: 74.6% of the LSOAs fall within the top 50% most deprived LSOAs, nationally, including 25.4% falling within the top 10% most deprived. Only 1.1% of the LSOAs fall within the 10% least deprived, nationally.



**Figure 17.4 – Proportion of LSOAs within each decile rank for each IMD domain**

### **Labour Market Conditions**

#### *Employment*

17.4.11 An analysis of ONS data indicates that the total number of jobs in 2021 within the local AOI stood at 134,000, which is a 6.3% increase relative to 2011. This rate of growth is lower than that observed across the wider AOI (8.6%), region (8.9%) and Great Britain (13.1%) over the same period.

17.4.12 The same dataset provides a measure of the ratio of total jobs to working age residents for a given area. The latest available data (2021) shows that the local AOI had a job density of 0.79, indicating that for every 100 working age residents there were 79 jobs. This is higher than the corresponding figures across both the wider AOI and region (0.78 and 0.75 respectively), but lower than the figure for Great Britain (0.85).

#### *Unemployment*

17.4.13 Data collected from the Annual Population Survey (2022) highlights that the economic activity rate (i.e., the share of working age residents (16-64) either in or seeking employment) stood at 73.6% in the local AOI. This is lower than the corresponding figures across the wider AOI (75.0%), the region (74.8%) and Great Britain (78.4%) over the same period.

17.4.14 The same dataset also shows that model-based unemployment in the local AOI (3.2%) is lower than the wider AOI (4.3%), North East (4.9%) and Great Britain (3.7%).

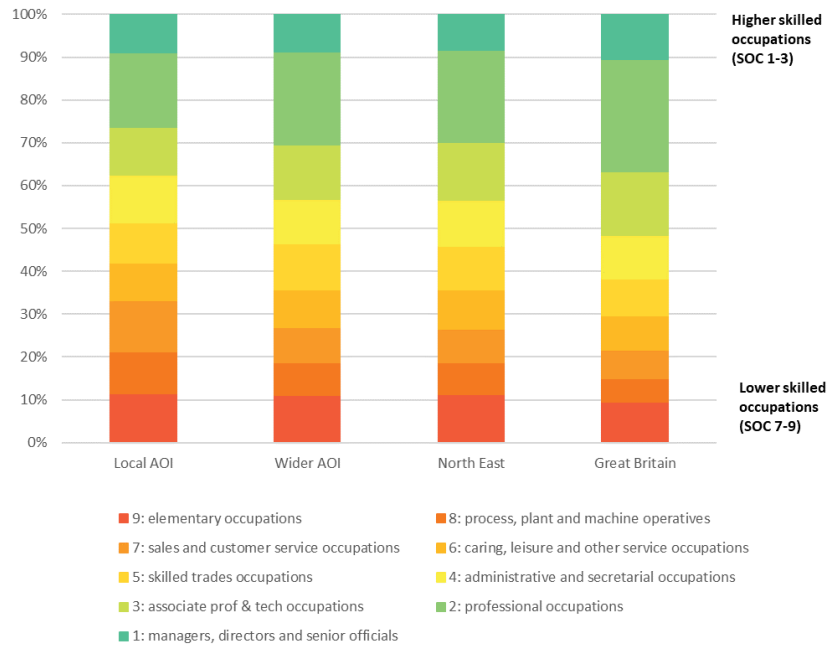
17.4.15 In contrast, the most recent claimant count data (September 2023) indicates that the local AOI has a higher proportion of claimants relative to the size of the working age (4.3%) than both the North East (4.0%) and Great Britain (3.7%). In absolute terms, there were 7,290 residents claiming out-of-work benefits in Sunderland in September 2023.

#### *Business Growth*

17.4.16 UK business count data shows that the number of businesses in the local AOI stood at 6,130 in 2022, representing a 36.1% increase since 2013. This rate of growth exceeded the wider AOI (32.7%), regional (29.8%) and national (28.0%) averages over the same period.

#### *Occupation Structure*

17.4.17 As of June 2022, 37.5% of employed residents in Sunderland held jobs in Standard Occupational Classification (SOC) 2010 major groups 1-3. Groups 1-3 broadly correspond to higher skilled occupations including: managers, directors and senior officials; professional occupations; and associate professional and technical occupations. The proportion of Sunderland residents occupying such roles is lower than the 43.3% across the North East and 51.4% across Great Britain. Additionally, a larger proportion of employed residents in Sunderland (33.2%) held occupations in major SOC groups 7-9 (broadly categorised as lower-skilled occupations, such as sales, plant and machine operatives and elementary trades) relative to the North East (26.4%) and Great Britain (21.5%).



**Figure 17.5 – Occupations by SOC Group**

*Earnings*

17.4.18 The median gross weekly earnings of full-time employees in Sunderland (workplace earnings) were £540.90 in 2022, which was lower than the wider AOI (£567.40), North East (£575.20) and Great Britain (£642.00). Similarly, gross median resident weekly earnings in Sunderland (£536.60) were lower than the wider AOI (£573.30), region (£580.30) and Great Britain (£642.20).

Table 17.5: Median Gross Weekly Earnings				
	Local AOI	Wider AOI	North East	Great Britain
Median Gross Weekly Earning by Residence	£536.60	£573.30	£580.30	£642.20
Median Gross Weekly Earnings by Workplace	£540.90	£567.40	£575.20	£642.00

*Commuting*

17.4.19 The 2021 Census indicates that Sunderland is a net importer of labour. Whilst 35,370 Sunderland residents travel outside of the authority’s boundaries for work, some 40,898 workers commute into the City. This results in a net inflow of 5,528 workers.

Table 17.6: In and Out Commuting		
Total in-commuters	Total out-commuters Local AOI	Net in-commuters
40,898	35,370	5,528



17.4.20 A more granular review of the out-commuting data indicates that Sunderland residents typically travel to work elsewhere in the NELEP area, particularly County Durham, Gateshead, Newcastle Upon Tyne, South Tyneside and North Tyneside. Similarly, the majority of those workers commuting into Sunderland are resident in the NELEP area (mainly the authorities of County Durham, South Tyneside, Gateshead, Newcastle upon Tyne, and North Tyneside).

<b>Local Authority</b>	<b>Total in-commuters</b>	<b>Total out-commuters Local AOI</b>
Sunderland	70,399	70,399
County Durham	15,709	9,409
South Tyneside	8,749	4,979
Gateshead	5,883	7,140
Newcastle upon Tyne	3,220	6,161
North Tyneside	2,207	1,676
Northumberland	1,677	1,027
Stockton-on-Tees	657	654
Hartlepool	651	399
Darlington	356	380
Middlesbrough	275	279
Redcar and Cleveland	252	114
Other	1,194	3,152
<b>Total</b>	<b>40,898</b>	<b>35,370</b>

**Summary**

17.4.21 The resident population of the local AOI in 2021 stood at 274,211. Over the period 2012 to 2021, the total and working-age populations contracted by 0.6% and 5.2%, respectively. Against both metrics, Sunderland has underperformed in comparison with the wider AOI, North East and Great Britain.

17.4.22 During the period October 2021 to September 2022, 73.6% of Sunderland’s working-age population was economically active, which is below the wider AOI and both the regional and national average. Sunderland’s performance with respect to unemployment is more mixed, however, with:

- 2022 Annual Population Survey data indicating that model-based unemployment in the local AOI (3.2%) is lower than the wider AOI (4.3%), North East (4.9%), and Great Britain (3.7%); and
- More recent claimant count data (September 2023) suggesting that the local AOI has a higher claimant unemployment rate (4.3%) than the wider AOI (4.0%), North East (4.0%) and Great Britain (3.7%).

17.4.23 Median resident and workplace wages in Sunderland during 2022 equated to £536.60 and £540.90 per week, respectively. Both figures are lower than the corresponding values recorded across the wider AOI, region and Great Britain.

17.4.24 Sunderland is a net importer of labour, with a net in-commuting flow of 5,528 commuters in 2011. Sunderland has relatively high levels of deprivation, with 74.1% of LSOAs within the authority falling within the 50% most deprived LSOAs, nationally.

### ***Future Baseline***

#### ***Demographic Profile***

17.4.25 The population of Sunderland is expected to experience a modest level of population growth, with the 2018-based Subnational Population Projections anticipating an increase of 1,260 people between 2021 and 2042. This translates to an uplift of 0.5%. By way of comparison, population growth across the wider AOI is expected to be 5.4%, with growth across the region and England anticipated to be 4.4% and 8.0%, respectively. Whilst a modest level of population growth is projected to occur in Sunderland over the next two decades, this will not be uniform across different age cohorts. Indeed, a contraction of 4.6% is projected with respect to working age (16 to 64 years), which would decrease the local workforce.

#### ***Local Economic and Labour Market Conditions***

17.4.26 Sunderland's 2016 Employment Land Review (ELR) identifies a baseline employment growth projection of 7,200 across all sectors over the period 2015-2033. This analysis is based on Experian forecasting. The ELR also identifies that a further estimated 2,035 supply chain jobs (in B-Class uses<sup>2</sup>) associated with the IAMP, translating to a total employment growth in the order 9,200 over the period 2015 to 2033.

#### ***Site Specific Future Baseline***

17.4.27 With respect to the site, specifically, the absence of the proposed development (i.e., a No Development scenario) would result in a future baseline with no additional employment growth on the site.

## **17.5 Potential Benefits**

17.5.1 This section assesses the potential socio-economic effects of the proposed development on receptors in the AOI. The socio-economic effects are assessed during

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<sup>2</sup> i.e. Class B2 'general industrial' and Class B8 'storage or distribution'.

the construction and operational phases of the proposed development.

### ***Embedded Mitigation***

- 17.5.2 No embedded mitigation measures of relevance to socio-economic matters have been incorporated during either the construction or operational phases of the proposed development.

### ***Major Hazards and Accidents***

- 17.5.3 Owing to the nature of the proposed development and the site (and having reviewed the potential effects), it is not considered that any major hazards and / or accidents will arise during the operational phases with regards to socio-economic matters. No further consideration has, therefore, been given to this.

### ***Phasing***

- 17.5.4 It is anticipated that construction will last approximately 133 weeks (2.6 years). The proposed development has been viewed in overall terms for the purpose of this assessment rather than as individual phases. This is only relevant where the length of the build period influences assumptions regarding the level of construction employment to be supported.

### ***During Construction***

#### ***Direct Employment***

- 17.5.5 It is estimated that the construction cost for the proposed development will total approximately £500 million. This figure has been provided to Lichfields by the cost management team for the project.
- 17.5.6 In terms of the level of employment to be supported, the appointed construction contractors estimate that approximately 1,200 construction workers will be onsite per day at the peak time of construction. This does not include office-based staff and fit-out staff.
- 17.5.7 This figure has been sense-checked by Lichfields, using labour coefficients from the Housing and Communities Agency (HCA) Calculating Cost per Job Best Practice Guidance Note (2015). Taking account of the composition of the proposed development, a 'private industrial' coefficient is considered most appropriate for calculating direct construction jobs. This coefficient assumes that £1 million of construction value (in 2011 prices) will support 10.0 direct Full-Time Equivalent (FTE) construction jobs per annum.

17.5.8 To use the coefficient, the construction cost of £500 million has been deflated to 2011 prices using the latest UK Government GDP Deflator. Applying the private industrial coefficient to the deflated construction cost £390.5 million and then dividing the result by the length of the construction phase (133 weeks (2.6 years)), indicates that the proposed development could be expected to support an average of 1,525 gross direct FTE jobs per annum over the construction phase.

17.5.9 In the context of the above, it is determined that the contractor estimates for construction employment are not unreasonable, and likely represent a conservative estimate of the total level of employment that could be supported during the construction phase. This is on the basis that:

- The estimates do not consider office-based staff or fit-out staff; and
- They are for the peak of the construction phase, whereas government-endorsed methodology indicates a higher average figure throughout the construction phase.

#### *Indirect Employment*

17.5.10 Construction typically involves purchases from a range of suppliers who, in turn, purchase from their own suppliers further down the supply-chain. The relationship between the initial spending and total economic effects is known as the 'multiplier effect', which demonstrates that an initial investment can have a larger economic impact as this expenditure is diffused through the economy. The construction sector is recognised as being a part of the UK economy where there is a particularly large domestic benefit in the supply chain. In this context, it is anticipated that businesses in Sunderland (the local AOI) and the wider AOI could benefit from trade linkages established during the construction phase of the proposed development. As a result, further indirect jobs would be supported in the impact areas (and beyond) in suppliers of construction materials and equipment, etcetera.

17.5.11 Applying a construction sector employment multiplier (2.21) sourced from the ONS Input-Output Tables (2019), it is estimated that the 1,200 direct FTE jobs to be supported per annum could generate a further 1,450 gross temporary supply chain jobs per annum during the construction period.

17.5.12 It should be noted that the above analysis is based upon the application of a Type I multiplier and, therefore, makes no allowance for any induced employment effects associated with the proposed development. That is, jobs generated within the local

economy as a result of expenditure by those in direct or indirect employment associated with the proposed development. On this basis, the total employment effect derived above is considered to represent a conservative estimate.

#### *Total Employment*

17.5.13 Having regard to the preceding paragraphs, it is estimated that the proposed development could generate approximately 2,650 direct and indirect jobs in each year of the construction phase. This is broken down in Table 17.8, below.

<b>Table 17.8: Construction Employment</b>	
	<b>Employment p.a.</b>
Direct Employment	1,200
Indirect Employment	1,450
<b>Total Employment</b>	<b>2,650</b>

17.5.14 The scale of the additional employment that could be generated during the construction is considered to correspond to a high magnitude of change. As outlined in Section 17.4, the local labour market is characterised by:

- A job density that exceeds the wider AOI and North East averages;
- A model-based unemployment figure that falls below that of the wider AOI, the North East and Great Britain; and
- A higher proportion of working age residents that are claimants compared to the wider AOI, as well as the regional and national averages.

17.5.15 Having regard to the above, it is determined that the receptor has a low sensitivity. The direct and indirect employment effects of the proposed development during the construction are, therefore, considered to be short-term **Moderate Beneficial** in the local / wider AOI. This effect is considered to be **Significant** in EIA terms.

#### *Economic Output*

17.5.16 The jobs supported by the construction of the proposed development will also generate additional economic output (GVA). GVA is a commonly used measure of productivity and economic performance. It represents the difference between what is produced as output (goods and services) and the inputs required to support the production of those outputs (e.g. raw materials and semi-finished products, etcetera). In measuring economic growth, economists typically assess the quarterly (or annual) change in GVA for a given area. Based on recent Experian data (2023), the construction sector in the North East is estimated to generate an average GVA per FTE

worker of £66,585 per annum.

17.5.17 An indicative assumption that the overall profile of labour demand over the course of the 133-week build period will be equivalent to sustaining peak demand for a period of 66.5 weeks is taken. This is on the basis that labour requirements are expected to ebb and flow throughout the full length of the construction period.

17.5.18 Considering the above and applying the GVA per FTE worker to the peak sustained direct employment effects of the scheme, it is estimated that the proposed development could generate £40.0 million of direct GVA for each year of the construction phase. Applying an indirect GVA multiplier for the construction sector of 2.27 to the direct GVA above, it is estimated that it could generate a total of £90.7 million of direct and indirect GVA for each year of the construction phase. This is summarised in Table 17.9, below.

Table 17.9: Construction GVA	
	GVA p.a.
Direct GVA	£40.0m
Indirect GVA	£50.8m
<b>Total GVA</b>	<b>£90.7m</b>

17.5.19 The preceding analysis is based upon the application of a Type I multiplier and, therefore, makes no allowance for any induced economic output effects associated with the proposed development. On this basis, the total economic output effect derived above is considered to represent a conservative estimate.

17.5.20 In relation to the combined total GVA within the construction industry across the local AOI (c.£328 million), this represents a 27.7% uplift in GVA. Similarly, in relation to the wider AOI (c.£1.7 billion), this represents a 5.3% uplift in construction sector GVA. The level of economic output to be supported by the proposed development is considered to correspond to a high magnitude of change. The receptor is considered to be of medium sensitivity by virtue of the fact that productivity (all sectors) in the local AOI is higher than the corresponding figure for the wider AOI and the North East, but lower than Great Britain.

17.5.21 The direct and indirect economic output effects of the proposed development during the construction phase are, therefore, considered to be short-term (temporary) **Moderate Beneficial** in the local impact area. This effect is considered to be **Significant** in EIA terms.

***During Operation***

### *Direct Employment*

17.5.22 An estimate of the direct operational jobs to be created by the proposed development has been provided by AESC UK. AESC UK anticipate that the proposed development could support in the order of 1,000 direct operational FTE jobs per annum. This figure has been derived based on existing operational experience within Sunderland and anticipated shift pattern information associated with the proposals.

### *Indirect Employment*

17.5.23 In addition to the direct employment effects of the proposed development during operation, employment multipliers are applied to estimate the level of indirect employment that could be supported by the operational activity. A review of research published by the Faraday Institution<sup>3</sup> regarding the outlook of the UK's Gigafactory infrastructure identifies a multiplier of 1.80 for the gigafactory supply chain. This means every direct job creates 0.8 indirect jobs in the supply chain.

17.5.24 Based on the above, Lichfields estimate that the proposed development could generate a further 800 additional FTE indirect jobs within Sunderland. It should be noted that the above analysis is based upon the application of a Type I multiplier and, therefore, makes no allowance for any induced employment effects associated with the proposed development (i.e. jobs generated within the local economy as a result of expenditure by those in direct or indirect employment associated with the proposed development). On this basis, the total employment effects derived above are considered to represent a conservative estimate.

### *Total Employment and Net Additional Employment*

17.5.25 Overall, Lichfields estimates that the proposed development could generate 1,800 gross (direct and indirect) FTE jobs in the local AOI. It is important, however, to also make an allowance for wider displacement effects. This refers to the extent to which the proposed development could reduce demand for other businesses (product market displacement<sup>4</sup>) or create shortages of labour in competitor firms (factor market displacement) in the local impact area and wider AOI.

17.5.26 The HCA Additionality Guide (2014) notes: *"The scale of displacement effect will vary depending upon the nature of the activity supported and local markets. For example,*

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<sup>3</sup> [UK Electric Vehicle and Battery Production Potential to 2040 \(faraday.ac.uk\)](https://www.faraday.ac.uk).

<sup>4</sup> Product Market Displacement occurs where new development results in reduced demand for other businesses located within the area of impact.

*if the supported business has few local competitors, then the level of product market displacement will be low.”* The Scottish Enterprise Impact guidance on economic impact also notes: *“In general terms the more distinctive the products or services of beneficiaries then the lower product market displacement is likely to be as there is less likelihood that there will be other businesses offering the same products or services.”* Given that this is the one of the first gigafactory developments nationally, product market displacement is assumed to be negligible on the basis that there are few competitor firms.

17.5.27 Labour market displacement occurs where new development increases demand for labour, making it more difficult for existing businesses in the area of impact to retain or recruit staff. Guidance from Scottish Enterprise is clear that, beyond product market displacement, other forms of displacement are: *“Generally, much more difficult to quantify, and the effort required to provide robust estimates of the negative impacts may not be justified. In general, therefore, only a qualitative commentary is required unless the necessary information is readily available.”*

17.5.28 The manufacturing sector is a major employer within Sunderland, accounting for the largest share of workforce jobs. Across the North East more generally, manufacturing is a significant employment sector. Whilst difficult to quantify, a review of Jobseekers Allowance data (August 2023) for individuals actively seeking occupations within relevant occupations indicates that there is sufficient slack within the wider AOI to support the anticipated uplift in jobs. Labour market displacement is, therefore, deemed to be low, however, a small allowance of 10% has been applied to account for labour market displacement to account for any potential labour displacement from complementary industry organisations. On balance, a displacement adjustment of 10% is deemed to represent a cautious assumption.

<b>Table 17.10: Total Operational Employment</b>		
	<b>Gross Employment</b>	<b>Net Additional Employment</b>
Direct Employment (FTE)	1,000	900
Indirect Employment (FTE)	800	720
<b>Total employment (FTE)</b>	<b>1,800</b>	<b>1,620</b>

17.5.29 The level of net additional jobs that will be generated through the operational phase of the proposed development is considered to correspond to a high magnitude of change. As outlined in Section 17.4, the local labour market is characterised by:

- A job density that broadly exceeds the wider AOI and North East averages;



- A model-based unemployment figure that falls below that of the wider AOI, the North East and Great Britain; and
- A higher proportion of working age residents that are claimants compared to the wider AOI, as well as the regional and national averages.

17.5.30 Having regard to the above, it is considered that the receptor has a low sensitivity. It is, therefore, considered that the proposed development will have a permanent **Moderate Beneficial** effect with respect to employment during the operational phase. This is considered to be **Significant** in EIA terms.

*Economic Output*

17.5.31 Based on the estimated number of net additional direct FTE jobs (see Table 17.10) that could be created by the proposed development and the average GVA per FTE worker across the North East manufacturing sector, Lichfields estimate that the proposed development could generate £65.8 million of direct GVA per annum.

17.5.32 Having regard to the anticipated net additional level of indirect employment (720) and the average GVA per FTE worker across the North East (£60,345), it is estimated that indirect employment could contribute a further £43.4 million of additional GVA. It should be noted that this is considered to represent a conservative estimate of the potential indirect economic output on the basis that the sector and supply chain are typically high-value added. This results in the proposed development contributing £109.3 million of net additional GVA annually.

Table 17.11: Operational GVA	
	GVA p.a.
Direct GVA	£65.8m
Indirect GVA	£43.4m
<b>Total Employment</b>	<b>£109.3m</b>

17.5.33 The level of additional economic output to be supported by the proposed development is considered to correspond to a high magnitude of change. This reflects the fact that the manufacture of metals, electrical products and machinery industry<sup>5</sup> within which the relevant sub-sectors for gigafactories are characterised, is valued at approximately £893 million across the local AOI. Therefore, the proposed development could generate a significant uplift (equivalent to a 12.2% uplift relative to the existing industry value).

<sup>5</sup> Manufacture of metals, electrical products and machinery includes the SIC07 Divisions 24-30.

17.5.34 The receptor is considered be of medium sensitivity by virtue of the fact that productivity (within the manufacture of metals, electrical products and machinery industry) in the local AOI is higher than the corresponding figure for the North East, but lower than the figure for Great Britain.

17.5.35 Having regard to the above, the proposed development is assessed as having a permanent **Moderate Beneficial** effect with respect to economic output for the manufacture of metals, electrical products and machinery industry. This is considered to be **Significant** in EIA terms.

*Labour Market*

17.5.36 The socio-economic impact of the proposed development should be considered in the context of the local labour market. The net direct jobs generated by the proposed development would increase the total number of workforce jobs in Sunderland, equivalent to growth of 0.7% relative to the existing number of workforce jobs. It is anticipated that these jobs will be across a range of skill levels.

17.5.37 The Faraday Institute’s Gigafactory study provides an outline of the different skills and qualification levels required for a typical gigafactory. Table 17.12 sets out the skills and qualification profiles of typical jobs. It demonstrates that there is a range of roles across different skill levels.

Table 17.12: Job types and skills required for a typical gigafactory			
Division	Job Type	Examples of job activities	Qualification level
<b>Production Staff (50%)</b>	Material Handling	Mixing electrochemically active materials, additives, and binders to produce electrode material	L2
	Machine Loading	Slitting electrode into smaller pieces for welding	L2
	Machine Unloading	Drying and stacking	L2
	Module Assembly	Tab and laminate	L2
	Pack Assembly	Injections of electrolyte	L2
	Logistics	Formation and charging, modular and pack assembly, inspection	L2/L3
<b>Maintenance and Engineering (30%)</b>	Technicians	Service, maintenance, and repair of process equipment	L3
	Senior Engineers	Lead engineers and department heads	L7
	Process / Production Engineers	Problem solving, tool and die, new product introduction, process improvement	L6
	Facility Engineers	Facility management, utilities, building, fire etc.	L6

**Table 17.12: Job types and skills required for a typical gigafactory**

Division	Job Type	Examples of job activities	Qualification level
Quality (10%)	Engineers	Process controls, confirmation of part / supply specification, performance evaluation, defect analysis	L6
	Practitioners	Process controls, confirmation of part / supply specification, performance evaluation, defect analysis	L4
Other (9%)	IT	Process controls, confirmation of part / supply specification, performance evaluation, defect analysis	L6
	Data Management	Process controls, confirmation of part / supply specification, performance evaluation, defect analysis	L6
Management (1%)	Process Leadership	Achievement of KPIs, conformance to legislation etc.	L4
	Engineering Management	Senior management of engineering processes across the organisation, innovation, compliance, budget etc.	L7

17.5.38 A proportion of those in Sunderland claiming out-of-work benefits could benefit from the new jobs. Given that lower skilled occupations are likely to be more readily accessible to those currently unemployed and the skills profile of gigafactories, it is estimated that a proportion of the net additional jobs associated with the proposed development could be filled by residents and support an uplift in the number of SOC 1-3 occupations within Sunderland.

17.5.39 Having regard to the above, the proposed development is considered to correspond to a low magnitude of change. The receptor is considered to be of low sensitivity as Sunderland is characterised by a higher proportion of ‘lower skilled’ occupations (SOC groups 1-3) relative to the wider North East and Great Britain (26.4% and 21.5% respectively).

17.5.40 The proposed development is assessed as having a permanent **Minor Beneficial** effect on the labour market of the local impact area. This is considered to be **Not Significant** in EIA terms.

*Commuting*

17.5.41 Sunderland is a net importer of labour. Overall, the city had a net inflow of 5,528 workers in 2011. This comprised of an inflow of 40,898 people and outflow of 35,370 people. The latest data suggests that both outflows and inflows are largely focussed on local authorities elsewhere in the North East. In addition, a further 70,399 people both live and work within Sunderland. These residents account for 66.6% of all people working in Sunderland. Considering the estimated net direct employment and applying existing commuting patterns (66.6% of jobs to be taken up by residents of

Sunderland), the proposed development is expected to further increase Sunderland's position as a net importer of labour. This corresponds to an increase in commuter inflows of 2.6% (extending the net inflow balance to c. 6,610).

- 17.5.42 For those jobs that will be recruited locally, however, a proportion of the net additional jobs that could be supported by the proposed development are likely to be lower-skilled jobs. These jobs are more likely to be taken up by those living relatively close to the site. This reflects the lower wages of these jobs, which reduce willingness and ability to travel longer distance for work.
- 17.5.43 In addition, a number of jobs are likely to represent more specialist roles. However, it is likely that a sizeable number will be taken up by workers from the North East. Given the specialist nature of gigafactories, it is possible that some of these roles will be filled by in-commuters.
- 17.5.44 Given the baseline net balance of commuters and levels of in-commuting, the commuting receptor is anticipated to have a low sensitivity. Considering the expectation that a number of specialist jobs associated with the proposed development are likely to be filled primarily by in-commuters, the impact is considered to correspond to a medium magnitude of change with respect to in-commuting.
- 17.5.45 Overall, the effect of the proposed development on commuting (both in and out-commuting) in the local AOI is assessed as permanent **Minor Adverse**. This is considered to be **Not Significant** in EIA terms.

#### *Deprivation*

- 17.5.46 The Sunderland 007A LSOA (within which part of the site is located) is amongst the 40% most deprived in England (ranked 12,300th of almost 33,000 LSOAs, nationally). In addition, Sunderland is one of the most deprived local authorities in the UK, ranked 35th of 316 local authorities. The employment opportunities generated by the proposed development could support residents in deprived areas to secure employment and higher living standards. Additionally, the proposed development could provide higher incomes and better working hours than the jobs that residents of the local and wider AOI currently hold, providing them with more funds to buy the goods they need and a better work-life balance.
- 17.5.47 Having regard to individual deprivation domains, Sunderland is characterised by high levels of deprivation with respect to Employment and Income. These domains are particularly relevant to the proposed development given the proposals are expected

to positively contribute towards local employment opportunities, as well as employment within high-skill and 'higher value' occupations that are typically associated with higher wages.

17.5.48 Whilst it is not possible to quantify the extent to which the rise in employment associated with the proposed development and higher value opportunities will reduce deprivation inequalities locally across these domains, it is anticipated that the proposed development will have an impact of low magnitude by virtue of the fact that it is unlikely to have a significant influence on the overall composite deprivation measure. Whilst the scale of the deprivation across these domains are high, it is anticipated that the sensitivity of the receptor is likely to be medium.

17.5.49 The impact of the new employment opportunities generated by the proposed development on deprivation in the local and wider AOI is considered to give rise to a permanent **Minor Beneficial** effect. This is considered to be **Not Significant** in EIA terms.

## **17.6 Mitigation and Monitoring**

17.6.1 The proposed development is anticipated to generate mainly beneficial effects with regard to the assessed receptors, which require no additional mitigation. It has been assessed to have a Minor Adverse effect on commuting, however, but as this is Not Significant, mitigation measures are not considered necessary. The sub-sections, below, summarise how the beneficial effects of the proposed development could potentially be strengthened.

### ***During Construction***

17.6.2 The construction employment opportunities generated by the proposed development will lead to beneficial socio-economic effects. To maximise the benefits arising, locally, the following initiatives could be put in place during the construction phase:

- Local labour agreements to maximise opportunities for local contractors.

### ***During Operation***

17.6.3 The extent to which the beneficial effects of the proposed development are gained locally will be enhanced by employing measures to encourage local recruitment for job opportunities, providing training and development opportunities via work experiences and apprenticeship schemes.

## 17.7 Residual Effects

17.7.1 This section considers the residual effects of the proposed development, taking account of the baseline position and the mitigation measures identified in Section 17.6, above.

### *During Construction*

17.7.2 During the construction phase, there will be a short-term, temporary **Moderate Beneficial** effect resulting from direct and indirect construction employment and increased GVA in the local and wider impact areas. With the implementation of the mitigation measures set out in Section 17.6, it is likely that supply chains will be integrated with local businesses and labour suppliers, which would increase the certainty of an effect of moderate significance.

### *During Operation*

17.7.3 During operation, there will be permanent **Moderate Beneficial** effect in the local and wider impact areas with respect to employment creation and a **Moderate Beneficial** effect on the economic output of the Information and Communication Sector in the local and wider AOI. As with the construction phase, these beneficial effects will be enhanced by encouraging local recruitment, which will increase the certainty of the effect significance.

## 17.1 Cumulative Effects

17.1.1 A review of the schemes identified within Table 17.13 has been undertaken to identify which schemes are relevant to the assessment of socio-economic cumulative effects. The remaining schemes have been scoped out of the assessment on the basis that there is no publicly available information relating to the socio-economic effects of the development.

Planning Ref	Scheme Name	During Construction		During Operation	
		Employment	Economic Output	Employment	Economic Output
18/00092/HE4	IAMP ONE, Phase 1	Available	Available	Available	Available
21/02807/HE4	IAMP TWO and Early Infrastructure		Not Available		
21/00401/HE4	Land west of Infiniti Drive, Washington		Available		
21/00605/OU4	Land east of Infiniti Drive, Washington		Available		
18/00237/OUT	Amazon UK - Follingsby		Available		

Planning Ref	Scheme Name	During Construction		During Operation	
		Employment	Economic Output	Employment	Economic Output
	International Enterprise Park				
18/00860/OUT	Land west of Follingsby Way, Follingsby International Enterprise Park				
19/01252/OUT	Land north of Follingsby Lane, Follingsby International Enterprise Park				

17.1.2 A review of supporting documentation for the identified cumulative schemes has enabled estimates of the anticipated socio-economic effects, during both the construction and operational phases, to be generated. For some of the proposals, details regarding the exact quantum of development and anticipated socio-economic effects are not provided within the relevant application documents. For those proposals where an assessment of effects is provided, there is a degree of inconsistency in the methodological approaches applied and the resulting outputs. For these reasons it is not possible to accurately quantify cumulative effects. It should also be noted that the figures within this section are considered to represent underestimates due to incomplete data regarding the socio-economic effects of some cumulative schemes. Notwithstanding this, approach provide a broad indication of the magnitude and significance of cumulative effects.

***During Construction***

17.1.3 The cumulative effects of these schemes have been assessed having regard to a review of supporting planning application documentation, wherever available. The effects during construction for twelve of the schemes have been collated by Lichfields. Different methodologies have been applied across the various schemes. In an effort to resolve this and present the figures on a broadly consistent basis, annualised employment figures have been derived (adjusted to reflect the build periods).

17.1.4 If all of these schemes, in addition to the proposed development, were delivered simultaneously, it is estimated that this could lead to the generation of approximately 5,360 construction sector jobs annually. This is equivalent to 89.3% of employment within the construction sector of Sunderland, or an uplift of 17.3% relative to existing construction sector employment across the wider Areas of Impact (AOI).

17.1.5 The scale of direct construction labour required is likely to interact with the local labour market and would likely require labour to be imported from outside of the AOI.

However, it is unlikely that construction labour will be required at a single point in time, whilst some are expected to be built out over a relatively short period of time. Both of these factors would serve to minimise any adverse impacts on the labour market. Subject to there being no issues with regard to the availability of labour, it is reasonable to consider that, cumulatively, the delivery of all schemes would represent a **Substantial Beneficial** effect in terms of construction industry employment.

17.1.6 With regards to economic output, information is available for six of the cumulative schemes identified above. As with employment effects, this is quantified on a per annum basis. If all schemes, in addition to the proposed development, were delivered simultaneously, it is estimated that their construction could lead to an additional £208.9 million of Gross Value Added (GVA) per annum. This corresponds to an uplift of 63.7% relative to the 2020 GVA figure for the local AOI and equivalent to an uplift in construction GVA of 12.1% relative to the 2020 annual GVA figure for the sector across the wider AOI of £1.7 billion.

17.1.7 As outlined above, it is likely that the cumulative schemes will be delivered at different times, whilst some are expected to be built out over a relatively short period of time. Whilst these factors will serve to temper the cumulative economic output effects, the scale of uplift relative to the existing annual sector GVA position is likely to be considerable. Having regard to this, it is anticipated that cumulative delivery of all schemes would represent a **Substantial Beneficial** effect in terms of construction industry economic output.

#### ***During Operation***

17.1.8 A review of the information that is available indicates that seven schemes are expected to support a total of 14,540 operational FTE jobs once developed. This is in addition to the 1,620 jobs anticipated from the proposed development. It should be noted that, whilst the effects of the majority of schemes (including the proposed development) are derived using a consistent approach, covering total (direct, indirect, and induced) FTE jobs, some cover direct employment, only, therefore making no allowance for multiplier effects.

17.1.9 It is estimated that the scale of operational employment would be equivalent to 13.3% of the total workforce of the local AOI and 2.5% of the total workforce of the wider AOI. The local AOI has a low job density, suggesting that the availability of employment opportunities is modest. In addition, claimant unemployment rates are high relative to the national average. Model-based unemployment in the local impact area is low



relative to the regional position.

- 17.1.10 Given the level of estimated operational employment associated with the cumulative schemes it is possible that there could be moderate tightening within the labour market. Despite this, levels of labour mobility within the region are good, due to good public transport links and this should help to reduce the extent and impact of any tightening of the jobs market. In this context, the cumulative effect during the operational phase is likely to represent a **Moderate Beneficial** effect.
- 17.1.11 Data regarding the change in economic output associated with operational employment is also available for seven schemes. The cumulative effect in terms of economic output should these schemes and the proposed development come forward would equate to an additional £658.3 million of total GVA. Having regard to this uplift the cumulative delivery of the schemes would represent a **Moderate Beneficial** effect in terms of operational economic output.

## 17.2 Summary and Conclusions

- 17.2.1 The proposed development will have an overall beneficial effect on the local economy. During the construction phase, the delivery of new employment space will support construction industry jobs that will, in turn, generate an increase in economic output (i.e., GVA). During the operational phase, the proposed development will support jobs across a range of high-quality, high-value jobs within advanced manufacturing that will, in turn, generate an increase in economic output. The proposed development will, therefore, contribute towards improving the economic conditions within the local and wider AOI.
- 17.2.2 Given the beneficial nature of the potential effects assessed, no mitigation measures are required in order to address any adverse effects of the proposed development. A summary of the socio-economic effects is summarised in Table 17.14, below.

<b>Table 17.14: Summary of Effects</b>				
<b>Sensitivity of Receptor / Environment to Change or Impact</b>				
<b>Receptor</b>	<b>Impact</b>	<b>Potential Effects (incl. any embedded mitigation)</b>	<b>Additional Mitigation / Monitoring</b>	<b>Residual Effects</b>
<b>During Construction</b>				
Employment	Construction impact on levels of local employment	Moderate Beneficial and Significant (temporary)	Local labour agreements	Moderate Beneficial and Significant (temporary)
Economic Output	Construction impact on levels of local economic output	Moderate Beneficial and Significant (temporary)		Moderate Beneficial and Significant (temporary)
<b>During Operation</b>				
Employment	Operational impact on levels of local employment	Moderate Beneficial and Significant (permanent)		Moderate Beneficial and Significant (permanent)
Economic Output	Operational impact on levels of local economic output	Moderate Beneficial and Significant (permanent)		Moderate Beneficial and Significant (permanent)
Labour Market	Operational impact on labour market opportunities	Minor Beneficial and Not Significant		Minor Beneficial and Not Significant
Commuting	Operational impact on levels of commuting	Minor Adverse and Not Significant		Minor Adverse and Not Significant
Deprivation	Operational impact on deprivation	Minor Beneficial and Not Significant		Minor Adverse and Not Significant