PSD11

Sunderland City Council and South Tyneside Council

International Advanced Manufacturing Park Area Action Plan

Commercial and Employment Technical Background Report

Updated February 2017

South Tyneside Council

Sunderland City Council

ARUP

Sunderland City Council and South Tyneside Council

International Advanced Manufacturing Park Area Action Plan

Commercial and Employment Technical Background Report

Updated February 2017

Job number 242745-00

Ove Arup & Partners Ltd
Central Square Forth Street
Newcastle upon Tyne
NE1 3PL
United Kingdom**Error! Hyperlink reference not valid.**

ARUP

Contents

Appendices

Glossary

AAP	Area Action Plan
BIS	Department of Business, Innovation and Skills
CIRIA	Construction Industry Research and Information Association
DBAP	Durham Biodiversity Action Plan
DCO	Development Consent Order
DEFRA	Department of Environment, Food and Rural Affairs
DPD	Development Plan Document
EZ	Enterprise Zone
EU	European Union
FRA	Flood Risk Assessment
FTE	Full Time Equivalent
IAMP	International Advanced Manufacturing Park
GBSSO	Green Belt and Site Selection Options Paper
GVA	Gross Value Added
LDF	Local Development Framework
LHA	Local Highways Authority
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
MoU	Memorandum of Understanding
NELEP	North East Local Enterprise Partnership
NMUK	Nissan Manufacturing UK
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NWL	Northumbrian Water Ltd
PPG	Planning Practice Guidance
PwC	Price Waterhouse Coopers
R & D	Research and Development
SA	Sustainability Appraisal
SEA	Strategic Environmental Assessment
SEP	Strategic Economic Plan
SCC	Sunderland City Council
SCI	Statement of Community Involvement
SMMT	Society of Motorway Manufacturers and Traders Limited
STC	South Tyneside Council
SuDS	Sustainable Drainage System
UDP	Unitary Development Plan

1 Introduction

1.1 Overview

1. This is the **Commercial and Employment Technical Background Report** for the International Advanced Manufacturing Park (IAMP) Area Action Plan (AAP). The aim of this report is to provide the technical evidence to inform the approach and policies in the IAMP AAP.

2. This Report is one of a suite of Technical Background Reports which form part of the evidence base for the IAMP AAP. The evidence can be accessed using the following links:

   www.sunderland.gov.uk/iamp

   www.southtyneside.gov.uk/localplan

1.2 Introduction to the IAMP

3. The International Advanced Manufacturing Park (IAMP) represents a unique opportunity for the automotive sector in the UK. Located next to Nissan UK's Sunderland plant, the UK's largest and most productive car manufacturing plant, the IAMP will provide a bespoke, world class environment for the automotive supply chain and related advanced manufacturers to innovate and thrive, contributing significantly to the long-term economic success of the North East of England and the national automotive sector.

4. The proposal is for a 260,000 sq m Gross Internal Area (GIA) development aimed primarily at the automotive, advanced manufacturing and related distribution sectors. The IAMP will be located on land to the north of the existing Nissan car manufacturing plant, to the west of the A19 and to the south of the A184. This location benefits from its close proximity to Nissan and excellent transport links with opportunities for integrated connectivity provided by the surrounding Strategic Road Network, rail and port infrastructure.

5. Present since 1985, Nissan is a major employer in the North East and the Sunderland plant is a good example of a national and regional success in manufacturing. Nissan has been the largest car plant in the UK for 14 years and the largest exporter for 12 years. Overall production surpassed 500,000 vehicles in 2013 and is set to expand further with the plant producing one third of UK car output and over one third of exports. Nissan currently employs over 7,000 people in the Sunderland plant underpinning over 20,000 supplier jobs in the wider North East region.

6. Development of the IAMP will therefore underpin the continued success of the automotive and advanced manufacturing sectors in the United Kingdom and North East of England.

1.3 Structure Of This Report

7. The Paper is structured as follows:

- Section 2 sets out the evidence relevant to this background paper.
- Section 3 draws on the evidence to outline the issues that should be taken into account in developing the approach and policy of the AAP.
- Section 4 advises on the potential elements that should be considered in further progressing the IAMP proposal to delivery.

2 Evidence Base Review

8. This section presents a summary of the key findings from the evidence review. The information and documents considered in this review are listed in section 2.1 below.

2.1 Overview

9. The rationale for the IAMP project has been considered though a number of documents, studies and strategies which are listed immediately below and summarised in the following text. It has also been informed by the expert view of RPJ Consulting Ltd.

10. None of the views expressed about Nissan (NMUK) or its suppliers represent their official positions, but are independent, informed estimates based on expert research and analysis.

National

- Planning Horizons, Creating Economically Successful Places (2014), Royal Town Planning Institute
- UK Automotive International Competitiveness Report (2015), Department for Business, Innovation and Skills (BIS)/Automotive Council UK (SD24)
- Driving Success – a Strategy for the Growth and Sustainability in the UK Automotive Sector (2013), The Automotive Council UK (SD26)
- Growing the Automotive Supply Chain, The Road Forward (2011), The Automotive Council UK (SD23)
- Growing the Automotive Supply Chain, Assessing the Upstream Potential (2014), The Automotive Council UK (SD26)
- Growing the Automotive Supply Chain, Local Vehicle Content Analysis (2015), The Automotive Council UK
- The Opportunity Ahead: Growing the Automotive Supply Chain (2015), The Automotive Council UK
- Low Carbon Automotive Propulsion Technologies, Advanced Propulsion Centre and Automotive Council UK (2016)
- Motor Industry Facts (2016), The Society of Motor Manufacturers and Traders Limited (SMMT)
- SMMT 2016 UK Automotive Industry Sustainability Report, 17th Edition 2015 Data
- Building our Industrial Strategy Green Paper, January 2017, HM Government

Regional

- The North East Independent Economic Review, Summary of the Expert Paper and Evidence Base (2012), various (SD40)

- The North East Independent Economic Review Report (2013), North East LEP (SD38)
- Strategic Economic Plan for the North East (2014), North East LEP
- Strategic Economic Plan Evidence Base (2016), North East LEP
- Strategic Economic Plan Progress Review 2014 to 2016 (2016), North East LEP (SD39)

Local

- Sunderland and South Tyneside Strategic Employment Study (2013), Pricewaterhouse Coopers LLP (SD28)
- IAMP Schedule of Floorspace and Employment (2014), Sunderland City Council and South Tyneside Council (SD29)
- Sunderland City Deal (2014), Sunderland City Council and South Tyneside Council (SD41)
- South Tyneside Employment Land Review (2014), Nathaniel Lichfield & Partners (NLP) –and update in Local Plan topic paper (2016). (SD31)
- Sunderland Employment Land Review (2016), NLP (SD30)
- IAMP Impacts Study, Employment Land Topic Paper (2015), Arup (SD8)
- IAMP Impacts Study, Displacement Topic Paper (2015), Arup (SD9)
- IAMP Impact Paper Update 2016: Displacement, Arup (SD11)
- IAMP Impacts Study, Skills Topic Paper (2015), Arup (SD6)
- IAMP Impact Paper Update 2016, Skills, Arup (SD12)

2.2 Capturing the Growth in the Automotive Industry in the North East

11. This section sets out the national automotive strategy and how the North East Region is placed to respond to the opportunities identified.

2.2.1 Planning Horizons, Creating Economically Successful Places (2014)

12. This paper, one in a series commissioned in the Royal Town Planning Institute's Centenary year to consider the challenges facing twenty-first century societies, examines how we can achieve sustainable economic growth in a fast moving globalised world.

13. It states that "in an increasing globalised world, the geographic concentration of people and businesses is driven by 'agglomeration economies' - put simply, by the benefits of being near to others. Clusters provide companies with a competitive advantage, enabling them to improve productivity."

14. These linked themes of clusters, competitive advantage and improved productivity are central to how the UK Automotive industry has responded to the last global recession and emerged as a strong, competitive and growing industry.

2.2.2 UK Automotive International Competitiveness Report (2015) (SD24)

15. This report states that future years will see further change in the nature of the manufacturing industry with a growth in advanced, highly-flexible manufacturing with increasing interconnectedness and the ability to customise to individual customer need.

2.2.3 Driving Success – a Strategy for the Growth and Sustainability in the UK Automotive Sector (2013) (SD26)

16. This strategy states that Britain is the fourth largest vehicle producer in Europe, making 1.58 million vehicles in 2012. Every 20 seconds a car, van, bus or truck rolls off a UK production line. Over 80% of these are exported to more than 100 countries.

17. The strategy focuses on the challenge to maintain this momentum to secure the long term future of the sector by growing the UK share of the value chain and by getting ahead of the game in research and development (R&D) on ultra-low emission vehicles. The strategy therefore sets out how this might be achieved over the next 20 to 30 years.

18. The strategy notes that the Annual Business Survey data (ONS) revealed that in 2011 the UK automotive industry directly accounted for a total of 129,000 jobs in the UK. Of these jobs, 63,000 were employed by the vehicle and engine makers directly, with the remainder in the immediate supply chain. This shows that the immediate supply chain at that time accounted for just over half the total automotive industry employment.

19. The strategy also sets out that supply chains are often more complex than they may seem. Vehicle makers rely on suppliers to provide often quite substantial assemblies that are put into vehicles on the production line, so there are at times up to three tiers of 'supply chain' that then deliver to the car manufacturing plant.

20. To illustrate this point, the strategy states that the direct impact of vehicle making on UK manufacturing employment is estimated to be three supply chain jobs for one vehicle/engine maker job. In addition BIS estimate that total UK manufacturing employment in the automotive supply chain is estimated to be between 150,000 and 200,000 jobs, with many of these jobs classified outside the automotive sector itself, in sectors such as metals, plastics, rubber and glass.

21. The strategy notes that there is a pervasive market trend for increased customer choice driving higher product complexity. This requires leaner and more flexible supply chains, close to the vehicle/engine manufacturing plant. This is becoming more important for all manufacturers and particularly for premium manufacturers in the UK. The Strategy highlights that the Government's response to this has

been to designate additional Enterprise Zones, several of which have an automotive focus with the ambition to strengthen clusters and enhance local supply chains. The strategy includes the case study of the North East Enterprise zone, described as follows:

22. "As the UK's first designated Low Carbon Economic Area, the North East is pioneering the adoption of electric vehicles and low carbon vehicle technologies. The location of the North East Enterprise Zone (EZ) sites next to Nissan in Sunderland reflects this ambition and the LEP's commitment to grow the automotive sector, the supply chain and R & D. These sites have secured £50 million of public/private investment to date. Vantec, part of the Hitachi group, was the first company to locate on the EZ and since early 2013 its 39,000 square metre logistics plant has been serving growth at the Nissan car plant. Gateshead College is expanding onto the EZ investing further in R & D and training in automotive low carbon technologies."

23. This strategy has led to a targeted focus in growing the UK based supply chain contribution to the automotive industry as the reports by the Automotive Council UK demonstrate below.

2.2.4 Growing the Automotive Supply Chain (2011 -2015) (SD23)

24. This series of Reports published by the Automotive Council UK set out the rationale for recent achievements in focusing on growing the UK share of the supply chain activity.

25. **The Road Forward** (2011) highlights that in 2011, about 80% of all component types required for vehicle assembly operations can be produced by UK suppliers. It states that the supply chain is crucial to the automotive industry, representing about 40% of the retail price of a passenger car. In other words, vehicle manufacturers buy in about 60-75% of the value from the component supply chain. The cost of materials and parts is around six times the cost of final vehicle assembly. It is estimated that every job in vehicle assembly supports 7.5 elsewhere in the economy, with the process of making the parts somewhat more labour intensive than final assembly, much of which is heavily automated. The report states that 'Proximity' was identified as the key competitive advantage of UK suppliers: *"in operational terms, proximity allows for (1) lower logistics cost, a better support for UK-built vehicles, (2) the responsive configuration of parts, as well as (3) for more flexibility to adjust to volume and product mix fluctuations. In strategic terms proximity also acts as (4), a general proxy for risk reduction to the supply chain, as well as (5), a hedge against currency fluctuations."*

26. **Assessing the Upstream Sourcing Potential** (2014) highlights that the UK is the second largest producer of premium cars in the world after Germany, with over 40 companies making vehicles here. Output, productivity and employment are rising and it is expected by 2017 that the UK will be producing two million vehicles per year. This report highlights that there is a willingness in the automotive sector to purchase more from the UK, but currently there is considered to be a lack of suitable suppliers (of the components required) with the necessary capacity and/or technical capability. There are also a large number of small suppliers in

the UK supply chain, so there is an opportunity to help them grow to compete with overseas suppliers.

27. **The Opportunity Ahead** (2015) notes that as UK vehicle makers add new models and expand their output, the opportunity for supply chain investment grows. The report identifies that sales from UK suppliers to UK vehicle makers have grown by 19% through 2014. The report also notes that the appetite for local sourcing remains strong, bringing the benefits of responsiveness and reduced logistics costs. The report also highlights that being able to source more components in the UK will help boost the case for further UK investment by the vehicle companies, just as investment by the vehicle companies in the UK boosts the investment case for suppliers. Over the coming years, UK vehicle output will increase, and it is expected that growth will come particularly from higher value vehicles in premium and luxury segments. This will generate increased demand for premium commodities including higher levels of equipment, more technology features, and premium materials and finishes.

28. **Local Vehicle Content Analysis** (2015) states that the amount of value sourced by UK car manufacturers from the UK tier-1 suppliers has increased from 36% in 2011 to 41% in 2015. In addition absolute passenger car production grew by 16% in that same period. The report states that being able to grow the local sourcing content from UK suppliers is a key performance metric of the UK auto industry as the majority of the economic value added is generated in the parts supply chain.

29. **Low Carbon Automotive Propulsion Technologies, Advanced Propulsion Centre and Automotive Council UK** (2016): This recent study seeks to highlight the capabilities of and opportunities for the UK automotive industry to further develop low carbon vehicle technologies. It highlights the research and innovation already in progress by Nissan in Sunderland, including the Zero Emissions Centre of Excellence and the production of lithium-ion battery cells and packs for the all-electric LEAF. The report considers that this provides a good platform for attracting other companies and related supply chain seeking to make use of this technology.

2.2.5 Society of Motor Manufacturers and Traders

30. **SMMT Motor Industry Facts** (2016)**:** The Society of Motor Manufacturers and Trader (SMMT) represents more than 650 automotive companies in the UK. Their 2016 report notes that Landmark Investments in 2015 included £137 million for the production of the new Juke and an extra-large press line at Nissan's Sunderland facility and 300 new jobs for the production of the Infiniti Q30 and QX30 at the Sunderland Plant. In 2015, Nissan produced the most cars of all UK based manufacturers, driven by the popularity of the Qashqai and Juke models.

31. The report also notes that 41% is the average UK content in British Built cars, which is up from 36% in 2011.

32. **SMMT 2016 UK Automotive Industry Sustainability Report, 17th Edition 2015 Data:** This Report states that over the past six years the UK automotive sector has undergone significant growth, emerging from the recession to become one of the most efficient and productive manufacturing industries in Europe. 2015

was the sixth successive year of growth with production volumes up 5.2%. The report notes that the Nissan plant in Sunderland is the largest plant in the history of the UK car industry.

33. The Report highlights that the automotive supply chain is essential to the current and future success of the industry. There are 78,000 people employed in the UK automotive supply chain creating £4.3bn of added value. Whilst 80% of components in a car can be made in the UK, the average UK content in British built cars is 41%. There is therefore estimated to be £4bn of unfulfilled opportunities for domestic Tier 1 suppliers.

2.2.6 The North East Independent Economic Review: Summary of Evidence (2012) (SD40)

34. The NELEP with the support of central Government commissioned a critical review of the North East economy, led by Lord Adonis, to identify opportunities and barriers to boosting employment and productivity. The North East Independent Economic Review[i] concluded that the region has the potential to be an International Leader in Trade and a leading location for (Re-) Investment.

35. In particular, the summary of evidence report states that: "Advanced manufacturing, pharmaceuticals, energy/low carbon and environmental industries are particularly important sectors for NELEP: they offer innovative, highly productive and world-class activities. Many of NELEP's successful businesses hold a prominent position in international market places, with exports for goods such as machinery and transport holding up relatively well. These are strong foundations on which the economy can build".

36. The summary of evidence report also considers the Innovation opportunities for the North East are related to the Energy, Transportation and Aging and Vitality sectors. In terms of Transportation, the review states: *"The North East leads in the automotive sector and the related supply chain as well as in its application of electronic vehicles and other low carbon technologies. The region is also the location of major corporate centres of some of Europe's leading transport operators and is a leader in the application of light rail"*.

37. The summary of evidence report includes an overview of land and premises in the NELEP area and notes that South Tyneside does not have a large supply of employment land in comparison to the other local authority areas and there is a concern across the NELEP area that existing land and premises may not be in the right place or of the right quality to attract higher value added activities. The Review recommends increasing the supply of market friendly sites.

38. The summary of evidence report includes an analysis of the Manufacturing and Low Carbon Sectors. It notes that the automotive industry introduces supply chain companies through creating industrial clusters. In terms of Nissan, the report considers that the associated supply chain is worth close to £1bn. It also notes that the North East's main opportunities relate to the development of electric vehicles and other low carbon vehicles technology such as hydrogen and the offshore wind turbine market. It states that the North East is *"the only area in Europe with such a comprehensive sector geared up to the development of low carbon vehicles*

comprising of manufacturers, battery development, R&D, skills and training as well as a leading supply chain".

2.2.7 The North East Independent Economic Review (2013)

39. Drawing on the evidence received in the independent review, this document sets out the strategic interventions to be implemented over the next five years to stimulate both productivity and employment growth.

40. The Review highlights the importance of delivering the IAMP project to ensure industrial and production businesses in the automotive and advanced manufacturing sectors can locate and expand in the North East. As such, the IAMP is a critical element of the LEP's Strategic Economic Plan.

41. The North East region's economic strategy is set out in the NELEP's Strategic Economic Plan. Key aspects of the regional economic context are summarised as follows:

- Employment growth figures are positive and 79% of jobs in the area are now provided by the private sector (up from 72% in 2009), the area still suffers from a shortage of private sector jobs to provide a balanced and sustainable economy;
- The need for more and better jobs is fundamental to the Strategic Economic Plan. The ambition is that at least 60% of the jobs created over the next ten years will be high skilled and higher paid private sector jobs;
- There remains a significant gap between the area's skills base and its GVA per capita than that of other areas. It is therefore critical that the momentum of recent years is built upon and the gap continues to be closed;
- The North East is already one of the leading exporting areas of the UK, with over 1,500 companies exporting goods. In the first quarter of 2015 it was one of only two regions in England to achieve a positive balance of trade in goods; and
- The North East was also one of only three regions which experienced an increase in annual export value between 2011 and 2012, while all others decreased. This follows strong levels of growth over a number of years. Between 2013 and 2015, the total export value increased by £0.2bn, or 11% (compared to the national average of -6%), reflecting strong growth in the value of EU and particularly non EU bound exports[ii].

42. The review also notes that Nissan decided to locate in the area to take advantage of the access to markets by locating the plant on a site at the junction of the A19 and A1231 trunk roads which is only five miles from the Port of Tyne, allowing efficient domestic and global supply of materials and distribution of products.

2.2.8 North East LEP: Strategic Economic Plan (2014)

43. The North East LEP Strategic Economic Plan (SEP) was submitted to Government in March 2014. At the centre of its growth ambitions the SEP seeks to:

- Decrease the gap between the Region and national average on GVA;
- Increase the private sector employment density;
- Improve business density; and
- Increase the employment rate of the Region.

44. It provides the synergy between the NELEP's aims, agreed City Deals (Sunderland / South Tyneside and Newcastle) and the NELEP Investment Fund. The headline target in the SEP is to achieve, by 2024, at a minimum a halving of the gap between the North East and the national average (excluding London) in terms of GVA, private sector employment density, business density, employment rate, and unemployment rate.

45. The SEP outlines three high level strategic outcomes to achieve this goal, which are:

- Innovative, enterprising and creative businesses;
- Skilled and inclusive communities that are great places to live; and
- Infrastructure that serves and connects.

46. Underpinning these strategic outcomes is an imperative to deliver improvements to the assets in the Region which can give competitive advantage to the regional economy by ensuring connectivity to key national, European and international markets. The SEP recognises the importance of the manufacturing base in the North East, particularly advanced and marine engineering. It also identifies the following growth sectors which will have a positive impact on the economy over the course of the plan:

- Business services;
- New economy including cultural, creative and media industries;
- Low carbon and renewable sectors;
- Tourism; and
- Logistics.

47. The SEP identifies that in order to facilitate job growth, the NELEP needs to undertake a range of initiatives including the "Proposed International Advanced Manufacturing Park in Sunderland and South Tyneside".

48. To achieve the 100,000 jobs target by 2024, the SEP reports that it is expected that one of the major growth sectors will be Low Carbon: *"Low carbon, including renewable technologies, has the potential to deliver significant new investment and jobs. The area aspires to become Europe's premier location for low carbon, sustainable, private sector-led jobs and growth. There is potential to secure greater competitive and commercial advantage from the transition to a low carbon economy - through new investments in offshore wind, electric vehicles, micro-generation and drawing upon renowned scientific research and innovation strength in a range of low carbon technologies*."

49. Two of the six strategic themes to the report are: "Economic assets and infrastructure: developing the places for business to invest and people to live,

developing new opportunities with towns and cities, coast and country, and heritage assets; and transport and digital connectivity: This serves and connects people and businesses, letting people move around for both work and leisure, and connecting the North East to the national and international economy."

50. The SEP outlines that in order to maximise growth in the North East's economy strategies, plans and programmes will focus appropriate enabling investment towards the key employment locations along the A1, the A19, the River Wear, the River Tyne and the coast. These are:

- The urban cores of Newcastle, Gateshead, Sunderland and Durham;
- The North East Enterprise Zone;
- The International Advanced Manufacturing Park in Sunderland and South Tyneside;
- The two largest industrial estates in the area (Team Valley Trading Estate and Aycliffe Business Park), the business and industrial estates near the northern entrance to the Tyne Tunnel, and key employment locations along our main transport corridors; and
- Newcastle International Airport Business Park.

51. In relation to highways and digital connectivity the SEP states that "…The North East Local Transport Board has prioritised transport interventions for the devolved local major transport schemes and agreed to support six schemes totalling £31.5m…". These schemes include "…the South Shields Transport Hub, the Sunderland Low Carbon Zone…".

52. Under 'Manufacturing renaissance' the SEP identifies advance manufacturing and low carbon as particularly important sectors for the NELEP area, and identifies amongst other locations the key location on the A19, in "…providing current and future opportunities, especially through the North East Enterprise Zone to provide the necessary physical economic infrastructure to support the growth of these related sectors."

53. The highways priorities for the IAMP include the Sunderland Low Carbon Zone Improvements to the A19/A1231 and A19 /A1290 junctions, internal road links, pedestrian, cycling and public transport facilities. The scheme aims to enhance the capacity of the network to accommodate projected employment growth of the entire zone bounded by the A1231, A19, A1290 and Leamside Line, including Nissan, North East Enterprise Zone and other proposed developments.

54. Future priorities that will enhance the infrastructure for the IAMP area include the Sunderland Strategic Transport Corridor (Low Carbon Zone to City Centre to Port) phase 3 (New Wear Bridge to City Centre). This provision of a major new transport link supports the development of a number of key sites in the River Wear corridor, the regeneration of Sunderland Urban Core – City Centre and the regeneration of the Port of Sunderland. The scheme supports the introduction of the new Wear crossing announced as part of the City Deal.[iii]

2.2.9 North East Strategic Economic Plan Progress Review, March 2014 - March 2016

55. This document is intended to inform the SEP refresh, due to be published in December 2016, and provides an update on delivery against the original document.

56. In terms of finance and investment, the progress review notes that Infrastructure Investment has been agreed to support delivery of Enterprise Zone sites (25ha of the second phase ultra-low carbon vehicle EZ will be located on the IAMP site).

57. Passenger vehicle manufacturing was identified as one of four 'smart specialism areas of economic strength' in the 2014 SEP. This progress review highlights that significant foreign inward investments of strategic national importance including Nissan and Hitachi represent opportunities for supply chain innovation (including low carbon vehicle delivery), business growth and inward investment.

2.2.10 North East Strategic Economic Plan, Evidence Base, May 2016

58. This report provides an updated economic profile for the North East. It states that in the North East LEP area, manufacturing outperforms the UK average; 14.6% of its GVA is generated by manufacturing compared to 10.3% nationally. This is also linked to the types of high value-added manufacturing that many north east companies are involved in.

59. This report also notes that the value of goods exported by the region's firms has grown more quickly than the value of national exports. The export of road vehicles (parts, accessories and fully assembled vehicles) accounts for 40% of all exports from the North East Region.

60. The report highlights the success of the north east in attracting Foreign Direct Investment (FDI). In 2012/13 the North East LEP secured the third highest number of FDI projects into England.

2.3 Development of an Enhanced Automotive Proposition for Sunderland and South Tyneside

61. This section traces the development of the proposition for additional land in Sunderland and South Tyneside as an opportunity for the North East to capitalise on the growth in the automotive and related supply chain industry.

2.3.1 The Sunderland & South Tyneside Strategic Employment Study (2013) (SD28)

62. In 2013 Sunderland City Council and South Tyneside Council commissioned Pricewaterhouse Coopers LLP (PWC) to identify potential market demand for strategic employment sites within the two local authority areas and more widely across the North East. The purpose of the 'Strategic Employment Study' was to support the Councils in their preparation of a City Deal bid which would build on

the success of the North East Enterprise Zone by being attractive to national and international investment. The study highlighted that there has been significant investment in the UK automotive sector and advanced manufacturing sectors in recent years and that this investment trend is likely to continue.

63. The document summarises that the current Enterprise Zone around the Nissan plant has proved attractive to the market and there were at the time more live/active enquiries for sites than there was remaining land available. This highlighted the benefits of the location for investment in the automotive and advanced manufacturing sectors in particular.

64. The study assessed future trends across high growth industries in the North East focusing the study on automotive, advanced manufacturing/engineering, distribution and offshore renewable sectors. Three alternative growth scenarios were modelled using production and sales forecasts to identify potential floorspace demand in the period up to 2033, these are summarised below.

65. *Very optimistic - a large scale growth scenario requiring an advanced manufacturing park of around 300 hectares (ha)*

- Automotive: step increase in production at Nissan facility and associated supply chain (particularly Electric Vehicle production) due to increased demand from overseas markets;
- Advanced Manufacturing: market entry of two average sized chemical companies and expansion of a chemicals company already in situ. Plus small advanced manufacturing companies entering the market every three years. Development of a new university facility to support R&D and training needs for the automotive and advanced manufacturing sectors; and
- Distribution: market entry of a large scale retail distributer and additional smaller scale retailer or manufacturer.

66. *Moderate - scope for significant growth requiring an advanced manufacturing park of around 140 – 150ha*

- Automotive: steady increase production in the North East focused on the existing Nissan operations and supported by a number of supply chain moves incentivised by the availability of an appropriate development zone;
- Advanced manufacturing: market entry of two average sized chemicals companies and expansion of a chemicals company already in situ. Plus small advanced manufacturing companies entering the market every three years; and
- Distribution: staggered market entry of three smaller retailers or manufacturers who are attracted by the infrastructure and facilities offered.

67. *Pessimistic - assuming a long period of on-going recession for the North East combined with structural changes to the automotive industry and re-location of production away from the region*

- Automotive: marginal decline in North East production resulting from supply moving to under-utilised plants in Europe;

- Advanced manufacturing: market entry of an average scale chemicals provider to support production of batteries for electric cars; and
- Distribution: no growth assumed.

68. The forecast of 'moderate view' demand identified the requirement for an Advanced Manufacturing Park as:

- 569,000 sq m Gross Internal Area (GIA) with a total land requirement for approximately 150ha;
- Comprising 105.5ha for the automotive sector, 13.4ha for the advanced manufacturing sector; and 23.5ha for the distribution sector; and
- To provide approximately 9,000 jobs with delivery over 20 years from 2013 – 2033.

69. The analysis concluded that the moderate growth scenario was the most likely and that if additional land was not provided then new investment and job growth would be lost from the region.

70. The moderate scenario was viewed as the most achievable and was used to inform the Sunderland City Deal submission, approved by Government in 2014.

71. In summary, the Strategic Employment study highlighted three key components of market need for the IAMP:

- **Strong demand from companies in the automotive, advanced manufacturing, distribution and logistics sectors.** The study estimated that future demand in these sectors under a moderate set of assumptions is likely to be around 150ha over the next 20 years. The assumptions behind this level of growth are as follows:
  - Automotive assembly growth will continue to be strong worldwide;
  - Investment in the UK will continue, as the UK is seen as a stable economic environment with benefits of being outside the Eurozone, low Corporation Tax and high productivity;
  - The trend towards near-shoring of suppliers close to Original Equipment Manufacturers (OEM) will continue, and the proposal provides a strong basis by which the "£3bn opportunity" highlighted in the Government's Automotive Strategy can be achieved; and
  - Strong demand from non-automotive advanced manufacturing, distribution and logistics.
- **Requirement for various enabling "infrastructure" factors to be in place** for the main scenario to be realised particularly in relation to available land, energy infrastructure and access transport networks to and from the site; and
- **Lack of current Brownfield sites available to meet the above demand.** The report states that evidence from Sunderland City Council regarding recent investor enquiries that could not be met strongly suggests that the current land supply for large scale industrial development is insufficient to meet market demand. This is largely attributable to the lack of suitably large sites capable

of being developed, and a lack of good quality units to meet the demands of new or expanding businesses wishing to locate in the area.

72. For the North East economy to prosper in these industries and to help secure the major opportunities forecast in terms of manufacturing growth, the region needs to develop an IAMP. The development of an IAMP adjacent to the existing automotive cluster around Nissan would offer the best location in the region to capture growth opportunities and provide significantly more land for development thereby delivering a major increase in manufacturing capacity for the region.

2.3.2 Sunderland City Deal (2014) (SD41)

73. The bid to Government for a City Deal was made by Sunderland City Council and South Tyneside Council. Both councils worked closely with the NELEP. The Government confirmed the Sunderland City Deal in Partnership with South Tyneside in March 2014.

74. The development of the IAMP is central to the North East Strategic Economic Plan and the Sunderland and South Tyneside City Deal. It will accommodate the increasing demand for manufacturing land in the North East and expand UK manufacturing.

75. The City Deal agreed with Government anticipates and lays the foundations for funding for an IAMP on the following scale:

- Creation of over 5,200 new jobs by 2026/27;
- 500 new jobs being created every year from 2018;
- Approximately 260,000 sq m of developable floorspace over a 100ha site; and
- 100ha to be developed with the potential for a further 30ha "or so" beyond that.

2.3.3 IAMP Schedule of Floorspace and Employment (2014) (SD29)

76. Submitted with the City Deal was a floorspace schedule which provided an overview of projected floorspace and employment for IAMP.

77. The full gross employment estimates provided as part of the schedule of floorspace provide a breakdown of the employment impact by floorspace type and phase.

Table 1: Summary of Gross Employment Estimates, IAMP (numbers of jobs)

	Offices	B2/B8	Total
Phase 1	335	919	**1,254**
Phase 2	665	1,823	**2,488**
Phase 3	397	1,089	**1,486**
	1,397	**3,831**	**5,228**

78. The floorspace schedule included the following notes:

- The timing/phasing, floorspace and employment numbers are drawn from a PWC Financial Model dated 13 May 2014.
- There is no allowance for land uses other than B1, B2 and B8.
- The commercial demand/need for other land uses – such as a hotel, restaurants etc., should be explored as part of the master planning process.

2.3.4 2016 Updated Opinion on Automotive Sector Demand

79. Sunderland City Council and South Tyneside Council asked RPJ Consulting to provide a more in-depth and up-to-date analysis of the likely demand from the UK Automotive Sector, the outcome of which is reflected within this report.

80. RPJ Consulting conducted:

- Interviews with the author of the 2013 PWC Report to understand the evidence used to generate the demand forecast scenarios;
- Confidential face-to-face interviews directly with the most senior UK Management of a number of Automotive OEMs and Tier 1 Automotive suppliers; and
- An analysis of the broader international and UK automotive trends in demand, technology and policy.

81. RPJ Consulting concluded that:

National Outlook

- Worldwide Automotive demand will continue to grow strongly (3.5-4.5% CAGR[1]) for the next 20 years or more;
- European Automotive demand will rise only modestly, but a strong, stable replacement market is assured, albeit characterised by a shift away from ICE engines vehicles to electrification;
- Myriad new ownership models, particularly in large densely populated cities, will emerge driven by digital economy enablers such as ride share, car share and pay-per-use schemes. These will accelerate as autonomous control technologies are proven and become more widely deployed, but are not expected to reduce the demand for new vehicles appreciably and the consumer desire for more personalisation will drive a large ownership market;
- UK vehicle production has continued to grow and is forecast to grow further despite the EU referendum result, assuming a trade deal can be struck with the EU, based on the underlying competitiveness of vehicle assembly. The vast majority of production is exported; and

[1] Compound Annual Growth Rate

- UK Government policy is forecast to be highly supportive of the automotive sector, based on the scale of jobs protected and created, growth prospects, the importance of the sector for R&D and the export value contribution.

Regional Outlook

82. Growth in automotive manufacturing activity in the North East depends primarily on Nissan and their plans.

- Nissan now plans to source the next generation Qashqai in 2018 and an additional model, named as the X-Trail, in Sunderland from 2019. This has re-classified the Nissan Sunderland plant as a super-plant, expanding production further from 525,000 to around 600,000 units p.a. in the next five years;
- In response to greater demand for customisation of final vehicle build specifications by customers, they are likely to accompany this growth by undertaking a major revision to their manufacturing systems which will drive the need for significantly shorter supply chains. This trend is now reinforced by the exchange rate effect since the EU membership referendum result which is working in concert with the increased competitiveness of local sourcing. This will increase Nissan Manufacturing UK's (NMUK) desire to move production sources, especially Tier 1, from overseas to within a very short distance of the Final assembly plant to facilitate "Just in Time" in-sequence deliveries at attractive economic cost;
- An increase in locally assembled content of 20-30% may be required over a long term period to facilitate this;
- NMUK is participating in closer cooperation with Renault as part of the Alliance. While this represents a threat to some business, it also represents an opportunity for growth to the incumbent NMUK supply base through winning Renault business, especially with the improved cost competitiveness of the UK. This advantage is mitigated strongly by the risk of tariffs being imposed, which would make sourcing to the EU from the UK less attractive.
- Research with local Tier 1 Suppliers indicates that over 50% of them are planning expansion of their facilities in the Sunderland region. This is without them being explicitly aware of the potential further localisation which we speculate could increase its demand yet further. Key drivers are: landlocked operations prevent further increase in capacity; and organic growth over 30 years has left some Tier 1 companies in multiple sites which are not optimised for logistics or for lean overheads. In summary, NMUK needs to grow the local supply base within a less than 10 minute drive from their assembly plant and cannot presently do so due to land availability constraints.

83. The Tier 1 supply base is constrained for growth by land availability, and further opportunities to improve competitiveness and volume will be denied without more land becoming available in the local area. In the absence of growth potential, the status quo will not be sustainable, as the automotive sector in the North East and in fact the UK will not be in an optimum position to win future assembly

competitions with other automotive plants abroad, and over the longer term this will lead to reductions in assembly volume and jobs.

2.4 Land Availability in Sunderland and South Tyneside

This section summarises the studies undertaken by Sunderland and South Tyneside in relation to their current employment land supply and their future employment land requirements.

2.4.1 Sunderland Employment Land Review (2016) (SD36)

84. The Sunderland Employment Land Review (ELR) was updated in March 2016. The industrial market was viewed as particularly strong in Sunderland, supported by growth in the automotive and advanced manufacturing and offshore engineering sectors. Key geographical concentrations of industrial activity include the area surrounding the Nissan Motor Manufacturing plant, industrial estates within Washington, Sunderland Enterprise Park, the Port of Sunderland and sites surrounding the City Centre.

85. Stakeholders interviewed for the ELR included representatives of the North East Automotive Alliance, the Federation of Small Businesses, North East Chamber of Commerce, Sunderland BID, Sunderland City Council, North East LEP, Nissan, Port of Sunderland and local and national property agents. A full list of stakeholders is appended to the study.

86. The Industrial market was considered by stakeholders interviewed for the ELR to be strong in Sunderland and supported by growth in the automotive and advanced manufacturing and offshore engineering sectors. Opportunities for future growth identified by stakeholders included Nissan's recent investment in the Infiniti model production and subsequent supply chain, opportunities to develop distribution services around the Port of Sunderland and capitalising on the development of light industrial R&D activity across the Local Authority.

87. A lack of modern, efficient industrial space for medium and larger occupiers was identified by stakeholders as a key barrier to further growth. Sunderland City Council's investment team suggested that the limited supply of medium and large scale industrial land had already led to a loss in investment opportunities. The IAMP was considered to present a strong opportunity for large scale investment.

88. The ELR includes an analysis of the availability of industrial premises across the whole local authority area. There are 188 premises on the market equating to 270,736 sq m, with 17 units between 2,000 and 5,000 sq m in size and only eight units over 5,000 sq m in size.

89. The ELR also highlights that between 2000 and 2014 (inclusive) 120.53ha of Use Class B employment land was developed in Sunderland and 76% of this was for industrial uses.

90. At March 2016 there were a total 79 general employment sites available with a combined gross site area of 145.96ha in Sunderland. However, only 56 sites totalling 51.73ha were considered to be immediately available.

91. In terms of considering the future need for employment land, the ELR considers a number of baseline and policy on scenarios, including a scenario which models the impact of IAMP, building on the success of the Enterprise Zone, to provide employment land in addition to general employment land requirements. This scenario estimates that the IAMP development could create an additional 2,035 Use Class B jobs in Sunderland to 2033, driven by the manufacturing sector (the figure excludes the direct jobs to be created at the IAMP site). The report considers that 60% of the IAMP supply chain job impacts will be observed in the manufacturing sector.

92. In terms of future recommendations, the report identifies the amount of land Sunderland should allocate to 2033 for general employment uses, not including the IAMP proposition. This is:

- 15ha for B1(a)/ B1|(b) (Office) uses;
- 35 to 45ha of B1(c)/B2 (manufacturing) uses; and
- 45-55ha for B8 (warehousing and distribution) uses.

93. In considering the current supply of employment land and future demand, the study recommends de-allocating 14 existing sites (totalling 26.39ha) in areas where there is an oversupply or low market demand. These sites are predominantly in Sunderland South and the Former Coalfield. Only two sites are proposed to be de-allocated in Sunderland North and Washington (one has planning permission for an alternative use and the other is heavily wooded) as the report states that the supply of land is particularly tight in these locations. In particular, the report highlights that currently the supply of employment land in Washington is insufficient to meet estimated demand in the area.

94. The ELR report is very clear that in recommending de-allocation of employment land this is not considered to undermine in any way the case being made in relation to IAMP. This is because "*the sites that are identified for removal from the supply fail to align with the specific occupier requirements to which IAMP is intended to respond. As such, there is no reasonable prospect of the sites being appropriate – either individually or collectively – as realistic alternatives to IAMP"*. This is by virtue of scale and location.

95. In terms of scale, recent automotive developments since 2010 onwards have needed larger sites as follows:

- BAE Systems, Wear West (6.69ha);
- Rolls Royce, Wear West site (11.43ha);
- Vantec, Nissan Turbine site (8.38ha); and
- Vantec Phase 2, Hill Farm Estate (9.58ha).

96. In terms of location and the IAMP proposition, the ELR states that "It is clear that the development must be located on the edge of the conurbation and in close

proximity to both the strategic road network and the automotive cluster around Nissan in order to meet anticipated occupier requirements."

97. The majority of land identified for de-allocation is located in Sunderland South and the Former Coalfield area and would be therefore incompatible with IAMP in terms of scale and location. It is estimated that more land is required in the Washington area, which has traditionally been the focus of demand in Sunderland.

98. There may be an opportunity for the emerging IAMP proposals to help meet this need.

2.4.2 South Tyneside Employment Land Review (2014) and Economic Growth and Employment Topic Paper (2015) (SD31)

99. South Tyneside updated their Employment Land Review in 2014. The most significant change from the 2011 review was the opportunity to consider the IAMP proposal. In addition the position was further updated by the Development Plan Topic Paper on Economic Growth and Employment. The key messages emerging from these studies are outlined below.

- South Tyneside has a limited stock of readily available employment land. At December 2015 there were 19 general employment sites providing a gross area of 46.17ha of available land. Sixteen of the sites were less than 5ha in size. One site was just over 10ha. Some of this land (13.84ha) may be lost of housing development in the future and only a limited amount of the general employment land is readily available for development. There is likely to be a shortfall of around 34ha by 2036;
- The strongest industrial locations are on the southern periphery of the conurbation where there is easy access to the strategic highway network. In comparing the ratio of enquiries for industrial premises to actual take up, (between 2011 and 2014), there is a higher number of enquiries for units over 929 sq m and relatively few units of this size in South Tyneside;
- The manufacturing sector is experiencing an uplift in demand for medium to large B2/B8 accommodation. The Council should consider allocating additional employment land to meet this requirement;
- The available employment land is too fragmented or in the 'wrong' locations to meet the needs of occupiers that would seek to be located as part of the IAMP and Nissan supply chains;
- The IAMP scheme is projected to generate around 2,500 jobs in South Tyneside predominantly in the advanced and automotive engineering sectors, with some potential for related large-scale distribution. It is anticipated that over 2,000 jobs will be created in manufacturing with c. 400 within the distribution sector. It is considered that land provided in relation to IAMP is based on a more regional, national and international basis than for the (South Tyneside) local economy; and

- Approximately 45ha to 50ha of general employment land should be planned for over the 15 year plan period and an additional requirement of c. 45ha should be identified specifically for the IAMP opportunity.

2.5 IAMP Impacts Study (2015)

100. In 2014 the Councils commissioned four "topic papers" (Housing, Skills, Employment Land and Displacement) to undertake some initial research into the potential wider impacts of IAMP on both Sunderland, South Tyneside and adjoining local authority areas. The high level papers have provided contextual information for the AAP and (with the exception of the Employment Land Topic Paper) were refreshed in Autumn 2016. The relevant issues from these papers are outlined below.

2.5.1 IAMP Impacts Study - Topic Paper: Displacement (2015) (SD9) and Update 2016 (SD11)

101. The primary objective of this Paper was to assess any potential displacement effects on other economic locations within the NELEP area. The report examined the following aspects:

- The potential for relocation of existing jobs from established locations across the NELEP area; and
- The potential for the supply chain and multiplier effects of the IAMP to generate demand for sites and space in Sunderland, South Tyneside and neighbouring areas.

102. It was recognised that the central expectation of future demand is above the quantum of proposed space at the IAMP (raising gross impacts from 5,228 to around 9,000 jobs). If this demand comes to fruition then there could be additional jobs which will need to be accommodated.

103. The results of the assessment are summarised in the following table.

Table 2: Summary of net employment impacts - NELEP area[iv]

	Central case		Worse case	
	Jobs	**Factor**	**Jobs**	**Factor**
Gross benefits	5,228		5,228	
Leakage	261	5%	261	5%
after leakage	*4,967*		*4,967*	
Displacement	745	15%	1,490	30%
after displacement	*4,222*		*3,477*	
Multiplier effects	7,008	2.66	5,771	2.66
Net benefits	11,230		9,248	

104. The assessment indicates that the project has the potential to generate 11,230 net additional jobs in the NELEP area under the central case.

105. The 2016 update to this paper also considered the potential non B-class uses that may complement the core floorspace proposition. It was estimated that non B-class uses (primarily located on 'The Hub') will generate the order of 323 gross FTE jobs. These jobs are additional to the 5,228 gross jobs associated with the core floorspace proposition.

Table 3: Additional Analysis: Net Employment Impacts for Non B-Class uses in the 'Hub' - NELEP area

	Central	
	Jobs	Factor
Gross benefits	323	
Leakage	16	5%
after leakage	*307*	
Displacement	77	25%
after displacement	230	
Multiplier effects	129	1.56
Net benefits	359	

106. Together the results indicate that the IAMP has the potential to generate up to 11,589 net additional jobs in the NELEP area under the central case (comprising 11,230 in B-Class floorspace and 359 in non B-class uses).

107. In terms of displacement, locations that could be particularly vulnerable to automotive supply-chain company movements to IAMP include the Washington area and Pennywell. Whilst a number of firms with strong relationships to Nissan are currently located in these areas, in some cases the space they are occupying is dated or near the end of its life, with limited opportunity for re-provision or expansion in that location.

108. However, overall, the scale of displacement in the automotive sector is likely to be limited as the majority of other major existing and planned employment locations do not have an automotive focus. The following factors were identified as important in determining the level of displacement:

- The realisation of the Strategic Business Case work findings which indicate that the majority of site occupiers are likely to be inward investors or indigenous companies that might locate, or remain located, outside of the UK in the absence of the IAMP;
- That the IAMP is complementary to the existing UK automotive offer and given the profile of Nissan's global supply chain base will attract significant inward investor interest;
- The generation of additional demand for supply-chain activity in the area and potentially new incoming firms not currently represented in the area as a consequence of Nissan diversifying into new electric vehicle production; and
- The balance in occupiers between the automotive sector and broader advanced manufacturing and distribution sectors.

109. The paper stated that it is important to distinguish between the occupiers in the automotive sector and occupiers in the broader advanced manufacturing sector. Whilst the evidence suggests that displacement of automotive related activity is likely to be limited, there is greater potential for displacement of broader advanced manufacturing firms. Other key existing and planned employment locations are also seeking to attract firms within this sector.

110. However, it was emphasised that there may be positive aspects to the relocation of firms. Potential in-movers may currently be in sub-optimal premises or locations and would benefit from moving to the IAMP. Relocation is often accompanied by re-investment in plant and machinery and so a degree of modernisation is likely to occur with beneficial knock-on effects for productivity in the longer-term. The potential for displacement needs to be considered in the context of the potential for offset by the generation of demand for sites and space in Sunderland, South Tyneside and neighbouring areas as a result of multiplier effects.

111. In summary it was concluded that the IAMP project will generate significant multiplier effects, both through the supply-chain (indirect effects) and spending of incomes (induced effects). Together these effects may enable the IAMP to generate the following benefits to the wider area:

- Attraction of greater inward investment;
- Increased market opportunities for Small and Medium-sized Enterprises (SMEs);
- Increased leverage of innovation potential;
- Support greater demand for city centre retail space and services;
- Additional employment opportunities for workers with lower skills; and
- Support growth of the Port of Tyne.

2.5.2 IAMP Impacts Study - Topic Paper: Employment Land (2015) (SD8)

112. This paper examined the issues around the impact of IAMP on existing and proposed strategic employment sites.

113. The primary objective of this paper was to examine the local development plans and economic development strategies of the neighbouring authorities of Durham, Gateshead, Newcastle, Northumberland and North Tyneside. Consideration was also given to potential interaction of IAMP with the Tees Valley area.

114. The topic paper made the following key conclusions:

- The IAMP forms part of the Combined Authority and NELEP economic strategy to create economic growth and jobs in the region. This strategy was formulated to build on the sectoral strengths of the region. It is also an aim of the Sunderland Economic Master Plan to build on the automotive and low carbon sectors;
- Nissan has attracted a large supply chain. As there has been no discernible plan to make provision for that supply chain, over the 25 years or so of

production, some suppliers are located close to the manufacturing plant, others further away;

- Making land and accommodation available adjacent to Nissan for the automotive and low carbon sectors will be attractive to both new, as well as existing, suppliers. However, this carries the risk that some suppliers that are already located in the region will consider the feasibility of relocating. Those factors that make such relocation attractive are the usual three locational factors of proximity to market, labour and materials;
- Those investors considering relocation might wish to do so because the present accommodation is sub-optimal, or in a location that is less attractive than that of the IAMP due to access. Such relocation is often accompanied by re-investment in plant and machinery and to some degree modernisation and increased productivity. However, making the decision to relocate will also have regard to the retention through relocation of the skilled people already employed, as well as the costs, the quality and adequacy of the existing accommodation. These factors could outweigh the advantages of relocating to IAMP; and
- The scale of displacement effects across local authorities will vary depending upon the nature of activity supported and local markets. A high level assessment of the likely distribution of displacement effects across the seven local authorities comprising the NELEP area and the Tees Valley was undertaken which concluded that the greatest pull is likely to be from relatively local locations in Sunderland and South Tyneside.

2.5.3 IAMP Impact Study - Topic Paper: Skills (2015) (SD6) and Update 2016 (SD12)

115. The purpose of this paper was to examine the likely skills implications of the IAMP at its completion in 2027. The 2015 Paper examined the range of skills likely to comprise the 'core' IAMP activities providing 5,228 Full Time Equivalents (FTEs) (i.e. manufacturing and directly associated activities hereinafter referred to as 'core' activities). The 2016 Update also examined a further 323 FTEs that would be created within the 'Hub' comprising of a series of ancillary activities supporting the needs of the workforce. The IAMP as a completed development in 2027 would, therefore, be expected to create 5,551 FTEs.

116. The paper established that "advanced manufacturing" involves a fundamental change in the processes used to produce a wide variety of goods based on an ability to manipulate materials and achieve process efficiencies through automation and a reduction of waste. Process efficiencies are removing the need for less skilled labour e.g. system automation/robotics raising the proportion of higher level skills within the workforce supporting productive activity.

117. Collectively, these skills tend to be found among occupational groups like managers, professionals and associate professionals where there tends to be a greater preponderance of formal higher, degree level qualifications. This element of the workforce tends to be referred to as "knowledge workers". Knowledge workers are expected to be an important element in the IAMP core workforce with

an estimated 37% of the core 5,228 jobs attributable to this kind of work. It was noted that the knowledge worker share of the IAMP core workforce is strongly dependent upon the 81% share of the total development taken by automotive industries. Variations in the mix will have the potential to change the outcome.

118. The paper also considered the possible distribution of workers within the North East region based on primary data collected from Nissan and two supplier companies as to where their workers live and their occupation. A distribution of IAMP workers was generated based on the assumption that future workers will want to live in places where people who do similar types of work currently live. This was based on the concept that what people do infers common characteristics concerning their general lifestyle that encourage a desire to associate. No allowance has however been factored in to say whether this is either desirable or feasible from a policy perspective.

119. The table below shows the expected distribution of the IAMP core workforce based on an average of the results from analysing the Nissan and supplier company's workforce data.

Table 4: Summary of net employment impacts - NELEP area Distribution of IAMP Core Workforce

Usual residence	IAMP Predicted Knowledge Workers	IAMP Predicted Rest of Workers	IAMP Predicted
County Durham	29%	25%	26%
Darlington	1%	1%	1%
Gateshead	8%	10%	10%
Hartlepool	5%	2%	3%
Middlesbrough	0%	0%	0%
Newcastle upon Tyne	4%	4%	4%
North Tyneside	6%	4%	5%
Northumberland	5%	3%	3%
Redcar and Cleveland	0%	0%	0%
South Tyneside	9%	12%	11%
Stockton-On-Tees	2%	1%	1%
Sunderland	31%	38%	36%

120. The results set out above show that 83% of the core workforce predicted for IAMP might reasonably be expected to be drawn from the four local authorities closest to the development using the average recorded across the three companies reviewed.

121. The table below shows the expected distribution of the IAMP Hub workforce. In the absence of any primary survey data from companies' representative of the hub activities, it has been necessary to revert to Census of Population 2011 data on the origin/destination for journey to work. This data is reported for all workers irrespective of occupation characteristics.

Usual residence	Hub (Number of workers)	Hub %
County Durham	68	21.0%
Darlington	2	0.6%
Gateshead	30	9.2%
Hartlepool	4	1.1%
Middlesbrough	1	0.4%
Newcastle upon Tyne	14	4.4%
North Tyneside	13	4.2%
Northumberland	10	3.1%
Redcar and Cleveland	1	0.4%
South Tyneside	34	10.7%
Stockton-On-Tees	4	1.1%
Sunderland	142	43.8%
Total	323	100%

122. This distribution suggests that nearly 85% of the total hub workforce will be drawn from within the four local authorities closest to the IAMP – Sunderland, Gateshead, South Tyneside and County Durham.

123. The predicted distribution showed that certain areas within the North East are better placed to attract future IAMP workers than others based on the current residential distribution of workers involved in activities likely to predominate in the IAMP. Certain areas like County Durham are better placed to offer the village and market town environments attractive to knowledge workers. Sunderland and South Tyneside appear to have a weaker offer in this respect.

124. This distribution of workforce does not however offer any insight into the policy or physical capacities of those settlements to absorb additional households (e.g. could a village in County Durham absorb additional people without additional physical infrastructure and services). As such the modelling methodology was policy neutral.

125. Equally, the analysis did not cover the degree to which the workforce for IAMP will consist of new workers relative to existing workers changing jobs. A proportion of IAMP workers will come from existing workers changing jobs or new cohorts of workers coming into the workforce for the first time. These workers must be assumed to already be housed. The jobs vacated by these workers will create opportunities for secondary moves from existing jobs and entry level positions. These second/third round effects will however be dispersed across the North East and might be dealt with by adjusting commuting behaviour rather than moving house.

2.6 Summary

126. The topic paper made the following key conclusions:

- In an increasing globalised world, the geographic concentration of people and businesses is driven by 'agglomeration economies'. Clusters provide companies with a competitive advantage, enabling them to improve productivity. Similarly the automotive industry considers that future growth requires flexible manufacturing with increasing interconnectedness and the ability to customise to individual customer need;
- The UK automotive industry is growing, especially in the production of premium and low carbon vehicles. In order to maximise value capture, there has been a targeted focus in supporting and growing opportunities in the local supply chain, to secure more supply chain activities in the UK;
- The immediate supply chain can account for just over half of the total automotive industry employment. There are also several tiers to the supply chain;
- 'Proximity' was identified as the key competitive advantage of UK suppliers as it allows for lower logistics cost, a better support for UK-built vehicles, the responsive configuration of parts, as well as for more flexibility to adjust to volume and product mix fluctuations. In strategic terms, proximity also acts as a general proxy for risk reduction in the supply chain, as well as a hedge against currency fluctuations;
- In addition, there is a pervasive market trend for increased customer choice driving higher product complexity. This requires leaner and more flexible supply chains, close to the vehicle/engine manufacturing plant. This is becoming more important for all manufacturers and particularly for premium manufacturers in the UK;
- The North East has a strong and growing automotive and related low carbon cluster, including significant supply chain activities which is of national significance and located on the Sunderland - South Tyneside border;
- In terms of Nissan, the North East Independent Economic Review (Summary of Evidence) considered that that the associated supply chain was worth close to £1bn. It also notes that the North East's main opportunities relate to the development of electric vehicles and other low carbon vehicles technology such as hydrogen and the offshore wind turbine market;
- The Strategic Needs Study which informed the City Deal identified a demand for 150ha of employment land over the next 20 years (moderate scenario) to support the growth of the automotive industry and related supply chain activities;
- The 2016 update on the Automotive Sector Demand shows that the absence of growth potential the status quo will not be sustainable as the automotive sector in the North East and in fact the UK will not be in an optimum position to win future assembly competitions with other automotive plants abroad;

- The North East Independent Economic Review (Summary of Evidence) highlighted a shortage of employment land in South Tyneside and in particular 'market friendly sites';
- The Sunderland Employment Land review highlighted a shortage of available employment land in the north of the local authority area and highlighted that automotive and advanced manufacturing plants developed since 2010 in the area required sites between 5 and 12ha in size;
- The South Tyneside ELRs highlighted the need (and shortage) of land to the south of the conurbation. This location was attractive due to the ease of the strategic transport network and port connectivity;
- The existing enterprise zone around the Nissan Plant has proven to be successful, but has only three plots of between 6ha and 15ha currently available for development;
- There is therefore currently a shortage of quality employment land and premises of the right scale and in the right location to best maximise the opportunity; and
- In terms of potential displacement impacts of the IAMP proposition, displacement of automotive related activity is likely to be limited and the IAMP project will generate significant multiplier effects, both through the supply-chain (indirect effects) and spending of incomes (induced effects).

3 Key Issues

127. This section draws on the evidence provided in section 2 to set out issues that should be taken into account in developing the approach and policy of the AAP.

128. This is structured around the following headings:

- The Importance of IAMP to the North East and UK;
- The Northern Powerhouse;
- Automotive Strategy;
- Nissan;
- North East Manufacturing Employment;
- Opportunities for Manufacturing Growth;
- Market opportunities;
- Demand; and
- Locational criteria.

3.1 The Importance of IAMP to the UK and North East

129. The development of the IAMP has the potential to underpin the continued success of the automotive and advanced manufacturing sectors in the UK and North East.

130. The North East Automotive Alliance[v] recently outlined the benefits and importance of the automotive sector to the UK.[vi]

- To date the sector has generated sales of over £7bn, exporting £5.1bn and a trade surplus of £2.6bn;
- The sector directly employs 26,000 people and impacts on a further 141,000 jobs;
- Nissan Manufacturing UK in Sunderland accounts for one third of all UK car production;
- The sector exports to more than 130 markets; and
- In the region there is a cluster of 25 'Tier one' automotive suppliers employing over 7,000 people.

131. The importance of the automotive sector and advanced manufacturing sectors and their future potential for growth in the North East (particularly in Sunderland and South Tyneside) is evidenced through the City Deal agreement which seeks to boost advanced manufacturing centred on the automotive sector, significantly increasing opportunities for enterprise and employment in the North East and outputs that support GDP.

132. The North East of England is recognised internationally[vii] as a centre for the automotive industry due to the presence of Nissan which has been in the region since 1985. This has led to the expansion of an 'automotive cluster' centred on the

Nissan plant north of Sunderland, with the nearby location of manufacturers linked to the Nissan supply chain.

133. Nissan is a major employer in the North East and has been the largest car plant in the UK for 14 years and the largest exporter for 12 years. Overall production surpassed 500,000 vehicles in 2013 and is set to expand further, with the vast majority of these manufactured for export. Sunderland's current trajectory will take it through the 600,000 cars a year barrier and is on track to become one of the world's largest car plant complexes.

134. The IAMP project is therefore of national and international significance given its importance to growing the automotive and advanced manufacturing sectors in the UK and its potential to deliver real value to the performance of a City Region at the northern most extent of the Northern Powerhouse initiative. The project focuses on the key challenge of rebalancing the wider North East economy and setting it on a new self-sustaining economic growth path. This rebalancing will involve securing the major opportunity presented by manufacturing growth based upon the successful automotive cluster and other advanced manufacturing and cascading the additional wealth generated throughout the wider economy through a revitalised city centre economy, based upon central business district growth.

135. Nissan UK is critical to the UK automotive industry nationally and regionally. NMUK is the largest vehicle manufacturer in the UK and is gradually consolidating its position within Nissan worldwide, being the European centre for Electric car production, including battery packs, and for the premium Infiniti brand[2].

136. The recent decision to invest further in Sunderland by Nissan with the replacement Qashqai and the additional X-Trail model reinforces the growth imperative and without the ability to expand, local suppliers will miss out on growth potential and job creation opportunities, as well as the ability to anchor Nissan even more firmly to the area over the longer term.

137. The viability of the UK supply base also depends upon Nissan and Jaguar Land Rover above all. These companies depend upon late material sequencing to build complex products with unique build combination varieties in the millions. This is only possible with key suppliers located very close to the final assembly plants, which puts a premium on the availability of development land nearby as remote sites do not offer the same advantages[3].

138. It is therefore critical to the future of Automotive manufacturing in the UK that the land at IAMP is made available to support these clear trends and secure the long term growth prospects for NMUK and the wider industry[4].

3.2 UK Automotive Strategy

139. The IAMP supports the Government's Automotive Strategy[viii], which commits Government and Industry to working together, through the new Automotive

[2] Expert Opinion of RPJ Consulting, 2016
[3] Expert Opinion of RPJ Consulting, 2016
[4] Expert Opinion of RPJ Consulting, 2016

Investment Organisation, to improve the image of the UK as a location for Inward Investment.

140. The UK Automotive Strategy sets out actions for growth and vision for the sector and seeks to ensure that the UK is well placed to benefit from investment in production and in critically important research and development activity. It seeks to provide a focus for strengthening the domestic supply chain and ensuring people with the right skills are available to support a growing and nationally important industry. At present the domestic supply chain is considered to be relatively weak and has been identified as a key challenge and opportunity for the sector. Addressing this is dependent on a stronger automotive supply chain in the UK. UK suppliers could take a much bigger share of the market with £3bn of opportunities identified by the Automotive Council UK.

141. IAMP, providing space for investment and the expansion of companies operating in the automotive sector and in close proximity to Nissan, will be a significant attractor for companies both in the UK and elsewhere in the world. By providing land and skilled employees to allow expansion, the IAMP will support UK suppliers to access these opportunities. In summary, the IAMP and the synergy it will have with the Nissan production facilities will enable the project to:

- Continue to be a key element of the automotive sector making a large and increasing economic contribution to employment and prosperity in the UK;
- Contribute to the UK playing a decisive role in developing and manufacturing low and ultra-low emission vehicles and technologies; and
- Support the further development in the UK of a highly skilled workforce and a strong supply chain.

3.3 Building our Industrial Strategy Green Paper , 2017

142. The 'Building our Industrial Strategy' Green Paper was published for consultation in January 2017; it sets out a vision to improve living standards and economic growth by increasing productivity and driving growth across the whole country. The Green Paper recognises that economic growth is founded on building on existing strengths and areas of excellence, closing the gap between the UK's most productive companies and places, and making the UK one of the most competitive places in the world to start a business.

143. The Green Paper is focussed on 10 pillars of 'Driving Growth across the whole country'. Delivering IAMP will be critical to the achieving a number of these key interventions, including: Develop Skills; Support Businesses to Start and Grow; Encourage Trade and Investment; Cultivate World-leading Sectors and Creating the right institutions to bring together sectors and places. The extent to which IAMP could support these objectives is set out below.

"Encouraging Trade and Investment" and "Cultivate World-leading Sectors"

144. The Industrial Strategy recognises that the UK has built a global reputation for automotive sectors. IAMP will enhance this reputation through the following:

- The North East Independent Economic Review concluded that the region has the potential to be an *"International leader in Trade and a leading location for (re) investment"* and that the IAMP will help make this a reality;
- Delivery of IAMP will attract greater inward investment. This would be across all tiers of the automotive supply chain with associated benefits to local employment and income;
- IAMP will increase market opportunities for SMEs. This includes the potential for Nissan and other UK based vehicle production centres to increase their UK sourcing of components; and
- IAMP could leverage innovation potential. This includes the development of low-carbon vehicles as part of Nissan's future investment offers the opportunity for the area to capitalise and build upon this knowledge. The IAMP will result in a significant scaling up of business activity and the potential for universities, spin-outs and SMEs to undertake R&D to capture the related commercial opportunities arising.

145. IAMP will increase the size of the current automotive cluster in the region by an amount equivalent to Nissan's current employment levels and therefore help secure the future of the region by generating growth and jobs.

146. IAMP seek to reduce trading costs by supporting growth of the Port of Tyne and the Port of Sunderland, through the contribution of activity through increased exports.

"Creating the right institutions to bring together sectors and places"

147. The Industrial Strategy sets out the importance of maximising the benefit that anchor companies can bring to an area. IAMP will seek to create a spatial cluster of innovation: bringing together advanced manufacturing and supply chain companies.

148. IAMP will strengthen the existing comparative advantage of the North as a place to do business by increasing the size of current automotive cluster in the region by an amount equivalent to Nissan's current employment levels and therefore help secure the future of the region by generating growth and jobs.

149. IAMP will support more business-to-business trade in the region so that the impact of further manufacturing growth is cascaded throughout the economy. The local economy is currently too reliant on a small number of large private employers.

150. IAMP will allow the region to substantially increase the size of the current automotive cluster in the region and secure further investment in the city centre through attracting jobs and spending power.

"**Develop Skills" and "Support Businesses to Start and Grow"**

151. The Industrial Strategy recognises that there is a need to reduce the skills gaps across specific sectors, by providing employment opportunities for workers with lower skills.

152. IAMP would help build on the success of Nissan through the creation of 5,200 new jobs and support the development of market opportunities for SME's. Development will also generate significant economic multiplier effects, both through the supply-chain (indirect effects) and spending of incomes (induced effects).

153. Provision of employment opportunities for workers with lower skills through 'consumer-led' job creation. This means that the employment opportunities associated with the project could extend beyond those in higher skilled occupations on the IAMP site to opportunities with lower skills entry off-site.

154. The Northern Powerhouse[ix] seeks to rebalance and grow the UK economy by devolving political power and economic activity to the north of England. The Government is committing £13bn of investment to transport in the north of England; backing major new science, technology and culture projects; and agreeing to devolve significant powers over transport, housing, health and planning.

155. Projects such as IAMP are critical to the success of the Government's Northern Powerhouse strategy. In particular, innovation clusters such as that proposed for the automotive sector around IAMP and Nissan will provide a step-change in creating the Powerhouse.

156. IAMP, as a nationally significant project in its own right, in tandem with the support it will provide for the continued success of Nissan in the UK, will be a key contributor to the Government progressing the Northern Powerhouse strategy. The key objectives of the Northern Powerhouse and how they relate to IAMP are summarised below.

157. *Stimulating business investment and innovation by supporting economies of scale and new ways of working.*

- The North East Independent Economic Review concluded that the region has the potential to be an *"International leader in Trade and a leading location for (re) investment"* and that the IAMP will help make this a reality;
- Attraction of greater inward investment. This would be across all tiers of the automotive supply chain with associated benefits to local employment and income;
- Increased market opportunities for SMEs. This includes the potential for Nissan and other UK based vehicle production centres to increase their UK sourcing of components; and
- Increased leverage of innovation potential. This includes the development of low-carbon vehicles as part of Nissan's future investment offers the opportunity for the area to capitalise and build upon this knowledge. The IAMP will result in a significant scaling up of business activity and the potential for universities, spin-outs and SMEs to undertake R&D to capture the related commercial opportunities arising.

158. *Achieve agglomeration economies by bringing firms and their employees closer to other businesses and partners*

- More business-to-business trade in the region so that the impact of further manufacturing growth is cascaded throughout the economy. The local economy is currently too reliant on a small number of large private employers.

159. *Enabling firms to access a larger labour supply and providing wider employment opportunities for workers and those seeking work.*

- IAMP would help build on the success of Nissan through the creation of 5,200 new jobs; and
- Provision of employment opportunities for workers with lower skills through 'consumer-led' job creation. This means that the employment opportunities associated with the project could extend beyond those in higher skilled occupations on the IAMP site to opportunities with lower skills entry off-site.

Increase competitiveness through access to new and larger markets with the benefits of increased labour market specialisation.

- IAMP will allow the region to substantially increase the size of the current automotive cluster in the region and secure further investment in the city centre through attracting jobs and spending power.

Reduce trading costs and use more efficient logistics networks.

- IAMP will support growth of the Port of Tyne and the Port of Sunderland, through the contribution of activity through increased exports.

Strengthen the existing comparative advantages of the North as a place to do business.

- IAMP will increase the size of the current automotive cluster in the region by an amount equivalent to Nissan's current employment levels and therefore help secure the future of the region by generating growth and jobs; and
- The IAMP project will also generate significant economic multiplier effects, both through the supply-chain (indirect effects) and spending of incomes (induced effects).

3.4 Nissan

160. Nissan is a major employer in the North East and the Sunderland plant is a good example of a national and regional success in manufacturing. Having been secured with Government support in 1985 the plant has become Nissan's most highly regarded European plant with a reputation for high productivity and adaptability. Nissan currently employs circa 7,000 people on the site.

161. Nissan has been the largest car plant in the UK for 14 years and the largest exporter for 12 years. Overall production surpassed 500,000 vehicles in 2013 and is set to expand further, with the vast majority of these manufactured for export. Sunderland's current trajectory will take it through the 600,000 cars a year barrier and is on track to become one of the world's largest car plant complexes.[x]

162. Sunderland produces one third of UK car output and 35.7% of exports. 81% of production (343,000 units) was exported in 2013, also a UK record. All of Sunderland's production consists of fully built-up vehicles whereas other UK

plants have hit high production numbers in the past through assembling "kits". At present the plant is increasing its production with a 25,000m increase in floorspace and a move to a three shift, 24hr production pattern (increasing from two shifts). The plant is also diversifying into new luxury and electric vehicle production.

163. In recent years, an increasing number of Nissan's suppliers have located not only in the North East, but on the factory site, while remaining independent businesses. Nissan's supply chain has also seen significant growth recently in response to securing the production of new models (particularly the LEAF and the lnfiniti).

164. The Nissan production processes require certain supply activities to be located as close to the plant as possible. The local job multiples generated by the vehicle firms is illustrated by the 7,000 jobs in Sunderland's Nissan plant underpinning over 20,000 supplier jobs in the wider North East region.[xi]

165. NMUK is likely to be part of a fundamental change in the Manufacturing system at Nissan worldwide, designed to accommodate the prolific increase in buildable variety within the manufacturing system rather than add-ons in the dealerships[5].

166. This will transform the supply chain, shortening supply lines and simplifying logistic chains, with a consequent increase in local value-added in the supply base. Close proximity is crucial in yielding the optimal benefits[6].

167. Failure to provide practical support for this shift, and the land it requires, will make it increasingly difficult for NMUK to continue to win competition from overseas plants for programs, considered critical to the livelihood of any plant[7].

3.5 North East Advanced Manufacturing Employment

168. The North East is one of the leading manufacturing and export regions within the UK. In both 2011 and 2012 the North East was the only region in England to record a trade surplus of goods and the value of its exports has been increasing. The independent economic review, commissioned by the NELEP, concluded that the region has the potential to significantly expand this existing strength.

169. The Strategic Economic Plan sets a vision of more and better jobs for the region; it focuses on the potential for the region to trade and export more; it underlines the importance of increasing GVA and enterprise; and it sees a boost in private sector employment as the key to rebalancing the North East's economy.

170. The North East Independent Economic Review (SD38) states that advanced manufacturing, pharmaceuticals, energy/low carbon and environmental industries are particularly important sectors for NELEP as they offer innovative, highly productive and world-class activities. Many of NELEP's successful businesses hold a prominent position in international market places, with exports for goods such as machinery and transport holding up relatively well. These are strong

[5] Expert Opinion of RPJ Consulting, 2016
[6] Expert Opinion of RPJ Consulting, 2016
[7] Expert Opinion of RPJ Consulting, 2016

foundations on which the economy can build. Advanced manufacturing is also particularly noted in the Strategic Economic Plan as being particularly important as the sector offers the potential to build on its established innovative, highly productive and world-class activities.

171. Currently, manufacturing is located largely in out of town business and industrial parks, creating key employment locations along economic growth corridors which support the growth of the manufacturing sector. There are particular clusters and corridors emerging, specifically around passenger vehicle manufacture, renewable energy, oil and gas and process industries. The area needs to retain the international competitiveness of its manufacturing jobs, which still account for a large proportion of better paid private sector jobs, and grow the higher value service sector jobs linked to business services and the new economy.

172. IAMP will act as a key part of the investment needed to respond to this need.

3.6 Opportunities for Advanced Manufacturing Growth

173. The North East has experienced strong success in advanced manufacturing with a key part of this success being focused on the area close to Nissan. The area was designated as a Low Carbon Economic Area in 2010 in recognition of the area's importance in the production of Electric Vehicles and the first development in the new round of UK Enterprise Zone sites, with the Vantec's £22.5m, 40,000 sq m development on Turbine Business Park.

174. Across the UK there is strong growth in the automotive sector, both in vehicle production and in supply chain activity. BIS's Automotive Strategy[xii] estimated that supply chain production worth £3bn could be brought within the UK. In Sunderland there has been substantial demand for manufacturing land, with annual growth of 6ha per year. The Sunderland Enterprise Zone (EZ), adjacent to the Nissan plant, was the first of the new generation of EZs to attract investment with a 40,500 sq m logistics facility (a second Vantec building) providing supply support to Nissan and other local manufacturers.

175. The Strategic Employment Study[xiii] identified that automotive demand will continue to grow and more land will be required to sustain this growth.

176. IAMP will act as a key part of the investment needed to respond to this demand.

3.7 Market Opportunities

177. The Strategic Employment Study recommended the majority of demand (around 75%) would originate from the automotive sector, supported by demand from advanced manufacturing, distribution and offshore renewables. BIS's automotive strategy estimates that supply chain production worth £3bn to 4bn could be brought within the UK.

178. At present the Nissan plant is increasing its production with a 25,000 sq m increase in floorspace and a move to a three shift, 24hr production pattern (increasing from two shifts). The plant is also diversifying into new luxury and

electric vehicle production. The plant currently assembles the Qashqai, Juke, Note and Leaf models. The Infiniti model was introduced in late 2015, and the new Juke model planned for 2017.[xiv]

179. The Nissan production processes require certain supply activities to be located as close to the plant as possible. In recent years, an increasing number of Nissan's suppliers have located not only in the North East, but on the factory site, while remaining independent businesses. The opportunities that are presented from this are already starting to materialise with the location and successful take-up of the Low Carbon Enterprise Zone, located close to the Nissan site. The Enterprise Zone includes a 40,500 sq m logistics facility providing supply support to Nissan and other local manufacturers.

180. Nissan's supply chain has seen significant growth recently in response to securing the production of new models (particularly the LEAF and the lnfiniti). According to information provided by SCC and STC there is the potential for further growth in 'Tier 1' and 'Tier 2' suppliers located in the North East from the relocation of suppliers from outside the region. Currently Nissan sources around £0.67bn worth of components annually from outside the North East. Those suppliers that locate in the North East are not just dependent on Nissan, evidence shows suppliers are also securing contracts with other automotive manufacturers from outside the region. The recent inquiry via the BIS Automotive Investment Unit for an alloy wheel plant in the UK is a good example. It could have supplied both Nissan and Jaguar Land Rover, but space was not available to build the plant and the opportunity has been missed for now, until the land shortage can be addressed.

181. Therefore, the IAMP will act as a key part of the investment needed to respond to these market opportunities.

3.8 Demand

182. Demand for large scale employment sites for manufacturing and distribution uses is not limited to growth from Nissan. Since the Strategic Employment Study the Councils have been monitoring demand from businesses whose requirements would be met by the development of the IAMP. This is an on-going process with business requirements informing the master planning and process in terms of site requirements. A review of enquiries made to the Councils shows demand for large floor plate developments over 2,000 sq m or sites greater than 1ha amount to a total property requirement of 152,500 sq m with a total land requirement of 171ha.

183. As set out in the City Deal submission (2014) (SD41), in the last two years Sunderland has secured 71 investment and growth projects worth over £530m and created 3,786 new jobs. Much of this new investment has been within the manufacturing sector. This has included:

- French vehicle parts maker SNOP UK choosing to locate its first UK manufacturing facility in Sunderland, creating 130 jobs;
- Calsonic Kansei announcing an investment of £15.3m to expand its product range, creating more than 140 jobs;

- The Lear Corporation opened its first UK foam manufacturing plant, bringing 300 jobs to Sunderland in its first three years;
- Interplas Coatings NE announced expansion of its 3,252 sq m premises – growing from a single employee to 30 staff in less than a year; and
- Vantec announcing a further 81 jobs created in addition to the 230 jobs the company is creating by 2015 as part of its £22.5 million investment in a new 40,500 sq m development.

184. An assessment[xv] of the potential impacts of the IAMP project concluded that in terms of existing employment land supply:

- Much of the land available is of small scale and fragmented and does not meet the criteria necessary to create the economic benefits of IAMP;
- The available employment land is considered to be too fragmented or in the wrong location to meet the needs of occupiers that would seek to be co-located as part of the IAMP development and Nissan supply chain;
- In addition, the largest areas of available employment land in Sunderland and South Tyneside are around the Ports and are retained for expansion and strategic port related development, or for residential development; and
- The Councils also require land for other employment developments and the current provision provides some of the land required for the development and expansion for new and existing businesses.

185. Currently, there is a shortage of suitable sites available to meet this projected demand. Evidence from the Councils regarding recent investor enquiries, including those that could not be met, is that the current land supply for large scale industrial development is insufficient to meet market demand. This is largely attributable to the lack of suitably large sites capable of being developed, and a lack of good quality units to meet the demands of new or expanding businesses wishing to locate in the area.

186. To illustrate this point, enquiries to the Councils between 2008 and June 2016[8] are included at Appendix A and summarised below:

- 60 Investment Inquiries were recorded for automotive and manufacturing related end users, of which;
  - 12 sought a space requirement of greater than 50,000 sq m;
  - 16 sought a space requirement for between 20,000 sq m and 50,000 sq m;
  - 18 sought a space requirement for between 5,000 sq m and 20,000 sq m;
  - 10 sought a space requirement of less than 5,000 sq m; and
  - In four instances the space requirement was not known. IAMP will therefore assist in meeting this demand.

[8] Up to June 2015 for South Tyneside Council

3.9 Locational Criteria

187. Taking account of market and locational requirements the Strategic Employment Study (2013) (SD28) identified key criteria relating to the future needs of the automotive, manufacturing and distribution sectors seeking to locate in the North East. This was also summarised in the City Deal submission:

188. *"The combination of size, proximity to existing industry, transport links and availability makes these sites the most suitable for investment according to the demand study and needs analysis carried out by the consultant team."* (Sunderland City Deal, March 2014).

189. An outline of how IAMP responds to the following key issues is set out below:

- Site size (including ability to accommodate large scale floor plates);
- Adjacency to industry (to support the trend of near shoring and close proximity of supply chains);
- Transport links; and
- Site availability.

Site Size

190. The moderate scenario set out in the Strategic Employment Study (August 2013) (SD28) forecasts demand for around 150ha from the automotive, advanced manufacturing and distribution sectors. Based on a review of enquiries it was concluded that these sectors require accommodation on large scale floor plates ranging from 9,000 to 37,000 sq m[xvi], depending on the nature of operations.

191. The typical size of specific Tier 1 supplier site requirements ranges from 15,000 to over 30,000 sq m, and the history of the area shows that further expandability is an important requirement. A majority of NMUK Tier one suppliers are actively seeking or planning expansion and are in need of more land to facilitate that expansion[9].

192. In order to meet forecast demand and provide an attractive location to the target sectors, IAMP needs to be of sufficient scale to enable development to meet these requirements. Therefore the overall site is required to be between approximately 100ha and 150ha.

Adjacency

193. Adjacency is an important factor when considering the appropriate location of an Advanced Manufacturing Park to meet the needs of the automotive sector. The Strategic Employment Study (2013) (SD28) states: "*The trend towards near-shoring of suppliers close to OEM's [Original Equipment Manufacturer] will continue.*"

194. The location of Nissan's supply chain is also reflected on in the IAMP Impacts Study Employment Land Topic Paper (SD8): "Nissan has attracted a large supply chain. Because there has been no discernable plan to make provision for that

[9] Expert Opinion of RPJ Consulting, 2016

supply chain, over the 25 years or so of production, some suppliers are located close to the manufacturing plant, others at a longer distance."

195. Nissan has a complex supply-chain with goods sourced from around the UK and continental Europe including France, Spain, Italy and Germany. The supplier network also extends outside Europe to Japan, China, Mexico, India, Thailand and the USA. The move towards 'near shoring' of suppliers shows there are significant opportunities to attract suppliers from overseas as opposed to displacing existing companies from elsewhere.

196. The Strategic Employment Study (SD28) also supports the view that adjacency is critical for the automotive sector. It considers development of an IAMP in close proximity to the existing automotive cluster around Nissan as the optimal location in the region to capture growth opportunities and provide significantly more land for development, delivering a major increase in manufacturing capacity for the region.

Transport links

197. Businesses locating on the IAMP need to be able to easily access a skilled workforce, have strong links to supply chain and be able to transport goods to national and international markets. The North East offers good transport links from the Ports of Tyne and Sunderland, Newcastle Airport, the freight rail network and road network including the A1M and A19.

198. For IAMP to be an attractive location it needs to have good accessibility to the strategic road network, as well as being able to access the rail network, ports and airport. The Strategic Employment Study states:

199. *"Many of the manufacturing companies which are likely to locate to the site will produce goods mainly for the international market. Consequently they will require good road and rail access in order to distribute their goods. They will also require links to the local port and national rail network."*

200. The North East Independent Review (SD38) commented on the impact and importance of coordinating development with key investment principles including concluding that there is compelling evidence that transport investment will make the maximum impact on productivity, job creation and GVA where it:

- Improves the North East's strategic connectivity; and
- Improves access from all parts of the North East to the priority locations for economic growth.

201. It was stated that in relation to improving access from all parts of the North East transport has a key role to play in lifting GVA to deliver the maximum available agglomeration effects in the regional labour market; or in other words, to maximise the pool of talent that can access the priority locations for economic growth.

202. Therefore, good accessibility by road across the whole LEP area, including a fast and reliable journey time to the area's airport and ports, is required in order to support economic growth. The priority locations for the growth in advanced

manufacturing in the North East is stated as being Ultra Low Carbon Vehicles Enterprise Zone in Sunderland.

203. Accordingly, aligning infrastructure investment on the strategic road network with investment priorities (such as that proposed at Testos and the Downhill Lane junction by Highways England which is adjacent to the IAMP site) was seen as a key aspect of the strategy for the North East.

Site Availability

204. Current land uses and site availability need to be considered when assessing potential locations for IAMP. The IAMP Impacts Study Employment Land Topic Paper (2015) (SD8) identifies the land currently available for development in Sunderland and South Tyneside. It states: "*The amount and character of land for employment development is essential for the growth of the economy but it must match the needs of the business that it seeks to support*." The topic paper confirms: "*Making land and accommodation available adjacent to Nissan for the automotive and low carbon sectors will be attractive to both new as well as existing suppliers*."

205. The availability of land adjacent to the existing NMUK and Tier 1 supply base is critical to achieve the vision of the prolific model variety integrated into the just-in-time logistics chain. In-line sequenced production requires the exact specification to be broadcast right up the supply chain and components and sub-assemblies scheduled for delivery in the right sequence with no delays or gaps. Global benchmarking suggests that this is best done by having the sub-assemblies adjacent or even inside the final assembly plant. The majority of Tier 1 suppliers are therefore focussed on achieving as close proximity as possible to the existing Sunderland NMUK plant[10].

3.10 Implications for the AAP

206. On the basis of the key issues outlined above it is recommended that the following policies are established within the AAP to ensure that IAMP best satisfies the commercial requirements.

207. Firstly, it is recommended that AAP includes a policy which defines the principal acceptable uses for the IAMP as those uses directly related to the automotive and advanced manufacturing sectors for production, supply chain and distribution activities. This will ensure that the AAP develops a strategic focus that meets the demand for growth of the automotive and advanced manufacturing sectors.

208. Secondly, it is recommended that the AAP includes a policy which requires comprehensive development designed and orientated to relate well to the existing employment area and established infrastructure. Proposals should maximise the interface with Nissan and ensure the effective movement between the two sites. By providing the appropriate space in close proximity to Nissan and other key infrastructure would attract investment and companies to the area and strengthen the domestic supply chain,

[10] Expert Opinion of RPJ Consulting, 2016

209. Thirdly, a design code should be established to set out design parameters applicable to the IAMP AAP area to include massing, siting and scale appropriate to the requirements prescribed by the principles uses. This will assist in ensuring the site is attractive to future occupiers and flexible enough to accommodate a range of businesses.

3.11 Summary

210. In summary:

- The development of the IAMP has the potential to underpin the continued success of the automotive and advanced manufacturing sectors in the UK and North East;
- Nissan is a major employer in the North East and has been the largest car plant in the UK for 14 years and the largest exporter for 12 years. Overall production surpassed 500,000 vehicles in 2013 and is set to expand further, with the vast majority of these manufactured for export;
- The Nissan plant is also diversifying into new luxury and electric vehicle production. The plant currently assembles the Qashqai, Juke, Note and Leaf models and the Infiniti model was introduced in late 2015. The expansion of the plant to produce the replacement Qashqai and an additional X-Trail model are key indicators of the growth potential in the region in this sector;
- The Nissan production processes require certain supply activities to be located as close to the plant as possible. In recent years, an increasing number of Nissan's suppliers have located not only in the North East, but on the factory site, while remaining independent businesses;
- Clusters provide companies with a competitive advantage, enabling them to improve productivity. In addition, automotive manufacturers are starting to respond to increased customer choice which requires leaner and more flexible supply chains, close to the vehicle/engine manufacturing plant;
- The typical size of Tier 1 suppliers site requirement ranges from 15,000 to over 30,000 sq m and future expandability is important in choosing a location;
- Currently, there is a shortage of suitable sites available to meet the growth in the supply chain and other advanced manufacturing activities (such as low carbon technologies) in clusters in proximity to the existing automotive industry; and
- The development of the IAMP can provide market friendly land of scale and in a location which benefits from close proximity to a labour force, the strategic road network and the Port of Tyne and Port of Sunderland.

4 Outcomes

211. This section advises on the potential elements that should be considered in further progressing the IAMP proposal to delivery. In particular it summarises the key outcomes aimed to be reflected in the AAP and implementation of the project.

212. These are presented under the following headings:

- Ability to meet existing and projected demand;
- Benefits;
- Economic Impact;
- Sustaining a Growing Economy; and
- Impact on the Economy and Business.

4.1 Ability to Meet Existing and Projected Demand

213. In support of the City Deal submission a schedule of floorspace was prepared:

Phase 1:

- Total floorspace - 62,700 sq m (offices 5,700 sq m, B2/B8 57,000 sq m)
- Total jobs – 1,255 (offices 335 jobs, B2/B8 920 jobs)

Phase 2:

- Total floorspace - 124,300 sq m (offices 11,300 sq m, B2/B8 113,000 sq m)
- Total jobs - 2,487 (offices 665 jobs, B2/B8 1,822 jobs)

Phase 3:

- Total floorspace - 74,250 sq m (offices 6,750 sq m, B2/B8 67,500 sq m)
- Total jobs - 1,486 (offices 397 jobs, B2/B8 1,089 jobs)

214. Demand is considered to be strong for large floor plate developments, many of which are projects linked to growth of the automotive sector. There are currently significant levels of enquiries, however, the lack of large sites immediately available has meant that some projects have been unable to progress.

215. There is an imbalance between the location of available land and market demand. In the main, deliverable sites are too small and in the wrong location which acts as a constraint to economic growth. Overall there is also a shortage of large units that are readily available for manufacturing or related distribution uses.

216. In the absence of the IAMP the Councils will be unable to meet the demand for suitably attractive manufacturing sites close to the existing Nissan plant.

217. IAMP will respond to this demand by providing large sites close to the road and port infrastructure. IAMP is capable of accommodating large floor plate manufacturing and related distribution uses which are currently in short supply in the area.

4.2 Benefits

218. IAMP represents a major opportunity to accommodate the increasing demand in the region and will help grow the UK automotive and advanced manufacturing industry, bringing a number of strategic economic advantages to both the UK and the North East.

219. In order to support the delivery of the IAMP, the Councils and NELEP are committed to ensuring that the anticipated manufacturing growth is complemented by a broadening and diversification of the wider economy, ensuring that more of the wealth generated by manufacturing is retained within the area. Due to the proximity to key transport links it is expected that the enterprise and employment opportunities created will have an impact across the NELEP region. These benefits include:

- It will allow the region to substantially increase the size of the current automotive cluster and attract jobs and additional spending power;
- The IAMP will also help make the NELEP ambition of 'More and Better Jobs' a reality. In the first quarter of 2015 it was one of only two regions in England to achieve a positive balance of trade in goods;
- IAMP will also increase the size of the current automotive cluster in Sunderland by an amount equivalent to Nissan's current employment levels and therefore help secure the future of the region by generating growth and jobs;
- The North East Independent Economic Review (2013) concluded that the region has the potential to be an International leader in Trade and a leading location for (Re) Investment and that the IAMP will help make this a reality; and
- The IAMP would therefore help rebalance the North East economy and set it on a new self-sustaining growth path.

4.3 Economic Impact

220. The Strategic Employment Study (SD28) provides estimates of the gross economic impact of the IAMP. The full gross employment estimates provided as part of the schedule of floorspace identify a breakdown of the employment impact by floorspace type and phase and have been used as the basis for an estimate of the net additional impact which was set out in Section 2 in relation to the IAMP Impact Paper Update 2016 on Displacement (SD11).

221. The analysis showed that the IAMP will also generate significant economic multiplier effects, both through the supply-chain (indirect effects) and spending of incomes (induced effects). Together these effects are predicted to enable the IAMP to generate the following benefits to the wider area:

- 11,589 net additional jobs (core and hub) in the NELEP area under the central case;
- Attraction of greater inward investment - across all tiers of the automotive supply chain with associated benefits to local employment and income;

- Increased market opportunities for SMEs – including from the potential for Nissan and other UK based vehicle production centres to increase their UK sourcing of components;
- Increased leverage of innovation potential – the development of low-carbon vehicles as part of Nissan's future investment offers the opportunity for the area to capitalise and build upon this knowledge. The IAMP will result in a significant scaling up of business activity and the potential for universities, spin-outs and SMEs to undertake R&D to capture the related commercial opportunities arising;
- Support of greater demand for city centre retail and services ('consumer-led' jobs) – supporting the increased demand that will assist development of a new Central Business District delivering an estimated 3,700 new city centre jobs by 2031 based on Sunderland City Council estimates;
- Provision of employment opportunities for workers with lower skills through 'consumer-led' job creation, meaning that the employment opportunities associated with the project will extend beyond those in higher skilled occupations on the IAMP site to opportunities with lower skills entry off-site, for example in city centre retail and office occupations. This will assist in addressing the needs of the current unemployed in the area; and
- Support of growth of the Port of Tyne and Port of Sunderland – through the contribution of activity to increased exports.

4.4 Sustaining a Growing Economy

222. The NELEPs Strategic Economic Plan considers the development of IAMP to be a key driver of the North East regional policy. In order to maximise growth in the North East's economy, strategies, plans and programmes will focus appropriate enabling investment towards the key employment locations, including the IAMP.

223. Accordingly both the Independent Economic Review and the Strategic Economic Plan identify that the IAMP is a key project in ensuring industrial and production businesses can locate and expand in the North East. The Strategic Economic Plan commits that in order to maximise growth in the North East's economy, strategies, plans and programmes will focus appropriate enabling investment towards the key employment locations, including the IAMP.

224. In order to accommodate projected demand in the automotive and advanced manufacturing sectors the Strategic Employment Study (SD28) concluded that further land is required. The combination of size, adjacency to industry, in particular the Nissan plant and its supply chain, transport links and availability makes the proposed IAMP site the most suitable for investment according to the demand study and needs analysis carried out by PWC.

225. In summary, the IAMP would allow the UK and the North East region to capture the anticipated substantial growth in advanced manufacturing and will provide more land to significantly increase the region's manufacturing capacity.

4.5 Impact on the Economy and Business

226. As outlined above, there is a shortage of suitable sites available to meet this projected demand. Evidence from Sunderland and South Tyneside Councils regarding recent investor enquiries is that the current land supply for large scale industrial development is insufficient to meet market demand. This is largely attributable to the lack of suitable large sites capable of being developed, and a lack of good quality units to meet the demands of new or expanding businesses wishing to locate in the area.

227. The IAMP Strategic Business Case outlines that once existing site capacity at Nissan has been reached it is assumed no further investment will take place in the region. It is also assumed the Nissan plant will continue to operate as it does now but will not benefit from any agglomeration or cluster impacts that would have occurred from the development of the IAMP.

228. Consequently under this view future demand would be static, or, according to the Strategic Employment Study (SD28), could even fall by around 49ha due to wider competitive pressures in the automotive sector and a redistribution of current production to plants elsewhere in Europe with grossly under utilised capacity. Re-shoring of supply chain activity to Sunderland and South Tyneside would be less likely to occur. This is likely to result in a negative scenario for NMUK:

- The status quo will not be maintained – the automotive sector in the North East will not be able to continue to operate as existing as it will be unable to implement necessary manufacturing system changes to remain competitive; and
- This would in the longer term result in Nissan production declining with the redistribution of models to other plants in the Renault Nissan Group with spare capacity and a consequent reduction in employment and revenues[11].

4.6 Conclusion

229. Demand for land for advanced manufacturing is considered to be strong and further land is required. The region has already had some strong successes in advanced manufacturing and many of these have been focused on the area close to the Nissan site, with the designation of the area as a Low Carbon Economic Area in 2010 in recognition of the area's importance in the production of Electric Vehicles and the first development on the new round of UK Enterprise Zone sites, with the Vantec's £22.5m, 40,000 sq m development on Turbine Business Park.

230. Nissan's supply chain has also seen significant growth recently in response to securing the production of new models (particularly the LEAF and the Infiniti). The Nissan production processes require certain supply activities to be located as close to the plant as possible. Overall production is expected to surpass 600,000 units per year in the near future.

231. The recent announcement of the production of the replacement Qashqai and the additional X-Trail will have a positive effect on the related supply chain activities,

[11] Expert Opinion of RPJ Consulting, 2016

some of which may seek to relocate closer to the Nissan plant and expand production.

232. Demand is strong for large floor plate developments, many of which are projects linked to growth of the automotive sector. However, the lack of large sites immediately available has meant that some projects have been turned away.

233. Sunderland City Council and the NELEP are progressing the rapid development of the Enterprise Zone 3 and adjacent land at Hillthorn Farm (together totalling 26ha). Yet whilst this offers additional land, even this is expected to fill up quickly. The IAMP proposal provides a secure land supply for when the EZ sites are occupied.

234. Further land is required for development, with the most appropriate site considered to be the IAMP site. The combination of size, adjacency to industry, in particular the Nissan plant and its supply chain, transport links and availability makes the site the most suitable.

235. On the basis of the above, the following key conclusions are made:

- The IAMP represents a nationally significant development which will help deliver the Government's objectives for the UK economy;
- The IAMP represents a major opportunity to accommodate the increasing demand in the region and will help grow the UK automotive and advanced manufacturing industries, bringing a number of strategic economic advantages to both the UK and the North East allowing the region to substantially increase the size of the current automotive cluster in the region;
- The IAMP will increase the size of the current automotive cluster in Sunderland by an amount equivalent to Nissan’s current employment levels and therefore help secure the future of the region by generating growth and jobs;
- The North East Independent Economic Review concluded that the region has the potential to be an International Leader in Trade and a leading location for Investment. The IAMP will help make this a reality;
- More business-to-business trade in the city so that the impact of further manufacturing growth is cascaded throughout the economy. The Sunderland economy is currently too reliant on a small number of large private employers; and
- The IAMP is a key part of the Sunderland City Deal which seeks to rebalance the Wearside economy and set it on a new self-sustaining growth path.

Appendix A

Inward Investment Inquiries
2008 to 2016

A1 Inward Investment Inquiries 2008-2016

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
2008	Industrial battery manufacturer		Battery Manufacture	Relocation	18,600m^2	Company was located in inefficient position in urban area. It wanted to relocate due to the strategic access of the Turbine Park.
2008	BAE Systems		Arms Manufacture	Relocation	31,600m^2	Relocating from inefficient premises.
2009	Rolls Royce		Car / aero-engine Manufacture	Relocation	30,000m^2	Relocating from inefficient premises. Chose Radial 64 site due to its capacity to accommodate both Rolls Royce's requirements and a key supplier.
2010-2011	Nissan component supplier		Car Component Manufacture	Consolidation	32,500m^2	Wanting to consolidate two existing premises onto one site. Leases issues within an existing property prevented the deal completing. Invested in North of Nissan site.
2012	Nissan component supplier		Car component Manufacture	Relocation	23,200m^2	Requirement to relocate closer to Nissan. No land available to accommodate its requirement. expanded its
2012	Fulfilment centre		Packing warehouse	Relocation	23,200m^2	Favoured Washington due to its strategic location but the

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
						only large site available had already been committed.
2012	Advanced engineering company		Engineering	Relocation	37,000m^2	Specifically wanted to be in the area due to the availability of engineering skills. No suitable land available in the area to accommodate the requirement.
2012	Vantec		Automotive Logistics Centre	Relocation	39,000m^2	To facilitate its business with Nissan and other OEMS in the region. Vantec paid £330,000 per acre which was driven by severe lack of other viable options.
2013	Japanese automotive logistics company		Automotive Logistics Centre	Relocation	18,500m^2	Approached Barmston who are currently working with the City Council to accelerate the release of Enterprise Zone land West of Nissan.
2013	German automotive components supplier		Automotive Components Supplier	Relocation	9,300m^2	Approached Barmston who are currently working with the City Council to accelerate the release of Enterprise Zone land West of Nissan.

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
2013	Japanese automotive components supplier		Automotive Components Supplier	Relocation	9,300m^2	Approached Barmston who are currently working with the City Council to accelerate the release of Enterprise Zone land West of Nissan.
2013-2015	Unknown	North East	Logistics	Expansion	4,600m^2	Creation of a new warehouse on the company's Washington site to accommodate business currently undertaken in another warehouse in the City.
2013-2015	Unknown	tbc	Supplier	New facility	9,300m^2	New occupier lined-up for a unit in Washington (tied to the above project).
2013-2015	Unknown	North America	Supplier	New facility	8,300m^2	Depends on terms of contract from Nissan. Potential occupier for Hillthorn Farm Enterprise Zone site.
2013-2015	Nissan	Japan	OEM	Expansion	6,800m^2	Planning application submitted for a new pressing facility.
2013-2015	Nissan	Japan	OEM	Expansion	Tbc	Requirement for a new paint shop by 2018 to meet EU regulations.

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
2013-2015	Nissan	Japan	OEM	New facility	Tbc	'Super Supplier' concept, bringing together purchasing from Nissan (Sunderland and Barcelona) and Renault to secure major suppliers. Possibility for IAMP Phase 1 Site.
2013-2015	Unknown	Japan	Supplier	Relocation	28,000m^2	Potential relocation from a plant located elsewhere in the region to a single 'super site' close to Nissan. Hillthorn Farm EZ site and IAMP (Phase 1) are possibilities.
2013-2015	Unknown	tbc	Supplier	New facility	Tbc	Alloy wheel manufacturer, currently looking at Sunderland (competition from Wales, which has an Objective 1 site).
2013-2015	Connor Solutions	Local	Electronics Manufacture	Expansion	1,850m^2	Expansion of plant at Rainton Bridge. Planning approval now granted.
2013-2015	Unknown	Local	Packaging	Expansion	2,600m^2	Rationalisation within the group is likely to favour the Washington site. Looking to occupy adjacent vacant unit.
2013-2015	Unknown	Germany	Advanced Engineering	Expansion	60,000m^2	Seeking to acquire a vacant site adjacent to its plant in the City.

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
2013-2015	Unknown	North East	Steel Fabrication	Relocation	2,200m^2	Likely relocation from elsewhere in the region to Stephenson Industrial Estate.
2013-2015	Unknown	Tbc	Tbc	New facility	4,000m^2	Knight Frank has a client that will take the former Coop warehouse at Stephenson if it can have additional yard space.
2013-2015	Unknown	Local	Packaging	Relocation	4,800m^2	Relocating / expanding (current site on the fringe of the City is going for housing). Looking at former Remploy premises on Pallion.
2013-2015	Unknown	Local	Door Manufacture	Expansion / relocation	4,600m^2	Requirement for a new, purpose built factory to supply doors to RSLs. Would like to develop on Hillthorn Farm EZ site.
2013-2015	Unknown	UK	Advanced Engineering	Expansion	9,300m^2	Identified need for a spares / aftermarket facility adjacent to the company's Washington plant.
2014	Unknown	UAE	Oil/Gas pipes and valves	Unknown	7,000m^2	
2014	Unknown	Germany	Offshore Wind	Unknown	37,000m^2	
2014	Unknown	Unknown	Tyre Manufacturer	Unknown	60,000m^2	
2014	Unknown	Spain	Manufacturing	Unknown	Unknown	Rail access requirement
2014	Unknown	Ireland	Tyre Recycling	Unknown	10,000m^2	
2014	Unknown	Unknown	Vaccine Manufacture	Unknown	60,000m^2	
2014	Unknown	Unknown	Solar PV Manufacture	Unknown	55,000m^2	

Date	Company	Origin	Business activity	Nature of project	Space requirement	Comment
2014	Unknown	UK	Automotive Manufacture	Unknown	161,800m^2 – 242,800m^2	
2014	Unknown	Czech Republic	Automotive Manufacture	Unknown	400,000m^2	
2014	Unknown	Turkey	Engineering Manufacturer	Unknown	2,500m^2 and 2,000m^2 expansion land	

[i] North East Independent Economic Review Report (April 2013), commissioned by the North East Local Enterprise Partnership. (SD38)
[ii] ONS (2015) UK Regional Trade Statistics Release, https://www.uktradeinfo.com/Statistics/RTS/Pages/default.aspx.
[iii] http://nelep.co.uk/wp-content/uploads/2015/02/NE-Economic-Review-Evidence-Base-Summary.pdf
[iv] Source: Arup analysis using PwC gross employment estimates.
[v] North East Automotive Alliance Members include: Nissan Motor Manufacturing UK, Nifco UK, Zero Carbon Futures UK, SNOP, Mecaplast, Drive2Business, Unipres, Elring Klinger, Lear Corporation, Calsonic Kansei Europe, Komatsu, Gestamp, TRW Automotive, Hyperdrive, Sevcon, R-Tek, RTC North, Sunderland City Council, Johnson Controls, Ford Components, Institute of Supply Chain Management, Middlesbrough College, Northumbria University.
[vi] North East Automotive Alliance, "An industry-led cluster group supporting the economic sustainable growth of the automotive sector in the North East of England" (June 2015).
[vii] The Motor Industry in the UK: A Cool Shower of Reality (2014), Prof D Garel Rhys CBE Cardiff University Business School - Commissioned by MAKE it Sunderland.
[viii] Driving success: UK automotive strategy for growth and sustainability (2013), Department for Business, Innovation & Skills. (SD26)
[ix] Driving success: UK automotive strategy for growth and sustainability (2013), Department for Business, Innovation & Skills. (SD26)
[x] The Motor Industry in the UK: A Cool Shower of Reality (2014), Prof D Garel Rhys CBE Cardiff University Business School - Commissioned by MAKE it Sunderland.
[xi] The Motor Industry in the UK: A Cool Shower of Reality (2014), Prof D Garel Rhys CBE Cardiff University Business School - Commissioned by MAKE it Sunderland.
[xii] Driving success: UK automotive strategy for growth and sustainability (2013), Department for Business, Innovation & Skills. (SD26)
[xiii] Sunderland & South Tyneside Strategic Employment Study (2013), PricewaterhouseCoopers (PwC). (SD28)
[xiv] http://www.sunderlandecho.com/news/business/nissan-juke-decision-a-massive-vote-of- confidence-in-sunderland-1-7443662.
[xv] IAMP: Impact Analyses Topic Papers (2015), Arup.
[xvi] Strategic Employment Study (PWC, August 2013). (SD28)