

Sunderland City Council and South
Tyneside Council

**International Advanced
Manufacturing Park -
Impact Analyses**

Topic Papers Summary

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Introduction

Sunderland City Council and South Tyneside Council are working jointly to secure the development of an International Advanced Manufacturing Park (IAMP) on land to the north of Nissan in Sunderland and South Tyneside.

The development will comprise of around 100 ha, suitable for uses within the automotive and advanced manufacturing sectors, along with some distribution uses linked to these growth sectors. The IAMP is expected to create approximately 5,200 jobs on the site.

Four topic papers have been prepared examining the issues of Skills, Employment Land, Housing market and Displacement impacts of the IAMP.

The papers will be used as part of the evidence base to inform the emerging development plans of the two Councils.

It should be noted that the papers have used the development assumptions as set out in the PwC Strategic Business Case and City Deal submission document, i.e. a 100 ha site creating approximately 5,000 jobs. The Green Belt and Site Selection Options Paper also allows for the potential longer-term expansion of IAMP up to around 170 hectares.

2 Key Conclusions

The following sections provide a summary of key conclusions outlined in the four topic papers.

2.1 Skills

The purpose of the paper is to report on finding concerning the skills demand and distribution of the workforce associated with the development of the IAMP.

The methodology used to review the skills implications of the IAMP has been as follows:

- Stage 1: Review the socio economic characteristics of the workforce associated with an Advanced Manufacturing economy based on a literature review.
- Stage 2: Forecast the expected workforce structure for the IAMP based on output from Stage 1 based on complete occupation;
- Stage 3: Review data concerning the current pattern of workforce journey to work movements of a sample of existing companies (Nissan and two supply chain companies), as a reliable predictor of future movement; and
- Stage 4: Distribute the predicted IAMP workforce in accordance with a distribution derived from Stage 3.

The analysis is based on examining the IAMP at a fixed point in time when it is completed. This has the merit of allowing appreciation of the overall magnitude of effect on the workforce.

As a precursor to establishing future skills demand for IAMP, a literature review has also been undertaken to define how this sector is likely to drive skills demand.

The key conclusions made the paper include the following:

- The labour market catchment model was developed following a review of the workforce associated with the advanced manufacturing and automotive sectors.
- A review of data concerning the current pattern of workforce journey to work movements was undertaken (as a reliable predictor of future movement), followed by a distribution of the workforce in accordance with data derived from Stage 3.
- Knowledge workers are expected to be an important element in the IAMP workforce with an estimated 37% of the 5,228 jobs attributable to this kind of work.
- The analysis of a sample of existing companies (Nissan and two supply chain companies) shows that the four local authorities closest to the IAMP site (Sunderland, South Tyneside, County Durham and Gateshead) account for the largest shares (78 – 87%) of the workforce residences.

- The workforce predicted for IAMP includes 83% of whom 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.
- This projected distribution of workforce does not however offer any insight into the policy or physical capacities of settlements to absorb additional households. As such the modelling methodology is policy neutral.
- The predicted distribution of the IAMP workforce shows that certain areas within the North East are better placed to attract future IAMP workers than others based the current residential distribution of workers involved in activities likely to predominate in the IAMP. Certain areas such as 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.
- 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.

2.2 Housing

The primary objective of the paper is to assess at a high level any potential additional housing requirements within the North East LEP (NELEP) area as a result of the development of the IAMP created by the additional workforce. The paper therefore examines two key aspects: how many additional households could be created through additional job growth; and the range of dwellings which would be appropriate for these households.

To meet this objective, the following specific aspects were examined:

- The likely number of additional dwellings required to house the employees of the IAMP.
- The likely profile of the IAMP workforce which establishes the type of housing that may be required.
- The current dwelling profile by “Head of Households” Standard Occupational Classification (SOC) across County Durham, South Tyneside and Sunderland and how that data informs this study.
- What the housing aspirations are by SOC to examine if there is any notable variation between aspirations and current dwelling profile.
- The current preferred locations for employees living in Durham, Sunderland and South Tyneside.
- The extent to which the recent residential property market offer meets the aspirations of the IAMP workforce.

In developing the range of properties required to house the employees of the IAMP, the approach has been to use primary household survey data, collected as part of

the Strategic Housing Market Assessments (SHMAs) to identify the property type and sizes that the workforce of the proposed IAMP will aspire to.

The analysis seeks to establish the potential range of dwellings required based on the potential number of IAMP employees. Four scenarios were developed, ranging from 50% of the IAMP employees moving to the North East to work and 50% of employees already living in the North East, to 5% of the IAMP employees moving to the North East to work and 95% of employees already living in the North East. It should be noted that the scenarios are theoretical and simply explore the impact on dwelling requirements.

The key conclusions made the paper include the following:

- Approximately 5,200 people would work at the IAMP but they would be drawn from a wide geographical area but with a focus on County Durham, Sunderland and South Tyneside.
- Around three-quarters of IAMP employees (73.5%) are expected to live in Sunderland, County Durham and South Tyneside.
- Within the three key local authorities, 69.1% of existing residents live in Detached 4 bed, Semi-detached 1-3 bed and Terraced 1-3 bed properties. There are some variations by SOC, most notably higher proportions of SOC1 (management) and SOC2 (professional/technical occupations) living in Detached 4 bedroom and Semi-detached 3 bedroom properties. Of SOC6 (sales/customer service) to SOC9 (elementary occupations) households, 34.7% currently live in terraced dwellings.
- The data would suggest a need to increase the proportion of detached 4 bed and semi-detached 3 bed properties on new developments to reflect the profile of dwellings required by SOC1 and 2 groups.
- Within the current household context the strongest aspirations are for detached properties with 3 or 4 bedrooms and there is particular interest in bungalows amongst SOC 5, 8 and 9 groups according to aspirations reported in household surveys. Three bed semi-detached properties also rank relatively highly on the aspiration preferences.
- It is anticipated that the existing housing stock would provide the majority of housing required, particularly as employees are likely to be already living in the region. However, there is a need for additional larger semi-detached and detached properties.
- The paper supports the need for an additional 261-523 dwellings based on 90-95% of workers already residing in the sub-region. Differing assumptions allowing for higher levels of in-migration would result in higher dwelling demand, ranging between 1,307 and 2,614 properties.

2.3 Displacement

The primary objective of this Paper was to assess any potential displacement effects on other economic locations within the North East Local Enterprise Partnership (NELEP) area.

The scale of the proposed IAMP and associated investment of public funds means that it is critical that the project maximises its net economic impact on the economy. The assessment uses the gross jobs estimate for the scheme provided by PwC's

Strategic Business Case work as the starting point from which to estimate net impacts.

To meet this objective, the following specific aspects were examined:

- 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 in neighbouring local authorities.

Understanding the potential displacement and economic multiplier effects of the IAMP will assist in identifying strategies that can be pursued to maximise the net additional economic contribution of the project.

The key conclusions made in the paper include the following:

- The PwC analysis indicates that the majority of occupiers from the automotive sector are likely to represent new inward investments from firms that do not currently have representation in the area (or even UK).
- An analysis of the net additional employment impacts of the IAMP has been undertaken. The results indicate that the project will generate 11,229 net additional jobs in the NELEP area under a central case.
- Locations that could be particularly vulnerable to automotive supply-chain company movements to IAMP include the Washington and Pennywell areas.
- This finding is critically dependent on the original IAMP demand case for automotive space established by PwC and that the occupier profile of the IAMP reflects this estimated demand profile i.e. with around 74% of space being occupied by firms from the automotive sector.
- A number of firms with strong relationships to Nissan are currently located in these areas and some of the space they are occupying is dated or near the end of its life.
- Overall, the scale of displacement in the automotive sector is likely to be limited however since the majority of other major existing and planned employment locations do not have an automotive focus.
- 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.
- 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.
- The multiplier effects associated with the IAMP may generate the following benefits to the wider area: 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; Increased leverage of innovation potential.

2.4 Employment Land

This Paper examines the issues around the impact of IAMP on existing and proposed strategic employment sites

The primary objective of this paper is 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.

There was a particular emphasis on examining the employment land proposals in each area, in order to gain a greater appreciation of how the IAMP will integrate into the North East economy.

The success of a robust strategy to encourage long-term investment from the private sector in the property market to develop new space and to help to replace employment premises that have and, over the life of the project, will have reached the end of useful life is seen as being critical to the IAMP project.

The key conclusions made in this paper include:

- Nissan has attracted a large supply chain. Because 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 at a longer distance.
- 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 three locational factors of proximity to market, labour and materials.
- 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.
- The greatest pull is likely to be from relatively local locations in Sunderland and South Tyneside, particularly from businesses in dated space, driven by an improved offer, connectivity and access to input/output markets.
- Washington is one of the two prime locations for employment space in this region. The general condition of industrial units in Washington are reaching an age where major work to refurbish or redevelop will be required in the short to medium term. Therefore the challenge for the Washington area is one of managing change: much of the buildings within the area were built from the early 1970's and are becoming dilapidated and not energy efficient, it is likely that occupiers will begin to seek better alternative buildings, particularly as the costs of production and occupation increase.

- Some smaller accommodation has recently been refurbished and is offered on the market to let. Similar circumstance might arise farther afield as the churn in the market begins to operate.

3 Recommendations

The following provides a summary of key recommendations outlined in the papers.

3.1 Skills

- Consideration be given to how policy might affect the distribution of workers based on the current pattern of restraint and growth.
- Opportunities should be sought within Sunderland and South Tyneside to create residential environments attractive to knowledge workers.
- Consideration of the capacities within the skills supply institutions to create the human capital necessary to turn the opportunity created by IAMP into real economic benefits.
- Consider broadening the sample basis of the workforce data to improve accuracy of future interactions of the labour model.
- Review trends in key process technologies to determine how future automation might affect the employment prospects of knowledge workers themselves which may reduce demand for certain classes of worker.

3.2 Housing

- When new developments are being proposed, Councils should consider the extent to which this will reflect the type/size dwelling profile aspirations and expectations of IAMP employees as evidenced in the study.
- In particular, the available evidence would suggest the development of 3 and 4 bedroom detached houses, semi-detached houses with 3 or 4 bedrooms would be appropriate for IAMP employees;
- When considering Objectively Assessed Housing Needs, Councils should acknowledge the role of the IAMP in delivering economic growth and a potential impact on overall housing numbers
- Under the Duty to Co-operate, Councils should consider how the development of the IAMP is likely to affect their housing markets and the impact should be regularly reviewed.

3.3 Displacement

- Consider how the IAMP could best play a central role in increasing automotive and advanced manufacturing across the local area and wider NELEP area.
- Explore how the potential displacement from local locations (e.g. Washington) can be used as an opportunity for the replacement of aging property stock that can in future years capitalise on the increased demand for space brought about through multiplier effects.
- Explore the potential phasing of the project in further detail, in particular to ensure that supply is brought forward incrementally taking into consideration the timing of other planned developments.

- Maximise the potential for induced effects to support development in Sunderland city centre, for example by examining the type of retail and services offer that might be demanded by the expected demographic if new incoming workers who make the area their residence.
- Incentivise larger automotive firms to locate at the IAMP in Phase 1. This will contribute toward forging the IAMP's identity as a focus for the automotive sector and establish its place as a central hub that can work together with other employments sites to provide an integrated offer.
- Develop a plan that enables the IAMP to adapt should demand from the UK automotive sector fall substantially short of forecasts.

3.4 Employment Land

- Manage the change, so as not to frustrate the market but to facilitate relocation where it is desirable for the occupier.
- Reinforce the activity being implemented through the North East Combined Authority and the NE LEP to market the region to attract further investment.
- Extend the collaboration amongst neighbouring councils and LEP's to help to facilitate the change that the IAMP and other strategic objectives and projects that are being proposed through the Strategic Economic Plan.
- Implement customer relations management systems for local businesses to help to facilitate the asset management of the existing employment stock of property in Sunderland area in general and Washington in particular.
- Implement research and monitoring of the supply and take up of employment land and premises to more easily identify need and forecast the provision for investment and development.

