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Swindon and Wiltshire Functional Economic Market Area Assessment

Final Draft Report

Prepared on behalf of Swindon Borough Council and Wiltshire Council

December 2016

Contents

Technical Appendices are contained within separate volumes.

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Executive Summary

Hardisty Jones Associates was instructed by Swindon Borough Council and Wiltshire Council to undertake a Functional Economic Market Area Assessment.

The project brief set out the following objectives for the FEMA Assessment:

- An assessment and definition of the local functional economic market areas relating to Wiltshire and Swindon using the most up to date and robust information available; and
- An objective assessment of employment need for Wiltshire and Swindon per FEMA, in terms of number of jobs by sector and in terms of land by employment use.

More specifically the brief asked for reflection and advice on:

- Understanding of the economic conditions in the area and how they affect residents and businesses;
- Understanding of the local economic geography, including the economic linkages between the area being assessed and the wider economy;
- Understanding of the local constraints to economic growth and employment and the risks to delivering sustainable economic growth;
- Understanding the comparative strengths and weaknesses of the local economy and the nature and form of local economic challenges and opportunities; and
- The employment needs of the area, in terms of number of jobs to be created and by employment use in Wiltshire and Swindon.

Defining FEMAs

A functional economic market area (FEMA) is not constrained by administrative boundaries but reflects the way the economy works; the relationships between where people live and work, the scope of service market areas and catchments. This assessment has drawn together an array of evidence to help identify the functional economic geography of Swindon and Wiltshire. The conclusion is that there are three FEMAs.

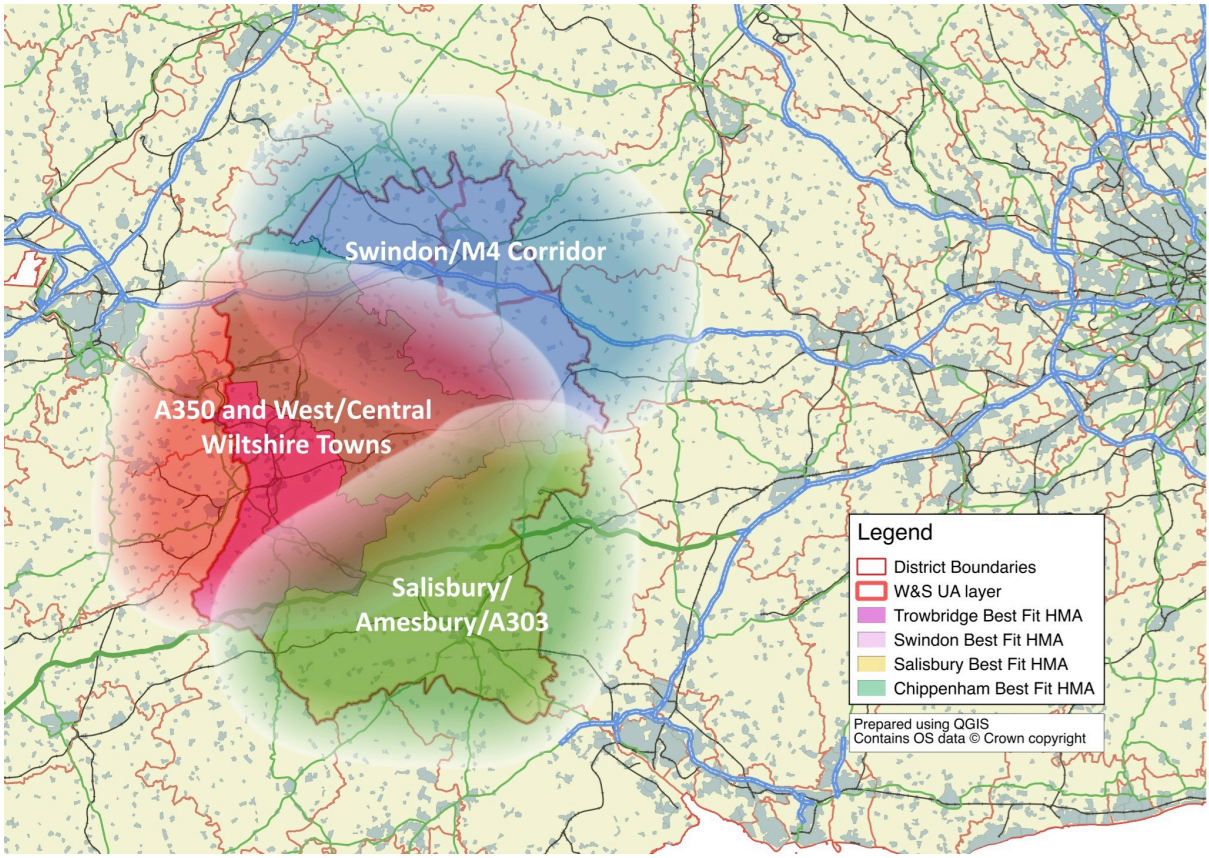
- A Swindon/M4 Corridor FEMA in the north of the area which extends beyond the Swindon Borough administrative boundary. The area includes parts of northern Wiltshire, the southern reaches of the Cotswold District and parts of the western reaches of Oxfordshire and Berkshire. However, the core is clearly within the Swindon and Wiltshire administrative area. The M4 and Great Western Mainline provide obvious east-west connections and there are linkages in both directions. However, the sentiment of stakeholders is very much of a business focus that looks eastward primarily, toward Oxford and the Thames Valley. The electrification of the Great Western Mainline coupled with Cross Rail will improve accessibility to and from London into this FEMA in the coming years.
- An A350 Corridor and West/Central Wiltshire Towns FEMA. This overlaps part of the Swindon/M4 Corridor FEMA with the town of Chippenham falling into both. Defined primarily by the A350 this is a polycentric FEMA that does operate as a corridor, whereby the northern and southernmost towns may not have strong connections to one another directly, but each settlement has connections with those to its north and its south. There are connections primarily to the west and the town of Frome and into the City of Bath and its hinterland. However, the connections with Bath are primarily

outward from western Wiltshire and not inward. When looking at workplace based data the core of the FEMA falls within the Wiltshire administrative area.

- A Salisbury/Amesbury/A303 Corridor FEMA in the south and east of the area. Again there is overlap with the A350 FEMA in particular, although Salisbury Plain provides something of a natural geographical barrier. The role of the military around the edges of the Plain create connections. This FEMA tends to look more to Southampton and to London (through strong commuting links). The core of the FEMA in travel to work terms is within the Wiltshire administrative boundary, although there are links to Andover within Test Valley and into North Dorset and the New Forest.

This assessment has found good fit with the Housing Market Areas (HMAs) identified in the Strategic Housing Market Assessment (SHMA) being undertaken alongside the FEMA assessment. The HMA analysis identified two HMAs that cover the A350 Corridor area.

Figure 1: FEMAs for Swindon and Wiltshire with HMAs



Economic Conditions

Swindon has high GVA per capita and per worker, however, growth in GVA in recent years has been below benchmark areas. Wiltshire has the reverse, with lower than average GVA per head and capita, but has experienced stronger growth. A similar pattern is seen in the employment data, with Wiltshire adding jobs far more rapidly than Swindon in recent years. In combination the area broadly tracks the national average.

Labour market participation is high, however there are weaknesses in terms of the skills base, particularly in Swindon, and concerns relating to the level of higher education provision in the area.

Innovation and R&D statistics are very positive, with strong sectoral strengths in science, advanced manufacturing and ICT as well as high value services. Financial services has exhibited strong employment growth in recent years.

The Swindon FEMA has notable concentrations in motor vehicle manufacture, pharmaceuticals and electronics. Science and R&D and financial and high value services are also concentrated as well as warehousing and logistics related sectors. It has the lowest concentration of public services employment of the three FEMAs.

The A350 FEMA has a broad based economy with a particular manufacturing emphasis. A range of manufacturing sub-sectors show concentration, with the manufacture of furniture the most notable. However, there is also a concentration of financial services employment, public services and elements of the tourism and leisure sector.

The Salisbury/A303 FEMA has a very high concentration of scientific research and development employment and information services. The health sector is also prominent as well as the military. Overall this FEMA has fewer sectors showing substantial concentrations relative to the national average.

SWOT Analysis

Strengths

The Swindon and Wiltshire area is located close to a range of successful economic centres with good arterial infrastructure, particularly in the northern parts of the area. There is a strong knowledge based economy with high levels of innovation activity. Swindon is home to a number of major UK and international businesses with a strong track record of attracting foreign direct investment. The Borough has high levels of productivity as measured by GVA per worker. There is also a strong SME base with high levels of business survival across the area. The military is a key asset to the area. High levels of labour market participation are a further strength.

Weaknesses

Transport connectivity within and across much of Wiltshire is regularly cited as a weakness. This creates unreliable journey times. There are some concerns as to the economic competitiveness of the area with lower GVA growth relative to stated competitor and benchmark locations. This is coupled with some concern relating to skills levels and the lack of higher education provision. There is a high percentage of firms reporting skills gaps. Negative perceptions of Swindon, particularly related to its town centre is a reported weakness. There are high levels of out-commuting from Wiltshire, particularly among highly skilled and qualified workers.

Opportunities

There are plans for urban expansions across key settlements as well as road and rail infrastructure improvements. There are also significant development plans for Swindon town centre to improve the leisure, culture and employment offer. Coupled with plans to improve higher education infrastructure there are opportunities to tackle the majority of identified weaknesses. The military rebasing project has the potential to relocate 4,000 service personnel plus their families to the area.

A range of sector based opportunities, relating to the key sectors identified in this research are cited including life sciences, ICT and advanced manufacturing.

Threats

There is an overarching uncertainty as a result of the UK's vote to leave the EU, which is not specific to the Swindon and Wiltshire area. Looking within the area there is concern as to the level of congestion and capacity issues on the road network with uncertainty as to whether the intra-area transport issues have sufficient resources to be tackled. There are also more general concerns on public sector resources and an historic failure to deliver some major regeneration projects. There are external threats from competitor locations along the M4 corridor. The improvements to rail connectivity along the Great Western Mainline could become a threat if it allows improved out-commuting opportunities to these competitor areas, including London. There is also concern at recent divestments in the financial services sector in Salisbury. Linked to existing weakness, the issue of workforce skills is regularly cited as a threat, with a growing demand for skilled labour but low higher education participation and provision. This could present a continued threat to the on-going competitiveness of the area.

Future Employment Growth Scenarios

Economic forecasts have been purchased from Oxford Economics and Cambridge Econometrics. These suggest GVA growth over the 2016-2036 period slightly ahead of recent historic averages, with employment growth at a similar scale to that witnessed over the 2000-2013 period. However, some rebalancing of growth within the area is forecast, with Swindon anticipated to perform more strongly than the 2000-13 period in both GVA and jobs terms, with Wiltshire a little less so.

The econometric forecasts have been reviewed in detail against local circumstances and knowledge. A number of adjustments have been recommended to reflect these circumstances including the Army rebasing project in Wiltshire and committed investments in the motor vehicles manufacturing sector in Swindon. The levels of growth have also been cross-checked with growth in the supply of labour within the SHMA. This has indicated that growth figures towards the top of the range are achievable, with minor adjustments to housing delivery across the area.

Tables 1 and 2 provide a summary of employment by sector and Use Class which emerge from the forecast analysis. This includes provision for approximately 15,000 net additional jobs within the Swindon FEMA, 13,800 jobs within the A350 FEMA and 11,400 jobs within the Salisbury FEMA. Employment growth will be spread across the Use Classes as well as substantial growth not requiring any direct sites and premises provision.

Future Sites and Premises Requirements

There is a range of methods for assessing the future sites and premises requirements for the differing Use Classes. These requirements will in part be driven by the growth in the economy in order to accommodate new jobs, but also through a requirement to upgrade existing sites and premises to ensure a supply that meets the requirements of modern occupiers.

Table 1 Forecast Employment Change by Sector by FEMA 2016-3036

Sector	Swindon	A350	Salisbury
Primary Industries	-400	-500	-500
Manufacturing	-2,000	600	-1,100
Utilities	-100	-100	0
Construction	2,400	2,800	1,000
Wholesale and Retail	1,400	900	500
Transport and Logistics	1,100	100	0
Accommodation and Food Service	1,500	700	300
Information and Communication	500	800	300
Financial and Business Services	6,100	4,600	4,300
Public Administration and Defence	-500	-900	3,500
Education and Health	3,000	2,900	2,000
Other Services	2,100	1,800	1,200
Total	**15,000**	**13,800**	**11,400**

Table 2 Forecast Employment Change by Use Class by FEMA 2016-2036

Use Class	Swindon	A350	Salisbury
A1	1,800	1,200	700
A2	200	100	100
A3-5	1,100	400	200
B1a	3,700	2,900	3,500
B1b	500	500	1,500
B1c	100	200	0
B2	-1,600	600	-900
B8	500	100	0
C1	200	300	100
C2	1,300	1,400	1,100
D1	1,600	1,300	1,700
D2	500	300	200
Sui Generis	600	600	500
None	4,400	3,900	2,700
Total	**15,000**	**13,800**	**11,400**

Within the A Use Class there is forecast growth across all three FEMA areas. Specific retail sector evidence based on market potential will provide an alternative and more traditional means of assessing future Floorspace requirements. Based on employment change indicative requirements to accommodate expansion are set out within Table 3. The figures for A1 should be seen as a minimum, with many retail activities operating at much lower densities. In addition to accommodating a growing retail requirement it may be necessary to facilitate the redevelopment of town centres and retail space across the area. It is anticipated that this would primarily take place within existing town centres and is not an area covered by this research.

Table 3 Net Additional Floorspace in the A Use Class (sq m) per FEMA 2016-2036

Use Class	Swindon	A350	Salisbury
A1	42,300	29,270	16,590
A2	4,230	980	1,150
A3-5	23,210	9,180	5,040

Within the B Use Class there is substantial employment growth forecast within the office sector. However, growth in B1b research and development, B1c light industry and B8 warehousing and logistics premises is also forecast. Employment is forecast to decline across much of the B2 general industrial sector.

However, as well as the need to adjust for the changing scale of employment in each sector there is a need to ensure the overall stock is fit for purpose. This will require the provision of sites to enable the delivery of new office and industrial stocks across the area. Whilst the manufacturing sector has been in employment decline in the UK for many years there continues to be an active development industry relating to industrial space.

HJA has modelled future requirements to ensure there is land available to deliver this upgrading of stocks as well as accommodate future employment change. Table 4 sets out the results of the analysis. Overall this analysis suggests a requirement for up to 19 hectares per annum, of which up to 15 hectares per annum should be identified through supply. This adjusts for new employment development which will take place on existing employment sites. This compares to historic total completions of around 20 hectares per annum across the area.

Table 4 Estimates of Floorspace and Land Requirements per FEMA 2016-2036

	Swindon/M4 Corridor		**A350/West/Central Wilts Towns**		**Salisbury/Amesbury/A303**	
	Office	**Industrial**	**Office**	**Industrial**	**Office**	**Industrial**
Total Stock	583,600	1,888,900	284,300	1,540,900	125,800	707,300
Replacement Provision (A)	169,000	377,800	56,900	308,200	25,200	141,500
Net Additional Requirement (B)	48,700	17,500	37,600	69,800	45,900	60,300
Total Requirement (C = A+B)	217,800	395,200	94,500	378,000	71,000	201,800
Delivered on Existing Employment Sites (D)	43,600	79,000	18,900	75,600	14,200	40,400
Remaining Requirement (E = C-D)	174,200	316,200	75,600	302,400	56,800	161,400
Flexibility Allowance (F=Ex10%)	17,400	31,600	7,600	30,200	5,700	16,100
Total Requiring Provision (G=E+F)	**191,600**	**347,800**	**83,100**	**332,600**	**62,500**	**177,500**
Average Annual Requirement	*9,600*	*17,400*	*4,200*	*16,600*	*3,100*	*8,900*
Total Land Requirement	**19.2 - 47.9**	**87.0**	**8.3 - 20.8**	**83.1**	**6.3 - 15.6**	**44.4**
Average Annual Requirement	*1 - 2.4*	*4.3*	*0.4 - 1*	*4.2*	*0.3 - 0.8*	*2.2*

1 Introduction

1.1 Project Scope

Hardisty Jones Associates Ltd (HJA) is part of a team led by Opinion Research Services (ORS) delivering both a Strategic Housing Market Assessment (SHMA) and Functional Economic Market Area (FEMA) Assessment for Wiltshire Council and Swindon Borough Council.

The project brief set out the following objectives for the FEMA Assessment:

- An assessment and definition of the local functional economic market areas relating to Wiltshire and Swindon using the most up to date and robust information available; and
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- Understanding the comparative strengths and weaknesses of the local economy and the nature and form of local economic challenges and opportunities; and
- The employment needs of the area, in terms of number of jobs to be created and by employment use in Wiltshire and Swindon.

This study therefore deals with land demand side issues only. It is intended to set the strategic context for more detailed local evidence, research and policy development.

In response, the FEMA Assessment comprised three stages:

Stage 1: Defining the Functional Economic Market Area and Baseline Assessment including data analysis and review, documentary review and stakeholder consultation.

Stage 2: Agreeing Economic Forecasts and Scenarios including the purchase of economic forecasts from two leading forecasters and detailed assessment of these in the light of local evidence from Stage 1.

Stage 3: Assessing Future Land Needs and Implications to Deliver Growth based on the outputs of Stage 2.

It was agreed at the inception meeting for the project that the forecast period to be considered would be the twenty years 2016-36.

This is the final summary report. This is supported by a series of appendices containing supporting information and technical analysis.

1.2 Planning Practice Guidance

Section 2a of Planning Practice Guidance (PPG) covers *Housing and Economic Development Needs Assessments.* It clearly establishes the need for an *objective* assessment of need. It should be based on unbiased evidence and not be subject to constraint (e.g. land supply, historic underperformance, viability, infrastructure or environment).

PPG notes that *there is no one methodological approach … that will provide a definitive assessment of development need*. However, it sets out methodological guidance, which is *strongly recommended*.

In order to meet the terms of the PPG the evidence set out in this report has been commissioned by the two local authorities working in partnership, and in consultation with a range of local stakeholders and neighbouring local authorities. This has included consultation with the local business and property development community.

Functional economic market areas have been identified as the first stage of the study, in line with the requirements of PPG. Further detail is set out at Appendix 1.

PPG 2a-032-20140306 deals with how future trends should be forecast. It states that *local authorities should develop an idea of future needs based on a range of data which is current and robust.* It goes on to say that plan makers should consider:

- *Sectoral and employment forecasts and projections (labour demand)*
- *Demographically derived assessments of future employment needs (labour supply)*
- *Analyses based on the past take-up of employment land and property and/or future property market requirements;*
- *Consultation with relevant organisations, studies of business trends, and monitoring of business, economic and employment statistics.*

All of these approaches have formed part of this assessment.

2 Defining FEMAs

Appendix 1 sets out a full discussion of the work undertaken to review and assess relevant functional economic market areas for Swindon and Wiltshire. This chapter sets out a headline summary and conclusions.

2.1 What is a FEMA?

Policy guidance is clear on the need to, and value of, preparing evidence at the appropriate functional geographical area. This ensures that policy is based on evidence that better reflects the real world, rather than being necessarily constrained by administrative boundaries.

The guidance is also clear that there is no definitive approach to assessing FEMAs, and as a result there is no definitive map of FEMAs. However, there is broad consistency about the nature of evidence that should be considered where available, and the need for multiple datasets to be assessed wherever possible. It is also consistent that there is a need for a mix of quantitative and qualitative assessment when defining FEMAs. This particularly reflects the fact that much of the data that may be helpful to assess FEMAs does not exist or is not readily available.

The approach used to inform this analysis draws on both quantitative and qualitative evidence, considering existing FEMA research, analysing available relevant data and testing the emerging findings through consultations with stakeholders.

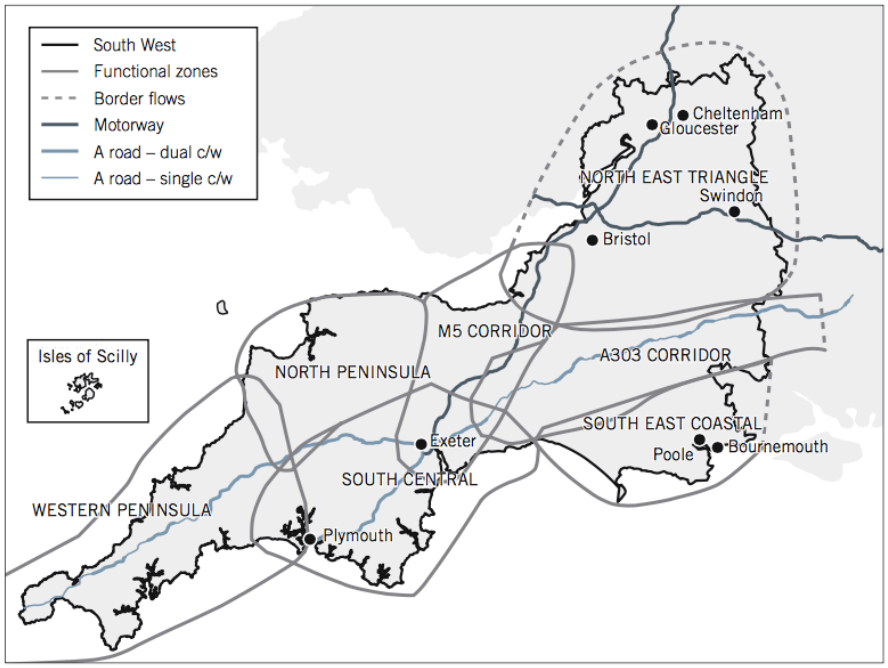
2.2 Previous FEMA Research

There are two historic regional studies that considered functional economic market areas in the South West. The first, which comprised a number of studies undertaken by DTZ Pieda Consulting for the South West Regional Development Agency (SWRDA) led to a map of functional zones that has been referenced widely in subsequent research and policy. Whilst the zones were developed using data which might now be considered substantially out of date, when tested with stakeholders in 2010 the zones were thought to still be generally appropriate.

Research in 2010 by SQW to inform the development of Local Economic Assessments did not generate an update or alternative assessment of functional economic market areas, although it did provide some validation of the earlier DTZ work as noted above.

The output of these historic studies suggests that the Wiltshire and Swindon area falls within two broad functional zones, and there is something of a north-south divide. Swindon and the northern parts of Wiltshire fall within a large functional zone that extends west to Bristol and north to Gloucester and Cheltenham. It is also shown to have porous boundaries into south Wales, the West Midlands and the south east of England. The southern parts of Wiltshire are shown within a separate functional zone that is characterised by the A303 corridor running east-west. This includes Salisbury as well as Yeovil and Taunton and is shown to have porous boundaries to the east stretching towards Andover. These functional zones are illustrated in figure 2.1.

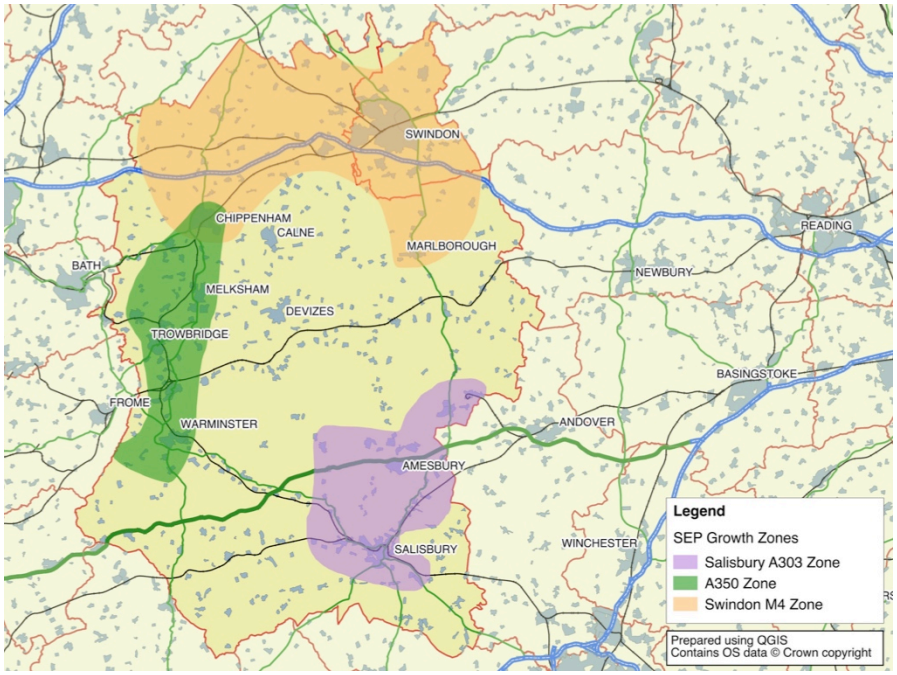
Figure 2.1 South West Functional Zones (2004)



The SQW study pointed to some factors that may change FEMA boundaries. Since the publication of these research reports, the 2011 Census has been published, allowing analysis of more recent travel to work data. Given the passage of time it is appropriate to consider whether the FEMAs are still relevant, and from a Swindon and Wiltshire perspective, whether there are finer grained relationships that need to be understood.

The Swindon and Wiltshire Local Enterprise Partnership (LEP) has identified three growth zones within the LEP area. These do not cover the entirety of the two local authority districts and are not described as FEMAs. These are shown in figure 2.2.

Figure 2.2 Strategic Economic Plan Growth Zones



Research into FEMAs within adjacent LEP areas does not suggest any best-fit FEMAs that incorporate Swindon or Wiltshire administrative areas. However, some linkages around the fringes are noted.

2.3 Other Evidence

2.3.1 Travel to Work

The three types of functional catchment area mapping that are often undertaken are travel to work areas (TTWAs), housing market areas (HMAs) and retail catchments.

TTWA analysis has some limitations in that the approach adopted by ONS does not allow for overlapping areas. Whilst there are some benefits to this approach, it also means that the reality of complex overlapping commuting patterns are not fully captured in the final map. Both 2001 and 2011 TTWA analysis suggests three distinct zones in Swindon and Wiltshire. One focused on Swindon, one on the west Wiltshire towns and one on Salisbury. The 2011 TTWAs are shown in figure 2.3.

Figure 2.3 2011 Travel to Work Areas (Source: ONS)

2011 Census travel to work data is potentially the best available flow data on which to define FEMAs. The latest available travel to work data suggests three functional zones centred on Swindon, the west Wiltshire towns and Salisbury/Amesbury. There are some connections to areas outside the administrative areas of Wiltshire and Swindon, primarily Cirencester (Cotswold), Frome (Mendip) and Andover (Test Valley). There is also a clear out-flow relationship to Bath. The relationships outside the administrative areas of Swindon and Wiltshire are generally much stronger for out-commuting than in-commuting. These flows are shown in figures 2.4 and 2.5, both charts show flows of at least 50 persons between Mid Layer Super Output Areas (MSOAs). Full flow mapping is presented within Appendix 1.

Figure 2.4 Workplace based commuting flows (where to S&W based workers travel to live)

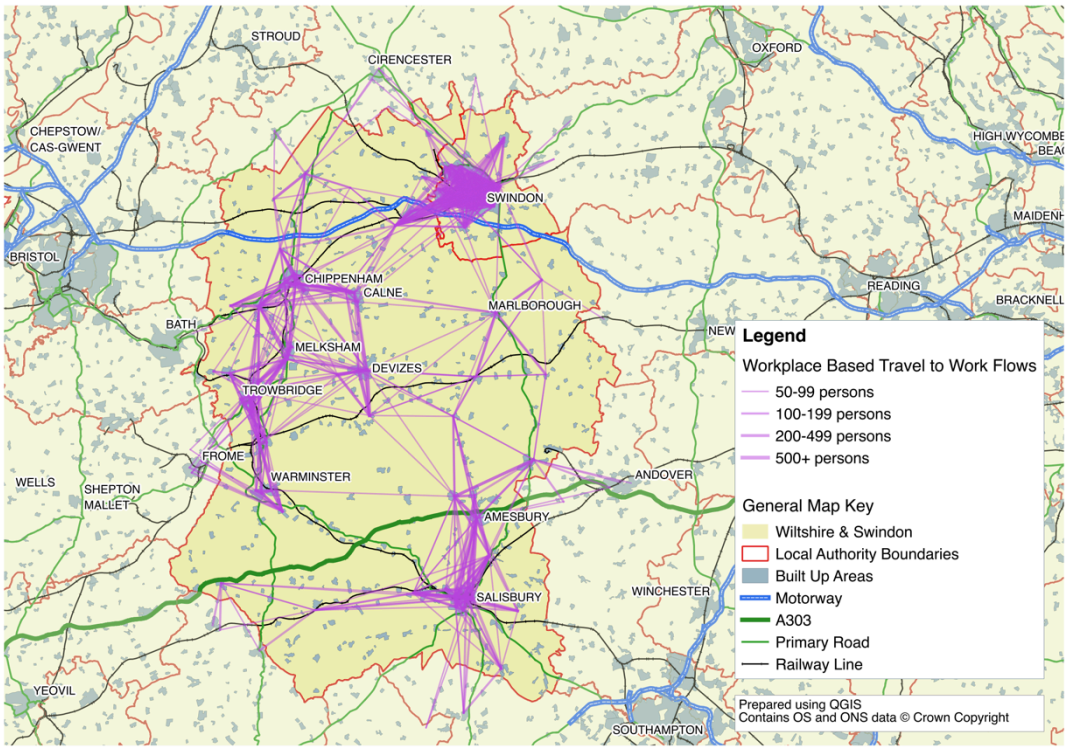
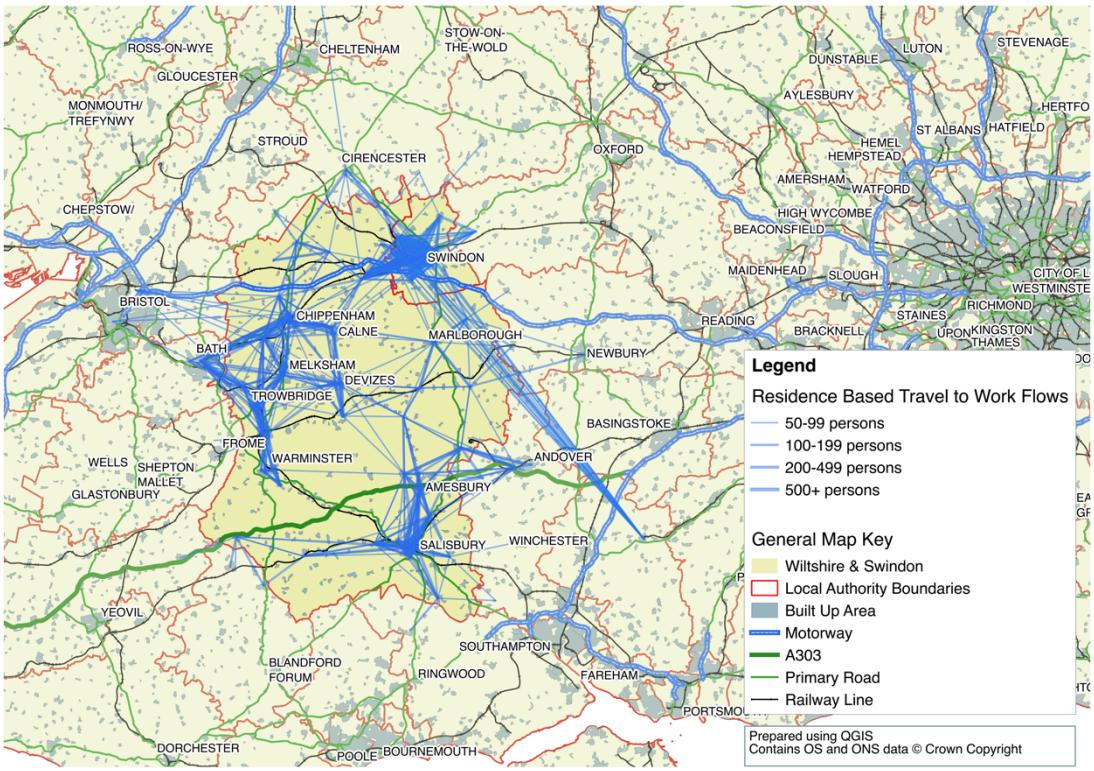


Figure 2.5 Residence based commuting flows[1] (where do S&W residents travel to work)



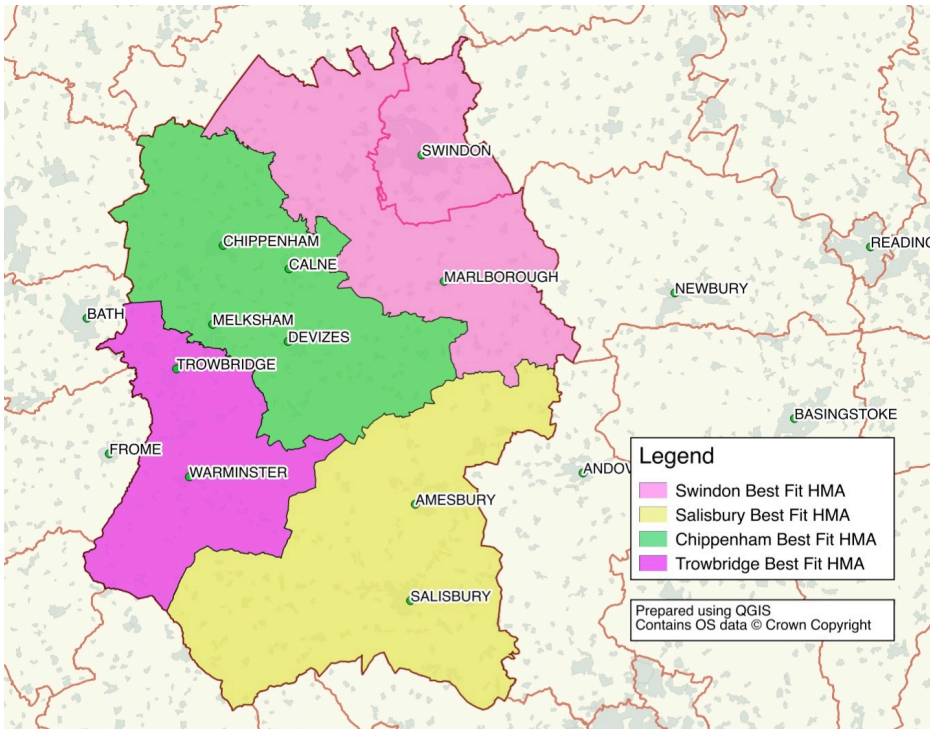
[1] Evidence of an error in the data showing major out commuting relationship from Swindon to rural location to the east of Winchester. This has been checked and no explanation for such a relationship can be identified. Assumed coding error.

[2] Total GVA data is provided in current prices. Therefore the effects of inflation are not removed. No official ONS data is provided in 'real'

2.3.2 Housing Market Areas

Housing Market Area (HMA) analysis has recently been updated by ORS and indicates four HMAs: Swindon, Salisbury and two in covering west and central Wiltshire along the A350. The Best Fit HMAs as developed by ORS are shown in figure 2.6.

Figure 2.6 Housing Market Areas



2.3.3 Retail Catchments

Retail catchment analysis shows a complex picture. This broadly supports the three area approach as suggested by TTWA analysis, with clear external influences from Bath and Southampton and quite localised catchments for the west Wiltshire towns.

2.3.4 Health Service

There is limited data on service markets and supply chains. Health service structures use a range of geographical areas. NHS Foundation Trusts give support to the concept of Swindon/north Wiltshire and Salisbury centred functional zones as well as links into the Bath area. Clinical Commissioning Group structures also separate Swindon from Wiltshire and broadly align to local authority administrative boundaries.

2.3.5 Media Catchments

Media catchment areas give a complex picture. Local newspaper coverage suggests three broad areas which align to the travel to work data, centred on Swindon, the west Wiltshire towns and Salisbury/Amesbury. There is evidence of more complex patterns in west Wiltshire, with some papers covering more localised catchments, which is in keeping with the retail evidence. TV coverage areas show separation of Salisbury/Amesbury from the west Wiltshire area. For west Wiltshire the region extends westwards towards the West of England and in the south it looks south

and east. It also shows much of Swindon as part of a region that extends eastwards, rather than to the west.

2.3.6 Summary

Overall the evidence does not suggest that there are extensive or wide areas outside the administrative boundaries of Wiltshire and Swindon that comprise part of the Swindon and Wiltshire FEMAs. However, there are external connections and linkages with larger urban areas that lie around the fringes of Swindon and Wiltshire. The stronger relationships are outward, with flows of workers from Swindon and Wiltshire to other areas, rather than inward. The data also points towards three broad FEMAs focused on Swindon and the M4 corridor in the north, Salisbury and Amesbury in the South and the west Wiltshire towns/A350 corridor. The west Wiltshire towns/A350 area is polycentric, with retail and HMA evidence pointing to more localised activity.

These three broad areas correlate well with the three growth zones identified by the Swindon and Wiltshire LEP (shown in figure 2.1 above).

2.4 Stakeholder Consultation

A series of stakeholder interviews were undertaken. Those consulted are listed within Appendix 1. There was general agreement about the three broad FEMAs identified from the desk research. The role of Salisbury Plain in creating separation between the southern zone focused on Salisbury/Amesbury/A303 and the A350/west Wiltshire towns zone was noted.

The major infrastructure development suggested by consultees, which could change the scale and function of FEMAs, was electrification of the Great Western Mainline. Coupled with Crossrail it was noted that journey times from Chippenham and Swindon to London destinations would be substantially reduced. This has the potential to make Swindon and Chippenham even more attractive as London commuter belt locations, given the lower cost of housing compared to some more traditional commuter zone locations. Whilst the linkages into London and the Thames Valley already exist, it was suggested these could be substantially increased.

It was noted that Swindon tends to look eastwards, rather than westwards, whereas the A350 corridor towns generally look to the west and particularly to Bath.

The plans for major redevelopment of Swindon town centre, and a desire to increase the delivery of executive style housing in Swindon were also cited as potential drivers of change. Upgrading of the A303 and A350 were cited as important infrastructure developments but it was not suggested they would change the definition of FEMAs, but might contribute to improved economic performance within FEMAs.

2.5 Conclusions

It is important to preface the conclusions of this analysis with the following:

- There is no definitive approach to defining FEMAs
- Some of the data that might be helpful to fully considering FEMAs is not available
- FEMAs will vary depending on the indicators considered

- FEMAs do not have hard and fast boundaries and can overlap
- The boundaries are porous with many external linkages in terms of travel to work, leisure, learn and other services as well as business interactions with customers and suppliers.

Accepting those caveats, the evidence collated as part of this research suggests three broad FEMAs:

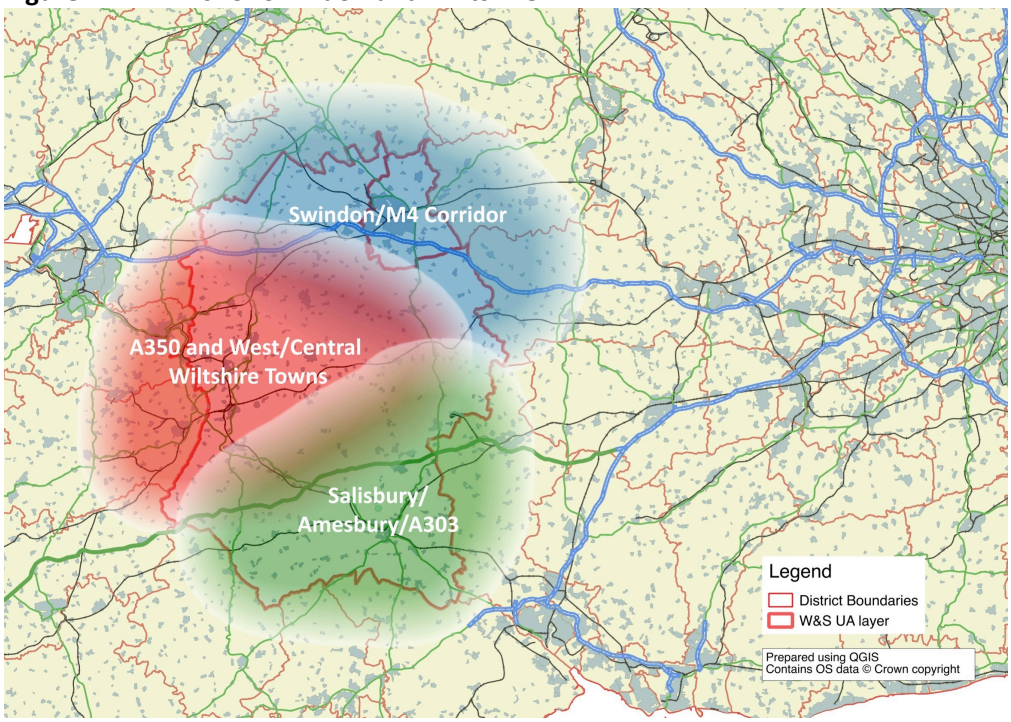
- Swindon/M4 corridor
- A350 and west/central Wiltshire towns
- Salisbury/Amesbury/A303

These are illustrated in Figure 2.7. The boundaries of the areas should not be considered exact, but are intended to outline broad FEMAs. The zones overlap. The rural area in the east of Wiltshire is not clearly within any of the three FEMAs but has relationships with each. The zones are shown including the settlements of Frome, Bath, Cirencester and Andover, which lie outside the Wiltshire and Swindon administrative boundaries.

The nature and focus of the three FEMAs is different. The Swindon/M4 zone has a strong eastward focus, into the Thames Valley and towards Oxfordshire, it is also dominated by the largest urban centre in the Swindon and Wiltshire area. The A350 corridor has a greater westward focus towards Bath and the West of England, it is a polycentric FEMA of market towns that is very much a corridor with interactions between adjacent settlements. The Salisbury/Amesbury/A303 corridor has different elements with something of a linkage towards Southampton and into the south-east.

For pragmatic reasons it is helpful to constrain FEMAs to 'best-fit' areas. As is clear from the analysis and the research undertaken by adjacent LEP areas, the three FEMAs identified best fit within the administrative areas of Swindon and Wiltshire. This conclusion was tested through a Duty to Cooperate workshop with officers from all adjacent local authority areas. It was agreed that this approach was appropriate and that none of the adjacent areas considered either Swindon or Wiltshire to form part of their FEMAs.

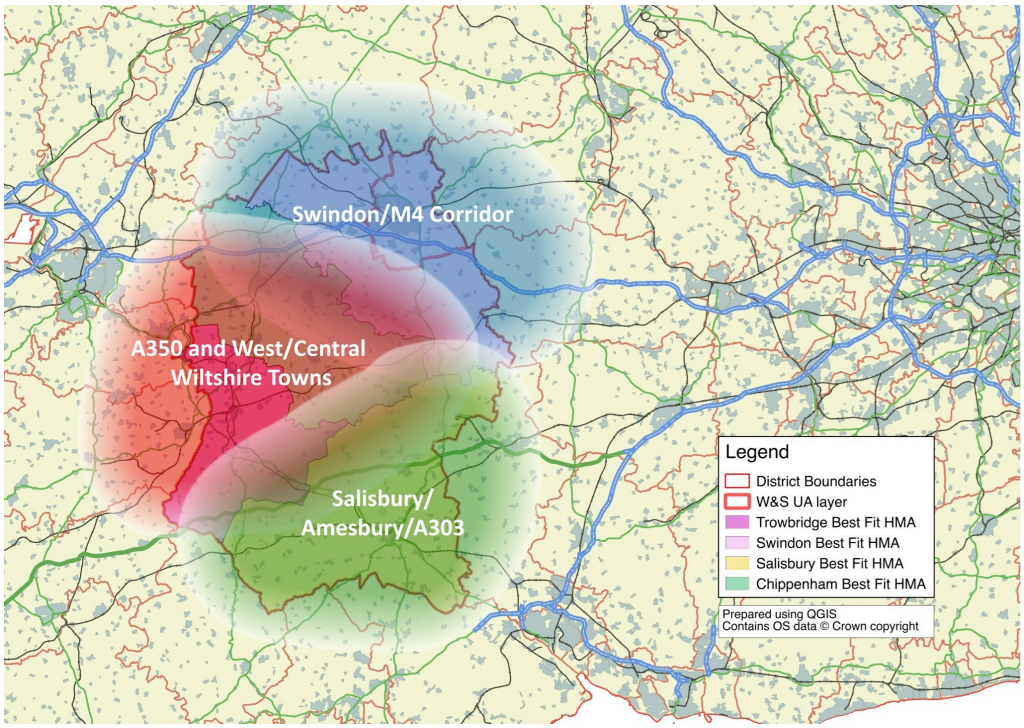
Figure 2.7 FEMAs for Swindon and Wiltshire



2.6 Fit with HMAs

This analysis has identified three FEMAs. Concurrent analysis has identified four HMAs. There is very strong fit between the Swindon and Salisbury/A303 FEMAs and the associated HMAs. The A350 Corridor FEMA incorporates two HMAs. However, the coverage of the two HMAs has good fit with the FEMA. The overlaid layers are shown in figure 2.8.

Figure 2.8 FEMA and HMA Geography



2.7 Best Fit FEMA Definitions for Detailed Analysis

Working definitions to allow statistical analysis of FEMAs are required for the purposes of this study. This will include ensuring alignment of jobs and workers at the HMA level.

Given the good correlation between the HMAs and the broad FEMAs, the best-fit HMAs are used as building blocks to inform detailed statistical analysis. The two HMAs that cover the A350 Corridor zone are combined when presenting FEMA level analysis. This approach ensures 100% coverage of the Swindon and Wiltshire administrative areas with no overlap.

3 Economic Conditions

Appendix 2 sets out a summary of the 2016 Swindon and Wiltshire Local Economic Assessment (LEA). The LEA is primarily focused on data at the SWLEP area and the Swindon and Wiltshire administrative areas. Some additional evidence at the FEMA level is set out in this chapter. This has also been supplemented with evidence gathered through stakeholder consultation. Details of stakeholders consulted are set out within Appendix 1 to this report.

3.1 Swindon and Wiltshire Headline Summary

3.1.1 GVA and Competitiveness

GVA (Gross Value Added) is a measure of local economic output. Figure 3.1 shows indexed GVA growth[2] over the period 2000-2013. This shows that GVA growth in Wiltshire has broadly tracked the England average until the later years of the period. However, Swindon has experienced lower GVA growth across the period, particularly influenced by weaker performance in the early years. Performance for Swindon since 2003 is comparable with the benchmark areas[3].

Figure 3.2 shows year-by-year real GVA growth[4]. This highlights the negative growth (decline in GVA) in Swindon in 2002-03 as well as the effects of the recession in 2009. Many of the fluctuations at the more localised level show far more volatile than those nationally, which in part reflects the nature of statistics.

Across the period 2000-13, the growth rate for GVA was 1.3% per annum for the combined Swindon and Wiltshire area, compared with 1.8% for England. The local data comprises a growth rate of 1.4% in Wiltshire and 1.0% in Swindon.

GVA per head is a tool that can be used to provide comparison between areas of different sizes. GVA per head across the Swindon and Wiltshire area is higher than the national average. This is due to the very high GVA per head in Swindon (£30,900), which is one of the highest figures in the UK (£24,960, Wiltshire: £19,800, all figures for 2014).

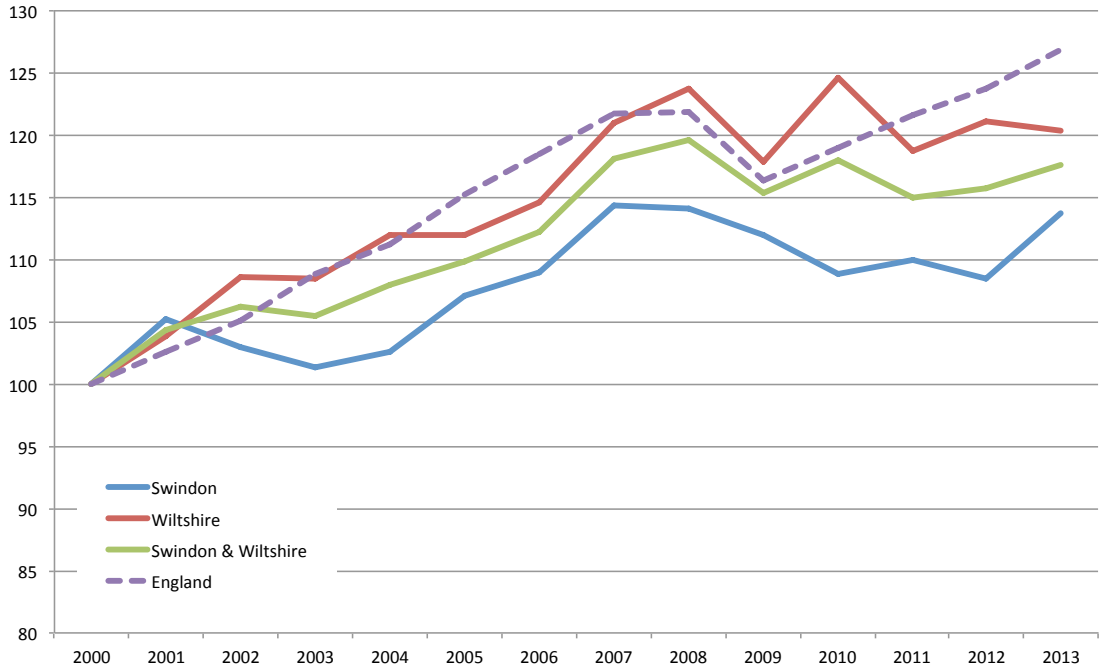
Overall GVA per head has been rising, with the Swindon and Wiltshire area broadly tracking the growth rate of England in recent years. The LEA benchmarks SWLEP with four other LEP areas. SWLEP outperforms one, which has also tracked the England average. It has GVA per head below Oxfordshire, Gloucestershire, and Buckinghamshire Thames Valley LEPs, which have all demonstrated stronger growth since 2009.

[2] Total GVA data is provided in current prices. Therefore the effects of inflation are not removed. No official ONS data is provided in 'real' terms. HJA has liaised with ONS to discuss this issue. ONS has confirmed that the GVA deflators produced for Gloucestershire, Wiltshire & Swindon (a larger geographic area) should be broadly applicable in order to create an estimate of real GVA growth for Swindon and Wiltshire. However, it is important to note this is not a definitive data series and needs to treated as such.

[3] Benchmark areas in as per the LEA are Oxfordshire LEP, GFirst LEP, Northamptonshire LEP, Buckinghamshire Thames Valley LEP.

[4] It should be remembered that this data can also be volatile at the local level, so fluctuations in Figure 4 appear much more exaggerated for Swindon and Wiltshire than for England.

Figure 3.1 Index of Estimated Real GVA Growth (2000 = 100)



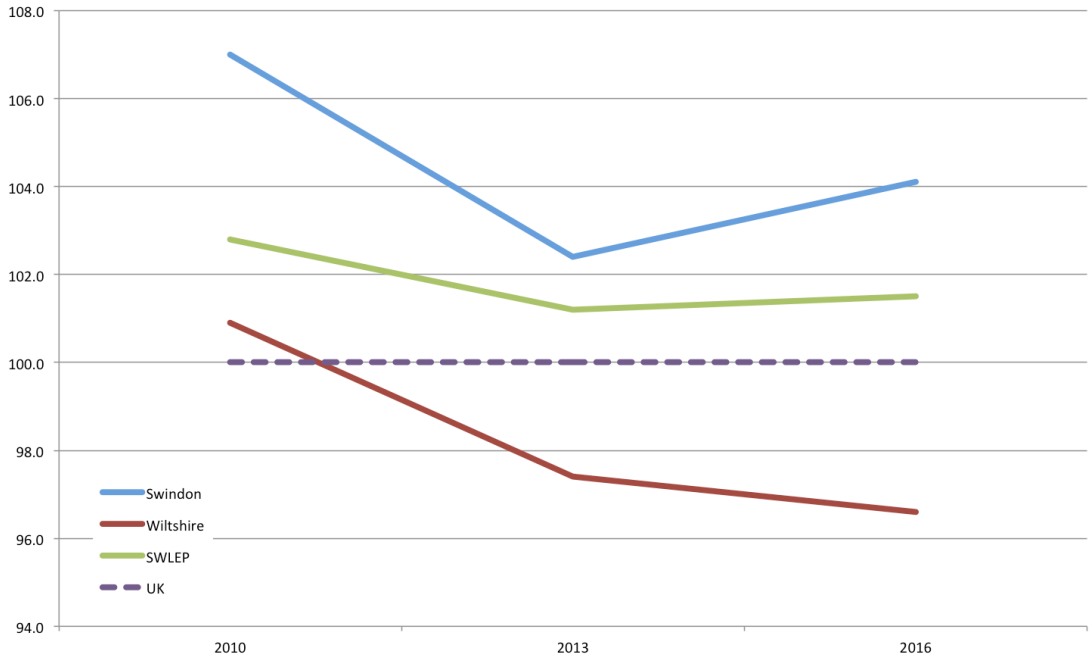
Source: ONS

Figure 3.2 Estimated GVA Growth

Source: ONS

SWLEP is rated 13th of the 39 LEPs by the UK Competitiveness Index (2016). This represents an unchanged ranking since 2013, and an indexed increase of 0.3 points. This reflects the analysis of both headline and per capita GVA performance.

Figure 3.3 – UK Competitiveness Index scores (2010-2016)[5]



Source: HJA adapted from UK Competitiveness Index 2013 and 2016

Over a longer time period, the SWLEP area has demonstrated a steady level of competitiveness. Swindon clearly has a higher competitiveness level than Wiltshire. Swindon has managed to reverse what seems to have been a post-recession decline, whilst Wiltshire had been unable to reverse what looks be a consistent decline in recent years.

3.1.2 Employment

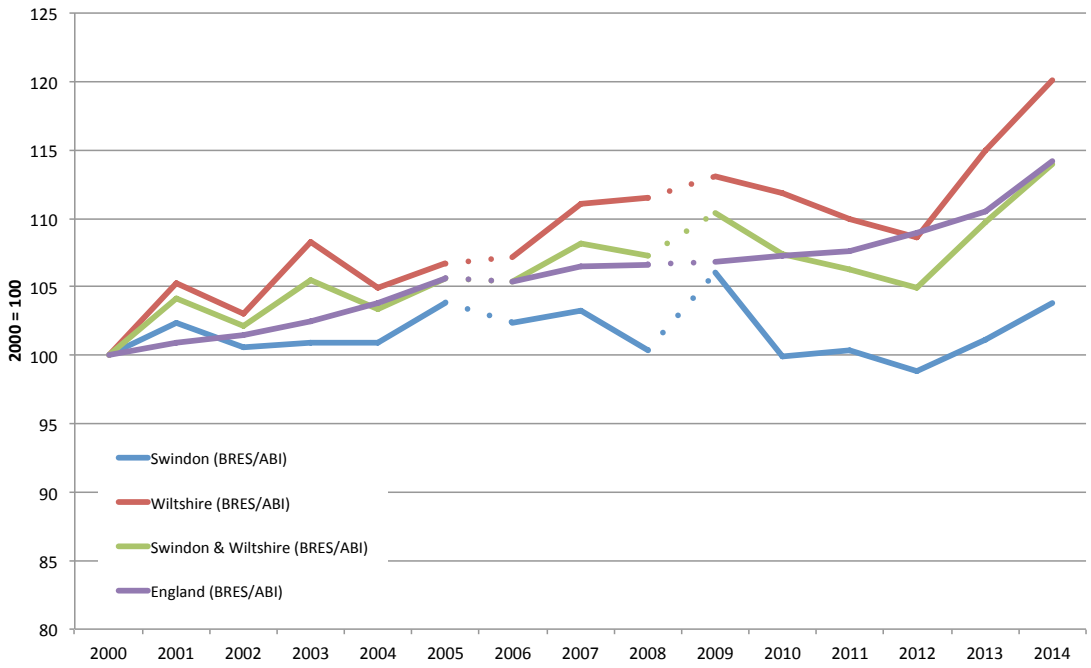
Figure 3.4 presents data for employment and self-employment combined, taken from two ONS datasets[6]. The Business Register and Employment Survey and Annual Population Survey (BRES/APS) data is indexed to a base of 100 at the year 2000. The dotted lines represent discontinuities in data series[7]. By rebasing to a common starting point it allows more direct comparison of the changes over the historic period 2000-2014. This shows more clearly the divergence between Swindon (blue line) and Wiltshire (red line) over the analysis period. In Swindon the line fluctuates quite closely to the initial index point. There is a jump in 2009 but this may relate to the discontinuity in data. The line rises again 2012-14. For Wiltshire the growth pre-recession is evident, with falls following the downturn and then rises again through the period of recovery and growth.

[5] The way the UKCI is measured changes with each publication. Figures for 2013 & 2016 are directly comparable as they are taken from the same 2016 publication. Figures for 2010 are taken from the 2013 publication, so are not directly comparable, but are included here to give a general indication of the trajectory of each area's competitiveness.

[6] The most comprehensive measure of workplace-based employment is the ONS Jobs Density measure of total jobs. However, investigation of this data source has found issues with some of the data in the series. During investigation with ONS it became apparent that due to the data series not being revised when component elements were revised, the validity of the source as a time series was compromised. HJA has investigated the potential to reconstruct a robust time series of total jobs using the component parts. The two most substantive components of the total jobs measure are the Business Register and Employment Survey/Annual Business Inquiry (BRES/ABI) as a measure of employee jobs and the Annual Population Survey/Local Labour Force Survey (APS/LFS) as a measure of self-employment. Some data is available at the local authority level for HM Forces and agricultural employment, but there are some limitations in terms of frequency and length of time-series for these elements.

[7] The ONS moved from the Annual Business Inquiry (ABI) to the Business Register and Employment Survey (BRES) in 2009. There was a change in method within the ABI series in 2006 which created a discontinuity.

Figure 3.4 Index of Total Jobs Estimates 2000-2014 (2000 = 100)



Source: HJA adapted from ONS BRES and ABI

What this data does tell us is that for much of the period Wiltshire and Swindon (combined) grew at a similar rate to England. However, the performance of Wiltshire and Swindon individually is quite marked in jobs terms, with Wiltshire substantially outperforming Swindon. There is no evidence from this historic period to suggest prolonged growth well ahead of national jobs growth rates. This is largely as a result of Swindon failing to record strong jobs growth.

3.1.3 Labour Market

Headline labour market metrics are positive, with a high employment rate and low unemployment rate. There has been strong improvement in both over recent years as the economic recovery has taken hold.

The LEA notes a particular weakness in the area of workforce skills. This was a recurring point made within the stakeholder consultation programme, with the Swindon and Wiltshire area the only LEP area in England with no University. There are concerted efforts being made to improve the provision of higher level skills delivery in the area.

3.1.4 Business, Entrepreneurship and Innovation

Business survival rates in the Swindon and Wiltshire area are high. However, overall levels of business creation were reported as being low.

Swindon is noted for its attractiveness to larger businesses, with a much higher concentration than the national average.

The level of patent registration in Swindon and Wiltshire is high relative to benchmarks and the England average. The same is true of spending R&D, and employment in science, research, engineering and technical roles. This is a potential indicator of business innovation activity.

3.1.5 Sectors

Across the Swindon and Wiltshire combined area, 19 sectors (based on SIC two digit) show a concentration in employment more than 20% greater than the GB average with employment of minimum 500 jobs. This is measured using a location quotient (LQ)[8]. These are shown in the table below, ranked by LQ. The table also shows the total number of employees in these sectors in the SWLEP area and the change in employment 2009-15. Nine of the sectors have LQs greater than two, indicating more than double the share of employment relative to GB. Of these, six have experienced employment growth in recent years, most notably financial services.

- The scientific research and development sector stands out given its high LQ and employment scale.
- The importance of manufacturing activities in the area is clear, accounting for seven of the 19 sectors listed. However, the majority of these have witnessed employment decline in recent years.
- Financial services is also very important with more than 12,000 jobs, an LQ above two and rapid recent growth.

Local policy and strategy documents identify a series of *key sectors.* These are summarised in Appendix 5 to this report. The sectors identified in all six relevant policy documents are:

- Advanced Engineering and Manufacturing
- Financial & Professional Services
- Digital and ICT
- Tourism & Leisure

The Health, Life Sciences and Pharmaceuticals sector is also identified in four of the six documents.

[8] A location quotient is calculated by dividing the percentage of employment in Sector A in the target area (e.g. SWLEP) by the percentage of employment in Sector A in Great Britain. A figure equal to 1 shows the same percentage or level of concentration in both areas. A figure less than 1 shows a lower concentration in the target area. A figure more than 1 shows a higher level of concentration in that sector. We have used a figure of 1.1 as a benchmark for specialisation. This filters out those sectors which are broadly similar in concentration to GB.

Table 3.1 Swindon & Wiltshire Sector Concentrations

Sector	LQ	Emp (2015)	Change in Emp 2009-15	% Change in Emp 2009-15
72 Scientific research and development	4.0	5800	600	11%
37 Sewerage	3.9	1000	0	-4%
29 Manufacture of motor vehicles, trailers and semi-trailers	2.8	4700	-900	-15%
31 Manufacture of furniture	2.8	2400	300	12%
21 Manufacture of basic pharmaceutical products and pharmaceutical preparations	2.8	1000	-600	-37%
27 Manufacture of electrical equipment	2.4	2200	800	52%
64 Financial service activities, except insurance and pension funding	2.3	12500	4800	61%
75 Veterinary activities	2.0	1300	400	50%
63 Information service activities	2.0	1600	700	70%
20 Manufacture of chemicals and chemical products	1.6	1600	-200	-9%
53 Postal and courier activities	1.6	4100	-200	-4%
45 Wholesale and retail trade and repair of motor vehicles and motorcycles	1.6	9000	1900	27%
22 Manufacture of rubber and plastic products	1.5	2500	-700	-22%
95 Repair of computers and personal and household goods	1.5	800	-100	-9%
17 Manufacture of paper and paper products	1.4	800	400	115%
71 Architectural and engineering activities; technical testing and analysis	1.2	6800	2000	42%
38 Waste collection, treatment and disposal activities; materials recovery	1.2	1600	800	105%
82 Office administrative, office support and other business support activities	1.2	6200	1700	37%
52 Warehousing and support activities for transportation	1.2	6000	1400	31%

Source: HJA based on BRES

3.2 FEMA Level Analysis

Fewer datasets are available at the FEMA level. This limits the evidence that can be presented.

3.2.1 Labour Market

As noted above, labour market metrics are generally strong for the Swindon and Wiltshire area in comparison with the national average. Comparison of labour market data from the 2011 Census of Population across the three FEMA areas shows a high degree of similarity. The notable exceptions are the:

- Prominence of military within the occupational mix of working residents in the Salisbury/A303 FEMA.
- Levels of part time working and self-employment being slightly higher in the A350 corridor FEMA than the other two FEMAs.
- A lower proportion of workers with Level 4 qualifications and above in the Swindon FEMA, with the proportion slightly lower than the national average. The corollary of this is a higher proportion with none or level 1 qualifications.

3.2.2 Sectors

Table 3.2 shows the sectors with LQs greater than 1.2 in each of the three FEMAs, coupled with employment above 500.

- The Salisbury/Amesbury/A303 FEMA has fewer sectors showing concentration than the other FEMAs. Sectors showing an LQ greater than 1.2 account for 40% of employment in the area. There are only two sectors with LQs above two. The scientific, research and development sector is particularly important in this location. Manufacturing is far less important in this FEMA, accounting for only 5% of total employment. Public services are more important in this area, with 29% of employment in public admin, defence, education, health and residential & social care.
- Within the Swindon FEMA sectors showing an LQ greater than 1.2 account for 36% of employment. There are notable concentrations within three manufacturing based sectors in Swindon, with LQs relative to GB in excess of three, accounting for 5% of total employment. Manufacturing as a whole accounts for 8% of employment. There are also concentrations in some high value service sectors including finance & insurance, scientific, research and development and architectural & engineering services. Public services (comprising the sectors specified above) accounts for 19% of all employment, the lowest share of all the FEMAs.
- The A350 corridor FEMA has a much broader range of sectors showing some degree of concentration. Sectors showing an LQ greater than 1.2 account for 48% of employment in the area. This indicates a broader based economy. Manufacturing is a clear strength, with nine manufacturing sectors showing a LQ greater than 1.2, accounting for 8% of total employment. Manufacturing as a whole accounts for 11% of employment, the greatest concentration of any of the FEMAs. Public services (comprising the sectors specified above) accounts for 25% of all employment.

Table 3.2 FEMA Level Employment Concentrations

Swindon	Emp	LQ	A350	Emp	LQ	Salisbury	Emp	LQ
37 : Sewerage	800	6.8	31 : Manufacture of furniture	1,900	6.0	72 : Scientific research and development	4,100	15.8
29 : Manufacture of motor vehicles	4,100	5.6	22 : Manufacture of rubber and plastic products	2,000	3.2	63 : Information service activities	700	5.1
21 : Manufacture of pharmaceuticals	900	5.5	20 : Manufacture of chemicals	1,100	3.0	45 : Wholesale and retail trade and repair of motor vehicles and motorcycles	1,600	1.5
27 : Manufacture of electrical equipment	1,500	3.7	17 : Manufacture of paper and paper products	600	2.9	86 : Human health activities	6,500	1.5
64 : Financial service activities	7,200	3.0	64 : Financial service activities	5,000	2.5	68 : Real estate activities	1,600	1.5
75 : Veterinary activities	700	2.5	95 : Repair of computers and personal and household goods	500	2.4	87 : Residential care activities	2,100	1.5
53 : Postal and courier activities	2,600	2.2	63 : Information service activities	500	1.7	94 : Activities of membership organisations	700	1.4
52 : Warehousing and support activities	4,800	2.2	26 : Manufacture of computer, electronic and optical products	700	1.7	66 : Activities auxiliary to financial services and insurance activities	1,000	1.3
72 : Scientific research and development	1,400	2.1	55 : Accommodation	2,900	1.6	81 : Services to buildings and landscape activities	1,700	1.3
65 : Insurance, reinsurance and pension funding	1,000	2.0	27 : Manufacture of electrical equipment	600	1.6	53 : Postal and courier activities	600	1.2
82 : Office administrative and support activities	4,100	1.8	18 : Printing and reproduction of recorded media	700	1.6			
38 : Waste collection, treatment and disposal activities	1,000	1.7	30 : Manufacture of other transport equipment	800	1.5			
45 : Wholesale and retail trade and repair of motor vehicles and motorcycles	4,100	1.6	45 : Wholesale and retail trade and repair of motor vehicles and motorcycles	3,300	1.5			
94 : Activities of membership organisations	1,800	1.6	84 : Public administration and defence	7,200	1.4			
61 : Telecommunications	1,400	1.4	32 : Other manufacturing	500	1.4			
71 : Architectural and engineering activities	3,100	1.3	87 : Residential care activities	4,100	1.4			
46 : Wholesale trade, except of motor vehicles and motorcycles	6,800	1.2	80 : Security and investigation activities	1,000	1.3			
49 : Land transport and transport via pipelines	3,100	1.2	46 : Wholesale trade, except of motor vehicles and motorcycles	5,900	1.3			
			71 : Architectural and engineering activities	2,600	1.2			
			43 : Specialised construction activities	3,800	1.2			
			10 : Manufacture of food products	1,700	1.2			

Source: HJA based on BRES

3.3 Summary

Swindon has very high GVA per head, ranking well amongst benchmarks. However, whilst starting from a very high base has not been able to grow GVA in line with benchmark areas in recent years. Wiltshire, whilst starting from a lower base has experienced faster overall GVA growth, but still ranks poorly amongst benchmarks and remains below the national average. Overall competitiveness indicators suggest the combined area is less competitive relative to benchmarks.

Employment growth has been very strong in Wiltshire, but much less so in Swindon. In combination, the Swindon and Wiltshire area has experienced growth similar to the national average.

Labour market participation data shows a very positive picture. However, there remain some skills issues, particularly in Swindon. The lack of any local higher education provision is repeatedly highlighted as a challenge in this regard.

Business data is mixed. Survival rates for new firms are very good, but the level of new business starts is low. There are positive innovation metrics and also a clear concentration of larger businesses in Swindon.

There are a range of sectoral strengths and concentrations, these spread across science, advanced manufacturing, professional and financial services and tourism and leisure.

4 SWOT Analysis

The following Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis draws upon existing policy, strategy and research, supplemented with the desk research and stakeholder consultation undertaken as part of this commission. Appendix 3 sets out a review of relevant policy documentation and highlights the SWOT elements within each. Appendix 4 provides SWOT analyses for each FEMA.

4.1 Strengths

- Central southern location with geographic proximity to major economic centres (including London), key airports, and coastal ports.
- Connectivity to the M4 corridor from Swindon and the northern A350 Corridor.
- A knowledge based economy with clusters in life sciences, advanced manufacturing, financial and professional services, digital and ICT, and land based industries.
- Proximity of scientific research and development (R&D) centres (e.g. Oxford University, Porton Down).
- Innovation – high patent registration per capita, plus a high percentage of business turnover invested in R&D.
- Globally significant firms in UK priority sectors (e.g. Honda, BMW, Nationwide).
- Strong track record for attracting foreign direct investment (FDI).
- Honda commitment to Swindon with recent major investment.
- Swindon's competitiveness is increasing and has both high productivity and a high proportion of private sector employment.
- Wiltshire's rural economy with renowned landscape, heritage, and visitor attractions.
- The largest military presence in the UK, and a large innovative Defence sector.
- Strong small and medium sized enterprise (SME) growth, with high levels of innovation and business survival.
- Good export performance.
- A cost-competitive location (i.e. commercial rents and house prices) relative to competing Greater South East locations.
- A rapidly growing population.
- Strong labour market participation with employment rate above the national average and unemployment rates below the national average.
- Rising number of apprenticeships.

4.2 Weaknesses

- Transport infrastructure, especially north-south connectivity and within/across Wiltshire, is not adequate to support expansion plans.
- Unreliable journey times and high price of rail services including a slow and infrequent rail link to Heathrow.
- Distance from neighbouring cities and towns means Swindon can be perceived as somewhat isolated.
- Competitiveness for the combined LEP area is not increasing significantly, and Wiltshire's competitiveness is declining.

- GVA growth in the LEP has been slower over the last decade relative to competitor locations, due to much lower growth in Wiltshire than the national average[9].
- GVA per head and per worker in Wiltshire is lower than the national average.
- Low rates of business formation in Wiltshire.
- A fragmented offer of business support.
- High levels of out-commuting from Wiltshire.
- Pockets of deprivation.
- Negative view/image of Swindon town centre and a limited range of good quality cultural and leisure assets in the Borough.
- Lack of larger and executive style housing in Swindon and a weak commercial office market, particularly in the town centre.
- The lack of HE provision in the area causes a drain on the section of the population who do choose to study further, and often those who do leave don't return to the area.
- Low proportion of population in Swindon with higher skill levels and below average attainment at GCSE level.
- High percentage of firms reporting skills gaps, and reporting that young people are poorly prepared for work.

4.3 Opportunities

- Large urban expansions planned in Swindon, Chippenham, Trowbridge and Salisbury.
- Electrification of the railway line between London and Bristol.
- A303 improvements package to be delivered in early 2020s.
- Military – army rebasing will provide 4,000 additional personnel and their families.
- National initiatives to develop indigenous supply chain for the automotive industry.
- Life sciences cluster around Porton Science Park.
- 'Big data'/ICT infrastructure at Corsham.
- Expansion of advanced manufacturing in M4 corridor.
- Investment in green energy infrastructure, low carbon transport and local energy generation.
- Major expansion of Dyson and planned capital investment by other major businesses.
- Leisure sector investment in Swindon town centre, and delivery of major regeneration projects – Regent Circus, Oasis, Union Square.
- Proposed multi-campus university model.
- University Technology Colleges.
- Major planned construction projects – Defence Technical College, Swindon town centre regeneration.
- High level of patent activity in Swindon points to potential to generate more commercial innovation, building on a base in automotive, ICT, electronics, and pharmaceuticals.
- High level spend on R&D and science, research, and engineering and technical roles should drive long-term growth and productivity.
- Potential to attract further inward investment and support the development of SMEs in high value sectors to balance growth in the South East.
- Rising labour costs in China, India etc. have the potential to make Swindon a more competitive manufacturing location.

[9] GVA growth from 2003-2013 for the LEP was 41%, Swindon was 44%, Wiltshire was 39%, with a national average of 44%.

- Maturing of Growth Hub to simplify business support.
- High skilled workforce which currently out commutes.
- Increasing competitiveness in Swindon.
- Increasing job creation and protection as a result of FDI.

4.4 Threats (and Barriers)

- Uncertain economic conditions following vote to leave EU.
- Variation in sectoral makeup of Swindon and Wiltshire local authorities requires diverse LEP approach.
- Congestion and capacity issues on the road network.
- Connectivity improvements to London (e.g. Crossrail, HS2) at competitor locations may encourage increased out commuting.
- Progress of competitor locations on M4 corridor and home counties, capturing limited pool of major commercial investment.
- Major employers in globally competitive sectors means Swindon is vulnerable to recession impacts.
- Recent divestments by financial services firms in Salisbury.
- Failure to develop more knowledge intensive business activity.
- High proportion of public sector employment in Wiltshire.
- Declining competitiveness in Wiltshire.
- Failure thus far to deliver major regeneration projects.
- Growing demand for skilled labour and graduates, but low HE participation/provision.
- Declining FDI enquiries in absolute terms, contrary to upward UK trend.
- Lack of suitable sites and premises to underpin expansion of the economy, including offices, logistics and distribution.
- Lack of public sector resources available to support infrastructure development, business support, and regeneration.
- Ageing population, especially in rural areas.
- Lack of housing, employment and learning opportunities for Service Leavers and their dependents.

5 Future Employment Growth Scenarios

This chapter sets out a summary of technical work undertaken to develop robust future employment growth scenarios for the Swindon and Wiltshire area and constituent FEMAs. Further detail is set out within Appendix 7.

Economic forecasts have been purchased from two leading forecasters, Oxford Economics (OE) and Cambridge Econometrics (CE). Forecasts were purchased for the two local authority areas of Swindon and Wiltshire. The forecasters provided both historic and forecast data from their forecasting models.

There is often discussion as to whether such forecasts should be termed 'policy on', 'policy off', 'baseline' or 'business as usual'. Each of these terms has helpful and unhelpful connotations. Nevertheless, there is a need to use some form of terminology within this report. We therefore clarify the following:

- The forecasts as initially provided by the forecasters are referred to in this report as *baseline* forecasts. This enables a contrast between the original forecast scenarios and any adjusted scenarios that might be considered.
- However, the forecasters' 'baselines' draw on historic economic performance of the area as one of the determining factors. They also draw on detailed analysis of national economic potential. The forecasts are not therefore developed in a policy vacuum or absence. Whilst they are not developed with explicit reference to future local policy, the historic period on which they draw also included efforts from national, regional and local economic development stakeholders to deliver a prosperous economy. A level of economic development action is therefore inherent within the forecasts. For this reason, the term 'business as usual' can appear more helpful. However, this implies no consideration is taken of wider economic factors which will determine the economic prospects of the UK economy. This would be a misinterpretation.
- Nevertheless, the local baseline forecasts do not take account of any specific local policy initiatives.

In order to validate the baseline forecasts they have been tested against:

- Historic economic performance of the area
- Existing policy and strategy ambition
- Local intelligence on economic drivers and sectoral prospects
- Demographic analysis undertaken as part of the SHMA as a measure of labour supply and employment need.

It should also be clearly understood that the baseline forecasts from both OE and CE include the forecasters' own assessment of workforce change (including population change and economic activity/participation). The models balance labour supply and demand both nationally and locally. Some caution needs to be used when comparing the forecasts with demographic analysis undertaken outside the forecasters' own model. Further discussion of this topic is set out within chapter 8 of the Planning Advisory Service (PAS) guidance *Objectively Assessed Need and Housing Targets (July 2015)*.

5.1 Brexit

The majority of the analysis contained within this report was prepared in advance of the leave vote in the referendum on the UK's membership of the EU. In particular the economic forecasts, which underpin the assessment of economic futures for the area, do not take into account the potential implications of the leave vote.

Five months after the referendum the potential economic implications remain hotly debated and disputed. There is considerable uncertainty as to the exact timing and nature of the terms on which the UK will leave the EU. This creates substantial uncertainty for economic forecasters when assessing future growth trajectories.

The majority of debate at the current time points to downside risks to the UK economy, not least due to the high degree of uncertainty in the short term. There is no substantive body of evidence suggesting any major upside risks to the growth trajectory of either the UK or the Swindon and Wiltshire economies.

In light of the above, HJA has discussed this matter with economic forecasters and with officers at Swindon and Wiltshire Councils. It has been determined that due to the level of uncertainty it is appropriate to continue with the analysis as set out at this stage. However, as greater clarity emerges it may be appropriate to revisit the analysis. This will therefore be kept under review by the Councils.

5.2 Baseline Scenarios

5.2.1 Historic Context

In order to set some context for the baseline scenarios from the two forecasters it is helpful to understand how the econometric models assess the past. Whilst both OE and CE draw on ONS data, there are differences in the way the models assimilate this information. Understanding this can be helpful to interpreting their forecasts.

This review is done at the local authority level to ensure comparability of data. FEMA level scenarios are developed at a later stage.

Appendix 7 sets out a consideration of the historic data from the OE and CE forecast models in comparison with ONS data for GVA and Total Jobs. At the Local Authority level CE has a consistently more positive view of Swindon (in terms of both jobs and GVA) than OE. The two forecasters have much more similar views of Wiltshire performance for both indicators.

Table 5.1 below sets out the results of the two forecasters' historic analysis along with the ONS view to aid comparison with forecast data in the following sections.

Table 5.1: Summary of 2000 - 13 Analysis – Compound Annual Growth Rates

	Swindon	Wiltshire	Swindon & Wiltshire
Employment Change[10]			
ONS (BRES/APS)[11]	*0.1%*	*1.1%*	*0.7%*
CE	0.1%	0.8%	0.5%
OE	-0.3%	0.7%	0.4%
GVA Change			
ONS	1.0%	1.4%	1.3%
CE	1.8%	1.8%	1.8%
OE	0.9%	1.9%	1.5%
Productivity Change			
ONS	n/a	n/a	n/a
CE	1.7%	1.0%	1.3%
OE	1.1%	1.2%	1.1%

5.2.2 Headline Forecast Growth

Appendix 7 provides a detailed review of the headline forecasts from OE and CE respectively. The headline outputs from the two forecasters are considered below. This reviews the overall forecast scale of growth in the context of historic economic performance. This is important in ensuring NPPF paragraph 154 is fulfilled. This states that *Local Plans should be aspirational but realistic*.

5.2.2.1 GVA

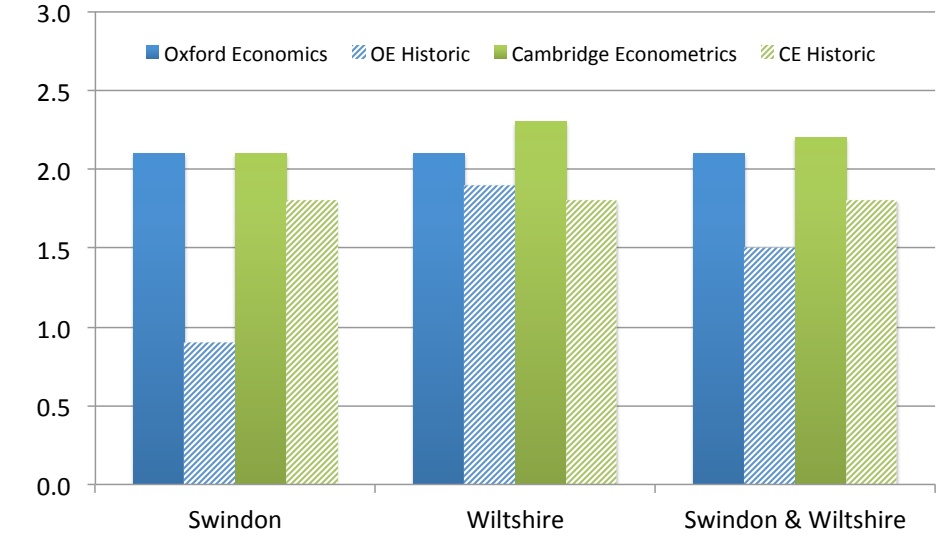
Figure 5.1 shows a comparison of forecast annual GVA growth over the period 2016-36 for each of the two baseline forecasts and the historic growth rate 2000-13. This shows a higher average annual level of GVA growth forecast by both CE and OE for Swindon, Wiltshire and the combined area. OE forecast similar levels of GVA growth for the two constituent authorities, with CE forecasting a higher rate of GVA growth for Wiltshire. The most notable change is the uplift in growth potential forecast by OE for Swindon.

Across the forecast period OE anticipate average annual GVA growth of 2.1% pa across all areas. CE forecast 2.1% pa for Swindon, 2.3% pa for Wiltshire and 2.2% pa for the combined area.

Since the OE and CE forecasts were published the Office for Budget Responsibility (OBR) has twice reduced the level of forecast growth at the UK level over the short-term period to 2020. This data would not have been available to the forecasters.

[10] The ONS CAGR figures for ONS should be treated with some caution, particularly the APS/BRES source which includes discontinuities in data, and the Wiltshire Jobs Density figure as a result of a clear data anomaly.
[11] There is an incomplete timeseries for HM Forces data, so CAGR over the full period is not available.

Figure 5.1 Forecast Average Annual Growth in GVA 2016-36



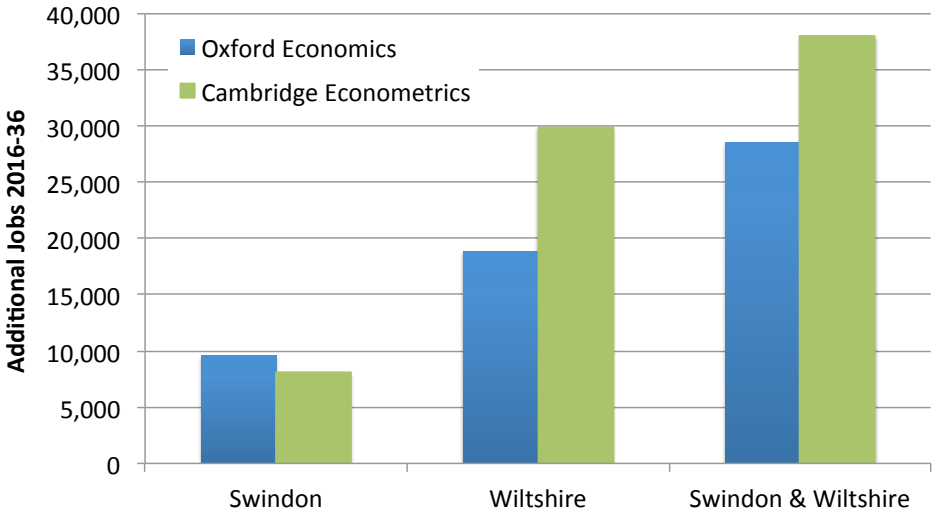
Source: HJA based on Oxford Economics and Cambridge Econometrics

5.2.2.2 Employment

Figure 5.2 shows the absolute levels of employment growth forecast by OE and CE. This shows some variation, with OE forecasting slightly higher employment growth in Swindon than CE. CE forecast substantially higher employment growth in Wiltshire than OE. The sectoral variations that underpin this are considered in the following section.

The two forecasters project total employment change (employed and self-employed) of 28,500 – 38,000 across the combined area. For Swindon the range is 8,100 – 9,600, for Wiltshire the range is 18,800 – 29,900.

Figure 5.2 Growth in Employment 2016-36

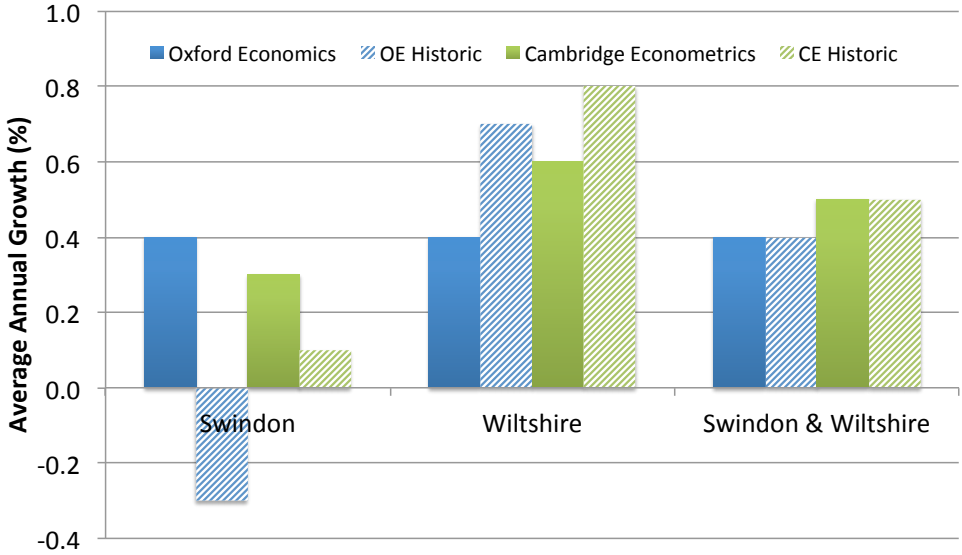


Source: HJA based on Oxford Economics and Cambridge Econometrics

Figure 5.3 shows average annual change in employment in comparison to the 2000-13 historic period. This shows some quite clear differences in expectations between the forecasters. Both OE and CE forecast a far more positive employment performance for Swindon than was recorded across the historic period. There is some difference in the assessment of historic employment change between the two forecasters.

Both OE and CE also forecast lower levels of employment growth in Wiltshire than historic averages. In keeping with the GVA forecasts, CE project a more positive picture for Wiltshire than Swindon, with OE forecasting broadly similar levels of annual growth across the two areas.

Figure 5.3 Forecast Average Annual Growth in Employment 2016-36



Source: HJA based on Oxford Economics and Cambridge Econometrics

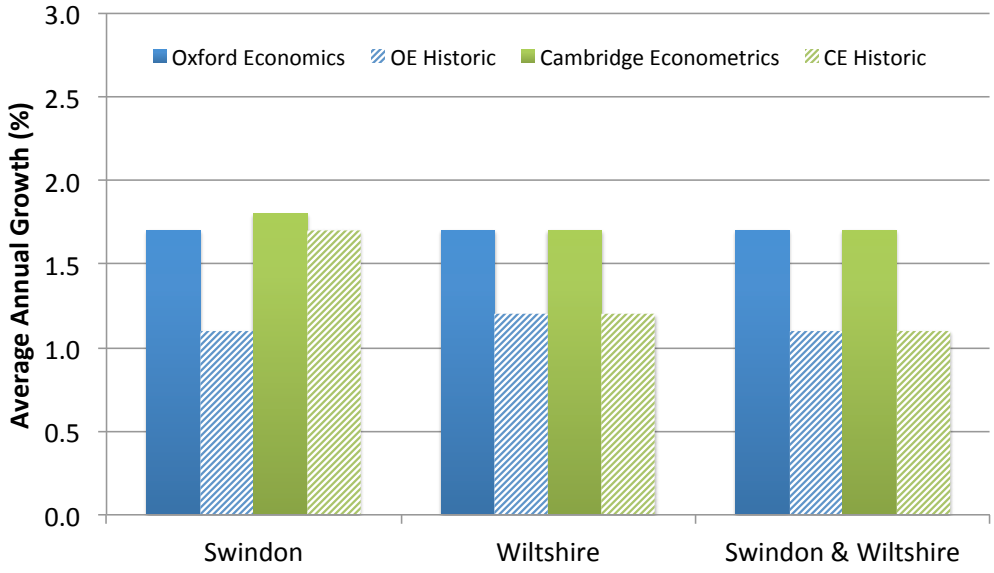
5.2.2.3 Productivity (GVA per worker)

The two forecast models allow for interpretation of GVA per worker as a measure of productivity. In keeping with the GVA per capita[12] data the starting position shows Swindon with 25-30% higher GVA per worker than Wiltshire.

Figure 5.4 shows the average annual forecast changes in productivity growth. In all cases productivity growth is forecast to be higher than for the historic period. There is substantial similarity between the forecast growth levels from both OE and CE. The major disparity is the historic productivity growth level modelled by CE in Swindon.

[12] GVA per capita is a measure of GVA relative to the resident population. GVA per worker is a more helpful measure of productivity as it is calculated relative to the workforce in the area.

Figure 5.4 Forecast Average Annual Growth in Productivity 2016-36



Source: HJA based on Oxford Economics and Cambridge Econometrics

5.3 Critical View of the Baseline Forecast Scenarios

5.3.1 Summary

Both CE and OE are forecasting higher rates of GVA growth in the period 2016-36 than the historic period 2000-13. The higher rates of growth are driven by higher productivity gains, with the rate of jobs growth projected to be broadly similar to the historic period.

There is substantial agreement between OE and CE over the rate of growth of GVA and productivity across the Swindon and Wiltshire area. There is slight variation in the forecast rate of growth of jobs.

ONS data for the 2000-13 period for jobs has some uncertainties. The projected rates of growth by both forecasters of 0.4% - 0.5% per annum are slightly below the indicative HJA figure for the observed period (0.7%). Both forecasters are suggesting jobs growth of a similar level to their own historic assessments.

5.3.2 Existing Policy

How do the forecasts compare with existing policy ambition? Employment growth figures from existing policies are set out in Appendix 6 (with further detail in Appendix 4). Table 5.2 summarises the differing job creation ambitions of the various policy documents. These cover different time periods. In order to compare with the latest forecasts, the data for the relevant time period has been extracted and is shown alongside the relevant policy ambition.

Table 5.2: Comparing Jobs Forecasts with Existing Policy

Policy	Policy Ambition (Jobs)	Time Period	OE Projection	CE Projection
Economic Strategy for Swindon (2012-26)	10,000	2006-26	11,000	6,000
Swindon Local Plan	20,000	2006-26	11,000	6,000
Wiltshire Local Plan	27,000	2006-26	42,900	40,800
Swindon and Wiltshire SEP (2012-26)	47,000	2006-26	53,900	46,800
Swindon and Wiltshire LEA (2013)	21,000	2010-20	41,100	35,200
Swindon and Wiltshire LEA (2016)	27,000[13]	2015-30	26,400	29,500
Swindon and Wiltshire SEP (2015-26)	30,000	2010-20	41,100	35,200

When considering those policy documents that relate to Swindon and Wiltshire combined, the latest OE and CE model outputs suggest jobs growth at least equal if not in excess of the current and historic policy aspirations. This results from an improvement in forecaster expectations, with the existing Wiltshire Local Plan based on the forecasts available at the time.

When considering the policies and strategies which relate to Wiltshire and Swindon separately there is some evidence of a disconnect, with Swindon policy aspiration generally greater than the OE and CE modelled forecasts and Wiltshire policy aspiration somewhat below. This highlights a potential issue with the balance of jobs growth. As has been shown, historic evidence, which partially covers some of the time periods considered in Table 5.2, shows Wiltshire adding jobs much more strongly than Swindon. This pattern continues in the OE and CE projections. However, there is evidence of some desire in policy to see a rebalancing of job growth across the two areas.

When considered in the context of historic data the two sets of forecasts set out a baseline position which can be deemed reasonable or realistic[14]. Levels of forecast GVA and productivity growth are higher than historic averages, with jobs growth clearly in the range of historic analysis. The consistency between the two independent forecasters would therefore suggest the forecasts, as they are presented, provide what might be considered a robust baseline position.

The OE and CE models project similar levels of jobs growth over the appropriate periods with the latest SEP. There is therefore no need to boost jobs growth in order to bring the current forecasts into line with existing policy ambition. However, there may be a need to consider a rebalancing of jobs between Wiltshire and Swindon.

5.3.3 Labour Supply

A final check relates to the emerging demographic projections. Using the OE and CE projections as lower and upper ends of a range creates 28,500 – 38,000 workplace-based jobs over the 20-year period 2016-36. Existing commuting data suggests that 14% of workplace-based jobs will be filled by in-commuters (2011 Census, assume no change). This leads to a range of 24,500 – 32,700 jobs that will need to be filled with resident workers.

[13] Forecast is for between 7-8%, which equates to between 27,000-29,000 additional jobs over the stated period. The 2016 LEA was informed by the same baseline forecasts as this study.

[14] Following the vote to leave the EU and the repeated downgrading of short-term forecasts by the OBR they may be viewed by some as increasingly aspirational.

ORS demographic projections suggest a growth of 37,650 economically active residents. After discounting out-commuters (2011 Census, assume no change) a total of 31,000 additional economically active residents would be available. This would suggest a figure close to the top of the range can be achieved.

A few further points should be noted:

- The Objectively Assessed Need (OAN) figures for housing[15] include some uplift for market signals. Whilst some of this may allow reduced household size, in part it will create capacity for additional economically active residents. The figures quoted above relate only to the demographic element of the housing requirement. This could therefore meet the additional need for workers to facilitate the top of the range estimates.
- There may be additional out-commuting to other locations. Consultations have highlighted the potential impact of electrification of the Great Western Mainline, and subsequently Crossrail, reducing travel time from Swindon and Chippenham stations to the City of London. There is anecdotal evidence of homes being sold to London based commuters in anticipation of this. It is therefore feasible that out-commuting to London might rise. There could also be increased pressure for out commuting to Bristol/Bath if these areas achieve disproportionate economic success.

On this basis, there is no rationale to develop substantially higher growth scenarios for jobs. Initial analysis of the workforce suggests that this will support a level of growth towards the upper end of the range, but not beyond it. The workforce pressures at the current stage are towards more out-commuting as a result of infrastructure delivery, as well as potential limits on capacity if the growth is among those with a greater propensity towards part-time work. As a result, there is no evidence of available labour force driving a need to increase the employment ambition.

5.4 Sector Level Forecast Review

Appendix 7 also sets out a sector by sector review of the economic forecasts for Swindon and Wiltshire. This considered the OE and CE forecasts for each sector in the context of the views expressed by stakeholders alongside other supporting evidence.

After this review the following recommendations emerge:

5.4.1 Swindon

- An uplift to manufacturing employment in Swindon. OE and CE baselines both project substantial declines in employment. This is particularly fuelled by declines in motor vehicle and pharmaceuticals manufacture, which are important sectors for Swindon. There has been a major investment announcement by Honda regarding its Swindon plant and there are clear expectations for increases in employment in the motor vehicle manufacturing sector underpinned by this. An adjustment to the baseline position is therefore warranted. The total change in sectoral employment is set to zero for Swindon UA.
- Adoption of the CE higher growth for the retail sector underpinned by town centre regeneration activities which are ongoing.

[15] Prepared by ORS within the Strategic Housing Market Assessment (SHMA)

- Adoption of the higher OE forecast for distribution and logistics on the basis of local evidence of inquiries and investment opportunities linked to the area's strong transport infrastructure.
- Recognition that a major investment in Higher Education provision would stimulate additional jobs within the education sector. However, without a clear investment proposal no adjustment is made at this stage.
- With the exception of those sectors specifically noted above the average of the two forecasts was adopted.

5.4.2 Wiltshire

- Stakeholder confidence in the manufacturing sector, particularly in the A350 corridor area with evidence of major live inquiries. However, less clear evidence on which to make a major adjustment as per motor vehicle manufacture in Swindon. The upside estimate of the two forecasts is adopted for Wiltshire with any uplift concentrated in the A350 corridor FEMA.
- Concern relating to the scale of growth forecast by CE in the food and beverage activities sector. The OE forecast should therefore be adopted.
- Recognition that the scale of growth forecast in the financial services sector could be hampered by recent divestments in Salisbury. However, some replacement opportunities have been identified. The lower end of the range should therefore be adopted.
- A need for a major manual adjustment to the public administration and defence sector to account for the Army Rebasing project. This will see 3,800 service personnel and their families relocating to southern Wiltshire in the 2016-19 period[16].
- With the exception of those sectors specifically noted above the average of the two forecasts was adopted.

5.4.3 Combined Summary

Applying the adjustments outlined above leads to a combined position of 40,250 additional jobs over the period 2016-36 across the Swindon and Wiltshire areas. This is above the baseline positions forecast by both OE and CE as a result of specific adjustment for the Army Rebasing project. This represents average annual employment growth of 0.5% per annum[17].

5.5 FEMA Level Forecasts

Table 5.3 sets out the recommended employment growth scenarios for each of the three FEMAs using the definitions set out in section 2.8. Employment change has been apportioned based on current shares as a starting point, with manual adjustments as described at section 5.4.

[16] It should be noted that this is a relatively self-contained impact given that both the jobs and personnel will be relocated to the area, and if the jobs are not relocated neither will the personnel.

[17] 2016 baseline employment position for this calculation is taken as the average of the OE and CE total employment estimates for Swindon and Wiltshire at 2016.

Table 5.3 Adjusted Baseline Employment Forecasts – Change 2016-36

Sector	Swindon	A350	Salisbury
Agriculture, forestry & fishing	-370	-420	-490
Mining & quarrying	-70	-30	-10
Food, drink & tobacco	-90	-340	-350
Textiles etc	-70	-50	-50
Wood & paper	-110	-260	-50
Printing & recording	-10	130	-10
Coke & petroleum	-20	0	0
Chemicals	-50	160	-50
Pharmaceuticals	-270	-10	-10
Non-metallic mineral products	-220	-730	-80
Metals & metal products	-350	-240	-130
Electronics	-170	-110	-270
Electrical equipment	-330	-60	-30
Machinery	-360	-160	-90
Motor vehicles	-10	-30	-50
Other transport equipment	-20	40	-20
Other manufacturing & repair	20	2,310	80
Electricity & gas	-60	-40	0
Water, sewerage & waste	-70	-40	-20
Construction	2,410	2,770	1,020
Motor vehicles trade	150	220	130
Wholesale trade	-70	-160	-50
Retail trade	1,350	810	440
Land transport	310	-20	-10
Water transport	0	0	0
Air transport	0	0	0
Warehousing & postal	760	90	30
Accommodation	170	230	50
Food & beverage services	1,350	500	280
Media	-50	-50	-20
IT services	580	850	280
Financial & insurance	510	70	50
Real estate	-60	-40	-30
Legal & accounting	240	250	210
Head offices & management consultancies	1,430	930	470
Architectural & engineering services	470	480	200
Other professional services	780	890	2,480
Business support services	2,740	2,000	830
Public Administration & Defence	-460	-910	3,510
Education	790	540	250
Health	800	720	940
Residential & social	1,390	1,690	810
Arts	300	290	190
Recreational services	660	420	280
Other services	1,100	1,090	710
Total	**15,030**	**13,770**	**11,430**

5.6 Labour Market Balance

Headline analysis to assess the supply and demand for labour in each HMA has also been undertaken. This is discussed in detail within the SHMA report, prepared by ORS alongside this FEMA Assessment.

The analysis as presented shows some imbalance at HMA level with a potential shortfall of workers within the Swindon and Salisbury HMAs, and potential over supply of workers in the Chippenham and Trowbridge HMAs. Solutions via adjustments to housing provision are proposed to mitigate these imbalances.

5.7 Employment Change by Sector and Use Class

The analysis above has focused on employment by sector within the economy. In beginning to understand the implications for future sites and premises requirements it is helpful to consider how future employment change will be spread across Use Classes.

The sectoral employment projections have been converted to Use Classes using the conversion matrix set out at Appendix 8 to this report. This matrix has been developed using fine-grained employment data for the Swindon and Wiltshire area from the ONS Business Register and Employment Survey to ensure it captures the nature of sectoral strengths in the study area. A headline schedule of the various Use Classes is provided below.

Table 5.4 Use Classes Summary

Use Class	Description
A1	Retail
A2	Financial and Professional Services
A3	Restaurants and Cafes
A4	Drinking Establishments
A5	Hot Food Takeaways
B1a	Offices (other than those within A2)
B1b	Research and Development
B1c	Light Industrial
B2	General Industry
B8	Storage and Distribution
C1	Hotels
C2	Residential Institutions
C3	Dwellings
D1	Non Residential Institutions
D2	Assembly and Leisure
Sui Generis	

The B Use Class includes business, industrial and storage/distribution uses. These have often been viewed as the primary employment Use Classes. However, many jobs fall within other Use Classes including jobs in retail, customer services, hotels, leisure and catering, health, education and construction. Some jobs are entirely mobile and require no sites or premises base at all.

Table 5.5 shows that there is growth in each of the broad Use Classes, particularly in the B Use Class and those jobs which do not require their own sites and premises.

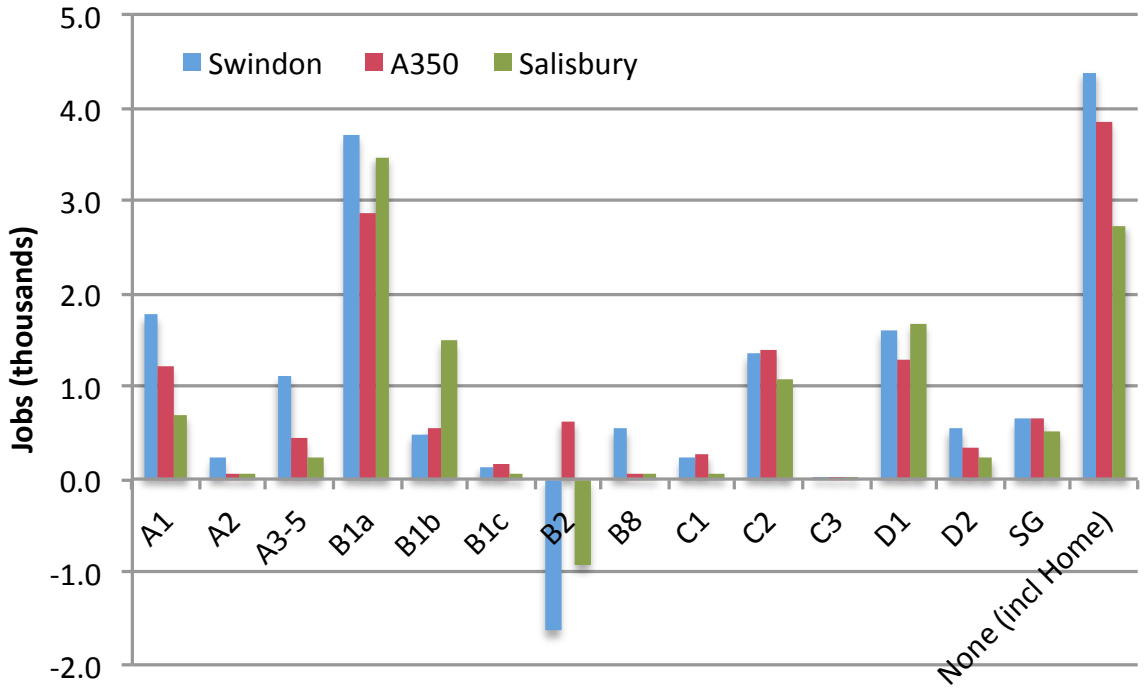
Table 5.5 Net Additional Jobs by Use Class

Use Class	Net Additional Jobs 2016-36
A	5,800
B	11,600
C	4,400
D	5,700
Sui Generis	1,800
None	11,000

Source: HJA Analysis

Figure 5.5 sets out the spread of forecast employment by Use Class in more detail. This shows that two categories dominate: growth in employment within the B1a office Use Class; and that which falls outside of all fixed property requirements. This latter category includes home working and itinerant working, as well as jobs located within client premises (e.g. cleaning and security). Some level of positive net employment growth is forecast across all Use Classes with the exception of B2 General Industrial in the Swindon and Salisbury FEMAs. This reflects the forecast decline in manufacturing employment.

Figure 5.5 Forecast Change in Employment by Use Class 2016-36 per FEMA



Source: HJA Analysis

6 Future Sites and Premises Requirements

This chapter builds on the preceding analysis to develop an understanding of likely future employment sites and premises requirements across the Swindon and Wiltshire area and the constituent FEMAs.

6.1 Methodology

The assessment of future requirements contained within this report is not designed to be a detailed prediction of exactly what will happen in the future. Any exercise which includes an element of forecasting includes substantial risk and uncertainty. Therefore, the results of this exercise are not intended to be the basis of a 'predict and provide' policy response. Rather, the approach is designed to bring together available evidence in order that there is a clear basis on which to consider policy options, in conjunction with other complementary, or potentially competing evidence. In particular, the method has been designed in line with national policy and best practice guidance to help inform the development of the Swindon and Wiltshire Local Plan Reviews, specifically to inform policies around the provision of land for employment. Policies should be regularly reviewed in the light of new evidence and the passing of time as part of the on-going planning policy development and review process.

Slightly different methodologies are used for considering the land and floorspace implications of employment change within different Use Classes. These result from the varying availability of robust evidence to inform assumptions and the level of maturity of assessment techniques.

6.1.1 A Use Classes

There is some available information to make a headline assessment of net additional floorspace requirements using the employment density method for A Use Classes. However, there are also other more traditional methods for assessing future floorspace requirements, particularly for retail use. As a result, the assessment for the A Use Class is set out as indicative. It should also be noted that for retail uses the guidance on floorspace per worker includes a wide range. The employment forecasts do not segment the changing structure of retail activities and therefore detailed retail analysis will provide more comprehensive consideration of future requirements.

6.1.2 B Use Classes

Our approach to assessing the scale of growth within the B Use Class is summarised in the figure below and supporting text. Further details of assumptions are set out within Appendix 8.

Figure 6.1: Assessing employment in the B Use Class

The sectoral employment projections are converted to Use Class and then to property and land requirements using employment and development density assumptions. This provides the first element, reflecting the projected net change in the economy.

The second stage then considers wider market factors, particularly the need to recognise the churn in the economy and the associated need to replace and upgrade property stocks. For example, whilst the manufacturing sector as a whole has experienced well-documented decline in its employment base, there has been a continued demand for new premises within which to operate. This demand can be driven by existing companies needing more/less space, a different location, or a different type of premises. It can also be driven by new companies in the market, which may not find the right type of property available in the right location within the market. As a result, whilst overall a sector may be in decline (although this still applies to growing sectors too), there are changes beneath the surface that continue to drive demand. This can be a particular issue where existing stocks are ageing or where vacant sites are no longer in the locations that are suitable to modern occupiers.

The third element of the assessment builds in an allowance for choice and flexibility. This element needs to take account of offering location choice as well as choice in terms of the type of property and setting.

Within the detailed assumptions employed as part of this model, local evidence has been used to ensure the approach is appropriate to Swindon and Wiltshire.

6.1.3 C and D Use Classes

Outside the A and B Use Classes the information available to allow the translation of jobs to floorspace is limited and generally insufficient to complete a full and robust assessment of future requirements. There is a very wide range of activities within Use Classes with hugely varying sites and premises requirements and therefore other more qualitative approaches are required.

Sectoral employment projections are translated into Use Class with the results set out in the previous chapter. This is an important step in understanding the scale and nature of change of employment within each Use Class.

6.1.4 Validation

The results of the quantitative assessment are tested against historic patterns of activity and other available evidence of a more qualitative nature to aid interpretation of the results and set the results in a wider context.

6.2 Net Additional Requirements

The following analysis provides brief headlines by Use Class. All totals are reported as gross external area (GEA). Best practice guidance[18] on employment densities use a mix of net internal area (NIA), gross internal area (GIA) and gross external area (GEA). Density assumptions quoted in the text align to those in the guidance document. To convert to GEA an uplift is provided, +20% to convert NIA to GEA and +5% to convert GIA to GEA.

The analysis presented below assumes a direct link between employment and floorspace required. It is appropriate to caveat this approach with two important points. Firstly, if there is capacity within the existing stock of premises there will be the opportunity to accommodate some employment

[18] Homes and Communities Agency, Employment Density Guide 3rd Edition, November 2015.

increases without the need for new space. Secondly, if there are changing working practices the ratio between workers and floorspace could change over time. The first of these issues is dealt with via consideration of vacancy and under-utilisation, which has also been tested through consultations. No specific evidence relating to under-utilisation has been cited in our research. It is therefore assumed that whilst some occupiers may well be under-utilising their current facilities others may well be operating above capacity. Over the course of the plan period there is an opportunity for adjustment. Related to this, there may be capacity within the existing vacant stock to absorb some growth. This analysis is not considering the supply side position. Secondly, the issue of changing working practices is considered at Appendix 8. In summary this concludes that whilst within the office sector there has been a trend towards occupation at increasing density, there is some evidence that this trend is now levelling off.

6.2.1 A1 Retail

Future retail floorspace requirements are traditionally assessed based on future expenditure patterns compared with current and planned capacity. The approach considered in this assessment is based on employment projections within the retail sector and therefore differs to the more traditional approach that is considered in other evidence.

Growth in employment within A1 retail is forecast in all three FEMAs with some 3,700 net additional jobs forecast across the entire area. The highest growth level, in both absolute and percentage terms, is forecast within the Swindon FEMA with 12% employment growth across the plan period compared to 9% in the A350 FEMA and 6% in the Salisbury FEMA.

Floorspace per worker varies from 15-20 sq m (NIA) for high street and foodstore retailers to 90 q m (NIA) for retail warehouse activities. Using a figure of 20 sq m (NIA) to create a lower end estimate suggests a requirement for around 42,000 sq m of new floorspace in the Swindon FEMA, 29,000 sq m in the A350 FEMA and 17,000 sq m in the Salisbury FEMA.

Given the differing nature of retail requirements, and the associated parking requirements for in-town and out of town locations, there will also be a broad range of development densities relating to such uses, with higher density development in settlement centres and much lower density development for food superstores and out of town retail warehouses. This creates challenges in converting outline floorspace estimates into land requirements. Any conversion would exaggerate the range of outcomes with both higher density of development and occupation in settlement centres and lower densities of both indicators out of town.

6.2.2 A2 Financial & Professional Services

Growth in employment within A2 is forecast to be modest at around 300 jobs across the entire area. A2 jobs are primarily accommodated within settlement centres and district/local centres. The Swindon FEMA is forecast to experience the greatest level of growth in both absolute and percentage terms. Based on average floorspace per worker of 16 sq m (NIA) a total requirement of around 4,000 sq m is forecast in the Swindon FEMA and around 1,000 sq m within each of the A350 and Salisbury FEMAs.

6.2.3 A3-A5 Food & Drink Uses

The A3-A5 Use Classes cover a range of settings including restaurants, cafes, pubs, bars and takeaways. An additional 1,800 jobs in the A3-A5 Use Classes is forecast across the entire area. Some 1,100 of these are forecast within the Swindon FEMA, representing higher percentage growth than both the A350 and Salisbury FEMAs.

Best practice guidance indicates a range of 15-20 sq m (NIA) of floorspace per worker, for this assessment the middle of the range has been adopted. On this basis a requirement for 23,000 sq m in the Swindon FEMA, 9,000 sq m in the A350 FEMA and approximately 5,000 sq m in the Salisbury FEMA.

6.2.4 B1a Offices

Net growth in employment within the B1a office Use Class is the largest growth within any of the Use Classes. Some 10,000 net additional jobs are forecast across the whole area, with substantial growth in all three FEMAs. In percentage terms employment within this Use Class is forecast to growth by 20% - 30% over the plan period.

Best practice guidance indicates a range of 8 – 13 sq m (NIA) depending on the nature of office use. A figure of 11 sq m (NIA) has been used to inform the analysis. On this basis a requirement for 49,000 sq m of net additional B1a office space is evident in the Swindon FEMA, 38,000 sq m in the A350 FEMA and 46,000 sq m in the Salisbury FEMA.

The land requirement for this quantity of office development will depend on the type of developments coming forward. Where offices are developed within settlement centres, either as dedicated office developments or above retail uses plot ratios of 1:1 (100%) or above are achievable. In edge of centre and out-of-town business park developments a plot ratio of around 40% is more typical, reflecting the requirement for car parking and landscaping. In reality, a mix is likely to be achieved. At the two extremes the associated land requirement ranges from 5 – 12 ha in Swindon FEMA, 4 – 9 ha in the A350 FEMA and 5 – 12 ha in the Salisbury FEMA.

6.2.5 B1b Research and Development

Growth of 2,500 jobs within the B1b Use Class is projected, with a substantial concentration in the Salisbury FEMA, building on the science strengths around Porton Down. Some growth is forecast in the Swindon and A350 FEMAs but at a far more modest level.

Best practice guidance suggests a range of 40-60 sq m (NIA) per worker. A figure of 50 sq m (NIA) has been used in the analysis. On this basis a requirement of around 90,000 sq m is forecast within the Salisbury FEMA and closer to 30,000 sq m in each of the Swindon and A350 FEMAs.

It is anticipated that B1b developments would be primarily based in business park type environments with development densities of around 40%. This would lead to a land requirement of 22 ha in the Salisbury FEMA and 7-8 ha in each of the Swindon and A350 FEMAs.

6.2.6 B1c Light Industry

The economic forecast analysis suggests a low level of growth in B1c type activities in all three FEMAs, with a total of 300 additional jobs across the entire area.

Best practice guidance notes a floorspace per worker of 47 sq m (NIA) for B1c. On this basis a requirement of 7,500 sq m within the Swindon FEMA, 9,000 sq m in the A350 FEMA and 2,500 sq m in the Salisbury FEMA.

It is anticipated that B1c developments would be primarily based in business park type environments with development densities of around 40%. This would lead to a land requirement of around 2 ha in each of the Swindon and A350 FEMAs and 1 ha in the Salisbury FEMA.

6.2.7 B2 Industry

The economic forecast analysis suggests a decline in employment in the Swindon FEMA (-1,600 jobs) and Salisbury FEMA (-900 jobs) within the B2 Use Class. Some growth (+600 jobs) is forecast in the A350 FEMA.

Best practice guidance suggests a density of 36 sq m (GIA) per worker. On this basis one might anticipate a reduced floorspace requirement of 62,000 sq m in Swindon FEMA, and 35,000 sq m in the Salisbury FEMA with an additional requirement of 23,700 sq m in the A350 FEMA.

The declines in employment in the B2 Use Class in two of the three FEMAs is not projected to drive any expansion in the requirement for space[19]. The issue is whether there is a release of space to the market. As set out in the historic completions analysis below, whilst there has been employment decline in the industrial sector for some time, there continues to be demand for new premises. Issues around the need to upgrade the supply of employment premises are dealt with in the next section of this chapter. However, when reflecting on the employment reduction in the industrial Use Class the following issues should be considered:

- Whilst a business may shed some of its staff, it may not close in its entirety and it may not release any of its property holdings to the market. Due to the lumpy nature of the commercial property market, through both lease structures and freehold ownership there is not necessarily a direct relationship between employees and floorspace. The trends that hold true across the economy at large do not always apply evenly at the individual business level. There are indications of increasing space per worker measures in the industrial sector over recent years, which likely reflect the trend towards reduced employment and increasing capital intensity. As a result, one should not necessarily expect a direct release of floorspace in this instance.
- Where a business does close, there may well be a release of either property or indeed an entire site. In some instances these will be available for re-occupation and redevelopment through normal market mechanisms. In other cases, this may not happen within the plan period. There may be constraints upon the re-use of premises or land (such as ownership or contamination), or the site/property may be located unfavourably or be inappropriate for modern business occupiers. As a result, its continued use within the stock of employment land/property could be uncertain.

As a result of both of these issues it is not easy to assess the potential release of land and property as a result of the projected scaling back of the labour force. However, it does suggest there may be some windfall releases which could contribute to future supply. For the purposes of this analysis

[19] That does not mean there will be an absence of demand for new B2 premises as a result of churn in the market and changing occupier requirements. This is considered in following sections of the chapter.

the decline in space required is carried forward but it should be noted the relationship is unlikely to be perfect in reality.

6.2.8 B8 Storage & Distribution

The economic forecasting suggests a net additional 600 jobs within the B8 Use Class. This is predominantly within the Swindon FEMA (500 jobs) with the remainder within the A350 and Salisbury FEMAs.

Best practice guidance indicates a range of 70 – 95 sq m (GEA) per worker depending on the nature of storage and logistics activities. An average of 80 sq m (GEA) has been used to inform the assessment. On this basis a requirement for 43,000 sq m of additional floorspace within the Swindon FEMA is forecast. 3,000 – 4,000 sq m is forecast in each of the other FEMAs.

On the basis of a development density of around 40% this requirement equates to 11 ha in the Swindon FEMA and around 1 ha in each of the A350 and Salisbury FEMAs.

6.2.9 C Use Classes

The C Use Classes cover a broad range of activities including hotels, guesthouses, care homes, boarding schools and colleges, hospitals, prisons and detention centres, and barracks.

The economic forecast analysis suggests around 500 jobs in the C1 (Hotels) Use Class. Growth is forecast in all three FEMAs with 300 jobs in the A350 FEMA, 200 jobs in the Swindon FEMA and 100 jobs in the Salisbury FEMA. Some data is available within best practice guidance for hotels, showing varying levels of employment depending on the quality of the hotel. Typically hotel demand is assessed via other market driven assessments. This would suggest additional hotel capacity of 500-2,500 beds across the whole area depending on the hotel quality. Assuming a mix of budget, mid scale, upscale and luxury hotels would suggest an average figure in the middle of the range. More detailed hotel market assessment would be required to inform detailed policy planning.

Growth of 3,800 jobs is projected within the C2 Use Class covering residential institutions. This is spread across all three FEMAs. This will incorporate the care home sector. The requirement for care home provision is likely to be driven in part by demographic change as well as commercial market pressures. Demand for such facilities should not be assessed using employment forecasts alone.

No growth is assessed within C3 residential property. However, consideration of homeworking is set out below.

6.2.10 D Use Classes

The forecast scenarios suggest an additional 4,600 jobs within the D1 Use Class covering non-residential institutions. This growth will be spread across all three FEMAs. This captures projected growth in health and education employment. Requirements for floorspace for such uses are not particularly driven by employment change but rather by service delivery plans and demographic changes. Provision will need to be planned alongside future housing development and through discussion with key education and health stakeholders.

A growth in employment of around 1,100 jobs is projected within the D2 Use Class, spread across the three FEMAs. This covers a range of leisure uses including cinemas, concert halls, bingo halls and casinos, dance halls, swimming pools, skating rinks, gyms and other sports grounds. Current employment in the Swindon and Wiltshire area in this Use Class is concentrated within sports and fitness facilities and clubs. On this basis the projected growth in employment would require around 72,000 - 110,000 sq m of net additional floorspace. However, this would be dependent on the nature of developments coming forward and should be treated as indicative.

6.2.11 Sui Generis Uses

Sui Generis covers a range of activities that do not fall within the specified Use Classes order. These include theatres, amusement arcades, funfairs, laundrettes, sale and repair of motor vehicles and many other activities.

Economic forecasts suggest some 1,800 additional jobs across activities that fall within the Sui Generis category in the Swindon and Wiltshire area. These are broadly split in equal numbers across the three FEMAs. The range of activities is very broad. Current employment data suggests the largest employment activities are motor trades and transport, waste and utilities, and a range of service activities. There are no robust assumptions to generate floorspace estimates for this category given the variance in activities. However, it should be noted that some of these uses are often located within traditional B Use Class dominated employment areas.

6.2.12 Homeworking and Itinerant Working

The economic forecasting suggests around 11,000 net additional jobs outside the Use Classes and Sui Generis. This includes itinerant workers, home workers, and those that work in client premises and do not require their own workspace, such as cleaners and security personnel. This employment is spread across the three FEMAs with 4,400 additional jobs in the Swindon FEMA, 3,900 additional jobs in the A350 FEMA and 2,700 additional jobs in the Salisbury FEMA.

6.2.13 Summary

Tables 6.1 and 6.2 summarise the results of analysis to estimate net additional future property requirements for the various employment accommodating Use Classes.

This suggests some growth in A Use Class requirements that are likely to be located in settlement centres, but may also feature out of town retail provision. More detailed sector research is required to understand trends in these markets, and it is likely any trends will fluctuate throughout the life of the plans.

The analysis of net changes within the B Use Class shows a continuation of the shift towards office based activities with a continued growth in employment within warehousing based activities. Whilst manufacturing based employment is projected to decline in most areas the implications for floorspace requirements are uncertain.

There will be growth in employment within the C and D Use Classes. The health and education elements of this will be primarily driven by demographic changes and through new models of service delivery (particularly in health care).

There will be substantial growth in employment that does not require dedicated property provision.

Table 6.1: Summary – Net Additional Employment by Use Class 2016-36 per FEMA

Use Class	Swindon	A350	Salisbury
A1	1,800	1,200	700
A2	200	100	100
A3-5	1,100	400	200
B1a	3,700	2,900	3,500
B1b	500	500	1,500
B1c	100	200	0
B2	-1,600	600	-900
B8	500	100	0
C1	200	300	100
C2	1,300	1,400	1,100
D1	1,600	1,300	1,700
D2	500	300	200
Sui Generis	600	600	500
None	4,400	3,900	2,700
Total	**15,000**	**13,800**	**11,400**

Table 6.2: Summary – Net Additional Floorspace by Use Class 2016-36 (sq m) per FEMA

Use Class	Swindon	A350	Salisbury
A1	42,300	29,270	16,590
A2	4,230	980	1,150
A3-5	23,210	9,180	5,040
B1a	48,740	37,620	45,880
B1b	28,780	32,950	89,500
B1c	7,490	8,900	2,600
B2	-62,110	23,720	-35,050
B8	43,320	4,200	3,250

6.3 Churn and Replacement

The following analysis relates only to the B Use Classes. It is assumed that the majority of A, C and D Use Class redevelopment activity that would be required would take place at existing locations and no major new provision of sites is required to facilitate such replacement activity e.g. town centre redevelopment would take place at current centres and not require a major town centre relocation.

The methodology employed for estimating the level of replacement demand assumes that a proportion of the total existing stock of employment property is replaced each year to ensure the overall stock of premises is appropriate to modern needs, in terms of both building quality and site characteristics. This is particularly important for the manufacturing sector where on-going development of industrial premises has been observed, despite a decline in employment in the sector over many years. With Permitted Development Rights (PDRs) now in place there is increasing pressure for redevelopment of office stocks to other uses. It is important that this does not hamper

the growth of the economy. There are positive impacts if PDRs allow poorer quality stocks to be redeveloped, creating opportunity for higher quality new provision in its place.

Official statistics on PDRs for Swindon and Wiltshire are summarised in the table below. This shows office to residential PDRs across both areas, with a greater requirement for prior approval in Wiltshire. The statistics do not provide any indication of scale.

Table 6.3 Office to Residential Permitted Development Rights

	Swindon			Wiltshire		
	PANR	***Granted***	***Refused***	***PANR***	***Granted***	***Refused***
Year to June 2015	13	0	0	8	3	2
Year to June 2016	12	3	1	7	6	4
Total	**25**	**3**	**1**	**15**	**9**	**6**

PANR= Prior Approval Not Required

Source: DCLG Live Tables on Planning Application Statistics. Table PDR1 based on General Development Control (District Matters) PS1/2 returns.

HJA estimates a replacement requirement equivalent to 1% of stock per annum across all areas with the exception of the office sector in Swindon, which is increased to 1.5% per annum[20]. Data on commercial property stocks is available up to 2012. For Wiltshire the countywide data is apportioned to each FEMA based on employment by Use Class across the FEMAs. Commercial stock data is only split by office and industrial, and does not therefore allow fine-grained analysis by Use Class.

6.4 Re-Use of Employment Sites

The analysis of both net additional and replacement requirements set out above do not consider whether the development activity takes place on existing employment sites (replacing or refurbishing one building with another on the same plot of land) or whether currently unoccupied land needs to be made available. The evidence and market observation suggest there will be elements of both.

For the purposes of this analysis we assume that 80% of employment development activity requires appropriate supply to be made available through allocated sites. This assumption is drawn from analysis of past completions data for Wiltshire, which indicates that around 20% of employment development took place on land previously used for employment use. It was not possible to develop a similar assumption specific to Swindon.

6.5 Development Density

A development density of 40% is assumed for industrial premises development. For offices a range is used to address the differing nature of development in 'in-town' and 'out-of-town' locations. A figure of 40% is used for out-of-town and business park type development. A figure of 100% is used to capture the higher densities achieved in town. If high rise development is accommodated this can

[20] See Appendix 8 for details.

lead to higher densities being achieved. As a result the land requirement range for the office sector is wide and the floorspace figure may be a more suitable metric.

6.6 Choice and Flexibility

Two core components are added to take account of choice and flexibility. Firstly, a percentage uplift of the combined requirement for net additional and churn/replacement is applied to ensure an allowance for range and choice is incorporated. This uplift also builds in some additional flexibility to allow the normal frictional movement in the market. An uplift of 10% has been applied.

6.7 Combined Results

Table 6.4 sets out the results for each FEMA.

For office space there is an estimated requirement of around 190,000 sq m in the Swindon FEMA over the plan period, close to 85,000 sq m in the A350 FEMA and 65,000 sq m in the Salisbury FEMA.

When considering industrial space in its various forms a requirement for some 87 hectares of land is identified in the Swindon FEMA, 83 hectares in the A350 FEMA and 44 in the Salisbury FEMA.

In all sectors and FEMAs the replacement requirement is substantially greater than the net additional element.

Whilst annual average estimates are provided, the lumpy nature of the commercial development market, as illustrated in the analysis of historic completions later in this chapter, will mean an uneven delivery of this requirement is highly likely. However, it does provides a tool to inform phasing of land release.

The estimates are prepared without constraint, in line with PPG. Whether the market is willing and able to deliver the level of requirement is a separate matter.

No allowance has been included for accommodating non B Use Class activities within B Use Class allocations. This could include both complementary uses, as part of mixed use development, as well as non B Use Class activities which increasingly look to locations in employment and business park type settings, such as motor trades (including vehicle sales, hire and repair), large scale play and leisure activity centres. This would require additional provision.

Table 6.4: Estimates of Floorspace and Land Requirements per FEMA 2016-2036

	Swindon/M4 Corridor		A350/West/Central Wilts Towns		Salisbury/Amesbury/A303	
	Office	**Industrial**	**Office**	**Industrial**	**Office**	**Industrial**
Total Stock	583,600	1,888,900	284,300	1,540,900	125,800	707,300
Replacement Provision (A)	169,000	377,800	56,900	308,200	25,200	141,500
Net Additional Requirement (B)	48,700	17,500	37,600	69,800	45,900	60,300
Total Requirement (C = A+B)	217,800	395,200	94,500	378,000	71,000	201,800
Delivered on Existing Employment Sites (D)	43,600	79,000	18,900	75,600	14,200	40,400
Remaining Requirement (E = C-D)	174,200	316,200	75,600	302,400	56,800	161,400
Flexibility Allowance (F=Ex10%)	17,400	31,600	7,600	30,200	5,700	16,100
Total Requiring Provision (G=E+F)	**191,600**	**347,800**	**83,100**	**332,600**	**62,500**	**177,500**
Average Annual Requirement	*9,600*	*17,400*	*4,200*	*16,600*	*3,100*	*8,900*
Total Land Requirement	**19.2 - 47.9**	**87.0**	**8.3 - 20.8**	**83.1**	**6.3 - 15.6**	**44.4**
Average Annual Requirement	*1 - 2.4*	*4.3*	*0.4 - 1*	*4.2*	*0.3 - 0.8*	*2.2*

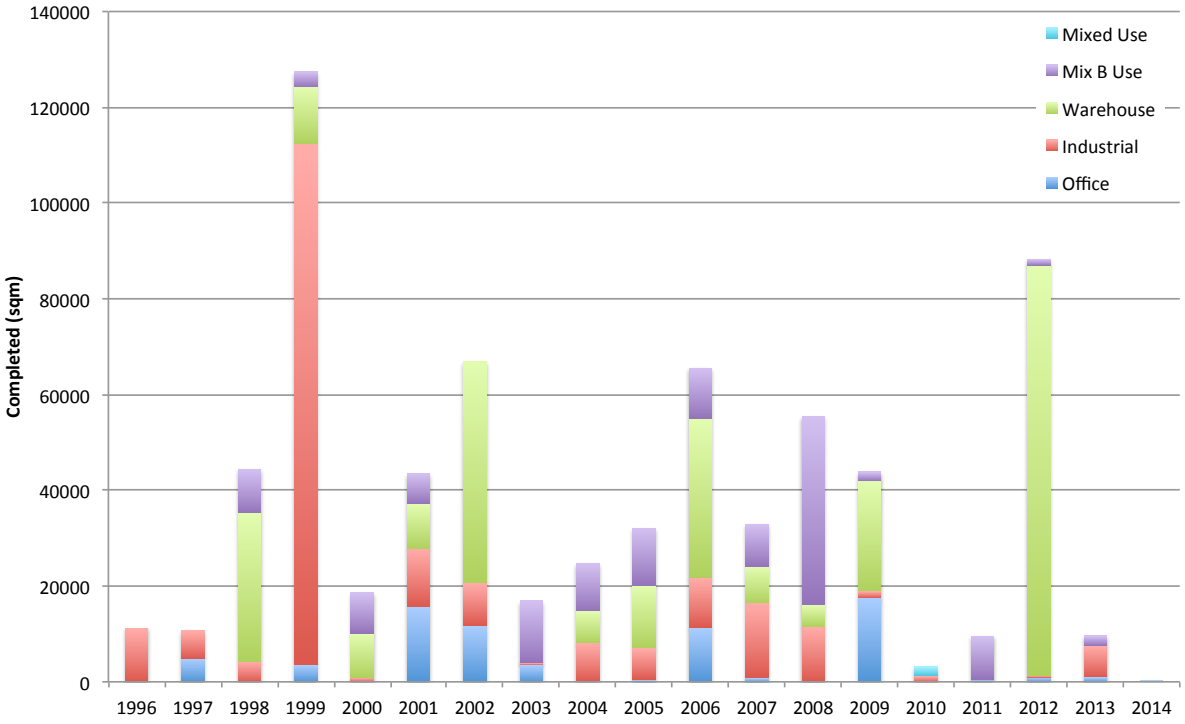
Source: HJA

6.8 Historic Employment Completions

It is helpful to consider the above analysis in the context of previous completions of employment property. The following analysis is based on monitoring data provided by the two councils. The data provided covers different time periods.

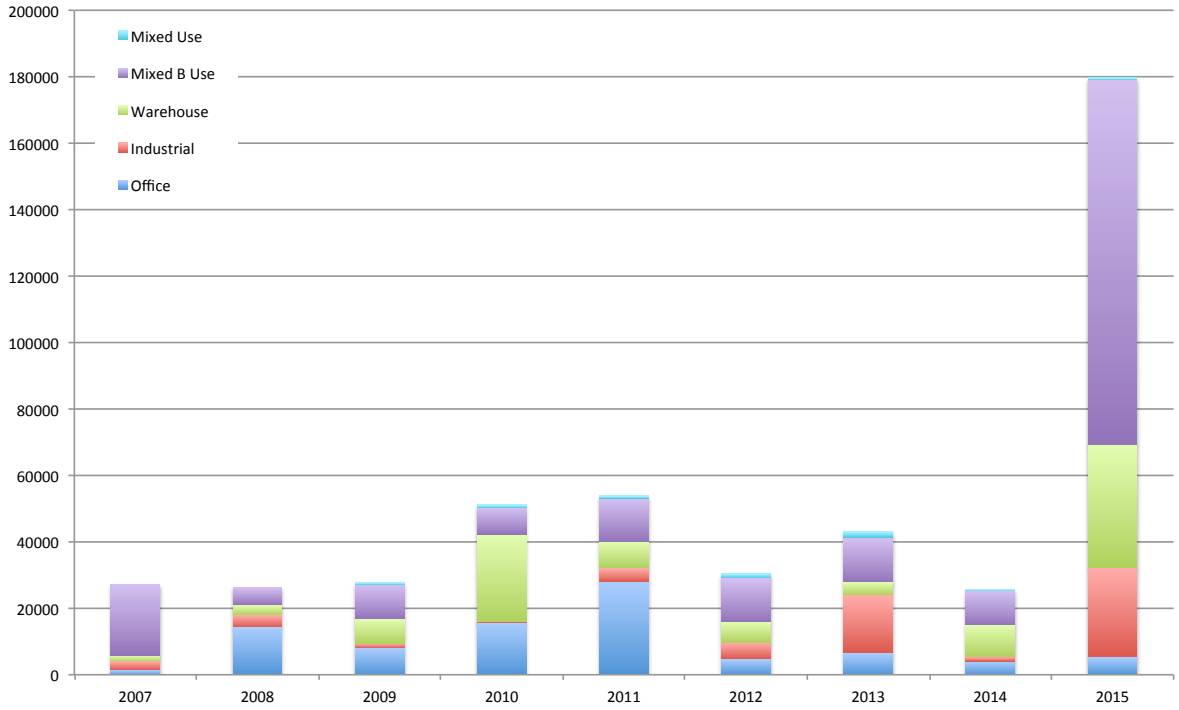
Figures 6.2 and 6.3 provide a visual illustration of B Use Class completions over time. The most obvious interpretation of the data is the lumpy nature of completions. There were particular spikes in Swindon in 1999 and 2012 and in Wiltshire in 2015. These relate to a very small number of very large developments. This issue has been referred to in the analysis above, and should be anticipated in the future.

Figure 6.2 Past Completions in Swindon Borough 1996-2014



Source: HJA based on Swindon Borough Council data

Figure 6.3 Past Completions in Wiltshire 2007-2015



Source: HJA based on Wiltshire Council data

The lumpiness of the data does mean that the period used to determine historic averages can have a substantial influence on the results.

The data has not been coded in such a way that office and industrial can be fully separated. This provides some challenges. In Swindon around 20% of completions data is coded as Mixed B Use. In Wiltshire the figure was 43%. As a result the remaining analysis is based on all B Use Class completions.

Data for the Swindon Borough, covering a 19-year period suggests average annual completions of 35,000 – 40,000 sq m per annum covering around 8 hectares per annum.

Data for Wiltshire covering a nine-year period suggests average annual completions of around 55,000 sq m. There is not a land based figure within the data, but assuming a development density of around 45% which was achieved in Swindon would lead to an estimate in the region of 12 hectares.

The combined picture is therefore of annual completions in the order of 20 hectares per annum, although this is very lumpy and dominated by a small number of very large developments. When undertaking the same analysis excluding the single highest and lowest years in both Wiltshire and Swindon a figure approaching 15 hectares per annum is derived.

This compares to a total estimated requirement of approximately 15 hectares per annum emerging from the analysis set out in the previous section. However, that figure has been discounted by 20% to take account of completions that take place on existing employment sites. Adjusting for that discount increases the requirement to a gross completions estimate of up to 19 hectares.

6.9 Conclusions

The future requirement for land to accommodate employment needs to be considered in broad terms. The analysis in Chapters 5 and 6 of this report has shown the spread of employment growth across all Use Classes and none. However, there are differing methodological approaches to assessing the scale of those future requirements.

Indicative estimates have been provided for the A Use Class; however, more traditional market based analysis should also be used to assess retail requirements. The variance in uses within the C and D Use Classes precludes quantification of floorspace and land implications. Within the B Use Class a detailed analysis has been set out which captures both the forecast future shifts in the economy and the need to continually upgrade the commercial property stock.

The HJA analysis estimates a gross level of B Use Class completions of up to 19 hectares per annum, discounted to 15 hectares per annum to allow for direct replacement activity. This compares to historic gross completions in the order of 20 hectares per annum.

On this basis provision should be made for around 15 hectares of land per annum spread across the FEMAs as set out in Table 6.4.

7 Headline Market Trends

The following analysis provides a summary of latest research on changing property market trends within the core employment property sectors.

7.1 Offices

Office space in the UK market can be categorised as urban core[21], peripheral[22], and out-of-town[23]. Current and future trends in these categories are discussed below, followed by concluding comments.

7.1.1 Urban Core

Developments in recent years have seen a market shift towards urban core office space. Jones Lang LeSalle (2013) suggest six drivers of this trend: demographics; immigration and globalisation; working practices; sustainability; policy; and transport improvements. A discussion of these drivers is presented below.

7.1.1.1 Demographics

With movement of labour now more prevalent than ever, businesses are paying closer attention to the wellbeing of their staff in order to retain their most talented employees. Given the shift in lifestyle preferences towards a desire for proximity to services, amenities, and leisure facilities, urban living has become more attractive (especially to young people). Similarly, international talent is most likely to be concentrated in urban areas. Many businesses have taken the opportunity to relocate to city-centres in order to compete for the top talent in their sector (NLP, 2015).

7.1.1.2 Working practices

Reduced desk space requirements have facilitated a move towards urban core office space, brought about by technological advancements (improved broadband connectivity and smaller personal computers), and a rise in hot-desking and remote working as established and accepted norms in professional sectors (NLP, 2015). Up to 14% of the UK's working population work from home, with this proportion growing at a rate of 1.2% p.a., with the proportion increasing to 17% of workers in the South West (ONS, 2014). The rise in self-employed workers in professional sectors has also contributed to a reduction in overall office space requirements.

Average office density increased from 15 sq m per employee to 10 sq m between 2005-2015 (LSH, 2015), with densities of up to 8 sq m nowadays becoming commonplace in many offices (Dady, 2016). Along with reducing workspace requirements, this can be attributed to the trend towards city-centre relocation, alongside the fact that office-based job growth has outpaced growth in office floorspace over the same period (NLP, 2015), both of which have made higher office densities a necessity. It is expected that this recent increase in densities will plateau, as densities can only increase so far (BCO, 2013). BCO research data suggests that this levelling-out is already beginning to happen. If this is true, this would reduce the need to future-proof developments against further increases in densities. The BCO also reported anecdotal evidence to suggest that in some instances, densities will

[21] Central office market areas with high levels of employment density.
[22] Edge of town and suburban employment centres, offices interspersed with residential areas.
[23] Large out-of-town business parks and science parks located on the edge of urban settlements.

continue to rise. This could be made possible by improving design standards as a response to a push towards reducing construction costs and environmental concerns.

7.1.1.3 Sustainability

The move towards more sustainable living means that the walking, cycling, and public transportation opportunities provided by urban core locations plays a role in office developments. Continual improvements in city-centre public transport infrastructure, such as tram lines, train lines, and bus routes are making city-centres more accessible. This, combined with a decline in car ownership, has contributed to the shift towards urban core office markets (NLP, 2015).

7.1.1.4 Policy

Policy initiatives such as Enterprise Zones, City Deals, and Town Centres First have contributed to the shift towards urban core office space.

Permitted Development Rights (PDRs) allow the change of office space to residential use without the need for full planning permission. PDRs have the potential to lead to a deficit in office space and increase pressure on office markets. The availability of commercial property has been declining at its fastest rate since 1998 since the introduction of PDRs (RICS, 2014). However, in some locations, the policy is allowing the removal of poor quality office space, which is increasing rental values and making new development more viable.

Policies influenced by agglomeration theory are also encouraging a shift towards urban core office space. This theory suggests that businesses benefit from being co-located with similar firms, not only because of the concentration of labour which results, but also due to the sharing of ideas, best practice, and associated supply chain advantages (JLL, 2013).

7.1.1.5 Potential problems

Developable land is harder to come by in city-centres due to the interrelated effects of constrained planning regulation, high development costs, and higher physical constraint due to existing infrastructure and buildings (JLL, 2013). There is also a risk that concentration in urban core areas will create a rent bubble.

7.1.2 Periphery

Good access to the urban core provided via improving public transport links make periphery locations a promising alternative to urban core areas. The strengthening of urban core areas as business centres, and the inevitable rising rents in those areas, will ensure a market for periphery office spaces. With better land availability, the increasing popularity of mixed-use developments makes periphery office space a viable option. This land availability also provides increased opportunities for 'future proofing' developments, ensuring flexibility to change capacity in order to meet the needs of a changing economy, and capitalise on city-centre spillover (JLL, 2014). There is predicted to be an improved performance from peripheral office markets over the next five years, with higher yields encouraging investment at a comparative discount compared to urban core areas.

7.1.3 Out-of-town

Despite the trend towards urban core relocation, occupier demand for out-of-town office space has remained steady, and there is no evidence of a decline in demand for business park space (JLL,

2014). They offer the large, flexible floorplates that more central locations can't always provide, and space to expand, which is also more problematic in urban centres. Their connectivity to motorways and airports are also attractive, particularly for sales firms (JLL, 2014).

However, due to a lack of proximity to urban areas, out-of-town markets are finding it increasingly challenging to attract occupiers by providing the working environment that a changing workforce is looking for. As an investment opportunity, new out-of-town office developments on greenfield land are seen as too expensive. High upfront infrastructure costs and tighter car parking restrictions mean that new out-of-town office developments are on the wane (Dady, 2016). The Town Centres First policy has also made obtaining planning consent for out-of-town schemes more difficult.

The general trend for out-of-town office space is moving towards recycling and retrofitting existing business parks, moving away from campus-style buildings to increased densities, multi-letting, and vibrant public spaces in an attempt to mirror urban conditions.

7.1.4 Conclusions

Despite the reduction in average office space per employee, and the increase in flexible working, business behaviour still reflects the importance of office space in encouraging interaction, networking and collaboration (NLP, 2015). Prevailing market conditions generally support the UK's office market, due to the importance of the services sector to economic growth and it's contribution to job creation (LSH, 2016).

Furthermore, even though office densification is on the increase, this doesn't necessarily lead to smaller overall floorplates. Smaller workspaces are in many cases offset by meeting spaces and on-site provision of cafés, gyms, crèches and other facilities.

Sectoral growth will also play an important role in the provision of office space. Employment growth in the UK is primarily driven by the knowledge economy, with differing office space needs from sector to sector. Media and technology companies tend to value combinations of dedicated workspaces and collaborative areas, whereas many businesses in professional services sectors prefer a more traditional, formal workspaces with large floorplates (NLP, 2015).

Flexibility of covenant will be important for emerging businesses, whilst established firms can commit to the long-term covenants desired by investors.

Essentially, demand for office space in the UK is not in decline, but there is an ongoing shift in the areas that businesses are choosing to locate themselves, and the way they choose to use that space.

7.2 Industrial & Manufacturing

"The general trend is towards smaller, manageable, clean, well-organised, highly flexible factories that contain updated but traditional technologies that can be quickly ramped up to meet volume and changing market requirements. Customer focus and personalisation of product is recognised as being of increasing importance and it is clear that in the longer term there will be a need for centralised mass production facilities and localised facilities to personalise the product."

The factory of the future, Office for Science

7.2.1 General Outlook for the UK Manufacturing Sector

Over the last 30 years, the manufacturing sector in the UK has been in relative decline. During this period, output in the manufacturing sector has grown more slowly than output in the services sector. The number of people employed in manufacturing has also fallen steadily as productivity per employee has increased (PwC, 2009). Britain's negative balance of trade (more goods imported than exported) has had a negative impact on the sector, and is unsustainable if UK manufacturing is to succeed in the future.

With the population of the UK as a proportion of global population falling, and emerging economies claiming an increasingly proportionate share of global markets, Britain's relative economic influence will continue to adjust accordingly.

This adjustment process will be aided by the repatriation of production from low cost locations as the UK becomes a more cost-competitive location for manufacturing. This will encourage further investment in onshore manufacturing capital.

The UK's cost-competitiveness will also be impacted by the conflicting demands presented by the global supply chain. On the one hand, some businesses desire a global supply chain to support their international operations. Meanwhile, there is an emerging move towards clustered local supply chains which support the sharing of resources (including knowledge). This latter trend, combined with higher labour costs and rising transport costs, will encourage the onshore sourcing of components and resources. This move towards more localised supply chains will make it increasingly possible for the UK to compete on the grounds of cost, quality, delivery speed, and customisation, which are becoming increasingly important (GoS, 2013a).

In order to thrive in these new market conditions, the British manufacturing sector must capitalise on its areas of competitive advantage and continue to establish itself as a 'niche player' (PwC, 2009). The strongest manufacturing industries in the UK are aerospace, automotive, and pharmaceuticals (GoS, 2013b).

Although it is predicted that manufacturing employment in the UK will decline by around 170,000 to 2020, there will be 800,000 jobs to fill in the same period as people leave manufacturing through retirement and career changes (GoS, 2013b). Furthermore, the historic fall in employment has been offset by significant productivity gains in UK manufacturing.

7.2.2 Technological Advancements

Technological advancements have changed, and will continue to influence, the way the manufacturing industry behaves. Increased connectivity is making it possible to reduce costs and boost productivity through the development of 'smart factories'[24]. Similar to the office property market, connectivity is making remote operations more possible in manufacturing (Piers Masons, 2015). The resultant decentralisation of manufacturing premises is discussed in the next section.

Connectivity is also facilitating the production of connected goods. Although it is difficult to know what direct impact this will have on property requirements, an increase in the need for data storage

[24] 'Smart factories' have the potential to boost UK manufacturing productivity by up to 30% (Pinsent Masons, 2015).

to meet the functional requirements of connected products means a continued increase in the data storage property market will be necessary. One specific product set which could have a significant impact on the UK manufacturing sector is that of connected and autonomous vehicles. The further rollout of this technology could create an additional 320,000 jobs in the UK (GoS, 2013b), with an inevitable impact on the manufacturing and industrial property market.

The prevalence of 3D printing will continue to change the face of manufacturing. The number of 3D printers sold will reach 2.3 million by 2018 (Piers Masons, 2015), with the global market for 3D printed products growing from £2bn to £70bn per year by 2020 (Piers Masons, 2015).

7.2.3 Possible Impacts on the Manufacturing and Industrial Property Market

The above market trends and technological advancements have implications for the manufacturing and industrial property market. These ongoing changes are resulting in new industries which have different property needs to traditional occupiers. As a result, there will be an increasing mismatch between supply and demand of premises, with many older sites becoming economically and functionally obsolete (DTZ, 2009). Market conditions are already such that rents for floorspace in older, more general industrial estates have fallen as low as £1 per sq ft. These subdued values are a result of the age and condition of stock, as well as the extent of vacant premises, which discourages further speculative development of non-specialist sites. However, it seems that whatever the overall prospects for UK manufacturing, there will continue to be a demand for appropriate facilities which meet changing modern operational requirements.

The trend towards localised operations will be facilitated by the technological advancements that are emerging. The factories of the future will be more varied and more distributed than those of today. There is general consensus that the manufacturing and industrial property market will trend towards smaller local and urban sites, with mobile and domestic 'factories' becoming more prevalent as well. This will allow for increasing supply chain integration, which will also impact the manufacturing property market. Products dependent on process-driven innovation benefit from the co-location of different parts of their production systems, which may lead to clustered hubs. Although large sites are set to become less prevalent, there is scope for a 'hub and satellite' model, with large, centralised premises supplementing a proliferation of smaller, decentralised ones (GoS, 2013a).

The trend towards smaller premises will be further prompted by a drive towards sustainability, with the need to make efficient use of land becoming ever more important. Advancements in automation and robotics will also reduce the footprint of sites (GoS, 2013a).

The need for these smaller decentralised sites to be flexible and reconfigurable may require a re-categorisation of land use. Businesses are likely to desire less space for production and more space for offering access to customers, clients, suppliers, universities, and other bodies i.e. non-industrial uses. This trend will create a demand for premises that are attractive places in which to work.

7.3 Distribution & Logistics

Recent research suggests there are some emerging trends in the distribution and logistics market that will influence the property market over the coming years. This report discusses those trends and their likely impacts.

7.3.1 Increased Online Retailing

The UK is the global leader for online consumer spending, with around 15% of sales made via the Internet (Colliers, 2015). It is expected this figure will rise to 20-25% by 2020 (Page, 2013). This continued rise in retail demand has fuelled growth in large distribution centres, a trend which is set to continue as ecommerce increases its market share. Increasingly, companies that have a good approach to ecommerce are receiving better covenant strength in their lease arrangements, with investors keen to support property ventures in the online retailing market.

Online grocery shopping in particular is set to be the primary driver of an increased demand for logistics assets and infrastructure. Despite the UK's mature online retail market, online grocery shopping accounts for only 4.4% of total grocery spending (JLL, 2014). This is set to change as retailers increase their provision of online grocery shopping and adapt their distribution models in the face of rising demand. The traditional model of in-store picking is becoming unsustainable due to its increasing disruptiveness, with supermarkets utilising 'dark stores[25]' instead. This growth will generate new requirements for logistics facilities.

7.3.2 Changing Supply Chain Models

The increase in online retail will change the supply chain models adopted in the distribution and logistics market. The market is changing from a 'business-to-business' model to a 'business-to-customer' one.

Businesses are focusing more on 'first-mile' and 'last-mile' logistics[26], as distribution is becoming more complex under this new 'business-to-customer' model.

Strategic Rail Freight Interchanges (SRFIs) are a response to changing 'first-mile' demands. SFRIs create direct employment opportunities, reduce the need for HGV transport[27], and play an important role in serving regional markets. They create increased on-site land requirements, and differing off-site infrastructure requirements (DfT, 2011).

One trend which will change property requirements in the near future is the increased prevalence of 'click-and-collect' services. This model is a response to changing 'last-mile' logistical demands. It reduces distribution costs for retailers, and is often seen as more convenient for the customer as items can be collected at their discretion. Whether businesses choose collection in-store or at a dedicated location (e.g. Amazon Locker), this model will require more floorspace closer to the customer.

[25] Distribution warehouses closed to the public which focus on online orders only
[26] As a rule, the shipment of a good begins with the so-called 'first-mile' and ends with the 'last-mile'.
[27] And consequently reduce the impact of HGV logistics on an already congested road network.

Another 'last-mile' distribution model being explored by retailers is the use of drones, or Unmanned Aerial Vehicles (UAVs). Current usage of this technology is still in its infancy, but there are reasons to believe it will become more prevalent. With fuel prices posing one of the biggest future threats to the logistics industry, UAVs may provide cost savings in the long term. UAV distribution could also provide relief for urban traffic networks, reducing congestion whilst maintaining delivery times. However, in the near future it is unlikely that UAVs will be used for anything more than small package distribution (Marsh, 2015).

7.3.3 Possible Impacts on the Distribution and Logistics Property Market

The above shifts in supply chain models will have an impact on the land and property requirements of the distribution and logistics sector.

The changes in 'last-mile' logistics will almost certainly place increased demand for smaller, localised distribution centres either on the periphery of towns and cities, or located within urban areas, especially in and around London (Colliers, 2015). Demand for more traditional, large distribution centres with a regional focus will be maintained in order to support a network of smaller, local units. As access to land in and around UK cities tightens, 'skyscraper sheds' may become more common. Multi-storey warehouses already exist in land-scarce locations such as Hong Kong, Singapore, and Japan[28]. In metropolitan centres with premium land costs and availability, such developments will enable logistics firms to locate themselves closer to where the majority of online consumers reside, reducing the time, cost, and carbon footprint of their distribution networks.

If UAV distribution becomes popularised, this will further necessitate a move towards smaller, localised distribution centres which can service urban areas.

For out-of-town office space that cannot be developed for residential use under Permitted Development Rights, subject to gaining planning permission there may be scope for such units to serve a more localised approach to distribution.

7.3.4 Conclusions

Distribution and logistics make up a large proportion of transport greenhouse gas emissions. Significant reductions in emissions will be required to meet the UK's climate change targets and carbon budgets (DfT, 2011). Despite this pressure on the industry, it looks set to experience growth over the coming years as a result of increasing ecommerce sales and the demand this will create for new supply chain models. In particular, the need for large, regional distribution centres will be maintained in order to support the development of smaller, local units located on urban peripheries that will meet the growing demands of online consumers.

[28] Research suggests that plot ratios of 80%-950% have been achieved in Asian multi-storey warehouse developments (CBRE, 2016). This figure should be treated with caution as GFA is measured differently around the world. Furthermore, UK parking requirements would likely restrict the achievable GFA.

8 Conclusions

As stated in the introduction, there were two primary objectives for this assessment.

- An assessment and definition of the local functional economic market areas relating to Wiltshire and Swindon using the most up to date and robust information available; and
- An objective assessment of employment need for Wiltshire and Swindon per FEMA, in terms of number of jobs by sector and in terms of land by employment use.

Chapter 2 dealt with the first objective in some detail. Additional information is set out in Appendix 1 to this report. This concluded that there were three FEMAs relating to the Swindon and Wiltshire area.

- A Swindon/M4 corridor FEMA;
- An A350 corridor and west/central Wiltshire towns FEMA; and
- A Salisbury/Amesbury/A303 corridor FEMA.

There are overlaps in the FEMAs and relationships outside the Swindon and Wiltshire administrative areas. The Swindon FEMA has connections both east and west, however, consultations suggested a strong connection eastwards towards the greater South East and London. The A350 FEMA is polycentric in nature and looks westward with connections to Frome and the Bath area. The Salisbury FEMA looks south and east and has connections into north Dorset and parts of Hampshire. Whilst external connections were noted these were not so strong or far reaching that additional administrative authorities needed to be included within the analysis. Best fit FEMAs were therefore identified which aligned to the Swindon and Wiltshire administrative areas and with the housing market areas emerging from the SHMA work being undertaken alongside this assessment.

Chapters 3 to 7 dealt with the second objective and might better be summarised under the sub-objectives set out in the project brief.

- Understanding of the economic conditions in the area and how they affect residents and businesses;

Chapter 3 summarises the economic conditions and draws on the Local Economic Assessment. This identified that Swindon is a high productivity economy but has not experienced high growth in recent years. Wiltshire has experienced much more rapid growth in recent years, in both GVA and employment terms but still ranks relatively poorly relative to benchmarks. In combination the area has broadly tracked the national economy. Labour market participation is very high, however there are concerns about some skills issues and the lack of a local higher education presence in the LEP area. Sectoral analysis shows a range of strengths across the three FEMAs including science, advanced manufacturing, financial services and tourism and leisure.

- Understanding of the local constraints to economic growth and employment and the risks to delivering sustainable economic growth;
- Understanding the comparative strengths and weaknesses of the local economy and the nature and form of local economic challenges and opportunities; and

Chapter 4 sets out a SWOT analysis drawing on existing research in the area coupled with the evidence gathered as part of this assessment. This indicates that whilst there are clear strengths in the area, and opportunities to pursue to enable future growth there remain weaknesses and threats.

Strengths include some of the key sectors in the area, particularly science, advanced manufacturing and high value services. Innovation and R&D statistics are very positive. There are a number of significant employers in the area that have indicated intentions to continue investment. Opportunities include a series of urban expansions planned as well as committed investments to upgrade arterial rail and road infrastructure. There are plans in development to increase higher education delivery as well as major improvements to Swindon town centre in terms of retail, leisure and employment offers.

Transport infrastructure within the Swindon and Wiltshire area is identified as a key challenge, as well as perceptions of Swindon town centre and the lack of higher education provision. It will be important that skills challenges can be tackled to enable future economic and productivity growth in the area. The lack of suitable sites and premises to underpin expansion of the economy, and a shortage of public resources to deliver infrastructure development were noted as key threats. Much of the analysis within the assessment was undertaken before the vote to leave the EU. The economic uncertainties around 'Brexit' which affect the whole of the UK are present in Swindon and Wiltshire.

- The employment needs of the area, in terms of number of jobs to be created and by employment use in Wiltshire and Swindon.

Chapter 5 sets out the process for developing robust, realistic and aspirational growth scenarios for the Swindon and Wiltshire area and each of the constituent FEMAs. Forecasts from two major providers have been assessed. These suggest baseline economic growth (GVA) higher than recent history, with employment growth at a similar level. However, some rebalancing is anticipated, with stronger performance of Swindon relative to Wiltshire. The forecasts were reviewed in detail to consider each of the constituent sectors and a number of adjustments were made to reflect known developments in the area. The results are summarised in table 5.3, which sets out forecast employment change by sector for each FEMA.

Chapter 6 considers the implications for employment sites and premises. It is clear that employment growth will impact on many different Use Classes, as well as substantial employment growth that does not require any specific sites and premises provision. This is summarised in Table 6.1. The analysis also highlights the need to provide for the upgrading and replacing of existing employment premises to ensure they cater for future occupier requirements. Table 6.4 summarises the specific implications for the B Use Class, with a total requirement for around 15 hectares per annum to be provided through the local plans.

Chapter 7 provides a summary of headline market trends within the offfices, industrial and logistics markets, setting out the direction of travel in each of these sectors and the changing requirements this is bringing about.

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