

Hertfordshire Strategic Employment Sites Study

A Final Report by
Regeneris Consulting

Hertfordshire County Council
and East of England
Development Agency (EEDA)

Hertfordshire Strategic Employment Sites Study

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Executive Summary

Introduction

1. Regeneris Consulting together with GL Hearn, WSP Group and John Rutherford Consulting were commissioned to carry out the Hertfordshire Strategic Employment Sites study. This assignment is being carried out on behalf of Hertfordshire County Council, East of England Development Agency (EEDA) and the ten districts in Hertfordshire.
2. The background to this study is that partners are concerned that Hertfordshire is losing its competitive edge, with a fear that there has been a **slowdown in the growth of the economy** in recent years. At the same time, there is increasing competition from other successful business locations such as the Thames Valley as well as parts of Oxfordshire and Cambridgeshire.
3. A previous study¹ suggested that there were a lack of strategic employment sites in Hertfordshire and the Hertfordshire Works Economic Development Strategy 2009-2021 recognises the need to work with local planning authorities to identify and bring forward a small number of strategic sites in high profile prestigious locations served by sustainable transport. This strategy is supported by districts in Hertfordshire and will be taken forward by the Hertfordshire Local Enterprise Partnership (LEP).
4. Partners recognise that there are a number of other factors which are important in supporting economic growth, including tackling skills issues, promoting enterprise and innovation and supporting the growth of key sectors. However, it is not the role of this study to consider these issues in detail.

Historic Economic Performance

5. The economic performance of Hertfordshire has been assessed and compared to a number of benchmark areas (national, regional and competing areas). This confirms that in relation to a number of economic indicators, **Hertfordshire has been under-performing**:
 - Whilst Hertfordshire generates high levels of Gross Value Added (GVA), growth in GVA and GVA per head has been slower than certain competitor areas. Between 1998 and 2008, GVA per head in Berkshire for example increased by £8,000 more than Hertfordshire over the same period.
 - Employment growth in Hertfordshire has also been behind some other areas. Between 1998 and 2008, employment in Hertfordshire increased by 2% which compares to national and regional growth levels of 10% over the same period.
6. There is also some evidence to suggest that employment in Hertfordshire is becoming more focused on low value sectors. Key sectors in terms of size include 'wholesale and retail trade' and 'admin and support services'. In addition, sectors which have grown between 1998 and 2008 includes education, health and social work. Employment in other higher value sectors such as 'research and development' have **not kept pace** with national growth.

¹ Regional Strategic Employment Sites Study, Arup (2009)

7. We have also looked in detail at the strength of certain priority sectors. Hertfordshire has a particular strength in **life sciences**, with an increase in employment between 2003 and 2008 and a relative specialisation in employment terms compared to national levels.
8. There has been significant employment growth in the **advanced manufacturing and professional, banking and finance sectors** in Hertfordshire. However, the county does not have a relative specialisation in these sectors in employment terms compared to nationally.
9. Employment in the **software and digital sector and the green industries** sector declined between 2003 and 2008 but Hertfordshire does have a relative specialisation in these sectors in terms of employment compared to national levels.
10. Hertfordshire does not have a relative concentration of employment in the **logistics** sector and employment in this sector has been in decline. There are average concentrations of employment in the **creative industries** sector and between 2003 and 2008 employment fell (but there has been an upturn in jobs since 2007).
11. In terms of international inward investment, Hertfordshire attracted the second highest levels of inward investment in the region after Cambridge between 2005 and 2010 (44 investments). This is however three times lower than for Berkshire. Investment in Hertfordshire has remained fairly stable over this period whilst it has declined in Berkshire.

Historic Commercial Property Market Performance

12. Data on the commercial property market performance of Hertfordshire has also been reviewed and this also suggests that the county has been under-performing against its potential. Hertfordshire saw a 6% growth in B-class floorspace in the decade to 2008 compared to 13% growth across the East of England and 20% in Cambridgeshire. The difference is particularly pronounced for office floorspace which grew by 12% in Hertfordshire compared to 21% in Berkshire and 58% in Cambridgeshire.
13. Hertfordshire generally has a less well developed office market relative to Berkshire, it has fewer centres with a critical mass of market activity. Office rents in Hertfordshire are below those for Berkshire-£20psf for successful strategic sites in Hertfordshire-compared to around £26psf at Green Park, Reading. Compared to Hertfordshire, Berkshire and the Thames Valley have managed to develop a quality office market and a critical mass which has enabled the area to develop a strong commercial offer.
14. Whilst Hertfordshire struggles to compete with Berkshire in the office market, it has a far larger and **more significant market for industrial space**. Its historic role in this regard means that the industrial market in Hertfordshire has also been less affected by the recession.
15. Valuation Office data shows that between 1998 and 2008, warehouse floorspace has grown by a third in net terms and office floorspace by 12%. At the same time, there has been a net loss in industrial floorspace (-22%). It is worth noting that despite this net loss in industrial floorspace, there is likely to be demand for new premises which is driven by replacement demand, that is to say that some firms will be in outdated properties and require more modern space.
16. Relative to competitors, delivery of new floorspace has been limited and there has been limited net growth in B1 floorspace which supports higher value activities.

Strategic Employment Sites: Lessons from Elsewhere/Definitions

17. A number of successful strategic employment sites elsewhere in the greater South East have been reviewed and this has indicated that there are a number of common factors which need to be considered:
 - Accessible location, close to national road network and motorway junctions and with strong high quality public transport access
 - High 'green' credentials such as solar roof panels and rain water harvesting
 - A range of amenities on site, including retailing, cafe/restaurants, health club/sports and leisure facilities and social/networking facilities
 - Strong relationship with an existing main town, facilitated by proximity or good transport links
 - Masterplanned by a well known architects' practice and providing a high quality landscape
 - Where office development is a primary focus, provision in the order of at least 1,000,000 ft² office floorspace appears to be beneficial
18. Other sites elsewhere which have been less successful than expected have also been reviewed. Key factors which have impacted on their success includes: poor public transport access and proximity to motorway, competition from other locations in close proximity and a poor relationship with existing towns.
19. Overall, we are of the view that a strategic site should be of a **scale, location, quality and prominence** to be attractive to key businesses and those within high value-added and growing sectors.
20. In determining whether a site is of strategic significance, we consider that the following represent the key considerations – most of which are borne out by our review of successful strategic sites elsewhere. A strategic employment site must be:
 - Of an appropriate scale: capable of accommodating regional strategic development, which could not equally be accommodated elsewhere.
 - Of an appropriate quality: high quality sites which are attractive to national and international investors and key employers in Hertfordshire. Sites should be of regional/inter-regional/or national significance and capable of raising the profile and economic performance of the region and Hertfordshire.
 - Able to build a clear identity: a clear identity/ brand and future vision for the site. The quality of the floorspace, environment and amenities should be sufficient to accommodate large scale users or higher value added uses, which fit with the overall strategy for that site.
 - Able to demonstrate a good fit with wider policy. In particular sites should accommodate leading edge sectors, accommodate uses that add to the 'economic base' of the region and are clear economic drivers, offer (or have the potential to offer) high levels of accessibility by public and private transport and be consistent with transport policy. Related to this, we consider the issue of deliverability as being extremely important, since time and effort should be concentrated on bringing forward those sites which are most likely to be deliverable.

Future Potential for Hertfordshire

21. In order to understand the potential for future employment growth in Hertfordshire and future demand for sites and premises, we have drawn upon a number of sources of information, including economic forecasts (recognising the limitations which exist). According to the base case scenario produced by the East of England Forecasting Model (EEFM), employment in Hertfordshire is predicted to increase by 16% between 2011-2031 or 79,300 jobs.
22. A predicted increase in employment of between 13% (base case) and 18% (higher growth) over a ten year period between 2011 and 2021 compares to an increase of just 2% over the previous ten years (between 1998 and 2008). Relatively weak past employment growth correlates with below average growth in employment floorspace.
23. Historically, the economic performance of Hertfordshire has been behind that of Cambridgeshire and Berkshire and future performance is also expected to lag behind. It is also clear from the analysis that future employment growth in Cambridgeshire and Berkshire is expected to be in higher value sectors, whereas in Hertfordshire there is stronger growth predicted in lower value sectors relative to these other locations. This may result in Hertfordshire becoming a lower value economy compared to some of its competitors. However there is an opportunity to address this through developing the sites and premises offer in Hertfordshire, at the same time as implementing broader planning and economic development initiatives to secure growth.
24. We consider that there are **three broad potential economic growth scenarios** for Hertfordshire which are as follows:
 - Status Quo Scenario – assumes the modest growth rate experienced in Hertfordshire in the last ten years continues over the next twenty years (equivalent to +4% overall, or +19,900 additional jobs created).
 - East of England Forecasting Model (EEFM) Forecast Growth Scenario – assumes a 16% growth rate for Hertfordshire over the next twenty years (base case demand forecast) resulting in 79,300 jobs.
 - Aspirational Scenario – Herts raising its game to match the best performing sub-regional economies, based on applying the forecast Cambridgeshire growth rate of 25% over the next twenty years resulting in a net growth of 122,900 jobs.
25. Our report concludes that while Hertfordshire has been underperforming compared to its potential, the county has the assets and strengths necessary to outperform the Status Quo scenario.
26. However, there are a number of weaknesses for the county which we feel dictate that the aspirational scenario is likely to be unachievable. Therefore, we recommend that Hertfordshire and partners should be seeking to realise the **EEFM Forecast Growth** scenario and that this represents a sensible basis for long-term planning.
27. This scenario will have implications for the delivery of other services and infrastructure, most notably housing. It is not a requirement of this work to consider this issue in detail, however the forecasting model indicates that 99,800 homes might be required to 2031 to support the EEFM Forecast Growth Scenario. This however assumes no significant changes to commuting patterns.

28. We have considered the implications of this preferred growth scenario for sector growth. This shows that a significant proportion (43,500 or 55%) of the total forecast growth of 79,000 jobs is likely to occur in priority sectors identified in various local strategies.

Table 7.1 : Forecast Employment Growth 2011-2031	
Sector	Forecast Employment Growth
Software and digital	+4,700
Life sciences	+5,000 jobs (inc health)
Advanced manufacturing	+1,500 (taking into account higher value uses)
Creative and Media	Not possible to quantify precisely, but likely to be in the region of +1,200
Green Industries	Not possible to quantify precisely
Logistics	+8,300 jobs
Professional, banking and finance	+22,800
Total of Growth Sectors	+43,500
Total of All Sectors	+79,000
Source: Regeneris Consulting using Oxford Economic Forecasts, Autumn 2010	
Note: due to the way in which the forecasts are compiled, it is not possible to perfectly match data to the priority sectors identified and we have had to rely on 'best fit' definitions, which are indicative	

29. It is important however to recognise firstly that sufficient supply of land and premises will be required if the forecast levels of employment growth are to be achieved; and secondly that the quality of employment sites will be important if Hertfordshire is to retain and attract blue chip companies and higher value-added activities.
30. **Sixteen locations** with the potential to serve as strategic sites have been assessed against the criteria for strategic employment sites. Some are existing employment locations, others not.
31. The County's main existing strategic employment sites are defined as: Gunnels Wood, Maylands, Hatfield Business Park and Watford Junction. There is the opportunity to enhance the performance of all of these sites through further development and investment, including through the delivery of additional high quality floorspace at Maylands Gateway and potentially through the extension of Hatfield Business Park.
32. In addition there are a number of sites which support strategic activities or have an important role in supporting key economic sectors or clusters. These are GSK, Leavesden and Elstree Studios, and Building Research Establishment (BRE).
33. Moving forward there are a number of wider site-based opportunities which provide the potential to further support key sectors and cluster development. These include delivery of Watford Health Campus, further investment at BRE subject to resolution of infrastructure constraints, and the potential for development of a science or innovation park at Knebworth around a major inward investment.
34. There is however a clear gap in Hertfordshire in terms of the provision of a **Premier Business Park** which can support higher value uses and is of the scale and quality demonstrated in competitor areas. Hertfordshire should seek to develop this product over time. Potentially the best opportunities currently available appear to be at Park Plaza, Waltham Cross for a major new business park adjacent to the M25 and at Watford Junction for development of a major, high quality in-town office quarter.
35. A number of other sites/locations (five) are assessed as having significant potential but have delivery/other risks which is likely to mean that they may not come forward in the short to

medium term. These are Radlett, Bricket Wood, London Road – St Albans, Harlow North and Bishops Stortford.

36. It is important to note that other non strategic sites will also be important in enabling Hertfordshire to achieve the preferred forecast growth scenario, including smaller sites, and other town centre locations. That is to say that not all future employment growth will occur on strategic sites.

Emerging Delivery Strategy and Action Plan

37. In Section 8 of this report we have identified a range of actions which are required to take forward the sites and an indicative phasing plan is set out. In summary the broad suggested scheduling is as follows:

Sites with Ongoing Need for Development and Regeneration

- **Gunnels Wood** has been classified as a mixed-use strategic employment site with reinvestment needs and future potential. A number of actions have been identified to support the success and growth of the site through continued investment. For example, there is a need for design guidance for specific sites and to identify sources of investment to support public realm and environmental improvements.
- **Maylands** has been classified as a mixed-use strategic employment site with reinvestment needs and future potential. There is a need to progress the Core Strategy and East Hemel AAP to provide a policy framework to support investment at Maylands. Partners should also identify sources of funding for investment in Maylands including improved public transport and a green strategy.
- **Maylands Gateway** provides the potential for office development. Key actions to take this forward include delivery of the Heart of Maylands to provide local services and amenities, consideration of options for public transport improvements, and attraction of a developer/investor.

Opportunities for Delivery in the Short-Term

- **Hatfield Business Park** is identified as having potential for an enhanced role as a Major Business Park. The extension of this site should be supported to deliver high quality employment uses. Actions include consideration of options for highways improvements and addressing issues relating to the provision of sufficient utilities.
- **Park Plaza North** together with additional sites—Park Plaza West and Maxwell Farm, as noted below—offer the potential to support a premier business park. A number of actions will be required to support aspirations for a premier business park including progression of the core strategy to identify an area of search, working with landowners/developers to progress the opportunity and help create the market (e.g. through a masterplan), and feasibility work to consider potential highways/access options.
- **GSK Bioscience Park and Leavesden Studios** offer the potential for an enhanced role in supporting strategic activities. Both councils should work with the owners of the site to identify opportunities for planned investment to result in wider benefits for the area and should support their investment and expansion plans.

Opportunities for Delivery in the Medium Term (2016-2021)

- **Croxley and Watford Business Park** is classified as having the potential for an enhanced role as a sub-regionally significant site. The council and partners should progress the funding bid for the Croxley Rail Link which could provide the impetus for new high quality employment space.
- **BRE site** has the potential for an enhanced role supporting the green industries sector. Local authorities should work with BRE to consider future development options for the site, including access arrangements to support the green industries sector.
- **Park Plaza West** has the potential to support a premier business park as part of the wider development proposed at Park Plaza North/Maxwells Farm.
- **Watford Health Campus** has the potential for an enhanced role to support the life sciences sector. This will provide support for high value employment related to life sciences focusing on B1b uses.
- **Knebworth Innovation Park** could support strategic activities, subject to a catalyst which can provide the momentum for development. Given other proposals for development at Gunnels Wood/Silkin Plaza, there is likely to be less potential for B1a development and the site is more likely to attract a major investment opportunity or B1b R&D activities linked to key sectors. Stevenage BC and North Herts DC should work together to consider the allocation and mechanisms to jointly progress this site.

Opportunities for Delivery in the Longer-Term

- **Park Plaza: Mazwells Farm** could potentially support a premier business park as part of a wider development incorporating Park Plaza North.
- **Gunnels Wood: Silkin Park** has the potential for office uses. The aspirations for a high quality office campus at Silkin Park are supported, however there are significant delivery challenges which might require public sector intervention (e.g. land assembly).
- **Watford Junction** has the potential to support a premier business park, subject to constraints. Aspirations for the site should be identified through the Core Strategy and work continued in assessing the feasibility of development and potential funding of infrastructure in conjunction with landowners.

Sites with potential but with significant delivery/other risks

38. There are a number of other sites with potential but with significant delivery/other risks. These should be kept under review as other sites are bought forward.
- **Radlett** is considered in relation to a major or premier business park. This benefits from good strategic access and there is sufficient land to deliver a premier business park with a strong relationship to St Albans. However, the site falls within green belt and is not supported by planning policy.
 - **Bricket Wood** is considered in relation to a major or premier business park. In market terms, this is an attractive site (though there are some concerns over transport issues). However, again the site is in green belt land and there is little local support. Access arrangements are a significant constraints.
 - **London Road, St Albans** is considered in relation to a local or sub-regional business park. The site is too small to support a critical mass in development. The site is also

located within the green belt and not supported in local policy.

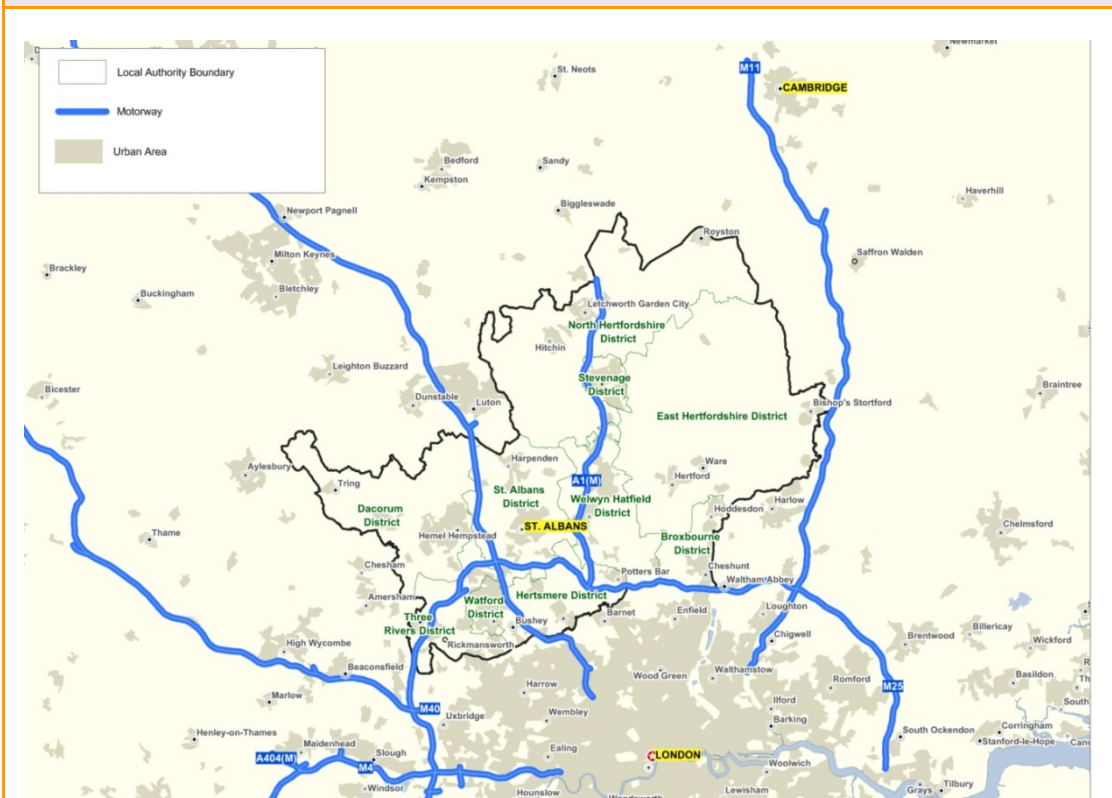
- **Harlow North** is considered in relation to a major business park but this is dependent on residential development at Harlow North. There is some strong local opposition and there are also a number of transport constraints.
 - **Bishops Stortford** is considered in relation to a sub-regional business park. There are opportunities related to Stansted airport and housing growth.
39. The phasing proposals set out should be regarded as indicative. They reflect high-level assumptions regarding the lead-in times to delivery of substantial development at the sites indicated as opposed to strict plan led targets. Significant work will be required in the period before this in putting in place a supportive policy framework and progressing planning applications, and in some instances in site assembly and delivery of enabling infrastructure.
40. In practice the timing of proposal will reflect the state of the property market, the availability of potential pre-lets to kick start development, the attraction of the sites to developers/investors, the ability to fund infrastructure requirements and not least creating the necessary planning certainty for landowners and developers/investors to progress opportunities in what is a highly competitive and to a large degree footloose occupier market.
41. As well as their planning role and in some cases landowning role, the local authorities, county and other public agencies such as the LEP have a central role in actively promoting and helping deliver the identified opportunities. This may take many forms such as marketing, bringing together potential partners, potential site assembly, acting as conduit for new public sector and regeneration funding mechanisms such as TiF's etc. As such we see leadership and commitment from the Hertfordshire public agencies as a key determinant in delivering success.
42. There is also a need to ensure that actions to take forward the sites identified in this report are combined with a co-ordinated effort to tackle broader economic development and planning issues such as inward investment, sector development, housing and infrastructure provision. This will be necessary to bring forward these sites and will make Hertfordshire a more attractive location for new and existing firms.

1. Introduction

Background and Objectives

- 1.1 Regeneris Consulting together with GL Hearn, WSP Group and John Rutherford Consulting were commissioned in November 2010 to carry out the **Hertfordshire Strategic Employment Sites study**. This assignment is being carried out on behalf of Hertfordshire County Council, East of England Development Agency (EEDA) and the ten districts in Hertfordshire. The study area, including the ten districts, is shown in Figure 1-1 below.

Figure 1-1 : Context Map for Hertfordshire



Digital Mapping Solutions from Dotted Eyes. Reproduced by permission of Ordnance Survey on behalf of the controller of HMSO © Crown Copyright 2009. All rights reserved. Licence number 10001998

- 1.2 The background to this study is that partners are concerned that Hertfordshire is losing its competitive edge, with fear that there has been a slowdown in the growth of the economy in recent years. At the same time, there is increasing competition from other successful business locations such as the Thames Valley as well as parts of Oxfordshire and Cambridgeshire. In order to ensure that Hertfordshire can compete in the future and provide a strong and sustainable economic platform for future growth, partners wish to ensure that Hertfordshire has sufficient strategic sites to meet the needs of existing businesses and new firms moving to the area.
- 1.3 ‘Providing quality locations and infrastructure’ is a key objective stated in the **Hertfordshire Works Economic Development Strategy 2009-2021**. The strategy recognises that there is a need to work with local planning authorities (and EEDA) to identify and bring forward a small number of strategic sites in high profile prestigious locations served by sustainable

transport. This overall strategy is supported by the districts in Hertfordshire and will be taken forward by the newly created **Hertfordshire Local Enterprise Partnership (LEP)**.

- 1.4 Prior to the Economic Development Strategy, a Regional Strategic Employment Sites Study was carried out by Arup in 2009 and this suggested that there was a need for additional strategic sites to be identified. The study was commissioned by EEDA together with the East of England Regional Assembly (EERA) to inform EERA's review of the Regional Spatial Strategy (RSS) and Local Development Frameworks (LDF). The study suggested that there was a requirement for strategic employment sites to be identified across Hertfordshire as a whole and specifically in the Lee Valley, Stevenage, Hemel Hempstead, Welwyn and Hatfield areas. It is intended that this assignment for Hertfordshire will provide a more detailed look at the needs of the county in relation to strategic employment sites and further test the conclusions of the region-wide study.
- 1.5 In this context, there are four key objectives for this study which are as follows:
- 1) Identify the **drivers and market demand** for strategic employment land provision.
 - 2) Provide a view on the current Hertfordshire offer and the **need for new / extended strategic employment sites** in the county.
 - 3) Offer strategic site provision **locational advice**, including infrastructure needs.
 - 4) Produce an **Action Plan** which sets out specifically how the proposed sites can be bought forwards.

Our Approach

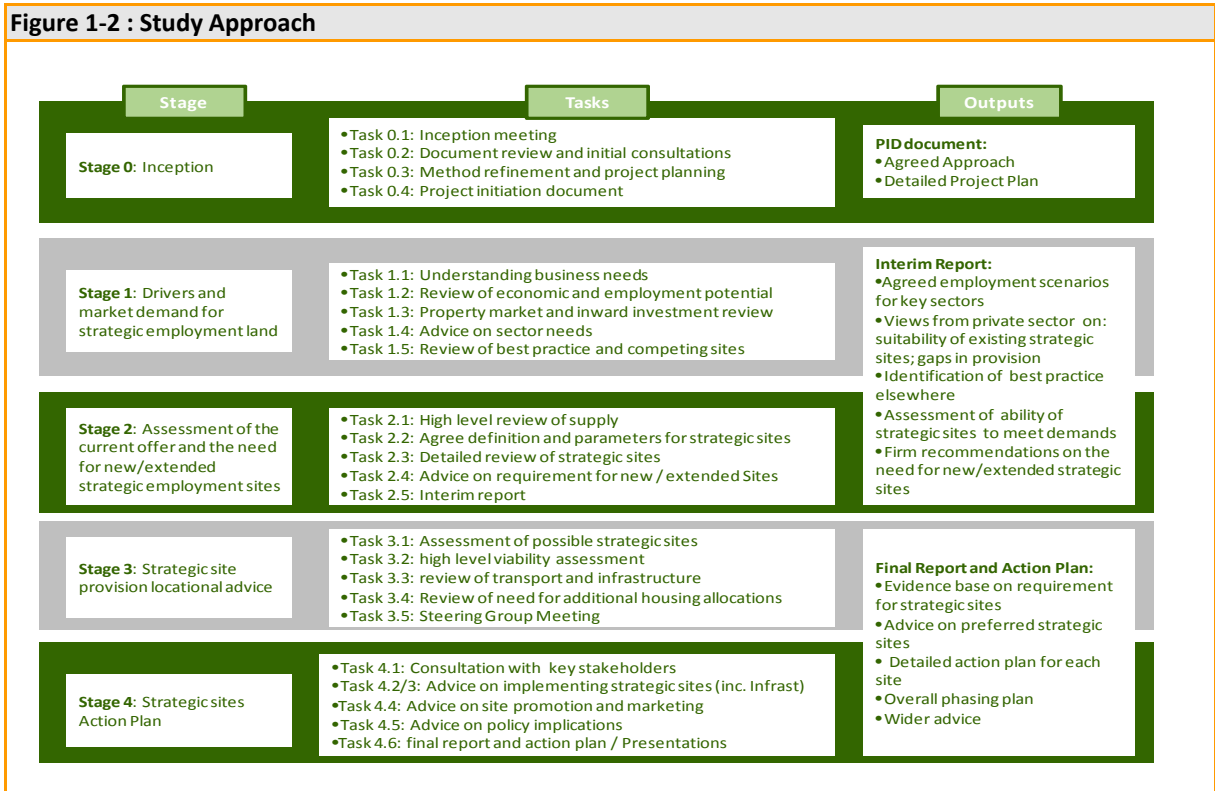
- 1.6 Our approach to this study is summarised in Figure 1-2 below. There are five key stages which are as follows:
- **Stage 0 Inception:** meetings were held with key stakeholders and a review of background information was carried out to get to grips with the key issues for this assignment and to understand stakeholder objectives for the work. A project initiation document was prepared which set out the parameters for this study and a refined methodology.
 - **Stage 1 Market Demand Assessment:** consultations were carried out with businesses and others in Hertfordshire to understand the level and nature of market demand for strategic employment sites. This was combined with a review of economic data on past and expected future performance, a commercial property market review and assessment of past inward investment trends.
 - **Stage 2 Supply Side Assessment:** guidance was prepared on the parameters for assessing strategic employment sites together with a detailed review of an initial agreed list of sites. Advice was provided on the requirement for new and extended employment sites. At the end of this stage, an Interim presentation report was prepared and presented to the client together with representatives from each of the ten districts in Hertfordshire.
 - **Stage 3 Locational Advice on Strategic Sites:** consideration was given to the need

• Hertfordshire Strategic Employment Sites Study •

for other possible strategic employment sites and a detailed review of these was carried out.

- **Stage 4 Strategic Sites Action Plan:** an action plan has been prepared, which sets out recommendations for taking an agreed list of strategic employment sites forward.

Figure 1-2 : Study Approach



Report Structure

1.7 The remainder of this report is set out under the following headings:

- Section 2: Historic Economic Performance
- Section 3: Historic Commercial Property Market Performance
- Section 4: Strategic Employment Sites Lessons from Elsewhere
- Section 5: The Future Potential for Hertfordshire
- Section 6: Supply Assessment: Review of Strategic Employment Sites
- Section 7: Conclusions
- Section 8: Delivery Strategy and Action Plan

2. Historic Economic Performance

2.1 This section considers the historic economic performance of Hertfordshire. In order to understand the county's position in relation to some of its competitors, Hertfordshire's past performance has been compared with that of Berkshire, Buckinghamshire and Surrey. Performance has also been compared with neighbouring areas including Essex and Central Bedfordshire. More detailed findings are set out in Appendix A - *Socio-Economic Baseline*, (which includes an assessment of key sectors) and *Inward Investment Performance*.

Key Findings

- Whilst Hertfordshire generates high levels of **Gross Value Added (GVA)**, growth in GVA and GVA per head has been slower than certain competitor areas. Between 1998 and 2008, GVA per head in Berkshire for example increased by £8,000 more than Hertfordshire over the same period.
- **Employment** growth in Hertfordshire has also been behind some other areas. Between 1998 and 2008, employment in Hertfordshire increased by **2%** which compares to national and regional growth levels of 10% over the same period.
- **Population** growth in Hertfordshire over the same period increased by **7%** which is in line with other areas. The fact that employment growth has not kept pace with the increase in population levels is likely to have resulted in increased out-commuting.
- There has been significant **variation in economic performance** at a district level. Three Rivers and Welwyn Hatfield in particular have experienced significant employment growth in the last ten years whilst St Albans has seen a large decline in employment over the same period.
- There is also some evidence to suggest that employment in Hertfordshire is becoming more focused on **low value sectors**. Key sectors in terms of size include 'wholesale and retail trade' and 'admin and support services'. In addition, sectors which have grown between 1998 and 2008 include education, health and social work. Employment in other sectors such as 'research and development' have not kept pace with national growth.
- We have also looked in detail at the strength of certain priority sectors. Hertfordshire has a particular strength in **life sciences**, with an increase in employment between 2003 and 2008 and a relative specialisation in employment terms compared to national levels.
- There has been significant employment growth in the **advanced manufacturing** and **professional, banking and finance sectors** in Hertfordshire. However, the county does not have a relative specialisation in this sector in employment terms compared to nationally.
- Employment in the **software and digital sector** and the **green industries** sector declined between 2003 and 2008 but Hertfordshire does have a relative specialisation in this sector in terms of employment compared to national levels.
- In terms of **inward investment**, Hertfordshire attracted the second highest levels of inward investment in the region after Cambridge between 2005 and 2010 (44 investments). This is however, three times lower than for Berkshire. Investment in Hertfordshire has remained fairly stable over this period whilst this has declined in Berkshire.

2.2 The remainder of this section is set out under the following headings:

- Headline Economic Performance
- Inward Investment Performance
- Key Sectors

Comparator Areas

In order to inform this work, we have examined how Hertfordshire is performing compared to a number of benchmark areas. Further information about these locations including the rationale behind their inclusion in this report is shown below.

- Berkshire and Surrey: there are a number of similarities with Hertfordshire, for example a strong resident skills base, high levels of out-commuting and a strong business base. In addition, these locations have experienced strong employment growth and are considered to have a number of fairly successful strategic employment sites. We have therefore included both of these as comparator areas to consider how the county is performing against other successful locations and to understand why they have been successful.
- Buckinghamshire: is less similar to Hertfordshire than the areas above, with a smaller economy. However, it has been considered due its proximity to Hertfordshire and because it is considered a successful business location, attracting good levels of inward investment.
- Luton and Central Bedfordshire and Essex: have been considered due to their close proximity to Hertfordshire.

Headline Economic Performance

GVA

- 2.3 Hertfordshire generates high levels of Gross Value Added (GVA)². In 2008 the county's GVA was £26 billion, which is the fifth largest contribution in the UK outside of London. The county's current GVA per head of £24,000 remains markedly higher than the national average of £21,100 and is almost £5,000 per head greater than the average for the East of England.

	1998		2008		Change 1998 - 2008	
	Total GVA (£ millions)	GVA per head	Total GVA (£ millions)	GVA per head	Total GVA (£ millions)	GVA per head
UK	781,985	13,370	1,295,665	21,100	66%	58%
East of England	65,930	12,440	110,775	19,380	68%	56%
Hertfordshire	15,820	15,570	26,010	24,000	64%	54%
Surrey	16,765	16,120	28,025	25,460	67%	58%
Essex	13,920	10,840	24,250	17,480	74%	61%
Central Beds	4,600	12,470	7,020	17,160	53%	38%
Berkshire	15,240	19,150	26,860	31,900	76%	67%
Buckinghamshire	7,200	15,250	10,965	22,320	52%	46%

Source: ONS Headline GVA and GVA per head at current basic prices.

- 2.4 Nevertheless, GVA growth has been much slower than in certain comparator areas. While Hertfordshire's GVA has grown by more than £10 million over the past ten years, this 64% increase has not kept pace with regional or national GVA growth. Other counties in the East of England (notably Essex) have seen much larger increases in GVA in the same period.
- 2.5 Similarly, growth in GVA per head has not kept pace with key comparators in the East and South East of England. For example, the large growth in Berkshire's GVA per head (67%) has seen it increase from £15,200 in 1998 (slightly lower than Hertfordshire's then GVA per head of £15,800) to £31,900 in 2008, almost £8,000 per head more than Hertfordshire's current

² Gross Value Added (GVA) measures the value of goods and services to an economy and is used as a key measure of economic performance.

GVA per head.

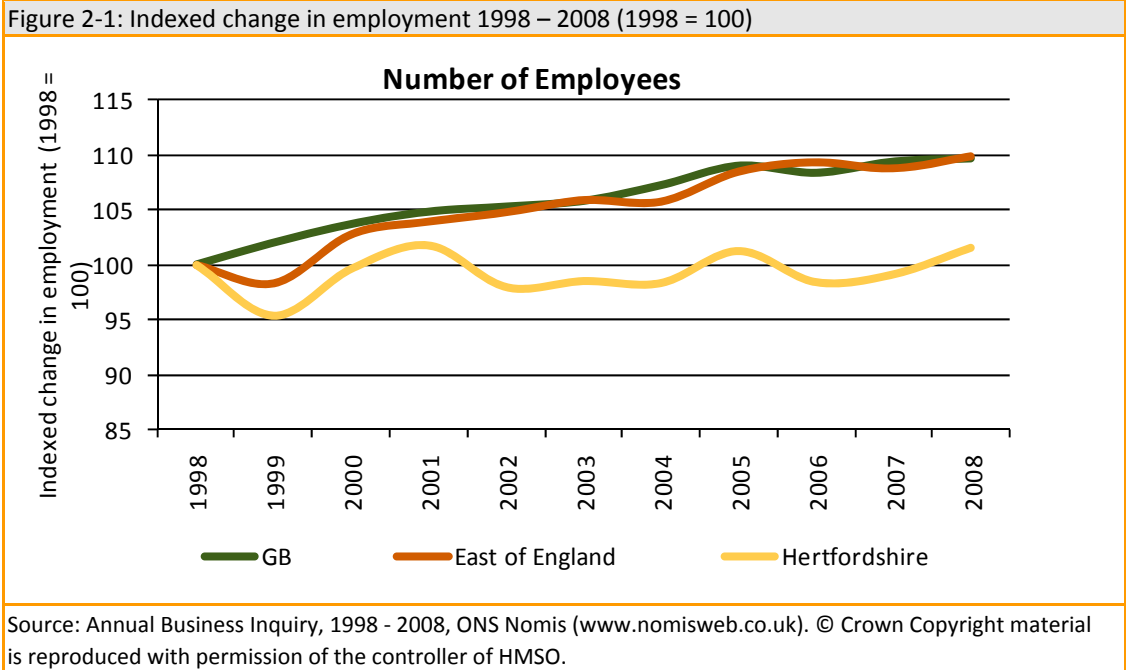
Employment

- 2.6 In 2008, there were just over 500,000 people employed in Hertfordshire. Growth in employment over the last ten years has been positive - a 2% increase in employment overall. However, this rate of change is lower than employment growth nationally and regionally (both of which grew by 10% in the same period).

	1998		2003		2008		Absolute change 1998 - 2008		% change 1998 - 2008	
	Empl (000s)	Data Units (000s)	Empl (000s)	Data Units (000s)	Empl (000s)	Data Units (000s)	Empl (000s)	Data Units (000s)	Empl	Data Units
GB	24,144	2,062	25,553	2,212	26,494	2,446	941	234	10%	19%
East of England	2,157	204	2,283	224	2,368	248	85	24	10%	22%
Hertfordshire	496	45	489	49	503	54	14	5	2%	19%
Surrey	477	53	501	56	514	61	13	5	8%	16%
Essex	443	49	507	54	518	60	11	6	17%	24%
Berkshire	415	36	454	39	462	42	8	3	11%	18%
Buckinghamshire	208	25	210	27	207	29	-3	2	-1%	17%
Central Beds	80	10	78	10	84	12	6	2	5%	20%

Source: Annual Business Inquiry, 2008, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright material is reproduced with permission of the controller of HMSO.
NB data units refer to the business base and is equivalent to the number of firms

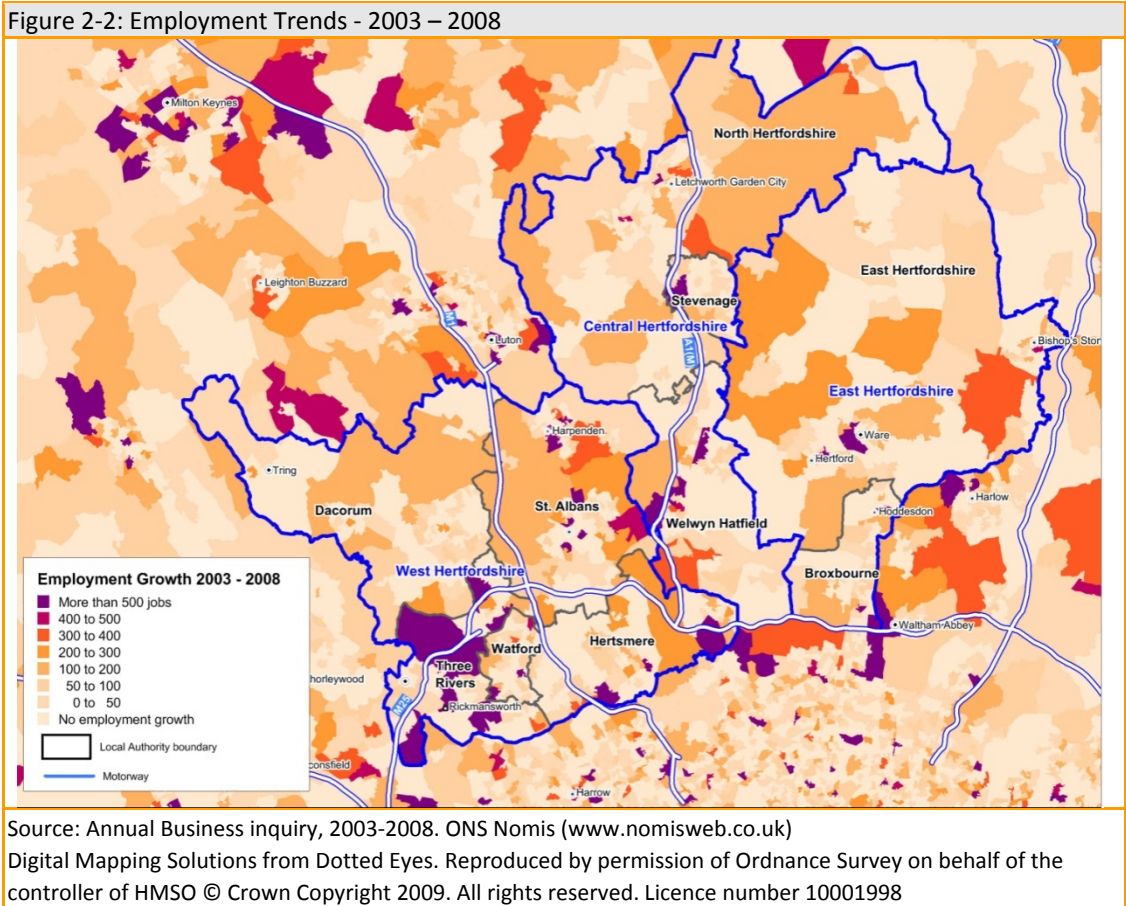
- 2.7 Employment growth rates of other comparator areas have significantly outstripped the rate of employment growth in Hertfordshire, with all comparators except Buckinghamshire growing by at least double the rate of Hertfordshire. This can, to some extent, be attributed to the relatively high baseline level of employment from where Hertfordshire has started, but as Figure 2-1 shows, employment has been relatively volatile in Hertfordshire over recent years and has not followed the strong and positive trends observed nationally or for the East of England as a whole.



A Focus on Three Broad Travel to Work area's in Hertfordshire

In order to inform our assessment of performance within Hertfordshire, our analysis focuses on three distinct parts of Hertfordshire, which have been defined according to travel to work geographies. These are: West Hertfordshire (Dacorum, Hertsmere, St Albans, Three Rivers and Watford); Central Hertfordshire (North Hertfordshire, Stevenage, Welwyn Hatfield); and the East Hertfordshire area (East Hertfordshire, Broxbourne). These areas are illustrated in the map below.

2.8 Figure 2-2 illustrates that employment is particularly concentrated along the county's motorway corridors, particularly the A1(M) through Stevenage and Welwyn Hatfield, THE M1 around Watford and the M25 through Three Rivers, Hertsmere and Watford. The importance of Hertfordshire's connections to and relationships with London are illustrated by the concentration of employment towards the south of the county and along the M1 motorway and the A1(M).



- 2.9 Hertfordshire is an exporter of labour with a net outflow of just under 36,000 people. The county’s location bordering London to the South has brought with it strong economic and transport links to Central and Outer London. Travel to work patterns suggest a strong interdependence between the Hertfordshire and London economies.
- 2.10 Table 2-3 indicates that the largest outflows of commuters from Hertfordshire are to central London districts (with Westminster and the City of London ranking highest). Ten of the fifteen districts receiving the largest inflow of commuters from Hertfordshire are within London, the remainder are within the East of England region.

Table 2-3: Overview of Key Travel to Work flows into and out of Hertfordshire					
Commuting into Hertfordshire 117,980			Commuting out of Hertfordshire 153,873		
LA of residence	Number	% of in-commuters	Destination LA	Number	% of out-commuters
Central Bedfordshire	18,000	15%	Westminster	16,500	11%
Luton	9,000	8%	City of London	12,900	8%
Barnet	7,400	6%	Barnet	10,300	7%
Harrow	6,000	5%	Enfield	10,100	7%
Enfield	6,000	5%	Camden	9,000	6%
Aylesbury Vale	5,000	4%	Harrow	6,800	4%
Harlow	4,500	4%	Harlow	6,000	4%
Epping Forest	3,900	3%	Luton	5,900	4%
Uttlesford	3,800	3%	Hillingdon	5,700	4%

Hillingdon	3,400	3%	Islington	5,200	3%
South Cambridgeshire	3,300	3%	Brent	4,700	3%
Chiltern	2,900	2%	Central Bedfordshire	4,400	3%
Brent	2,500	2%	Tower Hamlets	3,800	2%
Milton Keynes	2,100	2%	Uttlesford	3,600	2%
Bedford	1,700	1%	Epping Forest	2,700	2%

Source: 2001 Travel Flows (Local Authority) UK Census ONS Nomis (www.nomisweb.co.uk) © Crown Copyright
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Population

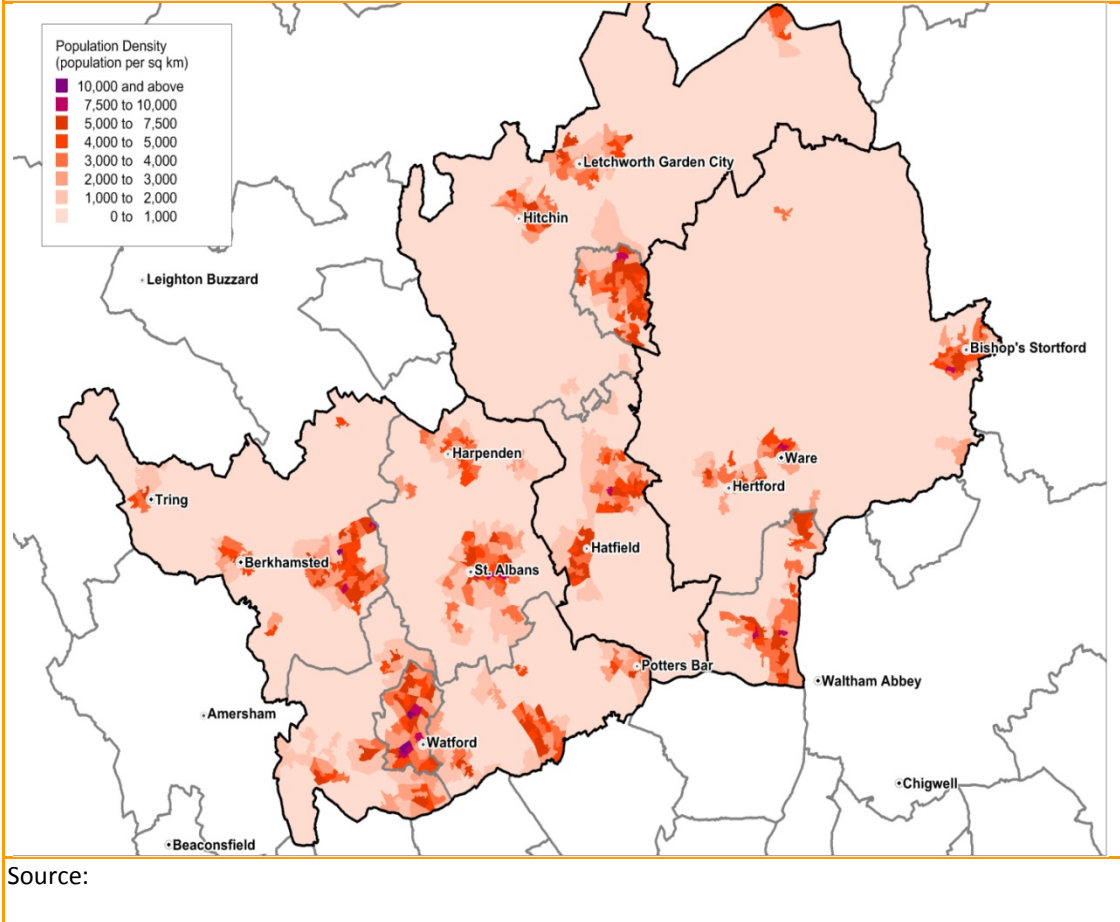
- 2.11 Hertfordshire has a population of over 1 million, of which 63% are of a working age. Between 1999 and 2009, Hertfordshire's population grew by 7% which is comparable to other competing areas including Berkshire. The concern is that with employment growth lagging behind comparator areas, this suggests that there is likely to be an increase in out-commuting as jobs growth is not increasing as quickly as population growth.

	1999			2009			% change 1999 - 2009	
	All people	Working Age	WAP as % of Pop	All people	Working Age	WAP as % of Pop	All people	Working Age
GB	57,005	35,615	62%	60,003	37,860	63%	5%	6%
East of England	5,339	3,314	62%	5,767	3,563	62%	8%	8%
Hertfordshire	1,024	644	63%	1,096	691	63%	7%	7%
Surrey	1,056	664	63%	1,113	691	62%	5%	4%
Essex	1,295	802	62%	1,399	856	61%	8%	7%
Central Beds	231	147	64%	253	160	63%	10%	9%
Berkshire	797	523	66%	854	559	65%	7%	7%
Buckinghamshire	476	303	64%	495	304	61%	4%	0%

Source: Mid Year Population Estimates. ONS, Nomis (www.nomisweb.co.uk) © Crown Copyright material is reproduced with the permission of the controller of HMSO.

- 2.12 The chart below illustrates the population density (population per sq km) for the whole of Hertfordshire. This shows that the population is concentrated close to the main transport corridors including Hatfield and Stevenage along the A1M, St Albans and Hemel Hempstead close to the M1 and to the south around the M25 corridor including Watford.

Figure 2-3 : Population Density



Performance across Districts

- 2.13 The table overleaf provides key socio-economic data to illustrate the past performance of the ten districts.
- 2.14 The table shows that there has been a significant variation in economic performance at a district level. Three Rivers and Welwyn Hatfield in particular have experienced significant employment growth in the last ten years whilst St Albans has seen a large decline in employment (particularly between 1998 and 2003).
- 2.15 There is an overall net outflow of employment, however three districts have a net inflow in terms of employment. Watford, Welwyn Hatfield and to a lesser extent Stevenage attract more employees to the area than commute elsewhere.
- 2.16 All areas have seen an increase in the business base between 2003 and 2008. Broxbourne in particular has seen an increase but the district accounts for a relatively small proportion of the business base overall in Hertfordshire.

• Hertfordshire Strategic Employment Sites Study •

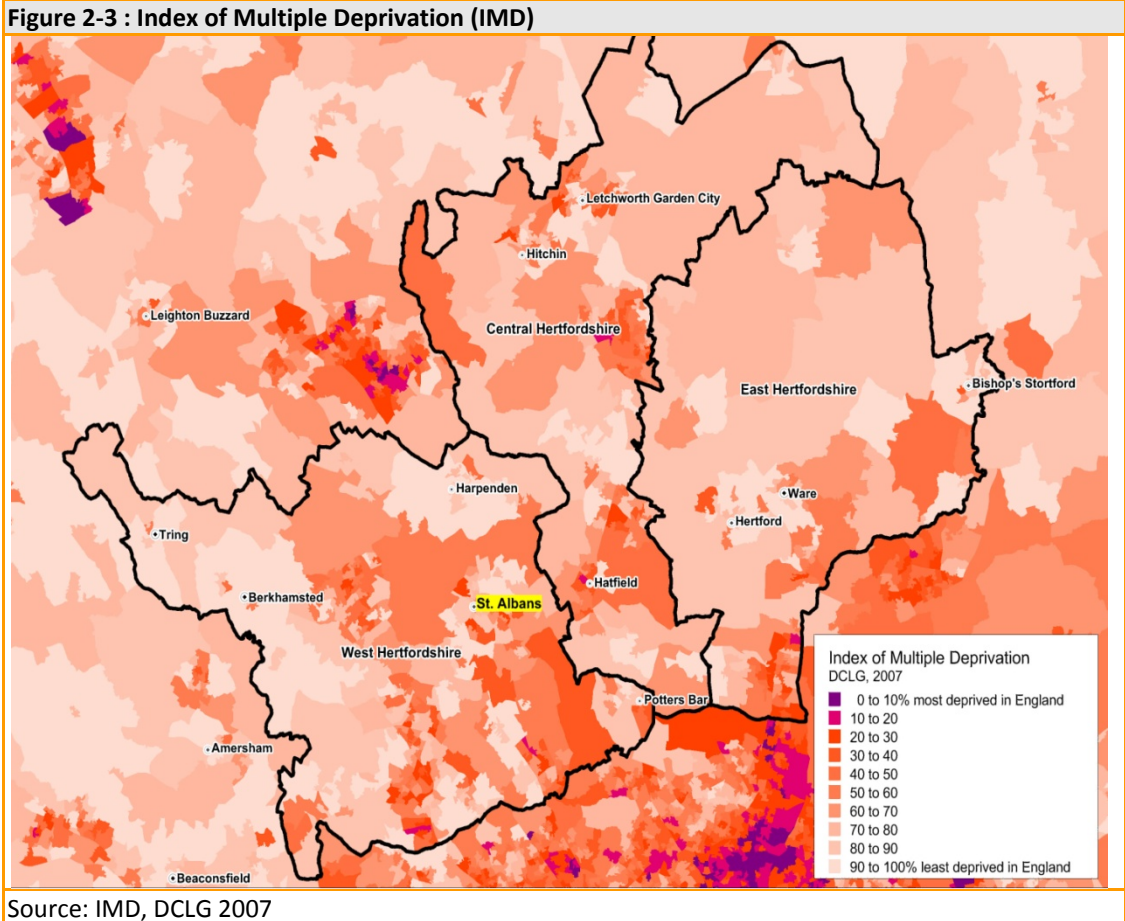
Table 2-5: Local Authority Overview

	Employment				Business Base				Travel to Work Flows Net flow	Economic Activity		Occupations	
	Total 2009 (000s)	% of total	% change 1998 - 2003	% change 2003-8	Number of Businesses 2008 (000s)	% of Herts Total	% change 1998 - 2003	% change 2003-8		Economic Activity Rate 2009/10	Percentage point change 2004/5 to 2009/10	% residents HMPs	Percentage point change 2004/5 to 2009/10
Hertfordshire	508.9	100%	-1%	3%	54.0	1.0	↑7%	↑11%	-36,000	81%	-1%	39%	↑4%
West Hertfordshire	258.2	51%	↓-8%	↑5%	28.5	53%	↑6%	↑10%	-13,800	78%	↓-3%	42%	↑4%
Dacorum	57.0	11%	2%	↓-5%	7.4	14%	↑7%	↑9%	-700	78%	↓-7%	40%	↑4%
Hertsmere	41.3	8%	↑5%	↓-1%	5.2	10%	↑9%	↑14%	-1,500	78%	1%	39%	↑8%
St Albans	64.7	13%	↓↓-32%	↑23%	7.4	14%	-1%	↑9%	-9,800	78%	↓-4%	50%	3%
Three Rivers	30.9	6%	↑19%	↑18%	4.3	8%	↑13%	↑13%	-9,800	79%	-1%	43%	↑9%
Watford	64.3	13%	↓-4%	-3%	4.2	8%	↑4%	↑7%	7,900	81%	-1%	35%	-1%
Central Hertfordshire	158.8	31%	6%	1%	14.1	26%	↑9%	↑10%	-440	83%	0%	37%	↑6%
North Hertfordshire	44.7	9%	2%	↓-8%	6.4	12%	↑9%	↑6%	-11,000	83%	↑2%	37%	1%
Stevenage	42.4	8%	2%	-2%	3.1	6%	↑8%	↑17%	2,200	87%	↑2%	31%	↑9%
Welwyn Hatfield	71.6	14%	↑13%	↑12%	4.6	9%	↑10%	↑12%	8,600	80%	↓-2%	40%	↑8%
East Herts Area	91.9	18%	↑5%	0%	11.5	21%	↑8%	↑15%	-21,300	83%	↑1%	35%	1%
Broxbourne	36.4	7%	↑12%	-1%	3.9	7%	↑11%	↑19%	-11,300	82%	↑3%	32%	6%
East Hertfordshire	55.5	11%	1%	0%	7.5	14%	↑7%	↑13%	-10,100	84%	↑2%	37%	↓-3%

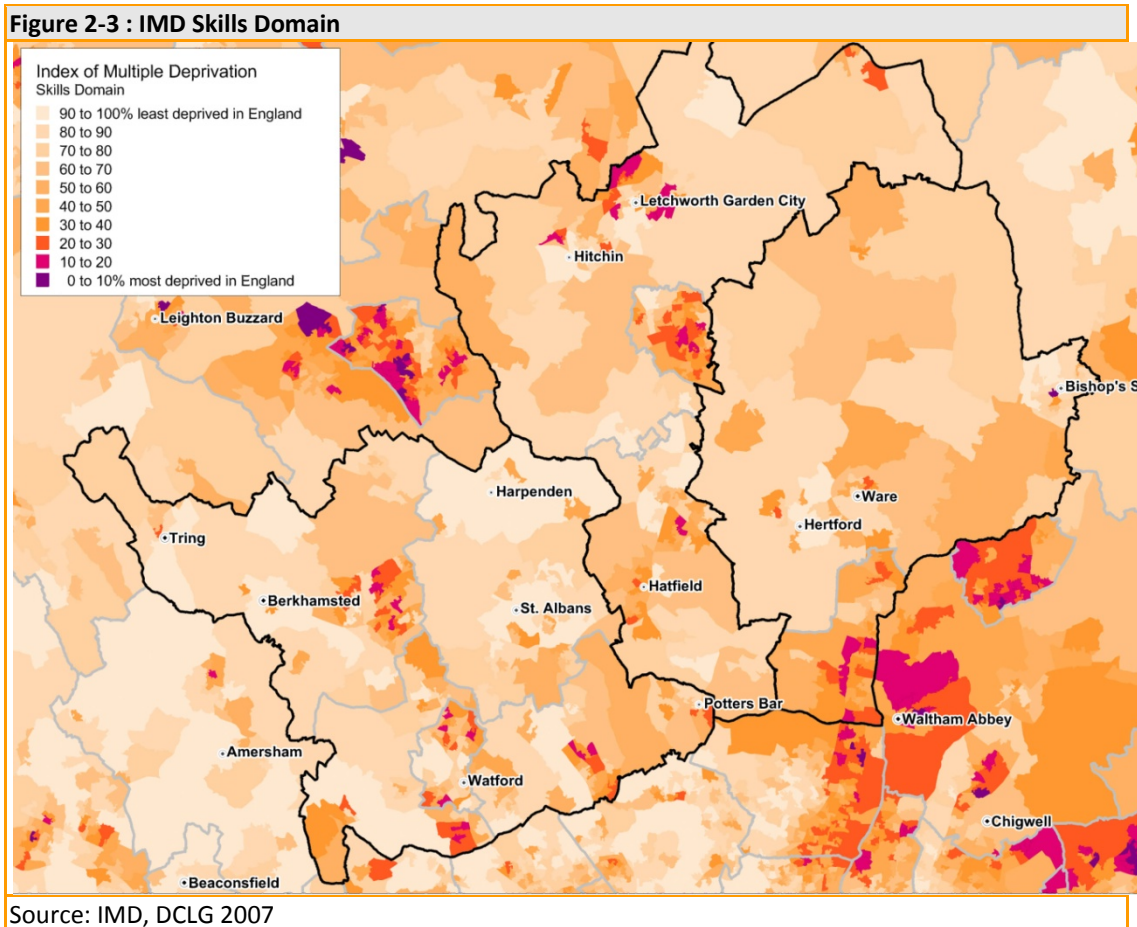
Source: BRES 2009

Note that some local authorities have questioned the accuracy of the employment figures and should be treated with some caution.

2.17 The following map illustrates the level of deprivation in Hertfordshire according to the Index of Multiple Deprivation (IMD). This shows that there are few locations in Hertfordshire which are in the most deprived 20% locations in England. However, there are some pockets of deprivation around Stevenage, Hatfield and around to the South of Broxbourne.



2.18 Again, in terms of the IMD Skills domain, there are relatively few locations in Hertfordshire which appear within the 20% most deprived locations in England. However, the map does show that there are skills issues at some locations including Letchworth Garden City, Stevenage, Welwyn Garden City and parts of Broxbourne.

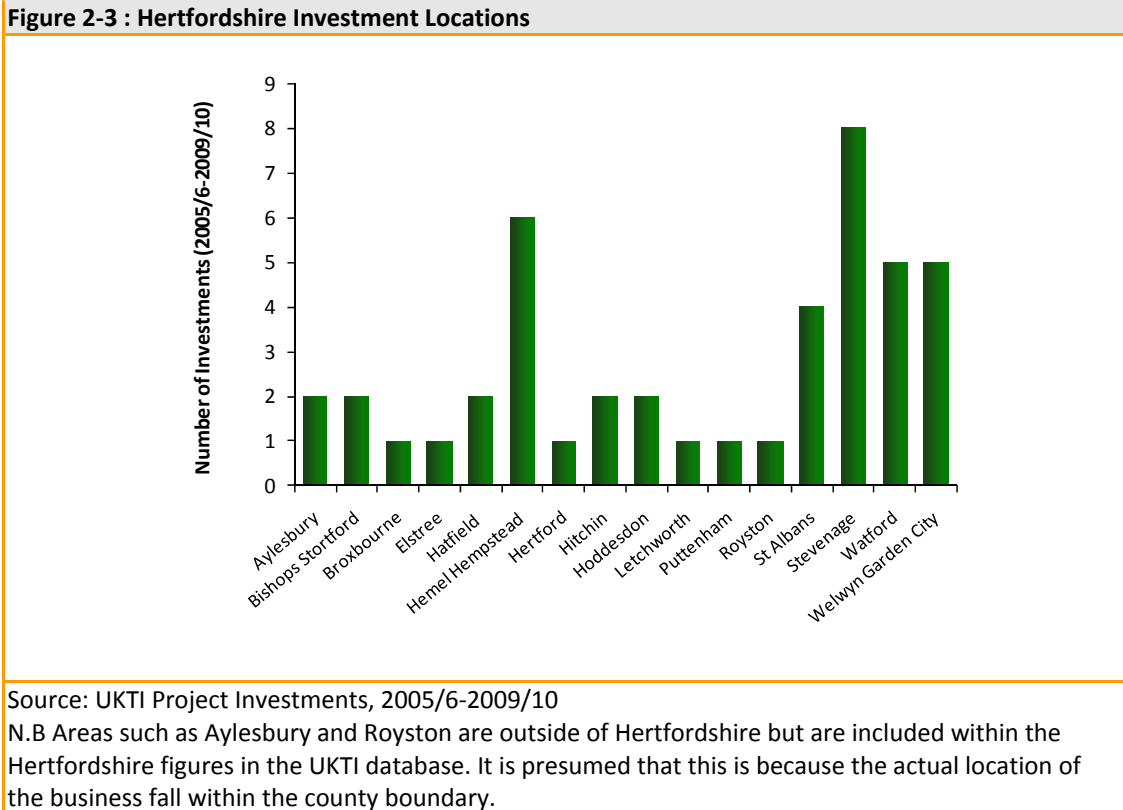


International Inward Investment Performance

- 2.19 Securing and retaining inward investment, particularly foreign direct investment (FDI), is a key element in securing regional economic growth. There are many benefits for a region in attracting new business from within the UK and abroad, but particularly from the latter. A more detailed inward investment assessment will be provided in Appendix A of this report and key points are summarised below.
- 2.20 Inward investment trends into the East of England and Hertfordshire over the past five years (2005/6-2009/10) have been analysed for this report. The analysis is based on information collated on project investments into the UK by the UKTI. For comparison, an overview of project investments into the competitor locations of Berkshire, Cambridgeshire, Northamptonshire and Buckinghamshire is also included.
- 2.21 Between 2005/6 and 2009/10, 44 international businesses invested in Hertfordshire. This is 22% of the total 202 which invested in the East of England. Hertfordshire was the second most popular inward investment location in the region after Cambridgeshire which received 92 investments over the same time period. The County shows double the level of investment seen in other East of England locations such as Essex (21) and Norfolk (19) as well as the comparator county of Northamptonshire (19).
- 2.22 Berkshire however has received far higher levels of investment. Over the same time period,

the county received 138 investments, which is over three times higher than for Hertfordshire. Investment in Berkshire does appear to have declined significantly since 2006/07 which suggests that the county has been impacted by the global recession. Unlike other locations, investment in Hertfordshire has remained mostly stable over the time period which we are focused on, which is positive.

- 2.23 Figures show that Stevenage and Hemel Hempstead, both of which have important business and industrial sites (Gunnels Wood and Maylands) received over a quarter of the County’s investments between them. Other important locations are Watford, Welwyn Garden City and St Albans.



- 2.24 The main sector to invest in Hertfordshire was software, accounting for 8 (18%) of the county’s 44 investments. This is however a lower proportion of total investments compared to other locations. Electronics, business services and pharmaceuticals were also strong investment sectors. Investment in pharmaceuticals accounted for a greater proportion of all investments in the County than seen in comparator locations.
- 2.25 With regards to Hertfordshire’s priority sectors, software and life sciences display clear locational trends. Software businesses tend to locate in locations known for their office accommodation (St Albans and Watford) while pharmaceutical investments favour Hatfield Stevenage and Welwyn Garden City. Investments in all of the other priority sectors are also evident, though do not display clear locational preferences.
- 2.26 The dominant activity of investors was sales and marketing (55% of investments). R&D and logistics were also notable. These activities demonstrate demand for a mix of office, light-industrial and warehouse land. The analysis also shows that businesses investing in Hertfordshire are typically small, with between 1 and 19 employees. A lower proportion of

businesses are large in comparison to the East of England and Cambridgeshire figures as well as other comparator locations. Twenty-seven percent of investments were from American companies.

Key Sectors

Overview

- 2.27 Here we consider in more detail the key employment sectors for Hertfordshire in order to understand in more detail the needs of these sectors in relation to sites and premises (this will be considered later in the report). First, we look at the key sectors in terms of size and employment growth. Following on from this, further research has been carried out into the strengths of a number of priority sectors.

Key Sectors in terms of Size

- 2.28 In Hertfordshire, there is a significant level of employment in lower value sectors. Key sectors in terms of size includes wholesale and retail (focused on sale and repair of motor vehicles and accessories) and administrative and support services (inc. recruitment agencies and cleaning of buildings). More than one in five of the county's 509,000 jobs are in wholesale and retail and 13% are in administration and support services. The high Location Quotients³ (LQs) of these sectors indicate that employment in these sectors is more concentrated in Hertfordshire than nationally.

	Employees 000s	% of total	LQ vs GB
G : Wholesale and retail trade; repair of motor vehicles/cycles	105	21%	1.3
N : Administrative and support service activities	65	13%	1.7
M : Professional, scientific and technical activities	43	8%	1.2
Q : Human health and social work activities	45	8%	0.7
P : Education	45	9%	0.9
F : Construction	31	6%	1.3
C : Manufacturing	35	7%	0.8
I : Accommodation and food service activities	26	5%	0.8
J : Information and communication	24	5%	1.3
H : Transportation and storage	20	4%	0.8
O : Public administration and defence; compulsory social security	18	4%	0.6
K : Financial and insurance activities	14	3%	0.7
S : Other service activities	12	2%	1.2
R : Arts, entertainment and recreation	11	2%	0.9
L : Real estate activities	10	2%	1.2
E : Water supply; sewerage, waste management and remediation	3	1%	0.9
All sectors	509	100%	1.0

Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright Material is reproduced with the permission of the controller of HMSO.

³ The location quotient of sectoral employment in an area is used as a way of analysing the degree of concentration of that sector relative to some benchmark figure, in this case, Great Britain. A location quotient above 1 indicates a higher degree of concentration locally than in the benchmark area.

2.29 Hertfordshire does however have a high degree of concentration or specialisation in certain higher value sectors when compared to national levels. These sectors include:

- Professional , scientific and technical (inc. life sciences) with a LQ of 1.2
- Information and communications (inc. telecoms and motion picture, video and tv) with a LQ of 1.3
- ‘Other services’ and ‘real estate’ sectors with a LQ of 1.2

2.30 Interestingly, the analysis suggests that Hertfordshire does not have a concentration of employment in the finance and insurance and public services sector, when compared to Great Britain.

Expanding Sectors

2.31 The table below shows those (2 digit) sectors, which made the greatest contribution to Hertfordshire’s employment growth between 1998 and 2008. It includes all sectors employing more than 500 people with an average growth rate of more than 2%. This suggests that absolute change in employment is greatest for those sectors which would generally contribute least to the economy (e.g. education, health and social work). Growth rates in certain higher value sectors have been well below national levels. For example, the increase in R&D employment was six percentage points less in Hertfordshire than nationally and the increase in activities auxiliary to financial intermediation was 40 percentage points less than nationally.

	GB			Hertfordshire		
	Number of employees 2008 (000s)	Absolute change 1998 – 2008	% change 1998 - 2008	Number of employees 2008 (000s)	Absolute change 1998 – 2008	% change 1998 - 2008
Education	2,485	624.2	34%	45	9.3	26%
Construction	1,269	160.8	15%	31	8.1	35%
Recreation, culture and sport	751	189.6	34%	14	4.1	43%
Health and social work	3,282	762.5	30%	45	4.1	10%
Retail trade	2,792	163.2	6%	62	2.9	5%
Real estate activities	511	206.5	68%	9	2.2	31%
Other business activities	3,490	920.9	36%	88	2.2	3%
Public admin	1,441	74.8	5%	16	1.8	13%
Other service activities	338	64.2	23%	7	1.1	20%
Hotels and restaurants	1,802	238.5	15%	29	1	4%
Supporting and aux transport	464	135	41%	7	0.9	15%
Sewage and refuse disposal	117	12.7	12%	2	0.7	54%
Auxiliary to financial intermediation	324	117.8	57%	5	0.7	17%
W’sale and commission trade	1,115	-34.3	-3%	30	0.7	2%
Agri, hunting and related	71	23	48%	1	0.6	78%
Research and development	112	15.9	17%	6	0.6	11%
Manuf wood, cork & straw prods	69	-14.3	-17%	1	0.2	24%
All sectors	26,493.6	2,349.3	10%	503.4	7.8	2%

Source: Annual Business Inquiry, 2008, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright material is

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Note: All sectors employing more than 500 people with above Hertfordshire average growth rate (2%) between 1998 and 2008

2.32 Furthermore, data on employment in knowledge based industries (KBI), suggests that Hertfordshire experienced a 20% increase in KBI sectors between 1998 and 2008, which was above the regional growth rate. Nevertheless, this rate of growth is slightly behind the national rate of growth and significantly behind that of other local comparators (Surrey and Buckinghamshire for example experienced a 30% increase).

Priority Sectors

2.33 The Hertfordshire Economic Development Strategy 2009-21 by Hertfordshire Works identifies a number of priority sectors⁴. These include emerging sectors such as life sciences, advanced manufacturing/software, green industries and digital and creative industries. The Council has commissioned a number of sector studies to look at the potential of these sectors in more detail. The research below provides a brief overview of the opportunities within these following our own analysis to inform this particular study. In order to provide a full assessment, we have also looked at a number of other sectors which are relevant to the Hertfordshire economy (as identified in the socio-economic baseline) including: logistics and the professional, banking and finance sector.

2.34 Here we consider Hertfordshire's sectoral strengths. There are two dimensions to sector advantages:

- Sectors with a high 'Location Quotient'⁵, reflecting the degree of specialisation that particular employment sectors have locally in relation to national benchmarks; and,
- Sectors experiencing high levels of employment growth in recent years.

2.35 The relationship between these two dimensions provides a useful indication of the main opportunity sectors in Hertfordshire. For example, if a sector has a positive location quotient and has experienced recent employment growth locally, it is likely to be a major driver for the local economy.

2.36 The table below provides an overview of the recent change in employment in a number of priority sectors for Hertfordshire. Full definitions for these sectors according to Standard Industrial Classification (SIC) codes are provided in Appendix A (note that there may be some variations between these definitions and those used in other studies).

⁴ Hertfordshire: the Place of Choice Innovation, Opportunity and Inclusion , Hertfordshire Economic Development Strategy 2009-2021, Hertfordshire Works June 2010

⁵ A LQ greater than 1.0 suggests that there is a greater concentration of employment (or specialisation) in Hertfordshire compared to Great Britain

Table 2-8: Hertfordshire change in employment in priority sectors 2003 – 2008.

	2003 Employment (000s)	2003 LQ vs GB	2008 Employment (000s)	2008 LQ vs GB	Absolute Change 2003 – 08 (000s)	% change 2003 - 08
Life Sciences	9.7	2.7	11.2	3.1	1.4	15%
Advanced Manufacturing	19.1	0.8	21.8	1.0	2.8	14%
Professional banking and finance	27	0.9	30	1.0	3.0	11%
Logistics	16	0.8	15.9	0.8	-0.1	-0.5%
Software and Digital	22.5	1.6	21.9	1.5	-0.6	-3%
Green Industries (ex consult*)	11	1.6	10.7	1.4	-0.3	-3%
Creative Industries	25.7	1.1	24.5	1.0	-1.2	-5%

Source: Annual Business Inquiry 2003 – 2008
 Note: 2003 SIC codes do not adequately provide for environmental consultancy activities. The SIC code in which environmental consultancy activities fit covers all business management and consultancy activities. The large variety of businesses included in this SIC code would skew the analysis considerably.

2.37 The table above shows that only one of these sectors has experienced growth together with a relative concentration of employment in Hertfordshire (when compared to GB) and as such is a clear sector strength:

- **Life Sciences:** a LQ of 3.1 in 2008 (2.8 in 2009) and an increase in employment of 15%

2.38 In addition to those listed above, the following sectors have also experienced rapid employment growth between 2003 to 2008, although do not have a positive location quotient (indicating that they still have a small presence relative to GB). These provide an opportunity for the future:

- **Advanced manufacturing:** employment increased by 14% between 2003 and 2008 and the concentration of employment is similar to GB Levels (LQ 1.0)
- **Professional banking and finance:** employment increased by 11% between 2003 and 2008 and the concentration of employment is similar to GB levels (LQ 1.0 in 2008 and 0.9 in 2009)

2.39 Finally, there are sectors where Hertfordshire has a relative concentration of employment but where employment has been declining. Further investigation is required to understand whether this is likely to be a long term trend which will continue into the future. There are a large number of employees in these sectors in any case and as such, they are of significance to the Hertfordshire economy.

- **Software and Digital:** a LQ of 1.5 in 2008 (1.6 in 2009) but employment declined by 3% between 2008 and 2009. It is worth noting however that this sector has grown since 2007.
- **Green Industries:** a LQ of 1.4 in 2008 and 2009 but employment declined by 3% between 2008 and 2009

2.40 Finally, the table above suggests that Hertfordshire does not have a relative concentration of

employment in the **logistics** sector and that employment in this sector has been in decline. There are average concentrations of employment in the **creative industries** sector and between 2003 and 2008, employment declined.

2.41 Further information about each of these sectors in turn is provided below.

Life Sciences

2.42 The past five years have seen Hertfordshire consolidating its existing strengths in Life Sciences. The increase of 1,400 employees (15%) in the Life Sciences sector has further increased the concentration of employment in this field in Hertfordshire – the LQ of the sector has increased from 2.7 to 3.1. In the same period, the number of Life Sciences companies in Hertfordshire has increased by 40.

2.43 East Hertfordshire, Stevenage and Welwyn Hatfield, Hertsmere and Broxbourne all have significant concentrations of employment in life sciences compared to national levels (LQ>3.0). This is also the case for North Hertfordshire and St Albans though to a lesser extent (LQ>1). The map below also shows that there are significant concentrations of employment at Stevenage, Welwyn Garden City and Ware (in East Hertfordshire).

2.44 Pharmaceuticals is a particular strength for Hertfordshire, with twelve of the world's top pharmaceutical companies located in the county. The area has also been attractive to new investors with Eisai, a Japanese owned firm, recently basing their European Headquarters in Hatfield.

2.45 GlaxoSmithKline (GSK) has a strong presence in Hertfordshire with sites at Stevenage and Ware (and Harlow in Essex, though activities here have been rationalised). GSK's plan to develop an 'open innovation' environment on the new bioscience park at Gunnels Wood could be a model for encouraging more investment in Hertfordshire by other life sciences firms. Large pharmaceutical companies like GSK have been keen to attract biotech companies to work with them to reduce their own development costs and shorten product to market timescales.

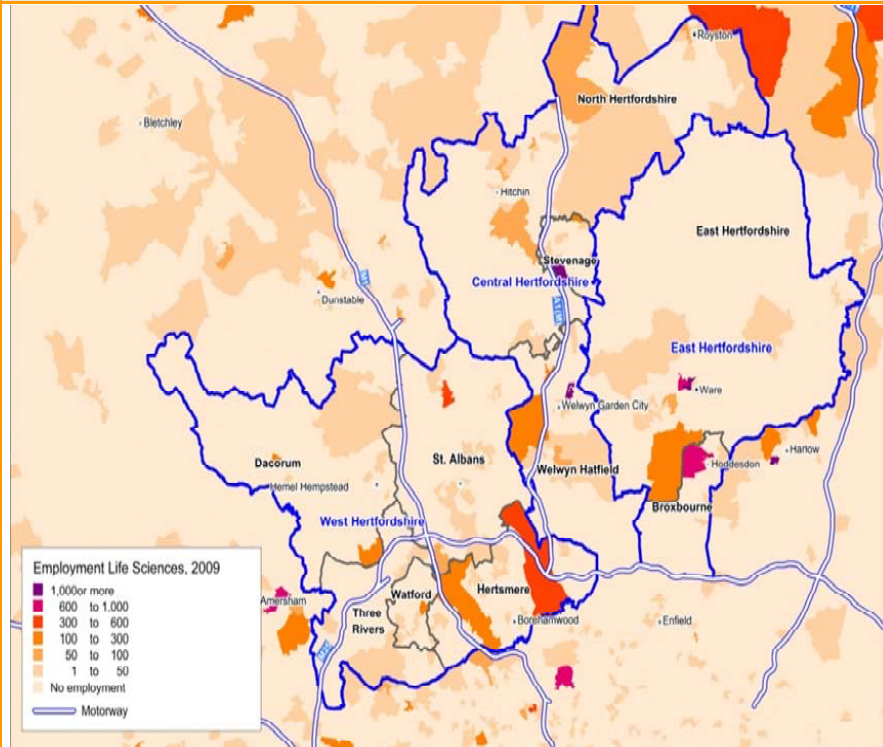
2.46 In 2006, the University of Hertfordshire purchased a 100,000 ft² biotechnology and chemical Research and Development facility from Roche. In partnership with EEDA, £10 million has been invested in a BioPark. This is located in Welwyn Garden City and offers a range of laboratory configurations in floor areas from 50 to 200 square metres – ideal for biotechnology, diagnostics and medtech research and development. The biopark has recently been extended.

2.47 A further project which plans to strengthen the broader life sciences sector is the Watford Health Campus. The Watford Health Campus is a 26.5-hectare site in West Watford that includes Watford General Hospital, Cardiff Road Industrial Estate and Watford Football Club. Proposals including locating community, intermediate and acute care facilities including a redeveloped General Hospital along with education, leisure, recreation and fitness facilities. The plans also involve the provision of business, medical, education and research premises that contribute to the delivery of healthcare. Finally, some housing would be located on the site. The East of England Development Agency (EEDA) has invested in the site and further funding is required to bring forward the development, though current plans suggest that business space is likely to come forward first. This could provide space to attract additional

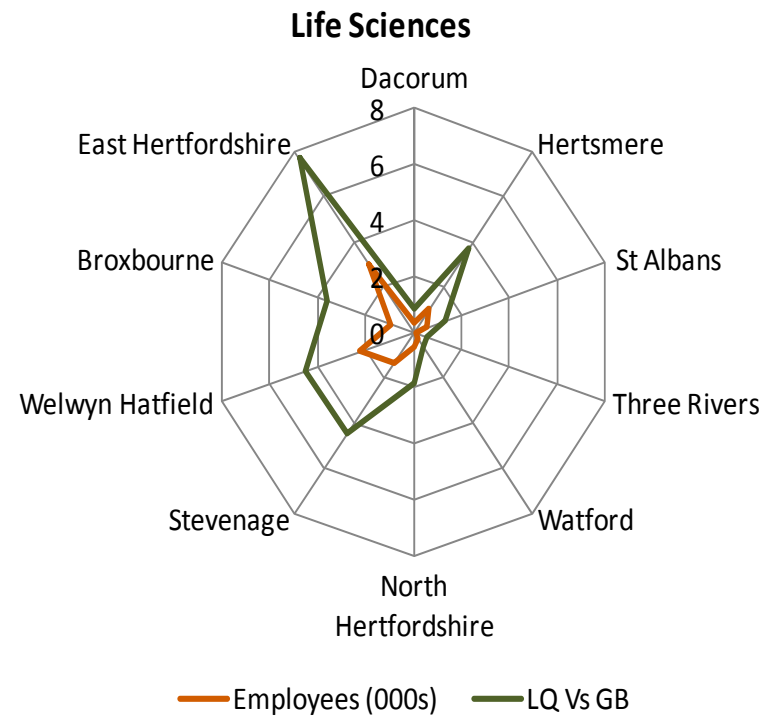
firms linked to the life sciences sector.

- 2.48 As well as these major sites, there are a number of smaller sites which accommodate the life sciences sector. For example, in Hertsmere there is the National Institute for Biological Standards and Control (NIBSC), Cancer Research UK and the Bio Products Libratory plc.

Figure 2-4 : Life Sciences: distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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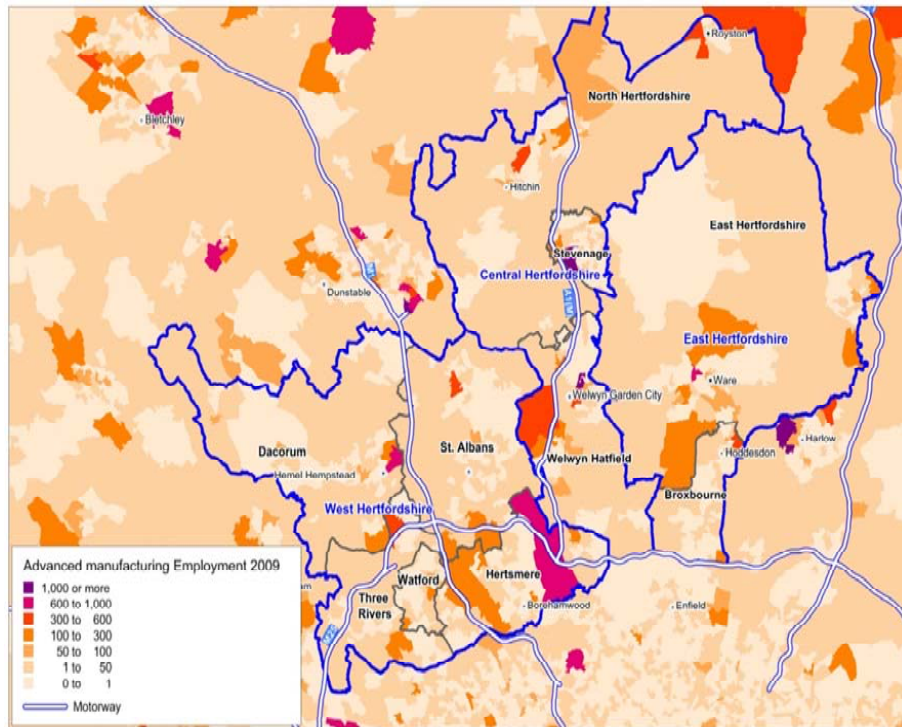


Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)
 A LQ greater than 1.0 suggests that there is a greater concentration of employment (or specialisation) in Hertfordshire compared to Great Britain

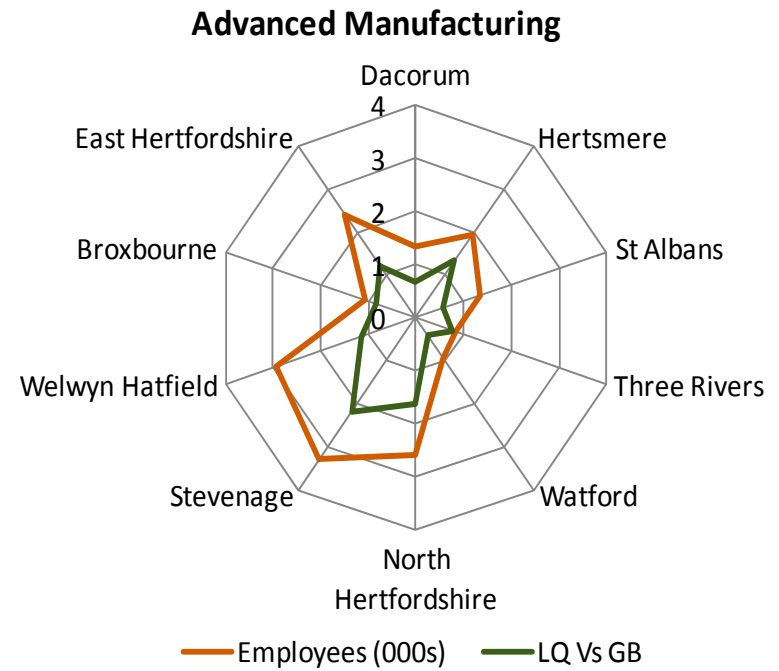
Advanced Manufacturing

- 2.49 There are 18,600 employees in advanced manufacturing in Hertfordshire and as such this is a significant sector for the county (in terms of size). Employment has also been increasing with a 14% increase between 2003 and 2008. At the same time, the number of advanced manufacturing business has decreased by just less than 100. This is likely to be due largely to improvements in efficiency and technology reducing the labour requirements of advanced manufacturing businesses.
- 2.50 Although the sector remains no more concentrated in Hertfordshire than it is elsewhere, there are signs that the importance of this sector to the regional economy has increased, since its LQ has increased from 0.8 to 1.0 in the past five years. Nevertheless, there are parts of Hertfordshire which are more specialised in this sector. Stevenage, North Hertfordshire and East Hertfordshire all have more significant concentrations of employment compared to national levels (LQ > 1).
- 2.51 Major employers in this sector include EADS Astrium (satellites and space) and MBDA defence both located in Stevenage. EADS Astrium has recently invested £6.5 million in their assembly and manufacturing facilities on site at Stevenage (designing and building space crafts) and are positive about their future prospects. The site is however at capacity and as a result they now have some office accommodation off-site. Due to their specific property requirements and investment in their Stevenage facility, they are unlikely to relocate.
- 2.52 Our consultations have suggested that key issues for this sector in the future will be costs and the availability of quality skilled labour. Within Astrium for example, around 70% of staff are estimated to be foreign nationals.
- 2.53 Some people have suggested that Hertfordshire does not perform well against Essex, which has a strong automotive engineering background and even Norfolk and Bedfordshire. Future areas of opportunity are likely to be within niche, high value manufacturing projects where costs are not such an issue and proximity to the customer and suppliers is more important.

Figure 2-5 : **Advanced Manufacturing:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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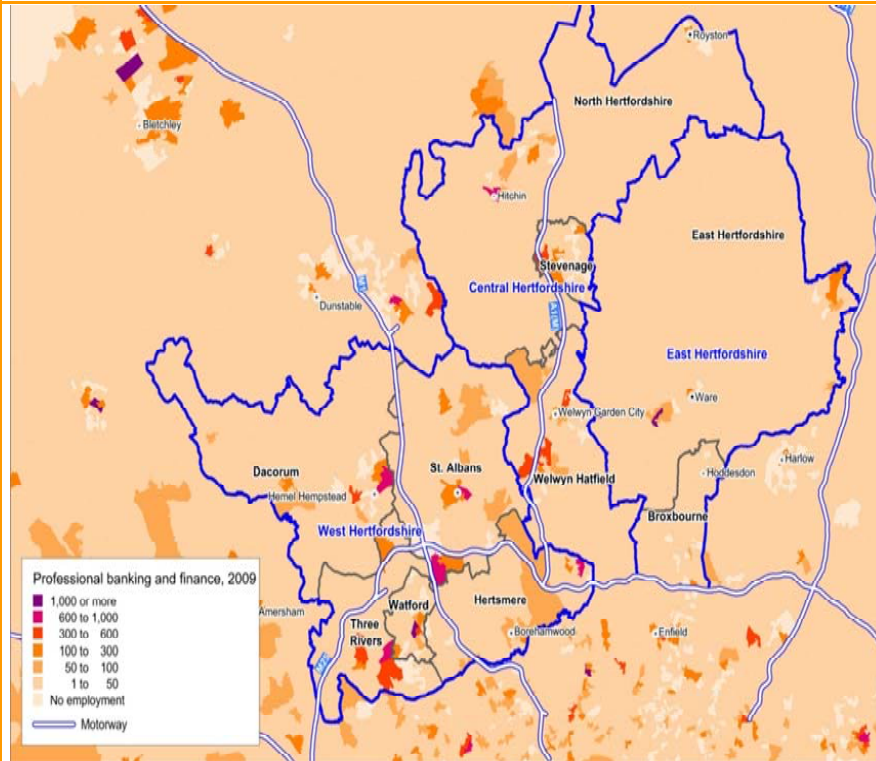


Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

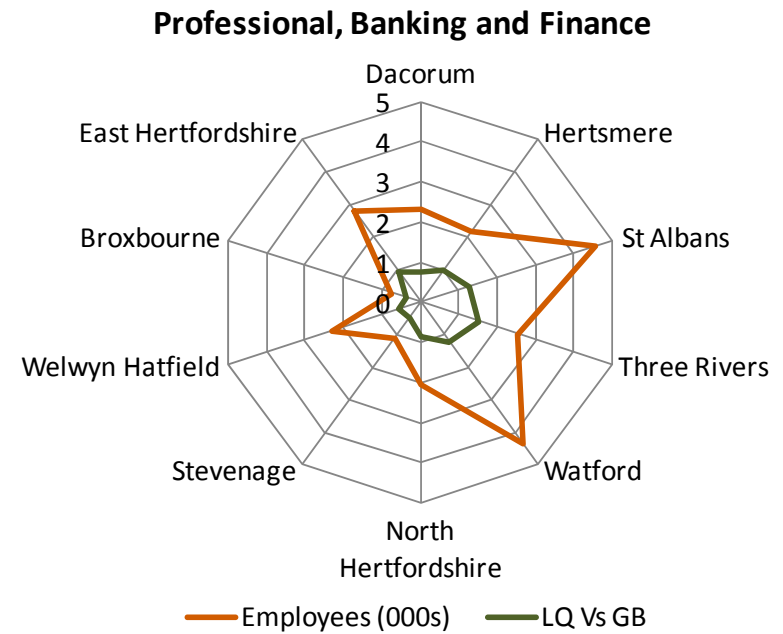
Professional, Banking and Finance

- 2.54 The professional, banking and finance sector is significant in Hertfordshire in terms of size, employing 25,000 people in 2009. The sector has been growing in terms of employment in recent years and major business and financial services companies such as KPMG, PwC and Canada Life are located in the area.
- 2.55 Three Rivers, St Albans and Watford have LQ which are above 1.0 which suggests that employment in this area is more concentrated than nationally. As shown below, there are clear concentrations of employment in this sector along the M1/A1 corridor and near to the M25.
- 2.56 Proximity to London and the area's excellent connectivity has allowed towns such as St Albans to be very successful in attracting firms within this sector out of London and to encourage non-London firms to base themselves here. However, a lack of Grade A office space and high operating costs could encourage companies to look elsewhere.
- 2.57 Other towns such as Basildon are developing propositions to further develop their own financial services cluster and improved transport links into London will support their efforts.
- 2.58 Companies within this sector which have been consulted suggested that a good quality business park with good transport links are the key requirements for their firm.

Figure 2-6 : **Professional, Banking and Finance:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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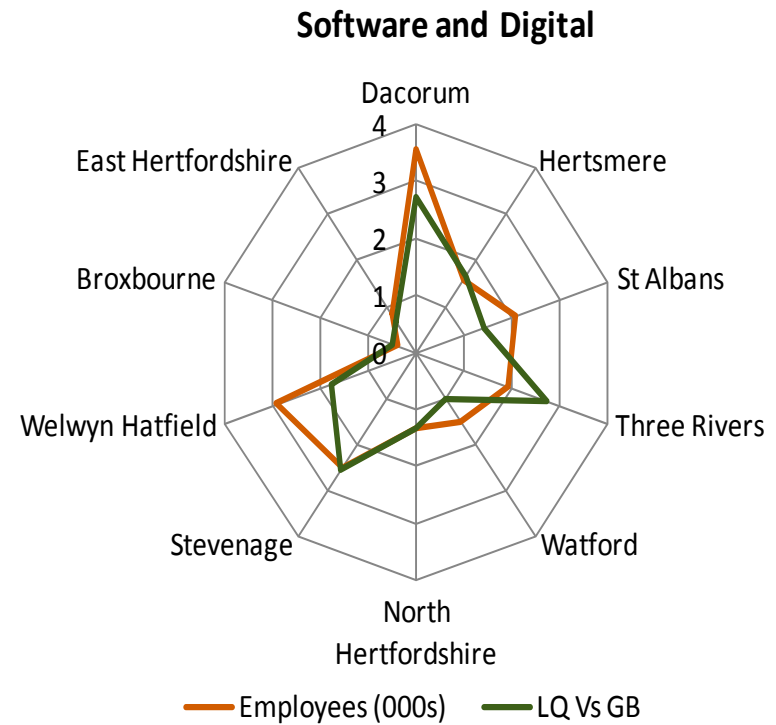
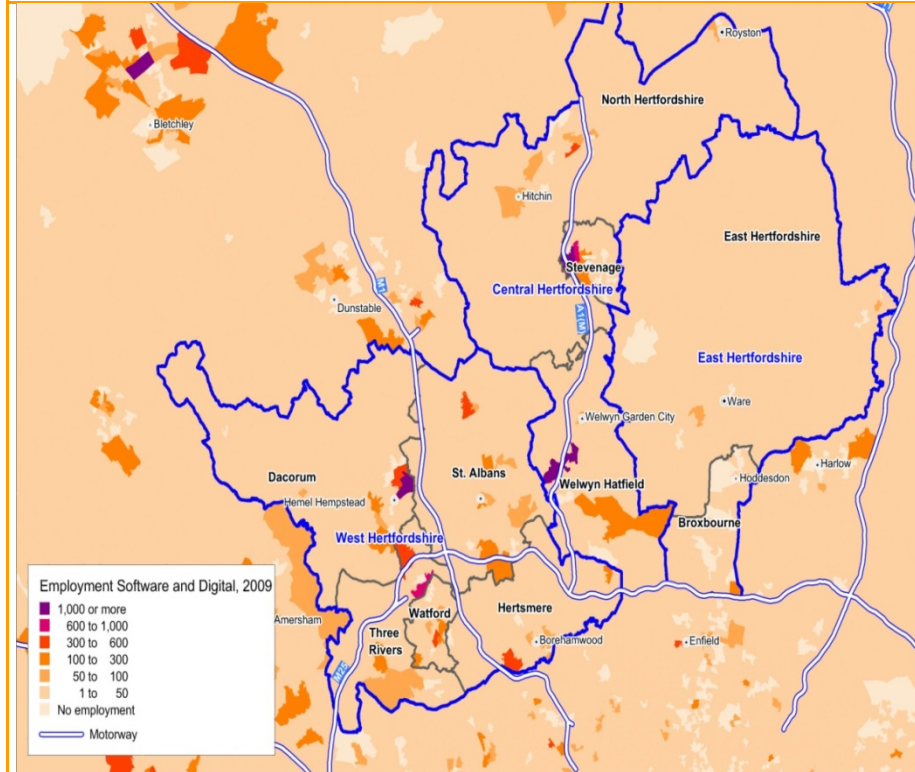
Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

Software and Digital

- 2.59 The software and digital sector in Hertfordshire is significant in terms of size with 18,600 employees in 2009. Overall, between 2003 and 2008 employment has been falling but further analysis suggests that there has been an upturn in employment since 2007.
- 2.60 Overall, across Hertfordshire there is a strong relative concentration in employment compared to Great Britain (with a Location Quotient of 1.6). Dacorum and Three Rivers in particular have strong concentrations of employment in this sector (LQ>2) and to a lesser extent Welwyn Hatfield, Hertsmere and St Albans (LQ>1).
- 2.61 Major firms locally in this sector include 3COM, Motorola, T Mobile and Computacentre. There are also likely to be digital strengths around Leavesden and Elstree related to the presence of the film industry in these locations.
- 2.62 Hatfield Business Park is an attractive location for firms in this sector with firms indicating that they enjoy its prestigious location with good transport links to London and beyond. Some firms reported that they did not feel that there were sufficient sites for firms in this sector, with a lack of prestigious businesses.
- 2.63 A further consideration for firms in this sector is changing working practices. Some firms reported that they are likely to require less space in the future as a result of more people working from home.

● Hertfordshire Strategic Employment Sites Study ●

Figure 2-7 : **Software and digital:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



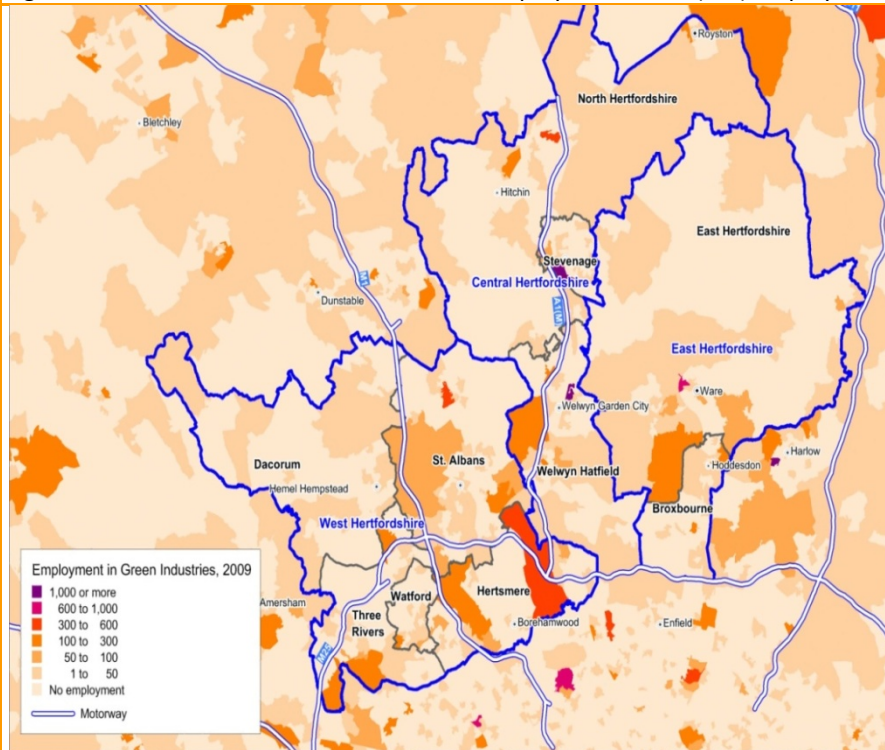
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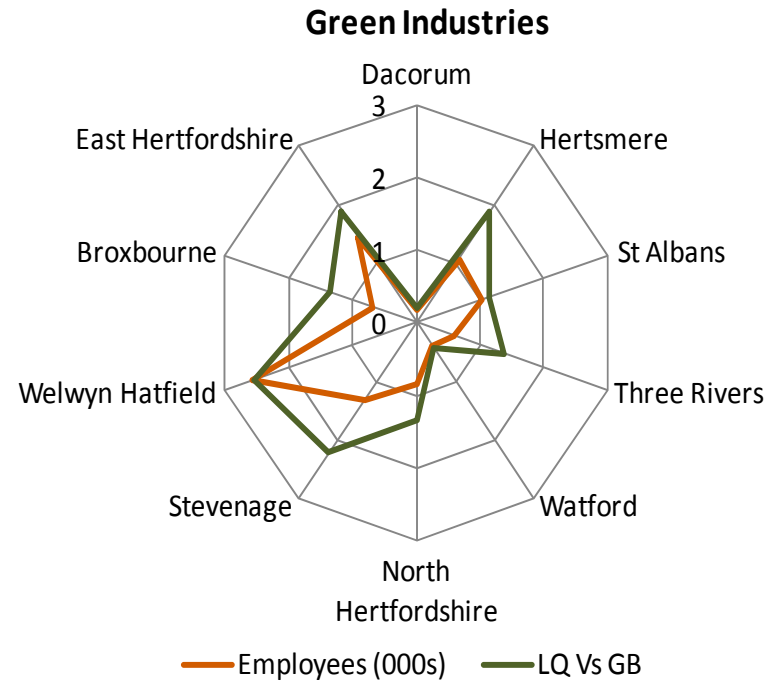
Green Industries

- 2.64 The green industries sector employs 10,100 people within Hertfordshire. However, employment between 2003 and 2008 declined by 3% (a loss of 1,400 jobs). The contraction in employment has occurred rapidly and steadily since 2005 and there is some evidence to suggest that this may be related to increases in productivity in the sector as the volume of business units remained stable during this period.
- 2.65 Hertfordshire has a relative concentration of employment in this sector when compared to Great Britain. Within the county, eight out of the ten districts have a LQ above 1 (Welwyn Hatfield, Stevenage, East Hertfordshire, Hertsmere, Three Rivers, North Hertfordshire Broxbourne and St Albans).
- 2.66 The presence of the Building Research Establishment (BRE) in the district of St Albans is a major strength for the county and potentially more could be done to exploit its presence and encourage new investors into the area. As well as the BRE buildings, there is an Innovation Park which acts as a demonstrator for green building technologies (with the technologies of 200 firms showcased here) and thirty other companies are located at the site across a number of sectors. More recently BRE has tried to attract companies which have a relationship to the built environment as other firms leave the site. Now around 15 firms have a relationship with the built environment and benefit from being part of a green technologies cluster. This presents a real opportunity to develop a cluster around this centre of excellence. BRE would like to masterplan and consolidate the 72 acre site to improve its efficiency and potentially release parts of the site for redevelopment.
- 2.67 Rothampsted Research is an agricultural research centre located in St Albans and employing around 450 people on site. They have recently completed a £30 million redevelopment of their site and would like to develop a green business park nearby. This is dependent on gaining local support for plans.
- 2.68 The University of Hertfordshire has developed the Centre for Sustainable Communities. There are three key elements to this which could be important to the growth of the green sector:
- Planning, development and design which are core to the sustainable communities agenda. There are numerous short courses and an Msc in Sustainable Planning.
 - Transport, with particular strengths in aerospace and automotive engineering.
 - Energy, with particular support for organisations wishing to reduce their environmental impact.
- 2.69 Companies within this sector do tend to be small and require support. Running costs are also a factor and subsidised facilities may be required. Further work could be done to promote the presence of the BRE facility and other assets and to identify opportunities to strengthen the sector locally.

Figure2-8 : **Green Industries:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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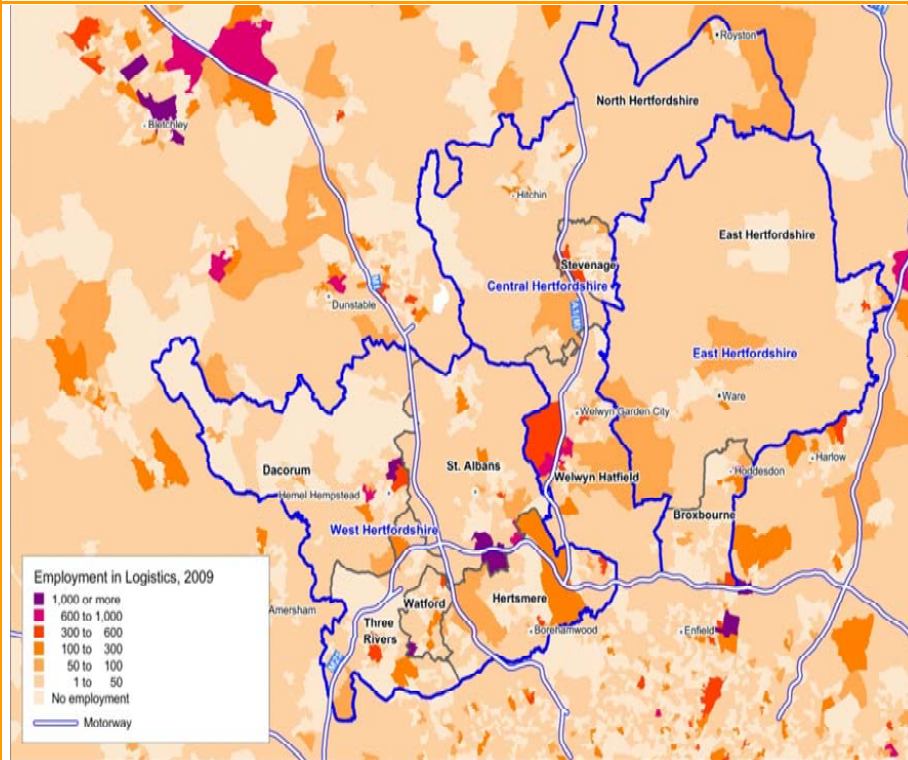
Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

Logistics

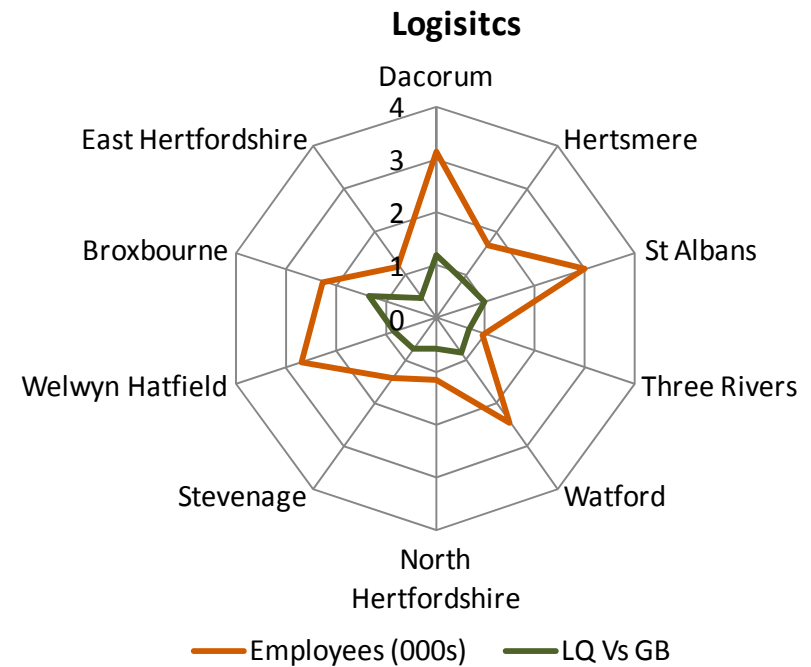
- 2.70 The logistics sector employs 19,900 employees in Hertfordshire. However, employment in this sector has been declining. Between 2003 and 2008 employment fell by -0.5% with a significant decline between 2006 and 2008.
- 2.71 Hertfordshire does not have a significant concentration of employment compared to Great Britain with a LQ < 1. Nevertheless, there are parts of the county which are important locations for the logistics sector. Broxbourne, Dacorum and to a lesser extent St Albans have more concentrated levels of employment in this sector compared to national levels (LQ>1).
- 2.72 The map overleaf, illustrates the importance of Hertfordshire's good transport infrastructure network to attract these firms. There are concentrations of employment in the logistics sector along the M25 between St Albans and Hertsmere.

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Figure 2-9 : **Logistics:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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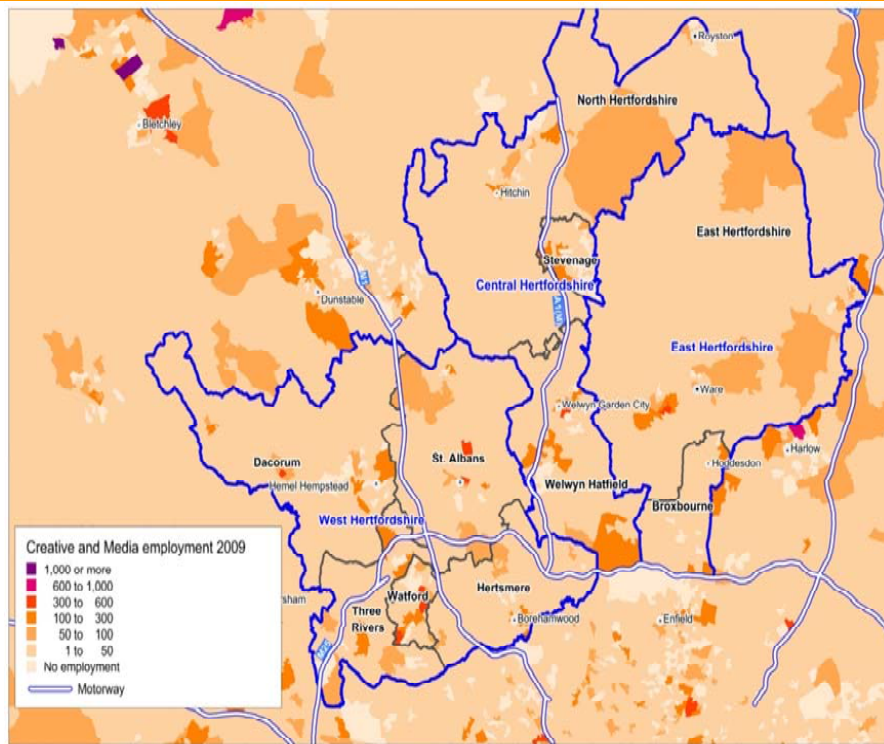


Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

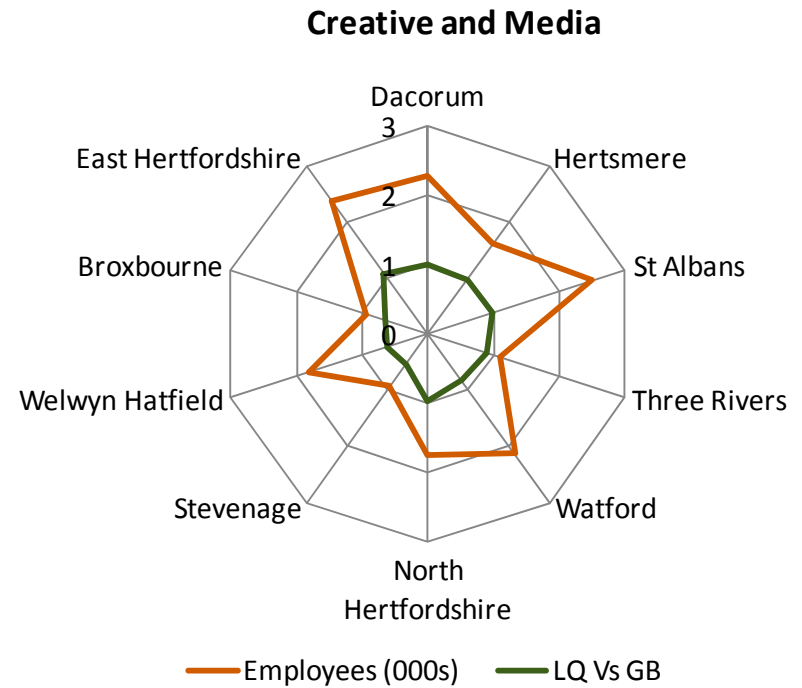
Creative and Media

- 2.73 The creative and media sector employs 17,500 people in Hertfordshire and as such is a significant sector for the county. Between 2003 and 2008, employment fell by 5%, however there has been an upturn in jobs since 2007.
- 2.74 There are average concentrations of employment in this sector compared to Great Britain, with a LQ of 0.9 in 2009 (1.0 in 2008). There are however slightly stronger concentrations of employment in Dacorum and East Hertfordshire.
- 2.75 Elstree Studios and BBC studios are strong assets within Hertfordshire. Elstree is reportedly performing well and has taken a number of bookings up to 2013. Given this success, there is potential for further investment in Elstree Studios including the development of currently vacant land at the rear of the studios
- 2.76 The purchase of Leavesden Studios by Warner Brothers can be seen as a significant opportunity to develop the creative industries sector in the county. This is the first purchase of an overseas studio by one of Hollywood's major players and the investment was secured against strong competition from the Czech Republic where costs would have been significantly cheaper. There are likely to be opportunities to develop a cluster of firms to support the site.
- 2.77 The establishment of a new body, Film Link, to replace the regional agency Screen East and based at Elstree Studios, provides Hertfordshire with an important resource for supporting the film industry in the County with its partnership between Elstree Studios, Leavesden Studios and the University of Hertfordshire. This may help the area compete with other nearby facilities, including those at Pinewood and Shepperton.
- 2.78 A key characteristics of this sector is that many creative companies can work virtually and do not require a physical presence alongside their customers and many either already reside in London or would want to base themselves here.
- 2.79 Another key issue for this sector is the fact that the film industry faces competition from overseas locations which are offering incentives to support the industry and have cheaper operating costs.

Figure 2-10 : **Creative and Media:** distribution of employment, 2009 (left) Employment and LQs (vs GB), 2009 (right)



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Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

3. Historic Commercial Property Market Performance

3.1 This section provides an overview of recent trends in the commercial property market in Hertfordshire. The focus is on understanding the dynamics of the office and industrial markets in the county and recent trends in terms of take-up, rental levels and completions. In order to inform our assessment we have analysed data for Berkshire in order to understand how Hertfordshire performs against locations which are considered to be successful in terms of commercial property market performance. The key points are summarised below.

A summary of the key points

- Hertfordshire currently performs more strongly in relative terms as an industrial location than for office floorspace. Growth of office floorspace (net) has fallen substantially below levels achieved in competitor markets. Take-up is lower in comparative terms. This is influenced by the quality of the product on offer although it is also partly reflected by the geography of the County.
- **Office rents** in Hertfordshire are below those for Berkshire. Compared to Hertfordshire, Berkshire and the Thames Valley has developed a sizeable office market and critical mass of activity. This is hard to match, particularly in the short-term.
- Within Hertfordshire the stronger office centres are **St Albans, Watford and Hemel Hempstead**, main towns in the west of the County and there are achieved rents of around £20 psf. The north of the county which is more poorly connected to London and the M25 has achieved rental levels of only £16psf.
- Hertfordshire has developed a strong **logistics and distribution** market as a result of its proximity to London and accessibility to the national road network. The County has seen stronger growth in warehouse floorspace relative to its competitors.
- Whilst Hertfordshire struggles to compete with Berkshire in the office market, it has a far larger and more significant market for **industrial** space. The industrial market in Hertfordshire has also been less affected by the recession than other locations such as Berkshire, which have a weaker industrial market.
- Key locations for **industrial space** includes **Hemel Hempstead, Watford and Welwyn Garden City**. The Maylands Estate in Hemel Hempstead has average industrial rents equivalent to £6psf.
- Valuation Office data shows that between 1998 and 2008, warehouse floorspace has grown by a third in net terms and office floorspace by 12%. There has been a net loss in industrial floorspace (-22%). Despite the decline, new industrial space is still likely to be required to replace older stock.
- Data which reveals that there is a strong industrial market in Hertfordshire does correlate with the findings in Section 2 which show concern that Hertfordshire's economy is stronger in **lower value** sectors (relative to some competitors).
- The results of a recent **business survey** carried out by Hertfordshire County Council suggests that there is some **demand for premises**. Around 154 firms (26%) indicated that they require alternative premises in the next few years and 84 firms (14) reported that they require additional premises. Nearly half of firms (48%) felt that there was an **insufficient choice** of premises in the area at present.

3.2 The remainder of this section is set out under the following headings:

- Performance in Hertfordshire: an overview
- Office market

- Industrial market
- Completions and pipeline

Performance in Hertfordshire: An Overview

- 3.3 The commercial property market in Hertfordshire has a strong, high quality manufacturing base, with many national and international high technology occupiers carrying out specialist manufacturing and research and development functions within the county. There is a long history of this type of employment base in the county (as addressed in earlier sections) which has resulted from a number of factors. These include access to a high quality pool of labour, accessibility to London, and to national and international markets, the high quality environment, location of higher education establishments and the historic location of pioneering industries such as aviation and pharmaceuticals.
- 3.4 In recent decades Hertfordshire has developed a strong logistics and distribution market as a result of its proximity to London, and accessibility to the national road network. As illustrated in Chapter 2, Logistics occupiers are attracted to Hertfordshire as it is the main location to serve the northern M25 quadrant, north London and the Midlands.
- 3.5 Despite the positive attributes mentioned above, many of the key employment locations within the county suffer from a market perception of infrastructure problems, primarily associated with transport infrastructure, but also the physical environment, higher education, and the general quality of commercial building stock. Historically, and particularly in the occupier market of the recent recessionary years, this has meant that the county's performance against its main competing location of Berkshire and the Thames valley has been difficult. This is particularly true for B1 floorspace.
- 3.6 Whilst the county has undeniably benefited from its close proximity to London, it has also suffered from intense competition, not only from Greater London itself but from all other locations which have a similar travel distance and connection to the city. Whilst Berkshire and the Thames Valley has succeeded in setting itself apart from its competition, and offering a quality and critical mass of building stock that generates successful market conditions, Hertfordshire has historically fallen behind, particularly in the office and high technology industries.

Office Market

Rental Levels

- 3.7 With demand much reduced from normal levels, vacancy rates have increased and occupiers have been in a strong position to negotiate rental levels down, consequently headline rents across the county have fallen by around 10 – 20% since early 2008.
- 3.8 In Watford, where supply is more limited, and the market is traditionally stronger, rents have remained steady at around £20.50 psf, and good quality office stock has not suffered the same falls in value as elsewhere in the county. A lack of new build development over the last 10 years has left the commercial office market with an ageing profile and a good demand for new build space. Levels of carparking are a key issue for the Watford market.

The older stock has a high level of parking which is unachievable on new build development and consequently good quality second hand space achieves the same rental level as new build space. In terms of economic performance, Watford has been underperforming compared to some other locations and this may in part be due to a lack of good quality space available for firms.

- 3.9 Watford Junction is a key town centre office market, centred around the railway station (with rents around £20psf). There are excellent links by rail into London and as a result this area can be considered as a key location in Hertfordshire for the office market. The existing stock is mixed but there is currently an oversupply of second hand space and a shortage of new build, quality Grade A office stock.
- 3.10 Croxley Green, just outside Watford Borough provides a high quality campus office environment and the space is well maintained. However, the space lacks the critical mass of other office locations and there is a high vacancy rate. Here, the picture is different to central Watford in terms of rents and there has been a 20% decrease over the last 2-3 years down from around £20psf to £16-£17 psf. This demonstrates the strength of the Watford Town Centre market supported by its rail links to London and critical mass of office occupiers.
- 3.11 Leavesden Park is located on the edge of Watford and has poor public transport links. An MEPC owned development, there are currently two office blocks , though demand for large floorplates is poor at this location. Rental levels are lower (reflecting the location) at around £18.50 psf.
- 3.12 In terms of new build development in Watford rental levels of around £24 - £25 psf are required in order to drive viability of new schemes. This is an achievable rental level in the current market, provided that sufficient car parking levels can be provided to compete with good quality second hand space on the market.
- 3.13 In Hemel Hempstead there is a large supply of buildings ranging from 2,000 sq ft to 20,000 sq ft in the town, and rents fell from an average of around £17psf to around £13.50psf between 2008 – 2010. The Maylands Estate offers a significant amount of office space of varying quality, as well as a significant potential pipeline of development at the People Building site and the proposed Maylands Gateway business park. The People Building represents the best type of space available in the Maylands market and is let at headline rents of around £20 psf, although current values have fallen to around £18psf over the last 3 years. Overall, Maylands suffers from a poor perception and environment.
- 3.14 St Albans is another key office market within Hertfordshire, benefiting from good transport links (including public transport), a critical mass of occupiers, a strong workforce and good market perception. The town achieved two of the most significant lettings in the county in 2010 when Luxoticca Group took 15,280 sq ft at Verulam Point followed by BSKyB taking 15,000 sqft at 4 Victoria Square. There are a range of occupiers overall, including some corporate Head Quarters. Headline rents achieved were reported to be £21.50 psf, although the headline rental tone for the town is around £20psf. There has also been some decline in rental values in recent years.
- 3.15 In Welwyn Garden City, GE Capital completed a 41,000 sq ft office scheme in 2007 and it has remained vacant since completion. Floor by floor lettings are now being considered and

asking rents have been reduced to try and attract occupiers – a trend that is mirrored by other property owners across the county.

- 3.16 In Hatfield, Hatfield Business Park is a comparatively high quality campus style business park, which is well maintained. There is a mix of uses including high quality office space, which has attracted some good quality, high profile occupiers. The business park offers good private transport connections and there is space for expansion (14ha).
- 3.17 The rental levels highlight the relative strength of the office market in the south west of the County where the towns of St Albans, Watford and Hemel Hempstead achieve rental levels of around £20 psf. The north of the county which is more poorly connected to London and the M25 and has a more dispersed office market of smaller lot sizes, has suffered more over the last few years with rental levels reducing to sub £16 psf in the majority of locations.

Take-Up

- 3.18 We have undertaken an analysis of take-up data held by FOCUS CoStar, a property market information service. The data is taken on a county wide level and broken down by town in Table 3.1. The figures shown include all deals information held by FOCUS for B1 use for occupation, both freehold and leasehold transactions. We have undertaken the same exercise for Hertfordshire's key competitor location, Berkshire, to allow comparison between the two counties, and this information is presented in Table 3.2.

	2006	2007	2008	2009	2010	AVERAGE
Berkhampsted	6,115	26,523	4,559	4292	2,301	8,758
Bishops Stortford	21,672	17,860	3,330	22,926	15,686	16,295
Borehamwood	260,560	170,909	8,000	12,236	40,188	98,379
Cheshunt	4,898	69,232	14,728	15,074	9,581	22,703
Elstree	31,276	62,579	10,252	29,822	13,888	29,563
Harpenden	12,221	4,580	705	7,085	5,518	6,022
Hatfield	20,742	385,344	1506	6,965	2,863	83,484
Hemel Hempstead	335,944	114,313	36,626	135,362	27,368	129,923
Hertford	34,675	25,028	1,850	22010	8,450	18,403
Hitchin	22,231	20,577	1,905	3502	2927	10,228
Hoddesdon	9,939	4,310	900	-	-	5,050
Kings Langley	9,062	77,151	-	4,113	14,382	26,177
Knebworth	2,705	4,250	-	-	-	3,478
Letchworth	39,328	49,424	10,498	16,180	1,114	23,309
Potters Bar	9,555	81,453	9,630	4,229	1095	21,192
Rickmansworth	25,476	8,353	-	14,799	9,058	14,422
Royston	3,231	1287	-	4,240	3,514	3,068
St Albans	139,348	198,825	19,233	29,048	88,007	94,892
Stevenage	152,409	123,695	60,286	24,154	96,853	91,479
Tring	1,610	727	840	874	3249	1,460
Ware	3,670	-	-	2,499	8,420	4,863
Watford	208,770	304,113	85,768	215,800	72,722	177,435
Welwyn	-	-	-	637	1,220	929
Welwyn Garden City	56,530	197,560	15,802	53,322	48966	74,436
TOTAL	1,411,967	1,948,093	286,418	629,169	477,370	950,600

Source: FOCUS CoStar Feb 2011

- 3.19 FOCUS CoStar may not capture all property deals, but for the purposes of this report it provides a clear and consistent picture of the relative scale of the market in different centres in Hertfordshire and in Berkshire, and the underlying take-up trend over the last 5 years.
- 3.20 The take-up of offices over the last 5 years in Hertfordshire recorded by FOCUS CoStar has averaged around 950,000 sq ft per annum. The trend over the last five years demonstrates dramatically the effect of the recession on the demand for and take-up of offices in the County. At the peak of the market in 2007 take-up reached 1.95m sq ft and this plummeted to 286,000 sq ft in 2008. Since this low point take-up has increased with market demand slowly showing signs of recovery.
- 3.21 The take-up figures also highlight again the relative weighting of the office market towards the south of the County with the towns of St Albans, Watford and Hemel Hempstead contributing the greatest proportion of office take-up and indicating that these are the largest office markets in the County. When these figures are broken down it is also clear that these towns are also the focus of the larger deals to the high quality occupiers.
- 3.22 In Section 2, it was clear that Three Rivers and Welwyn Hatfield had experienced the most significant employment growth. The combined take-up in Welwyn Garden City and Hatfield is significant (Welwyn Hatfield) but the combined take up in Kings Langley, Rickmansworth and Potters Bar (Three Rivers) is less significant compared to other locations.
- 3.23 Take-up figures in the north of the County are generally made up of a larger number of smaller, secondary deals.
- 3.24 The annual variation in take up across Hertfordshire indicates the impact which the recession has had on market demand, and property market activity more generally. Take-up for individual towns in specific years is influenced by the number and nature of deals, and it should be recognised that a single or small number of substantial deals can have a notable affect on take-up statistics. This is why a five-year trend has been presented.
- 3.25 It is interesting to compare Hertfordshire take-up figures with Berkshire where the average annual office take-up over the last 5 years according to FOCUS data, equates to around 1,710,000 sq ft per annum. This compares to an average in Hertfordshire of 950,000 sq ft and demonstrates the relative size and importance of the Hertfordshire Market compared to Berkshire. Berkshire's market is 80% larger and has seen much stronger net growth in floorspace (as we will come onto) and this is likely to explain the strong performance in terms of employment and GVA growth identified in Section 2 of this report.

Table 3.2 – FOCUS CoStar Take-up Data for Berkshire (sq.ft) – including selected towns

	2006	2007	2008	2009	2010	AVERAGE
Bracknell	407,725	122,403	302,411	155,384	147,397	227,064
Maidenhead	136,853	349,179	175,517	138,822	129,622	185,999
Newbury	78,591	147,298	153,392	76,998	78,702	106,996
Reading	377,118	799,471	507,188	309,032	435,692	485,700
Slough	351,352	490,494	158,381	150,807	255,847	281,376
Windsor	47,986	46,200	39,120	54,686	52,560	48,110
Wokingham	102,886	476,654	136,153	64,943	109,839	178,095
Berkshire Total	1,663,570	2,772,923	1,677,075	1,040,179	1,416,052	1,713,960

Source: FOCUS CoStar Feb 2011

- 3.26 Berkshire has suffered a similar weakening of market demand during the recession with a significant fall in take-up between 2007 and 2008/09. However, in Berkshire this drop in take-up amounted to around a 60% decrease over two years from the 2007 peak, compared to Hertfordshire which experienced an 85% decrease from the 2007 peak in just one year. This goes some way towards demonstrating the difference in the underlying strength of the two markets. When overall market demand falls then footloose occupiers were more inclined to gravitate towards the Thames Valley/Berkshire location rather than Hertfordshire.
- 3.27 While in Hertfordshire the highest take-up has been in Watford at an average of 177,000 sq.ft per annum, there are five towns within Berkshire with a stronger office market and higher annual take-up. These are led by Reading where take-up averaged 486,000 sq.ft followed by Slough (281,000 sq.ft), Bracknell (227,000 sq.ft), Maidenhead and Wokingham.

Industrial Market

Rental Levels

- 3.28 The industrial market in Hertfordshire generally has not been hit as badly by the recession as other parts of the southeast. A lack of new supply to the market, caused by a dearth of development activity since 2007 has resulted in generally low vacancy rates in centres such as Watford where the lack of space has prevented rental levels from falling too sharply since the peak of the market.
- 3.29 In certain locations, such as Hemel Hempstead, there has been an over supply of smaller industrial units (sub 20,000 sqft) on the market which has led to landlords cutting asking rents and offering incentives in order to let space. At Maxted Park on the Maylands Estate for example, rents have been reduced from around £10 psf to £6.50 psf in order to stimulate occupier demand and achieve lettings. Nevertheless, the Maylands Estate in Hemel is a key industrial location and particularly attractive for distribution uses.
- 3.30 By contrast in Hemel Hempstead there has been a relative shortage of units in the 20,000 – 40,000 sq ft size bracket and, where stock has become available, it has gone quickly and at a good rental level of around £8 psf.
- 3.31 Gunnels Wood in Stevenage contains a mix of employment uses. It is however primarily an industrial location and lacks any significant office market. Industrial rents average around £5.50psf.

Take-Up

- 3.32 We have undertaken an analysis of industrial take-up data held by FOCUS CoStar, a property market information service. The data is taken on a county wide level and broken down by town in Table 3.3. The figures shown include all deals information held by FOCUS for Industrial use for occupation, both freehold and leasehold transactions.

Table 3.3 – FOCUS CoStar Industrial Take-up data for Hertfordshire						
	2006	2007	2008	2009	2010	AVERAGE
Berkhampsted	5,904	9,999	31,038	11,869	8,480	13,458
Bishops Stortford	24,728	19,743	21,257	23,390	40,734	25,970
Borehamwood	104,813	85,552	45,455	78,588	15,378	65,957
Cheshunt	-	4,797	31,235	16,154	81,597	33,446
Elstree	39,869	98,448	106,902	47,943	7,350	60,102
Harpenden	17,662	13,344	14,943	8,811	-	13,690
Hatfield	205,755	306,501	21,734	14,566	2,168	110,145
Hemel Hempstead	347,479	936,861	580,394	683,390	522,286	614,082
Hertford	21,951	47,942	77,848	69,051	62,171	55,793
Hitchin	62,124	47,660	186,346	22,173	17,215	67,104
Hoddesdon	57,020	26,696	67,137	25,730	233,518	82,020
Kings Langley	26,227	25,331	5,474	23,677	5,753	17,292
Letchworth	48,732	53,244	201,884	73,969	45,489	84,664
Potters Bar	9,740	84,912	19,223	27,999	43,005	36,976
Rickmansworth	7,600	1,067	10,300		664	4,908
Royston	21,453	4,775	13,789	2,920	7,330	10,053
St Albans	94,927	112,132	136,181	159,948	61,236	112,885
Stevenage	110,189	162,132	90,580	78,974	56,089	99,593
Tring	27,781	-	24,811	15,717	5,426	18,434
Ware	1,810	1,635	5,050	-	-	2,832
Watford	250,450	501,740	287,023	261,908	171,318	294,488
Welwyn	-	-	-	2,348	5,110	3,729
Welwyn Garden City	238,786	379,659	158,112	74,925	71,599	184,616
TOTAL	1,725,000	2,924,170	2,136,716	1,724,050	1,463,916	1,994,770

Source: FOCUS CoStar Feb 2011

- 3.33 Again FOCUS CoStar may not capture all property deals, but for the purposes of this report it provides a clear and consistent picture of the relative scale of the market in different centres and the underlying take-up trend over the last 5 years.
- 3.34 The average level of take-up of industrial space in Hertfordshire over the last 5 years has been around 1.95m sq ft. Unlike the office market, Hertfordshire has not suffered the same dramatic reduction in demand for industrial space, with a much more gradual fall from the market peak of less than 50% and over a longer period of time.
- 3.35 The figures highlight the strength and importance of the key towns of Hemel Hempstead, Watford, and Welwyn Garden City. Hemel Hempstead shows a particularly large proportion of overall take-up significantly higher than other centres, which is supported by the availability of large scale distribution sheds on the Maylands Estate which is a focus for this type of industrial stock.
- 3.36 Table 3.4 provides a comparative assessment for Berkshire. The Berkshire industrial market has averaged around 1.44m sq ft of take-up per year for the last 5 years. This is significantly less than the average take-up in Hertfordshire (-23%). The significant industrial markets are Slough and Reading. Whilst Hertfordshire struggles to compete with Berkshire in the office

market, it has a far larger and more significant market for industrial space, highlighting the County's strength in manufacturing and distribution.

	2006	2007	2008	2009	2010	AVERAGE
Bracknell	5,026	108,465	129,572	70,871	49,765	72,740
Maidenhead	25,615	31,931	104,618	82,703	106,754	70,324
Newbury	147,380	126,939	116,363	89,560	110,279	118,104
Reading	342,196	338,797	300,093	315,382	355,001	330,294
Slough	192,663	378,955	386,060	356,752	320,199	326,926
Windsor	-	31,946	56,563	23,090	11,471	30,768
Wokingham	123,799	172,853	90,597	33,991	166,981	117,644
Berkshire Total	1,018,735	1,779,908	1,540,287	1,345,935	1,507,653	1,533,973

Source: FOCUS CoStar Feb 2011

- 3.37 The finding that Hertfordshire has a strong industrial market relative to other locations such as Berkshire does correspond with the findings in Section 2 which suggested that employment in the county has been tending towards lower value sectors in recent years.

Completions and Pipeline

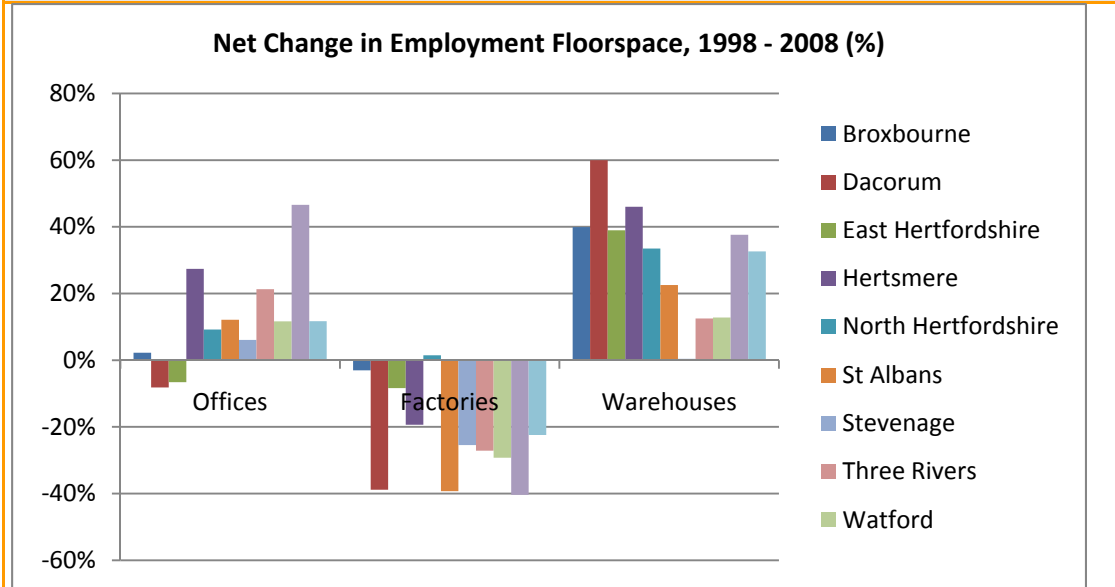
- 3.38 We have drawn on Valuation Office Agency (VOA) statistics to assess the change in employment floorspace over the decade to 2008. Over this period, total warehouse floorspace has grown by a third (33%) in net terms, and office floorspace by 12%. There has been a net loss in industrial floorspace, which has declined by -22%.

% Change, 1998-08	Offices	Factories	Warehouses
W Herts	9%	-32%	34%
Central Herts	22%	-22%	26%
E Herts	-4%	-7%	39%
Hertfordshire	12%	-22%	33%

Source: CLG/ VOA

- 3.39 We have also seen a redistribution of employment floorspace, as Table 3.5 indicates with particular growth of office floorspace in Central Herts. This has been influenced by development within Welwyn Hatfield and likely reflects the quantum of new-build space brought forward at Hatfield Business Park. The highest levels of net growth in distribution space have been in Dacorum (most likely around Maylands), followed by Hertsmere.

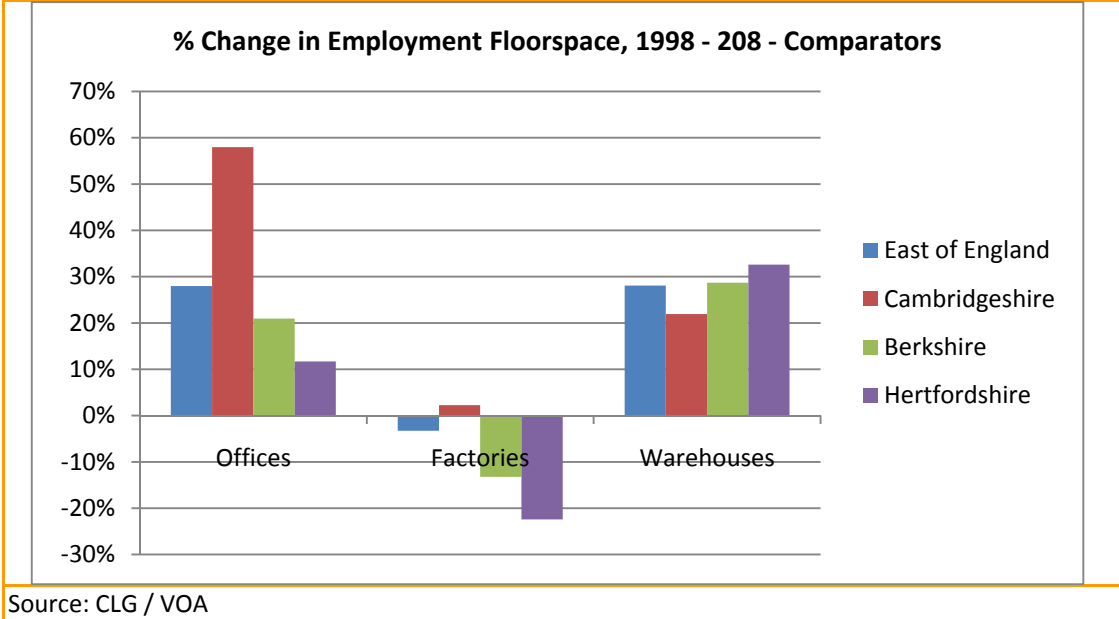
Figure 3.1 – Net Change in Employment Floorspace, 1998 – 2008 in Hertfordshire Districts



Source: CLG / VOA

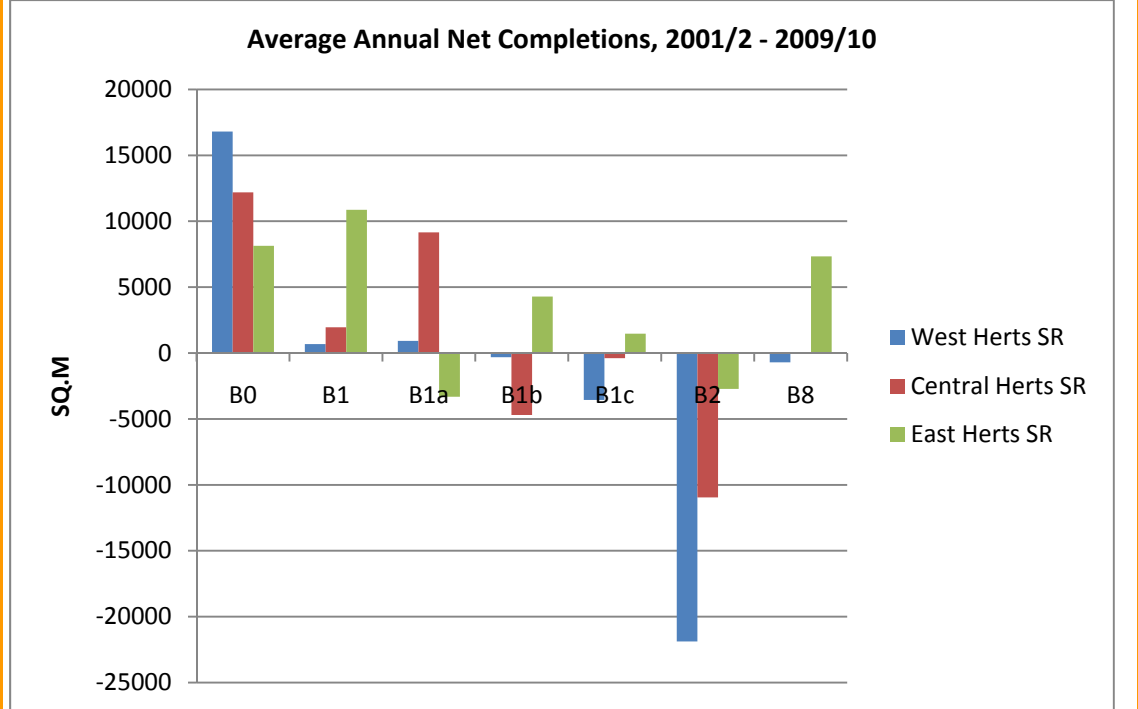
- 3.40 An analysis has also been undertaken of comparative net growth in employment floorspace in Hertfordshire, as against Cambridgeshire and the East of England, and Berkshire. The figures are again expressed in proportional terms and thus already reflect the relative scale of different markets.
- 3.41 Hertfordshire has seen 6% growth in total B-class floorspace in the decade to 2008 compared to 13% across the East of England and 20% in Cambridgeshire. It has seen more moderate growth in office floorspace, of 12% compared to 21% in Berkshire (albeit from an existing strong base), 28% across the East of England and a substantial 58% in Cambridgeshire.
- 3.42 In proportional terms, Hertfordshire has also seen more substantial losses of industrial floorspace, with a reduction of -22% between 1998-2008 exceeding that in Berkshire (-13%) and across the East of England (-3%).
- 3.43 In contrast, Hertfordshire has seen stronger growth in warehouse floorspace: by 33% between 1998-2008 compared to 28% across the East of England, 29% in Berkshire and 22% in Cambridgeshire.
- 3.44 In historical terms, there appears to be a broad relationship between floorspace trends and economic performance; with Herts comparative economic underperformance borne out in more moderate growth in floorspace, particularly in office floorspace.

Figure 3.2 - Net Change in Employment Floorspace, 1998 – 2008



- 3.45 We have undertaken a similar analysis using data on net completions to compare performance across sectors and different parts of Hertfordshire, between 2001/2 – 2009/10.
- 3.46 Figure 3-3 below shows the average annual net completions across all employment floorspace categories for Hertfordshire. 'B0' is used to describe open B-class consents. The chart indicates that over the last 9 years there has been a net decline in industrial B2 floorspace, with growth of B8 floorspace only in the East Hertfordshire area (incorporating East Herts DC and Broxbourne DC).

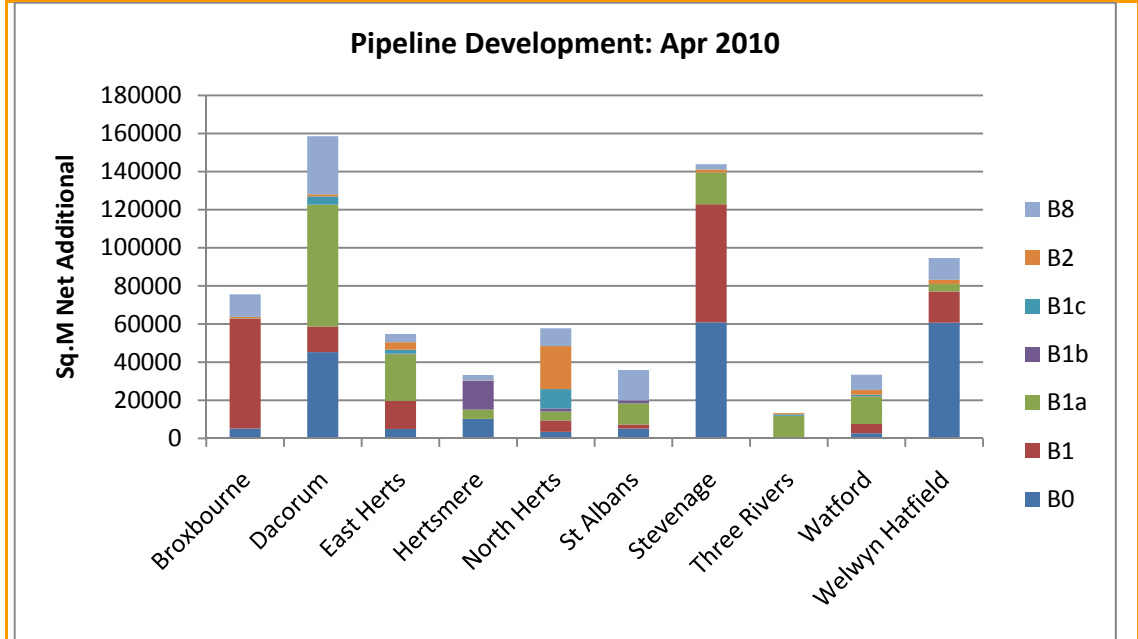
Figure 3-3 : Average Annual Net Completions 2001/02-2009/10



Source: Hertfordshire County Council Monitoring Data
 West Herts includes, Three Rivers, Watford, Dacorum, Hertsmere and St Albans.
 Central Herts includes, Welwyn Hatfield, Stevenage and North Hertfordshire
 East Herts includes East Hertfordshire District and Broxbourne District.

3.47 Figure 3-4 below shows the total (gross) pipeline of development across the County including sites with planning consent and proposals without planning consent. It does not take account of losses of employment floorspace proposed or with planning consent.

Figure 3-4 : Pipeline Development: April 2010



Source: Hertfordshire County Council Monitoring Data

3.48 Despite the relatively high level of space identified as being proposed or within the planning

system this does not necessarily equate to delivery. Indeed, many agents believe that there is little prospect of speculative office development returning generally to the Hertfordshire market for the foreseeable future and it is estimated that it will be at least 18 months before such development returns due to the high risks and lack of occupier demand. Some developers are however pushing ahead with office developments where at least part of the space is subject to a pre-let which reduces the development risks and enables easier and cheaper access to development finance.

- 3.49 Higher value markets to the south of the County, such as Watford and St Albans are most likely to attract private sector interest in the future. In Watford in particular, there has been a very low level of new development for some time, which has created a lack of supply of high quality new build space.
- 3.50 In the industrial market the barriers to development are lower due to the cheaper build cost of industrial space, and therefore development in this market is likely to pick up more quickly than in the office market. With demand still in the market for large scale distribution sheds new development of industrial space is likely to be directed towards this type of space where development viability is easier to achieve. The Maylands Estate in Hemel Hempstead is likely to benefit from this type of development due to its location and availability of land.

Business Survey Results: Future Property Requirements

- 3.51 Hertfordshire County Council has recently commissioned a business survey, with 749 firms across the county taking part. Businesses were asked about their property requirements over the next few years and therefore the findings from the survey are useful for this work. The key points are summarised below.
- 3.52 Of those questioned, 26% of firms or 154 reported that they would require *alternative premises* within the next few years. A further 26% or 165 firms were not sure. Less than half reported that they would not require alternative premises. Firms were also asked whether they were likely to require *additional premises* within the next few years. A total of 84 firms or 14% reported that they would and a further 166 (26%) firms reported that they did not know.
- 3.53 The majority of firms require space which is under 2,000 sq.ft and a high proportion require space which is under 500 sq ft. (22% of those which require alternative premises and 24% of those which require additional premises). Exactly half of firms require business premises (e.g. office) and relatively small proportions require general industrial (15%) and storage/distribution space (15%).
- 3.54 The majority of firms expect to stay local, with 64% of those which require additional premises reporting that they wish to remain within 20 miles from their existing premises but still in Hertfordshire.
- 3.55 Nearly half of firms (48%) felt that there was insufficient choice of premises in the area at present. The main reasons for this appear to be that premises are too expensive to rent/own (80%) or too expensive to run (43%). However, a high proportion of firms report that premises are the wrong type (37%), too big (31%) or inflexible for a growing operation (27%). A total of 17% of firms felt that the accommodation was not modern enough for them.

4. Strategic Employment Sites: Lessons from Elsewhere

- 4.1 To inform the delivery strategy it is important to consider competing strategic employment sites, and to consider how various sites have performed to provide a basis for analysing key component factors which will contribute to the success or otherwise of strategic employment sites in Hertfordshire. There is no definitive guidance on the definition of strategic employment locations. Section 6 of this report provides a broad definition of a strategic site for the purpose of this study, and these characteristics have informed our choice of sites for the purpose of drawing out lessons in this section.
- 4.2 The Thames Valley has been identified as providing strong competition for Hertfordshire: it is recognised as having an established market and critical mass, with a particular focus on high-tech / information and communications technology activities, and has a good offer in terms of sites and premises to support this. We have therefore identified and assessed strategic sites in Berkshire. Recognising that Hertfordshire is starting from a different base, we have also sought to consider the performance and potential of strategic employment sites in other 'home counties' considering key sites close to the motorway network and M25 including in Surrey, Sussex and Kent.
- 4.3 This section focuses in particular on modern business park developments. Below, we consider the location and offer in terms of each site, and how it has performed in terms of rents and take-up.

A summary of Key Points

- Our review of successful strategic sites elsewhere has indicated that there are a number of common factors which relate to **successful strategic employment sites**:
 - Accessible location, close to national road network and motorway junctions and with strong high quality public transport access
 - High 'green' credentials such as solar roof panels and rain water harvesting
 - A range of amenities on site, including retailing, cafe/restaurants, health club/sports and leisure facilities
 - Strong relationship with existing main town, facilitated by proximity or good transport links
 - Masterplanned by a well known architects' practice and providing a high quality landscape
 - Where office development is a primary focus, provision of at least 1,000,000 sq ft. office floorspace appears to be beneficial
- It is worth noting that the criteria for assessing strategic sites set out in Section 6 of this report are closely aligned to the characteristics of successful strategic sites set out above.
- **Successful** strategic employment sites (business parks) such as **Stockley Park**, Uxbridge and **Chiswick Park** West London are capable of achieving **rents** of between **£28psf** and **£33psf** respectively compared to maximum rents of around £20psf in Hertfordshire.
- Other sites which have been **less successful** than expected include **Green Park in Reading** and **Kings Hill in Kent**. Key factors which have impacted on their success includes: poor public transport access and proximity to motorways (Kings Hill); competition from other locations in close proximity; and the relationships to existing towns with an established market.

M4/ Berkshire

- 4.4 The M4 Corridor through Berkshire has probably the strongest, most well developed offer in the country in terms of strategic employment sites. It provides a choice of high quality business parks as well as town centre locations, and has successfully attracted inward investment and has developed a critical mass in term of product. This is reflected in the area's commercial profile.
- 4.5 There are many similarities in the investment offer between Hertfordshire and Berkshire. Both offer an attractive environment, quality of life, a strong skills base, a good housing offer and skills, good transport links (arguably stronger in Hertfordshire, given the density of rail lines into London).
- 4.6 Berkshire however has a better developed 'commercial offer' with a range of high quality employment locations. As identified in the previous section, it has a number of key centres with a critical mass of occupiers and activity, particularly Reading, Slough, Bracknell, Maidenhead and Wokingham. In each of these, office take-up over the past five years has exceeded that in Watford, which has been the highest in Hertfordshire.
- 4.7 There is also a perception that Berkshire offers stronger access to Heathrow Airport, albeit that in reality travel times from south-west Herts are broadly similar to many of the Thames Valley's key centres.
- 4.8 We consider that the key strategic sites in Berkshire (and the M4 Corridor more widely) are as follows and these are considered in more detail below:
- Stockley Park, Uxbridge
 - Chiswick Park, West London
 - Green Park Reading
 - Thames Valley Park, Reading
 - Winnersh Triangle

Stockley Park, Uxbridge

- 4.9 Stockley Park commands the highest rental levels of UK business parks, reflecting both the quality of product provided and its location close to the M4 and Heathrow Airport. Developed by Stanhope since 1986 on the site of a former waste tip/ gravel extraction pit in single ownership, it is located adjacent to the A408, one mile to the north of M4 Junction 4 (the Heathrow Airport junction).
- 4.10 To date a total of 2.15m sq.ft has been delivered, guided by a masterplan, and set around substantial areas of parkland. Together with a high quality environment, a range of amenities are provided onsite including an arena, wine bar, pub, restaurants, health club, golf course and driving range, sandwich shops and a WH Smiths. Key tenants include GSK (across three buildings), M&S, BP, Hewlett Packard, Sharp and Canon; indicating the site's attractiveness for HQ functions and representing a profile which spans a number of sectors.

Public transport access is strong with the site accessible from a number of Underground stations and served by local buses, which include a 10 minute connection to Heathrow.

- 4.11 Levels of take-up have been strong, averaging just over 120,000 sq.ft per annum between 2005-10. Quoted rents are £28 psf (above the £20 psf rents achieved in parts of Hertfordshire).
- 4.12 A third (and final) phase of development is proposed by current owners, Kajima, PRUPIM and Aldersgate, comprising 750,000 sq.ft of development including a further 25,000 sq.m of office space, 18,000 sq.m data centre, 450 room hotel and further ancillary A class development.
- 4.13 Stockley Park is clearly exceptionally well located, but its success also reflects the importance of the amenities and quality of environment provided. This has helped to attract UK/European HQs of major international corporates.

Chiswick Park, West London

- 4.14 Chiswick Park is a more recent scheme, also developed by Stanhope, in Chiswick, West London; again close to the A4. It is 8 miles from Heathrow. The scheme comprises 12 high quality office buildings (of which 9 have been built to date) providing 1.8m sq.ft around an inner garden and lake, on a former bus depot site. The Masterplan was delivered by Richard Rodgers' partnership. Again a range of amenities are available on-site, including restaurants, cafes, retail units and a health club.
- 4.15 A first phase of 6 buildings was delivered in 2002 and to date just under 0.9m sq.ft has been delivered. Key tenants include Baker Hughes, UBS News, Discovery Channel, Paramount Pictures, QVC, United International Pictures and WH Smith. There is a strong representation of creative/media occupiers. As with Stockley Park, the site offers strong sustainability credentials including solar roof panels, rainwater harvesting, as well as a bus route on-site and seven on adjacent roads.
- 4.16 Headline rents at Chiswick Park for recent deals have exceeded Stockley Park, with £33 psf achieved: the highest of business parks nationally. Take-up has also been strong, averaging 240,000 sq.ft annually between 2007-10 against a context of difficult market circumstances. Key 2010 lettings included 134,000 sq.ft to Tutlow Oil and 140,000 sq.ft to QVC. We calculate current vacancy at 8%.
- 4.17 Chiswick Park is one of the best performing strategic sites nationally, which reflects its location and the quality of the product and environment, which again have allowed it to attract major international corporate occupiers.

Green Park, Reading

- 4.18 Green Park is a 72ha (180 acre) site on the edge of Reading, adjacent to M4 and 30 miles from Heathrow. It is one of the largest business park locations within the greater South East. It has been developed by PRUPIM with the first phase delivered in 1999/2000 and today provided just under 400,000 sq.ft of employment space with further development to be built out, and further phases pending planning consent.

- 4.19 Existing occupiers include Cisco and Symantec, these representing some of the largest deals in the Thames Valley. Others include Thames Water, pharmaceuticals company Quintiles, and Logica. There is a strong representation of IT companies, and the site was strongly affected by the bursting of the dotcom bubble in the early phase of development.
- 4.20 As with the other sites described above, Green Park's sustainability credentials are strong, with an evident commitment in the delivery of a 2.3MW wind turbine which has helped to create the site's profile.
- 4.21 Again development has been guided by a masterplan by a well-known practice; in this instance Foster and Partners; with a range of other established practices designing individual buildings within the framework which this has provided. A nursery, brasserie and local amenities are provided on-site.
- 4.22 Buildings delivered to date have included a mix of pre-let and speculative space. Rents are currently around £26 psf. We estimate annual take up of just shy of 80,000 sq.ft between 2006-10 which is relatively moderate compared to some of the other locations considered. While the site has a strong market profile, take-up has been somewhat disappointing. PRUPIM is currently seeking prelets (that is they are not building speculatively). A further phase of 70,000 sq.m is consented. There remains a substantial development pipeline to be delivered, including a further 772,000 sq.ft within the existing phase.
- 4.23 While the site benefits from a 'fast-track bus service' connecting to Reading Station and Town Centre, public transport accessibility is not as strong as for the West London sites described above, which have demonstrated much stronger take-up rates; albeit that it is proposed to deliver a new station on the Reading-Basingstoke line for the development.
- 4.24 Green Park has performed less well than a number of the other locations considered. It has suffered to some extent from competition from a range of other locations in relative proximity. For this study, it highlights the need for careful consideration of phasing and the risks of overreliance on a limited number of sectors (in this case IT) when delivering strategic sites.

Thames Valley Park, Reading

- 4.25 Thames Valley Park is a substantial 80 ha (200 acre) site located on the east side of Reading, at the northern end of the A329(M) which connects to M4 Junction 10. It provides a high quality office product in an extremely attractive riverside setting. Large floorplate offices have been developed, with current occupiers including HQ functions of BG Group, ING Direct, Microsoft, Oracle, CompuCenter and Cyberspace Europe. Again there is a strong representation of IT companies.
- 4.26 Again, a range of amenities are provided including nursery, health club, and convenience retailing. Recent take-up is limited as initial phases have largely been built out, providing large buildings of over 3000 sq.m for corporate occupiers. The Microsoft campus alone totals 22,000 sq.m. Rents are currently £25 psf.
- 4.27 While there has been little recent development activity, this case study is relevant in demonstrating the depth of the market in Reading with a progression of high quality business parks sites developed over time. Further space exists at Arlington Business Park, on

the western side of the town and adjacent to the M4. Besides the sites identified, there is further development in the pipeline including a new consented proposal for a Science Park associated with the University of Reading. The first phase is due to start on site this year, with the proposal expected to deliver 800,000 sq.ft of floorspace.

- 4.28 Clearly the M4 Corridor has a mature market for business park space, with a number of successful high quality strategic sites and a strong development pipeline. This will represent competition for Hertfordshire. Differences in rentals and take-up point to the strongest performance in locations within or closer to London, which offer faster access to Heathrow and access to wider workforce catchment.

Other Locations around London

- 4.29 We have considered other sites which we would consider 'strategic' in locations in the home counties close to the M25 to consider how other 'quadrants' of the M25 perform relative to the Thames Valley. This allows us to further consider potential performance of sites in Hertfordshire.
- 4.30 Hertfordshire spans the north-east and north-west quadrants. Sites within Essex are primarily focused on industrial and particularly warehouse uses, with a particular concentration in Thurrock. Within the south-east and south-west sectors, key strategic employment locations include:
- Kings Hill, Kent
 - Manor Royal, Crawley
 - IQ Farnborough
- 4.31 It is notable that away from the M4 there are fewer examples of successful strategic sites.

Kings Hill, Kent

- 4.32 Kings Hill Business Park has been developed as part of a mixed use development of the former West Malling Airfield by a joint venture of Liberty Property Trust and Kent County Council, which was formed in 1989. It is located two miles from M20 Junction 4, so is not a 'motorway location' but accessible from the M20. A bus service links the site to West Malling Station. The nearest major town is Maidstone (11 miles), although the site falls within Tonbridge & Malling Borough.
- 4.33 As with the Thames Valley business parks, Kings Hill benefits from a high quality landscaped environment. The business park is being delivered as part of a wider, substantial mixed use development; and the site therefore includes a district centre, anchored by an Asda foodstore; 21 retail / restaurant units, a pub, medical centre, leisure centre. The site has two nurseries and an 18 hole golf course. 2,300 homes have been delivered with a further 450 to be built.
- 4.34 To date, 800,000 sq.ft of offices have been developed, accommodating 100 companies; with consent existing for a further 1.2m sq.ft of office floorspace. Key tenants include Yell, Kimberley Clark, and Barclays. The vacancy rate is 10%. The site supported rental growth to

£24.50 at its peak, however take-up in recent years has been relatively poor. Between 2006-10 take-up averaged 31,900 sq.ft per annum – substantially below rates at a number of M4 locations.

- 4.35 Kings Hill demonstrates the difficulty in delivering a major strategic site outside of an established market, particularly at a location which does not have strong public transport access, or access from a motorway; and which does not relate strongly to an existing main town. It is evident that this site has performed less well relative to some of the M4 locations.

IQ Farnborough

- 4.36 IQ Farnborough is a 50 ha (125 acre) site purchased by Segro from the MOD in 1999 and adjacent to the RAE/Farnborough Airport. It is adjacent to and within walking distance of Farnborough Town Centre, and linked to the station by shuttle bus. However it is on the opposite side of Farnborough from the M3 Junction 4. As with the other sites considered, IQ Farnborough provides a range of on-site amenities include café/bar, nursery and gym/pool. A hotel is currently under construction.
- 4.37 An initial phase of development has been delivered since 2006 providing c 300,000 sq.ft of office floorspace. Take-up has averaged just over 100,000 sq.ft per annum over the last three years. The site has been successful in attracting Flour, a US construction company, who signed a pre-let for 210,000 sq.ft of space in 2008 for headquarters development across four buildings. This was the largest letting in the wider Thames Valley since Cisco's deal at Green Park in 2000. Other occupiers include World Communications, Simplicity and Ounu. Rental levels have held up well, at £23 psf.
- 4.38 Two further zones are allocated for development, providing potential for a further 1m sq.ft of office floorspace.
- 4.39 The site demonstrates that there is potential to deliver a successful business park away from the M4 Corridor. The site demonstrates similar features in terms of the quality of environment and amenities to other successful business parks, as well as proximity to the town centre.

Manor Royal, Crawley

- 4.40 The Manor Royal Business District in Crawley demonstrates some notable similarities to Maylands and Gunnels Wood. Crawley is a first generation New Town and Manor Royal developed as the industrial area for the town. It is located on the north side of Crawley, close to Gatwick Airport, and is accessible from Junction 10 of the M23. It is a strategic mixed-use employment site which has developed progressively since the 1950s and now occupies an area of 154 hectares and is the largest employment area in West Sussex. It employs around 30,000 people.
- 4.41 Within Manor Royal, 28ha of land are occupied by office uses, 120ha by manufacturing and industrial/ warehouse and 6ha by non B-class uses including retail, car dealerships, leisure and hotels. A wide range of activities occur within the employment area, there is a particular specialism in airport-related activities (reflecting the proximity to Gatwick) and advanced manufacturing.

- 4.42 While Manor Royal is a successful business location for a range of business sizes and types, and both values and occupancy levels performing reasonably, in recent years it has struggled to keep pace with the most recent generation of business parks in the South East. Achieved rents have remained stagnant since 2005 at a level which is generally below that of other leading business locations for both office and industrial premises. Office vacancy rates within Manor Royal stand at 19%, with a 12% vacancy rate for industrial – both higher than average. There has also been limited recent development. Whilst almost 90,000 sq.m of office space has been permitted since 2005, none has begun development. Furthermore there has been no development of new Grade A industrial space since 2000.
- 4.43 Recent performance is therefore on the weaker side; although the area' comparative position has not significantly worsened. Industrial values for instance have held up more strongly than other areas (e.g. Winnersh Triangle and Crossways). Against this context, Crawley Borough Council elected in 2010 to develop a masterplan for Manor Royal to support investment and regeneration (as has happened at Gunnels Wood and Maylands).
- 4.44 While Manor Royal benefits from its scale and location, a concentration of activity in high value-added manufacturing and product development, and internal supply chains (liked to its scale), it suffers from peak time congestion, a limited amenity offer (in terms of leisure, retail and open space), disjointed and in parts low quality public realm, and a fragmented land ownership pattern. It provides limited space for small and start-up businesses and limited move on space, meeting and conference facilities, or good quality restaurants. The Manor Royal Masterplan has sought to deliver a multi-activity 21st century business district. It focuses on improving the organisation of land use and addressing the lack of impact made at the key gateway sites by the current built stock and environment.
- 4.45 The Masterplan was developed by consultants and this recommended the adoption of the Masterplan as a Supplementary Planning Document, particularly as it provided development guidelines for key sites which were expected to come to the market in the short-term. The use of Simplified Planning Zones for key sites was recommended, together with further work to assess the feasibility of delivering a new 'heart' to include local facilities and amenities (including for enterprise and business growth). Wider improvements were proposed addressing the environment, signage, legibility etc.
- 4.46 The Council has however decided that it does not wish to adopt the Masterplan as SPD and instead will develop a programme of documents setting out design principles for key development sites. A number of concerns have been expressed that the Masterplan was too prescriptive, including in regard to the future use of sites; and against the current economic context the Council has elected to take a more pragmatic view to ensure that planning policy does not become a barrier to delivery of key sites.
- 4.47 In a similar regard it is not now moving forward with proposals for Simplified Planning Zones, instead taking a pragmatic approach of setting out design principles and engaging with prospective developers through pre-application discussions. No specific funding has been identified to deliver public realm or environmental improvements, although the Council will seek contributions through Section 106 (and potentially CIL in the longer-term).
- 4.48 It is worth touching on transport issues. While it suffers from peak time congestion, it does benefit from good public transport accessibility. Crawley has a bus rapid transit system, Fastway, with specially adapted buses and stretches of guided busway. Developed over the

last decade by a public-private partnership this has supported an increase in public transport usage. It provides a regular link between Crawley Town Centre, Manor Royal and Gatwick Airport.

- 4.49 The case study demonstrates that the issues affecting large mixed new town employment areas such as Gunnels Wood and Maylands are not unique, and other areas have similarly sought to develop a masterplan/ area action plan to rationalise land use, improve amenities and the environment. It does however point to the need for an element of flexibility in regard to the types of uses permitted, and a degree of pragmatism in supporting development – particularly against a context of weaker market conditions.

Developments on Green Belt Land

- 4.50 Some of the sites which are reviewed in Section 6 of this report are located on green belt land. Elsewhere, some major business parks have been brought forward on green belt land, including the sites shown in the box below.
- 4.51 The fundamental aim of green belt policy is to prevent urban sprawl by keeping land permanently open. There are five purposes of including land within Green Belts which are:
- To check the unrestricted sprawl of large built-up areas;
 - To prevent neighbouring towns from merging into one another;
 - To assist in safeguarding the countryside from encroachment;
 - To preserve the setting and special character of historic towns; and
 - To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 4.52 Delivery of major new employment land within the green belt would be regarded as inappropriate development, and very special circumstances would be required to justify it which would need to outweigh harm by reason of inappropriateness, or any other harm.
- 4.53 The case studies highlight that proposals for business park development in the Green Belt elsewhere have been brought forward through the Local Plan process, supported by a strong case presenting exceptional circumstances to justify Green Belt review associated with the economic benefits.

Green Belt Development Examples

We have reviewed examples of existing major business parks within the Green Belt and how these have been brought forward.

Chester Business Park is a 60 hectare site located in the Green Belt on the edge of Chester. It was identified through the Cheshire Structure Plan in the 1980s and allocated in the adopted Greater Chester Local Plan (1983) to support higher value economic growth, building on Chester's strong image and brand. This was the primary justification for exceptional development in the Green Belt. In 1982 a planning application was submitted, and this was granted in 1984. The business park is located on the southern edge of the City's urban area. To date 1.25 million sq.ft of office floorspace has been developed and the Park has been successful in attracting major inward investment and HQ

functions, including MBNA Europe, M&S Financial Services, Shell and Bristol Myers-Squib.

A further example is **Surrey Research Park** in Guildford which has been brought forward by Fidelity Investments and the University of Surrey and supports a range of R&D functions. It is linked to the University and the County Hospital. It is a 28 hectare site, developed at a low density 2.5 miles outside of Guildford. Again it appears to have been progressed primarily through the Local Plan, associated with growth of the University and achieving associated economic development.

A recent example of proposals for a major business park in the Green Belt is the extension of **York Science Park**. The University of York was granted outline planning consent for an extension to the existing University campus and linked business park covering a 122ha area. The rationale for extension to the business park was that the existing 21 acre park was nearing capacity. However the case was focused around supporting the expansion of the University. The Council adopted a development brief for the extension in 2004, augmenting proposals in the Local Plan. There was a well resourced local campaign against development, '*No Heslington East.*' However following a resolution to grant consent by the Council in 2005, the consent was called in and a public inquiry was held in 2006, and consent granted by the Secretary of State in 2008.

- 4.54 It should be recognised that a set of exceptional circumstances would be required to support development of a green belt site. The need to improve Hertfordshire's economic performance through providing a supply of top quality employment sites is likely to provide part of this justification.

5. Future Potential for Hertfordshire

5.1 In order to understand the potential for future employment growth in Hertfordshire, we have drawn upon a number of sources of information, including economic forecasts. The key points are summarised below (and further detail is provided in Appendix A).

A summary of Key Points

- Employment in Hertfordshire is predicted to **increase by 16%** between 2011-2031 or 79,300 jobs.
- A predicted increase in employment of between 13% (base case) and 18% (higher growth) over a ten year period between 2011 and 2021 compares to an increase of just **2% over the previous ten years** (between 1998 and 2008).
- Historically, the economic performance of Hertfordshire has been behind that of Cambridgeshire and Berkshire and future performance is also expected to lag behind. Between 2011 and 2031, employment growth for **Cambridgeshire** is expected to increase by **25%** and for **Berkshire** (between 2011-2030), employment is forecast to grow by **23%**. Supply-side intervention will be required to achieve this level of employment growth.
- It is also clear from the analysis that future **employment growth in Cambridgeshire and Berkshire** is expected to be in **higher value sectors** such as (business services and finance) whereas in Hertfordshire there is stronger growth predicted in lower value sectors (such as wholesale, distribution and sale/maintenance of motor vehicles) relative to these other locations. This could result in Hertfordshire becoming a lower value economy compared to some of its competitors – without intervention.
- We have also considered employment **growth in key sectors** (as identified in Section 2) over the next 20 years and this suggests that the software and digital sector could increase by 4,700 jobs and the logistics sector could grow by 8,300 jobs. Of the sectors we have considered the strongest growth is expected in the professional, banking and finance sector which is forecast to increase by 22,800 jobs.

5.2 The remainder of this section is set out under the headings below:

- Forecast Economic Growth
- Comparison with Policy Aspirations
- Raising aspirations: a Look at Competing Areas
- Key conclusions to inform our assessment

Forecast Economic Growth

5.3 For the purpose of our analysis, we have primarily drawn upon forecasts prepared by Oxford Economics using the East of England Forecasting Model (available from the East of England development Agency). However, we recognise that it is difficult to predict with any certainty the levels of future employment growth in a particular area and therefore there are a number of concerns in using employment forecasts. Forecasts can vary depending on their source. Oxford Economics, Experian and Cambridge Econometrics are some of the key firms which produce employment forecasts and each of these adopt varying approaches and will produce slightly different results.

5.4 It is difficult to predict future trends at any time but when there have been significant economic (e.g. recession) and political changes, it is even more difficult to produce forecasts

which are reliable. Furthermore, forecasts for individual districts and sectors are usually extrapolated from regional growth forecasts and there are difficulties in preparing forecasts to this level of detail.

- 5.5 Forecasts can provide an indication of what might happen in terms of future employment growth but are not definitive. The forecasts should be treated with some caution and as a result we have drawn upon a number of sources of information to inform our conclusions. To achieve forecast growth, a sufficient supply of sites and premises of the appropriate quality will be required.
- 5.6 Further information about the Oxford Economics Forecasts which has been used for the remainder of this section is set out in the box below.

East of England Forecasting Model (EEFM)

The East of England Development Agency (EEDA) held a contract with Oxford Economics to provide bi-annual employment forecasts for the region⁶. The forecasts covered the period to 2031 and were available by county and district across 28 employment sectors. Three forecasts were produced each Spring and Autumn to provide a base forecast, low growth forecast and high growth forecast. The key messages from the most recent, and final, of these base, low and high forecasts (Autumn 2010) are provided within this section.

The method takes account of the supply and demand of labour and uses location quotients (LQs) as a starting point (building on Annual Business Inquiry data). Location quotients provide an indication of the level of concentration of a particular sector in a particular area, relative to the regional average.

Forecast trends in the LQs are based on how they have changed over time as well as how the sector is expected to perform regionally. Three forms of location quotient are used in the model:

- Exporting sectors (e.g. manufacturing) – LQ is based on an area’s share of the region’s employees in a particular sector. Growth forecasts at the local level relate to the ‘interaction of the relevant LQ forecasts with the regional sector employee forecasts from Oxford’s Regional Model’.
- Service-based sectors (e.g. retail, health) – LQ is based on the number of employees in the sector per head of the local population. Forecasts for these sectors are driven by forecast changes in the local and regional population.
- Business services (e.g. finance, R&D and technical testing) – LQ is based on the number of a sectors employees relative to all jobs in the area, relative to the regional average. Local employee growth forecasts for these sectors are calculated through ‘the interaction of the relevant LQ forecasts with the regional sector employment forecasts from the Regional Model’.

The forecasting method used by Oxford Economics is based on ‘observed past trends only’ and therefore ‘reflect past infrastructure and policy environments’. They do not take into account new infrastructure or policy environments that have not yet had an effect on local data. Where past growth or decline of employment would lead the forecasts to produce extreme figures Oxford Economics temper these down to produce more realistic extrapolations. Further detail on the method can be found in Oxford Economics’ Technical Report at

<http://www.insighteast.org.uk/viewResource.aspx?id=18086> .

Overview

- 5.7 The table below shows the East of England Forecast Model (EEFM) base case forecast (Autumn 2010) for each district in Hertfordshire⁷. Employment is expected to grow by 79,300 (or 16%) across the county from 2011-2031 (FTE growth of 66,845). The majority of growth, equivalent to 44,800 jobs, is expected in the first five year period (2011-2016). In

⁶ This contract ended on 6th January 2011.

⁷ East of England Forecasting Model (EEFM), Oxford Economics, Autumn 2010
<http://www.insighteast.org.uk/viewArticle.aspx?id=17083>

the subsequent fifteen year period (2016-2031), only a further 34,500 employees are forecast.

- 5.8 Due to concern over the accuracy of reporting on forecasts at a district level, we have instead included information for three areas within Hertfordshire (as defined by travel to work boundaries). This suggests more significant growth potential (based on past performance) within West Hertfordshire and Central Hertfordshire.

Table 5-1 Employment Change by District and Time Period (2011-2031) – Full time and part time employment					
BASE SCENARIO (non-FTE)	Change in Employment (000's)				
	2011-2031	2011-2016	2016-2021	2021-2026	2026-2031
West Hertfordshire	46.4	25.3	12.1	4.3	4.5
Central Hertfordshire	25	12.3	6.3	3.1	3.5
East Hertfordshire Area	7.9	7.3	2.2	-0.8	-0.8
Hertfordshire	79.3	44.9	20.6	6.6	7.2

Source: East of England Forecasting Model (EEFM), Oxford Economics, Autumn 2010
<http://www.insighteast.org.uk/viewArticle.aspx?id=17083>
 Note: West Hertfordshire: Dacorum, Hertsmeire, St Albans, Three Rivers, Watford;
 Central Hertfordshire: North Hertfordshire, Stevenage, Welwyn Hatfield;
 East Hertfordshire Area: Broxbourne, East Hertfordshire.

Comparisons with Historic Performance

- 5.9 It is also interesting to compare historic employment growth trends with the Oxford Economic Forecast. The table below compares historic trends for the last ten years with the Oxford Economic forecast for the next ten years (drawing on the base case, higher growth and lower growth forecasts set out in Appendix A).
- 5.10 This shows that whilst levels of employment grew by just 2% between 1998 and 2008, Oxford Economics predicts that employment in Hertfordshire might grow by between 13% and 18% between 2011-2021. Forecast growth is therefore significantly higher than past performance (at least seven times higher). It suggests that the structure of the economy provides significant potential for economic growth and will support demand moving forward.

Table 5-1 Forecast Growth Compared to Historic Trends								
	Trend		Forecast Growth 2011-2021					
	Historic Growth 1998-2008		Base Case Forecast		Higher Growth Forecast		Lower Growth Forecast	
	Total (000's)	%	Total (000's)	%	Total (000's)	%	Total (000's)	%
West Hertfordshire	11.2	8	37.4	14.8	48.4	21.6	33.6	10.7
Central Hertfordshire	-7.4	-3	18.5	12.0	24.1	19.4	16.5	12.6
East Hertfordshire Area	4.0	5	9.5	10.6	13.4	15.7	8.1	16.3
Hertfordshire	7.8	2	65.4	13.1	85.9	17.2	58.24	11.72

Source: East of England forecasting Model, Oxford Economics, Autumn 2010; ABI Employment Data
Note: West Hertfordshire: Dacorum, Hertsmere, St Albans, Three Rivers, Watford;
Central Hertfordshire: North Hertfordshire, Stevenage, Welwyn Hatfield;
East Hertfordshire Area: Broxbourne, East Hertfordshire.

- 5.11 There is also some variation by district. Historically, the districts with the largest employment growth were Welwyn Hatfield (+14,300) and Three Rivers (+9,400). According to the Oxford Economic growth forecasts, Three Rivers is a district which is expected to experience one of the lowest levels of employment growth (+3,300).

Comparison with Local Employment Land Reviews

- 5.12 The table overleaf provides a comparison with the employment growth targets or demand projections for each of the ten districts in Hertfordshire (note that caution should be taken in interpreting figures at a district level and the importance of the table is in showing policy aspirations). The key points are as follows:
- Summing all of the growth targets or demand projections contained within Council's respective Employment Land Reviews (87,700 jobs) gives a total change which falls between that of the base scenario (72,100) and high growth scenario (101,800).
 - The common theme across all Economic Development policies is to attract and support the growth of higher value economic uses.

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Employment Forecasts: a Comparison with Local Employment Land Reviews					
Geography	EEFM (various time periods aligned to ELR forecast dates) ²			Demand Projections (ELR) ¹	Economic Development Aspirations
	Base	High	Low		
West Hertfordshire					
Dacorum	11.0	14.84	9.97	9.8	Aspiration to attract higher quality employment – especially office at Maylands
Hertsmere	-1.3	1.51	-2.26	11.6	Supports wider EDS for Hertfordshire. Recognises need to promote film and television.
St Albans	13.7	16.25	12.80	5.9	Need to broaden economic base (FBS strong). Focus on creative industries, tourism and environmental sustainability.
Three Rivers	6.0	9.62	5.33	1.6	Strength of Leavesden recognised. Need to provide local employment.
Watford	3.8	9.49	2.67	2.2	Would like to be more aspirational and attract sustainable economic growth. Watford health campus a priority.
Central Hertfordshire					
North Hertfordshire	2.2	5.06	1.44	7.1	Recognises future growth likely to be in knowledge based economy and need for diversification of economy.
Stevenage	7.2	8.99	6.57	16.7	Supportive of significant growth, especially in higher values uses. Strong focus on life sciences, environmental, advanced engineering.
Welwyn Hatfield	15.8	18.18	15.02	7.7	Potential to support expanding knowledge based industries, strategic distribution and warehousing. Regenerate employment areas in decline.
East Hertfordshire Area					
Broxbourne	5.7	7.30	5.13	12.7	Aspiration to broaden economic base and attract office market
East Hertfordshire	7.9	10.58	6.99	11.6	Key objective is development of high value jobs locally
Hertfordshire	72.1	101.8	63.7	87.0	Build strengths in R&D, life sciences, IT, hi-tech engineering. Encourage new industries e.g. digital media and creative, green hi-tech manufacturing, health.

¹ Note different time periods across demand projections. The demand projections are those set out in the Employment Land Reviews for each district. ² OE forecasts have been adjusted to reflect the timescales for the ELR forecasts. Green = above OE base forecast and Red = below OE base forecast

Key Sectors

- 5.13 A number of sectors, particularly those within the professional and service industries, are forecast notable growth while other sectors, such as those within the manufacturing industry, are forecast considerable declines. The table below shows the ten sectors in Hertfordshire which are expected to show the greatest increase in employment (both absolute and % change).
- 5.14 The sector forecast the greatest absolute employment growth is 'other tradable' business services. This sector is forecast a growth of 20,700 employees over the twenty year time period and covers activities such as legal services, advertising and architecture. 'Other tradable' business services are typically higher value added activities.
- 5.15 Other sectors which are forecast large levels of employment growth across the County are 'labour recruitment, security and cleaning' (+13,900 employees), retail (+11,800 employees) and construction (+11,100 employees). This set of sectors are typically lower end, lower value added activities although the labour recruitment category can also disguise employment demand from those sectors which use agencies to source employment on a permanent or ad hoc (seasonal) basis, some of which will be higher value added employment activities.

Absolute Change(000's)		Percent Change (%)	
Business services - other tradable	20.7	Business services - other tradable	52.2
Business services - labour recruitment, security & cleaning	13.9	Construction	37.8
Retail	11.8	Business services - labour recruitment, security & cleaning	36.9
Construction	11.1	Other personal services - miscellaneous	31.1
Other personal services - miscellaneous	7.9	Business services - real estate & renting	27.0
Wholesale & distribution	7.7	Business services - computer related	21.7
Health	7.2	Retail	20.6
Business services - real estate & renting	3.8	Business services - R&D, technical testing	20.5
Business services - computer related	3.5	Air transport	18.9
Hotels & catering	3.2	Wholesale & distribution	18.9

Source: East of England Forecasting Model (EEFM), Oxford Economics, Autumn 2010

- 5.16 In terms of employment decline (illustrated in the table below), the greatest declines are expected in manufacturing industries.

Table 5-3 Top 10 sectors showing decline 2011-2031			
Absolute Change (000's)		Percent Change (%)	
Manufacturing - metals & engineering	-7.4	Extraction	-57.8
Manufacturing - other low tech	-3.0	Manufacturing - other low tech	-48.4
Manufacturing - chemicals & process industries	-2.2	Manufacturing - metals & engineering	-46.5
Public admin & defence	-2.0	Water transport	-45.7
Education	-1.6	Manufacturing - food, drink & tobacco	-36.6
Agriculture	-1.3	Agriculture	-35.7
Manufacturing - food, drink & tobacco	-0.7	Manufacturing - chemicals & process industries	-30.7
Electricity, gas & water	-0.4	Electricity, gas & water	-25.2
Manufacturing - other & recycling	-0.3	Public admin & defence	-12.5
Extraction	-0.1	Manufacturing - other & recycling	-11.7

Source: East of England Forecasting Model (EEFM), Oxford Economics, Autumn 2010

5.17 An analysis of priority sectors has also be carried out (shown in the table below). We have drawn on employment forecasts for Hertfordshire and more detailed forecasts which are available for the East of England region to inform an assessment of the growth potential for these sectors (further detail is provided in Appendix A). This shows that:

- The software and digital sector is likely to exhibit strong levels of growth, particularly in computer related business services.
- In terms of the life sciences sector, manufacturing functions and pharmaceuticals are expected to decline overall. The strongest opportunities in relation to this sector are in research and development activities relating to life sciences.
- Similarly for advanced manufacturing, the greatest opportunities are in higher value activities such and research and development, technical testing and analysis. The same is true for the creative and media sector where opportunities are likely to be greatest in architecture and engineering and advertising.
- Finally, there are expected to be increases in employment within the logistics and professional, banking and finance sectors.

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Table 5-5 Economic Forecasts on Employment Growth for key sectors			
Sector	Assessment	Forecast employment change in Hertfordshire between 2011-2031	Forecast employment change in East of England 2011-2031
Software and Digital	Significant Potential	<ul style="list-style-type: none"> • Most closely aligned to the ‘business services – computer related’ and ‘communications’ sectors used in OE forecasts. Total growth of 4,700 jobs. • Computer related business services are forecast to grow by 3,500 employees (21.7%). Strong focus on N. Herts but declines in Dacorum, Watford and Welwyn Hatfield. • Communications is forecast to grow by 1,200 jobs (9.3%). Growth is forecast in six districts, particularly in Welwyn Hatfield. 	<ul style="list-style-type: none"> • Software and digital sector expected to grow by 15.9% (16,100 jobs). • Growth in computer related business services is expected to be particularly strong at 40% (19,600). • Manufacturing of electronics is forecast to decline by 44% (4,600 jobs). • Communications would increase by 3% (1,100 additional jobs).
Life sciences	Greatest potential in higher value R&D functions whilst manufacturing functions predicted decline.	<ul style="list-style-type: none"> • Most closely aligned to ‘manufacturing – chemicals and process industries’. This incorporates nuclear fuels, minerals, chemicals and rubber and plastics. This also includes pharmaceuticals. All manufacturing sectors are forecast to decline and a 30.7% decline is predicted or 2,200 jobs. • Health employment is one of the sectors which is forecast to see most growth resulting in 7,200 jobs across the period. • If the figures are combined, this would result in an additional 5,000 jobs. 	<ul style="list-style-type: none"> • Aligned to ‘pharmaceuticals’, ‘manufacture of instruments and optical equipment’ and ‘research and development. Overall increase of 6%. • Pharmaceuticals is expected to decline by 36% (-2,300 jobs) • Instruments and optical is expected to decline by 40% (-5,000 jobs) • Research and development is expected to grow by 44% (9,500 jobs)
Advanced Manufacturing	Greatest potential in higher value activities such as technical testing and analysis	<ul style="list-style-type: none"> • Most closely aligned to ‘Manufacturing – Metals and Engineering’ and ‘Business – R&D and Technical Testing’. • Metals and Engineering forecast to decline by 7,400 jobs or 46.5%. This is predicted to be most apparent in Stevenage, Dacorum and North Herts. • Business – R&D and Technical Testing is forecast to increase by 1,500 jobs. 	<ul style="list-style-type: none"> • Ten SIC codes have been used to define this sector. Overall forecast decline of 21% (or 25,700 jobs). • The aerospace sector is predicted to decline by 30% or 2,000 jobs. • Most growth is expected in the ‘research and development and ‘business services – technical testing and analysis’.
Creative and Media	Growth most likely in architecture and engineering and advertising as opposed to textiles for example	<ul style="list-style-type: none"> • Difficult to examine trends using Oxford Economic forecasts due to challenges in assigning an OE sector group to the creative and media sector. 	<ul style="list-style-type: none"> • Combing four SIC codes, the sector is expected to increase by 7% (or 4,700 jobs) • The greatest increase is forecast in architecture and engineering (42%) and advertising (41%). • Textiles (-67%) and pulp, paper and printing (-43%) are expected to decline.
Green Industries	No data available	<ul style="list-style-type: none"> • Difficult to examine trends using Oxford Economic forecasts 	<ul style="list-style-type: none"> • Difficult to examine trends using Oxford Economic forecasts due

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		due to challenges in assigning an OE sector group to the green industries sector.	to challenges in assigning an OE sector group to the green industries sector.
Logistics	Increase expected	<ul style="list-style-type: none"> • Most closely aligned to forecasts for 'wholesale, distribution and sale/maintenance of motor vehicles' and 'land and other transport'. Expected to increase by 8,300 jobs. • Wholesale and distribution sector is forecast to grow by 7,700 employees • Land and other transport is forecast to grow by 600 employees. 	<ul style="list-style-type: none"> • Similar trends at a regional level.
Professional, banking and finance	Increase expected	<ul style="list-style-type: none"> • Finance is forecast to grow by 2,100 employees (with the greatest increase expected in Hertsmere and St Albans). • Business Services – other tradeable sector is forecast to grow by 20,700 jobs. This includes architectural and engineering activities, advertising, management activities (e.g. related to holding companies), solicitors and legal work. • Combined, this would result in an additional 22,800 jobs for this sector. 	<ul style="list-style-type: none"> • Similar trends at a regional level.

Source: Regeneris Consulting using Oxford Economic Forecasts, Autumn 2010

Raising Aspirations: A look at Competing Areas

- 5.18 In order to further understand and test our assumptions on future employment growth for Hertfordshire, we have decided to compare the forecasts with two other locations. We have focused on forecasts for Cambridgeshire and Berkshire, which are both competitors for the county and which are expected to grow significantly in the future building on their past success.
- 5.19 Employment forecasts for **Cambridgeshire** were obtained from the Insight East forecasts produced by Oxford Economics. Between 2011 and 2031, Cambridgeshire's employment is forecast to grow by 70,200. This is a 25% increase compared to Hertfordshire's forecast increase of 16%.
- 5.20 Notable growth is forecast in the business sectors, some of which (computer related, other including call centres and R&D and technical testing) are forecast absolute growth which is double, triple, or indeed quadruple, that forecast for Hertfordshire over the same time period. This is reflective of the existing sector strengths in the County, which are supported by high quality and high profile business parks as well as Cambridge's international status. Education employment in Cambridgeshire is also forecast to increase by 6,400 employees compared to a decline of 1,600 employees in Hertfordshire. This is likely to be a reflection of the current strengths in education in Cambridgeshire including the University of Cambridge. In terms of the predicted growth potential of key sectors and how this compares to Hertfordshire, the following are the key points:
- In terms of percentage change, all Business Services activities are forecast to increase at a greater rate than for Hertfordshire.
 - Finance is forecast an increase of 26.6% which is ten percentage points greater than the 16.2% increase forecast for Hertfordshire. However, in absolute terms, Hertfordshire is actually forecast a greater employment change in this sector (2,100 jobs compared to 1,000 jobs in Cambridgeshire).
 - Sectors for which Cambridgeshire is forecast a lower percent increase than Hertfordshire are those in which Hertfordshire demonstrates sector strengths, such as Wholesale, Distribution and Sale/Maintenance of Motor Vehicles which reflects its optimum location for logistics operations (reported through a number of our business consultations); and Air Transport.
 - Employment is forecast to decrease in all but one of the manufacturing sub-sectors in the County in both absolute and percentage terms. Interestingly, Cambridgeshire is forecast marginal growth in 'Other and Recycling' manufacturing. The forecast predicts a growth of 100 jobs in this sector (4.6% increase) in comparison to Hertfordshire's loss of 300 jobs (-11.7%).
- 5.21 Employment forecasts for **Berkshire** were obtained from SEEPB and SEEDA. They were produced by Cambridge Econometrics in June 2010 and cover a broader set of sectors in comparison with the Oxford Economics forecasts (9 sectors instead of 28) as well as a slightly shorter timescale (2011 to 2030).

5.22 Between 2011 and 2030, Berkshire’s employment is forecast to increase by 23%, demonstrating total growth of 122,600 jobs. This is in comparison with Hertfordshire’s forecast of 16%. In terms of the predicted growth potential of key sectors and how this compares to Hertfordshire, the following are the key points:

- Growth is forecast to be greatest in ‘Financial, Business and Other Market Services’ (+102,400 employees, 54% increase), which is in contrast to Hertfordshire.
- Construction, ‘Distribution, Hotels etc’, ‘Transport and Communications’ and ‘Non-Market Services’ are also forecast to experience growth in employment.
- Reflecting the Hertfordshire forecasts, traditional industries are again forecast to decline. Agriculture, ‘Mining and Quarrying’, Manufacturing and ‘Electricity, Gas and Water’ are all forecast employment losses. The largest employment loss is expected to be in Manufacturing which is forecast a decline of 12,000 employees.

Implications for Housing

5.23 It is not a requirement of this work to consider the implications of employment growth in terms of housing need/demand. The exact quantum by which employment growth will increase the demand for housing is difficult to predict since this would require us to make assumptions on the number of jobs which would be filled by residents already living in Hertfordshire (but working elsewhere) and by people who would commute into the county.

5.24 The East of England Forecasting Model (EEFM) does however set out figures on the demand for dwellings which relate directly to the employment forecasts⁸. This suggests that between 2011 and 2031, a total of 99,791 additional homes would be required to support the predicted growth in employment. It is predicted that the greatest level of provision is required in the Central Hertfordshire area followed by the East Hertfordshire area.

	2011-2016	2016-2021	2021-2026	2026-2031	2011-2031
West Hertfordshire area	6,020	6,469	6,117	6,065	24,671
Central Hertfordshire area	11,514	12,189	11,506	10,911	46,121
East Hertfordshire area	6,455	7,523	7,562	7,459	28,999
Total	23,989	26,181	25,185	24,435	99,791

Source: East of England Forecasting Model (EEFM) Autumn 2010
 West Herts: Dacorum, Hertsmere, St Albans, Three Rivers, Watford
 East Herts area: East Hertfordshire, Broxbourne
 Central Herts: North Herts, Stevenage, Welwyn Hatfield

5.25 The forecast demand for dwelling figures is higher than the forecast employment growth (79,000 jobs), and this is due to the fact that they are derived from population forecasts, with the population expected to increase by 176,300 in Hertfordshire under the model.

5.26 The level of projected housing demand from the model, equating to delivery of 4,990 homes

⁸ The figures relate to the dwelling stock needed in an area to accommodate the given number of households assuming that occupancy ratios are unchanged. This is the stock needed to maintain current occupation ratios in the context of a higher population. The number of occupied dwellings are predicted directly from the population forecasts.

per annum, is 20% above levels in the adopted East of England Plan. However the draft East of England Plan 2031 published in March 2010 suggested a reduction in the housing requirement to an equivalent of 3,580 homes per annum. This also suggested an indicative jobs target of 108,100. The approach adopted in the Plan therefore seems to be one of aiming to reduce levels of out-commuting from Hertfordshire over the period to 2031.

- 5.27 Housing affordability is also an important issue for Hertfordshire and any significant increase in demand for homes could result in rising housing costs. Our discussions with firms located in Hertfordshire have indicated that housing affordability is an issue but it is not likely to deter some firms (e.g. major corporate companies locating their HQ in Herts) from locating in the county. In these instances, recruitment issues due to housing affordability tend not to be so much an issue for senior staff but for graduates and lower skilled individuals.
- 5.28 The issue of transport and in-commuting is also important. We have considered the impact of the proposals in terms of transport on a site by site basis. However, we have not been able to consider the impact in terms of travel patterns (in and out commuting) and sustainability implications more broadly. The provision of quality employment opportunities in Hertfordshire may help to 'claw back' commuters that currently travel into London or elsewhere to work and as such, additional employment on strategic sites could help to reduce travel and improve sustainability issues. The quality of jobs provided on strategic employment sites provides the best opportunity to 'claw back' out-commuting.

6. Supply Assessment: Review of Strategic Employment Sites

6.1 This chapter considers the potential supply of strategic employment sites in Hertfordshire against an agreed definition, and then considers the relative performance of each location against a number of core criteria.

A summary of Key Points

- There is no one agreed definition of strategic sites. Nevertheless, we have identified a range of criteria for assessing sites (based on the RSS and previous ARUP research).
- Sixteen sites have been identified and assessed against the criteria. The following are considered to represent existing strategic employment sites and categorised as indicated:
 - Hatfield Business Park, Hatfield - Major Business Park
 - Gunnels Wood, Stevenage – Strategic Mixed-Use Employment Site
 - Maylands , Hemel Hempstead – Strategic Mixed-Use Employment Site
 - Watford Town Centre, Watford – Major Town Centre Office Quarter
- Opportunities for regeneration and/or growth of all of the above sites in the period to 2031 have been identified. This includes proposals for development of new office quarters at Watford, Stevenage and Maylands (Gateway). This will strengthen these existing strategic sites.
- In addition to the above there are a number of companies and premises which are of strategic significance to key sectors. These are:
 - GSK, Ware and Stevenage (including Bioscience Campus at Stevenage)
 - Building Research Establishment (BRE), Brickett Wood
 - Leavesden and Elstree Studios (in regard to the film sector)
- A selected number of opportunities have been identified for delivery of additional strategic employment land provision subject to market demand in order to develop the sites and premises offer over the period to 2031. These are:
 - Park Plaza sites, Waltham Cross – Potential Premier Business Park
 - Knebworth Innovation Park – Potential Science Park
 - Regeneration of Watford Business Park
- The opportunity for regeneration at Watford Business Park of strategic significance is dependent on delivery of the Croxley Rail Link. It is considered that a new science park at Knebworth would need to be supported by major inward investment with delivery coordinated with the wider regeneration programme for Stevenage.
- In addition to the above, Watford Health Campus offers opportunities of strategic significance for the development of the health sector.
- A wider range of potential development sites have been examined, some of which could be strategic in nature or of strategic significance, but they have a number of delivery risks or other issues which could prevent development in a medium-term horizon. These include development at Radlett Aerodrome, Brickett Wood and Harlow North and redevelopment at BRE. These sites should be kept under review.

- Potential employment development at London Road St Albans and Bishop Stortford is considered to be of local rather than strategic significance at the county/regional level.

6.2 The remainder of this section is set out under the following headings:

- Definition of strategic sites
- Selecting a potential pool of strategic employment sites
- Broad assessment of potential sites
- Summary Appraisal.

Definition of Strategic Sites

6.3 There is no definitive guidance on the ways in which strategic employment locations for employment development should be defined, reflecting the range of designations in use and the ways in which these are interpreted.

6.4 The Arup Study⁹ identified five key themes, each with a number of individual criteria to define strategic sites. These themes were based around the future scale and significance of the site, their ability to accommodate leading edge/growth sectors and fit with prevailing planning and transport policies.

6.5 Below, we set out a framework definition for the consideration of strategic sites. This has regard to our previous work, definitions used elsewhere, (e.g. employment land review guidance) but also draws extensively on the previous Arup work.

6.6 We are of the view that a strategic site should be of a scale, location, quality and prominence and have sufficient capacity to be attractive to key businesses and those within high value-added and growing sectors, together with inward investment.

6.7 In determining whether a site is of strategic significance, we consider that the following represent the key considerations. The site must be:

- **Of an appropriate scale:** capable of accommodating regional strategic development, which could not equally be accommodated elsewhere¹⁰.
 - Only existing sites with redevelopment or expansion potential or new sites are suitable
 - Sites should be capable of delivery within the plan period i.e. 2031
- **Of an appropriate quality:** high quality sites which are attractive to national and international investors and key employers in Hertfordshire;

⁹ Strategic Employment Sites, Arup (May 2009)

¹⁰ At this stage we have not set a size threshold for the consideration of strategic sites as requested by the steering group.

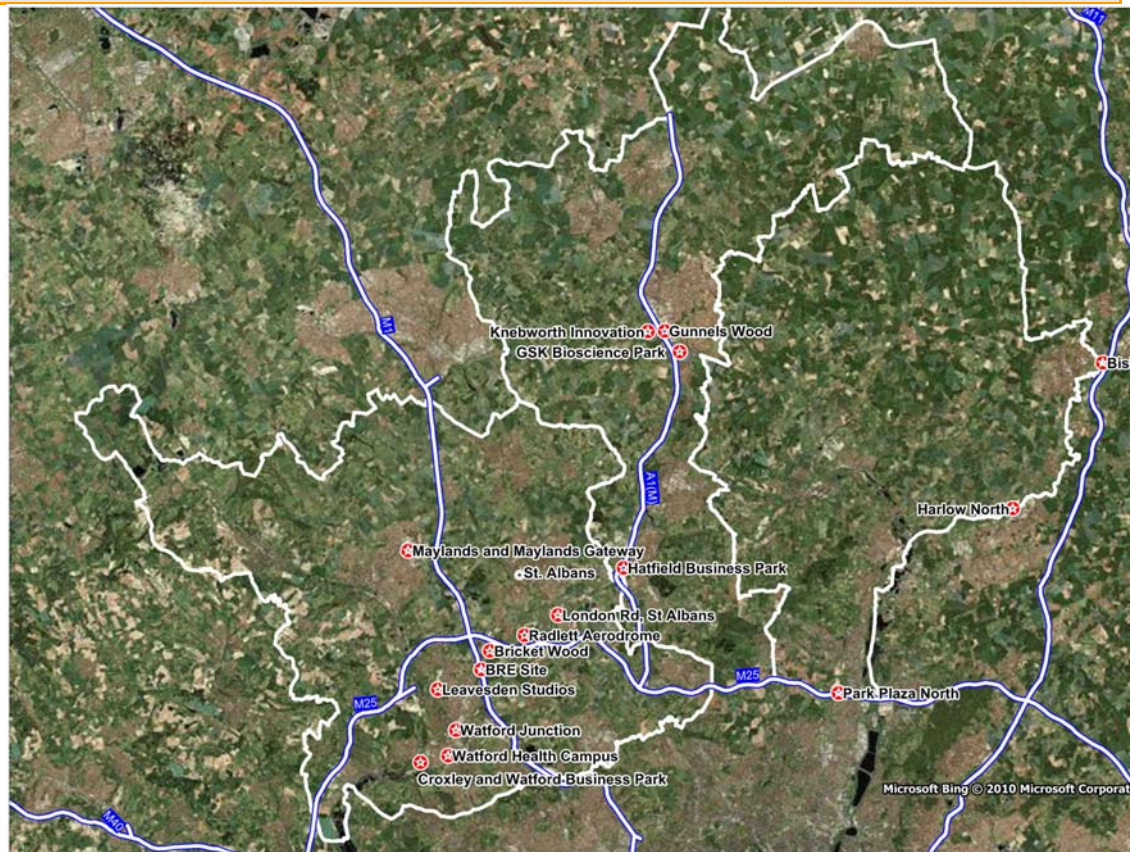
● Hertfordshire Strategic Employment Sites Study ●

- The site should be of regional/inter-regional/or national significance and capable of raising the profile and economic performance of the region and Hertfordshire.
 - The site should provide sufficient employment to support sub-regional scale labour catchments.
 - The site should accommodate uses that serve regional or national markets (e.g. HQ or where there is a large market share).
 - Where it is an existing site, there should be evidence of market appeal and its perception relative to other locations in the county should be taken into account.
- **Able to build a clear identity:** a clear identity/ brand and future vision for the site:
 - The site should have a clear focus (e.g. office, manufacturing, research or distribution/logistics employment). In particular, in Hertfordshire there is an aspiration to support high value added, knowledge based sectors.
 - The quality of the floorspace, environment and amenities should be sufficient to accommodate large scale users or higher value added uses, which fit with the overall strategy for that site.
- **Able to demonstrate a good fit with wider policy.** In particular sites should:
 - Accommodate leading edge sectors. Key sectors identified in the Economic Development Strategy for Hertfordshire include: life sciences; high tech engineering/software development; digital creativity and media; low carbon firms.
 - Accommodate uses that add to the 'economic base' of the region and are clear economic drivers. At a Hertfordshire level, there is an aspiration to attract and retain higher value added employment and increase the productivity and competitiveness of the county, whilst delivering a low carbon economy.
 - Offer (or have the potential to offer) high levels of accessibility by public and private transport and be consistent with transport policy.
 - Be (or have potential to be) consistent with current and emerging planning policy.

Selecting a Pool of Potential Strategic Sites

6.8 A pool of 16 sites have been assessed and their locations are illustrated on the map below.

Figure 6-1 Sites which have been Assessed



Source: Regeneris Consulting

6.9 The sites which have been assessed have been derived from three sources as set out below:

- **First, four existing strategic sites were identified in the Arup Regional Strategic Sites Study:**
 - GSK Cluster (Stevenage, Harlow, Ware)
 - Gunnels Wood, Stevenage
 - Maylands, Hemel Hempstead
 - Leavesden
- **Second, a further eight existing or potential sites identified by partners in the initial phases of this study¹¹**
 - Park Plaza & Maxwell’s Farm, Broxbourne
 - Hatfield Business Park
 - Croxley Business Park & Watford Business Park

¹¹ These were identified during the Inception Phase of this study which involved one to one discussions with each of the ten districts in Hertfordshire. Sites which have development potential were identified.

• Hertfordshire Strategic Employment Sites Study •

- Watford Junction
 - Knebworth Innovation Park, Stevenage
 - Watford Health Campus
 - Bishops Stortford
 - Land at the Building Research Establishment in St Albans
- **Third, four other potential strategic sites/locations were identified by the consultant team** following the inception phase which included a review of background information and a strategic transport assessment (looking at commuting patterns, access to a labour force and the strategic road and public transport networks):
 - Harlow North
 - London Road, St Albans
 - Radlett Aerodrome
 - Land North of Bricket Wood

6.10 A number of sites were identified during the inception phase as having the potential to be considered strategic employment sites, however following an assessment of their potential against the definition, these were ruled out and not considered further (despite recognition that they already/have potential to play an important role for the county). These sites are:

- Sites in the North Hertfordshire District: including Royston, Baldock and Hitchin.
- Sites in the East Hertfordshire District: including Foxholes
- Sites in Three Rivers: including the Elstree Way Corridor and Centennial Park (which have little additional development capacity)
- A site in St Albans: Roehyde.

6.11 The definition does not mean that other sites are not important to the county's and local economies. Indeed some of these provide high quality modern floorspace (such as Centennial Park in Elstree; or are substantial in scale, such as Elstree Way) and other locations are important to key sectors such as Elstree Studios. However, taking into account the agreed definition above, the 16 sites which have been identified warrant further consideration.

Broad Assessment of Potential Sites

6.12 A site by site assessment is provided in the remainder of this section. The analysis should be read alongside a more detailed transport/accessibility assessment provided in Appendix A.

6.13 To assist in assessing the strategic sites offer, we have sought to **classify sites** around the

following:

Strategic Employment Sites Classifications

- 1) **Premier business parks** – these appeal to international occupiers and have regional and national profile. It is at an ideal location, close to existing markets and major employment centres; is in close proximity to the motorway network and airports, and has strong public transport infrastructure. It provides a range of infrastructure, high quality landscaping and amenities on-site (and thus must be of a sufficient scale to support these).
- 2) Relative to ‘premier business parks,’ **other large scale business parks** – these are more modest in scale and with a more sub-regional or local profile and occupiers. They are landscaped and branded, and provide a high quality of environment.
- 3) **Strategic mixed employment sites** – defined as being of a substantial scale, often over 30ha, and with good local and strategic road access, and provide accommodation for a range of indigenous / local occupiers and multi-nationals. They act as important focal points for employment at a sub-regional (and sometimes regional) level.
- 4) **Major town centre office quarters** - locations which demonstrate a critical mass of office floorspace, and provide larger floorplate units which can accommodate and are attractive to businesses with a national/ international presence. These are often in the larger towns.
- 5) **Single user/sector sites and locations** – this category has been included to recognise that there are sometimes key employers which are of strategic importance to a sub-regional or regional economy, which support economic clusters. These can form part of broader employment locations, but can equally be sites in single ownership located separately.

- 6.14 Sites which are identified as falling within one of the five classifications above are recognised as being **strategic employment sites**. Some of the sites which we have reviewed are smaller sites or are sub-regionally significant and therefore are not considered to be regionally significant strategic sites for the purpose of this study.

GSK Cluster

- 6.15 GlaxoSmithKline (GSK) is the largest pharmaceuticals company in the UK. It is British-owned, with headquarters in Brentford (on the M4) and has 22 sites across the UK. Four sites are within or near Hertfordshire, which comprise:
- Pharmaceuticals & R&D Facility – Stevenage
 - Manufacturing & R&D Sites – Ware
 - Pharmaceuticals & R&D Facility – Harlow (New Frontiers Science Park, Pinnacles – 2 sites). GSK are currently consolidating activities on this site with those in Hertfordshire.
- 6.16 The cluster is effectively spread over 5 sites in that there are two separate facilities, albeit adjacent to one another, at Ware; and similarly two sites at Harlow (North and South). The company thus has a substantial presence in/around Hertfordshire.
- 6.17 GSK’s site in Ware comprises a manufacturing site with some office accommodation (Priory Street) together with an R&D facility (Park Road) located immediately to the west. Employment is around 1,600 persons.
- 6.18 The Ware site is accessible, via the B1004, to the A10; providing a reasonable level of access to the strategic road network. Access is signposted. It benefits from a number of on-site

amenities, including catering and sport/recreation facilities (on-site sport and social club) and is located close to Ware Town Centre. Environmental quality is high, the location offering a canal side frontage and with a park/open space adjacent. Consistent corporate branding and signage is provided. Parking is available on-site (including within a multi-storey) however there is evidence of some overspill on-street parking suggesting some parking / land constraints. Public transport access is reasonable, and the site is within walking distance of the rail station. Strategic public transport access is average.

- 6.19 The Ware site is reasonably intensively used, and any further development is likely to depend on the strategic decisions of the business.
- 6.20 GSK has had a large presence in Harlow spread over two sites, termed the New Frontiers Science Park 'North' and 'South' which are separated by a car park. Buildings are of a mix of ages. The site benefits from reasonable strategic road access, via the A1169. As with the other sites, it is clearly branded and security is high. Environmental quality is average, as is provision of local amenities (albeit that there is likely to be some provision onsite). Parking provision appears adequate and there is a reasonable level of local public transport access; although the site is located at some distance from the rail station.
- 6.21 GSK are currently consolidating activities at Harlow to sites in Hertfordshire. It is understood that the Health Protection Agency may be moving to part of the land released.
- 6.22 GSK's Stevenage site is the most visible, and comprises an ageing R&D facility located on the south side of the town and the Gunnels Wood employment area, adjacent to the A1(M) and Junction 7. It is a high profile location, visible from the motorway with easy access. Environmental and public realm quality is average, but the site has clear signage and branding. There is on-site parking provision for employees. Local buses are likely to link the site to Stevenage Station, which provides a good rail service at the local and national levels.
- 6.23 Phase I of the development of a £37 million Bioscience Park at the site to provide a hub for biotech companies is currently being developed, funded by Government, GSK, The Wellcome Trust, Technology Strategy Board and EEDA. It is expected to generate 1,500 jobs and support spin-offs and clustering of businesses in the bioscience sector. Site preparation works are currently ongoing.
- 6.24 It would be possible to argue that it is the business, or the sub-regional cluster, rather than the individual sites which are 'strategic.' Therefore our assessment concludes that there are **strategic activities** on site. Each of the sites is large, self-contained and (to some degree) secure and can effectively be regarded as a **Single User Site**. We would expect that further development and job creation would be guided by the corporate decisions of the business.
- 6.25 The exception which needs to be made is in regard to the **Bioscience Campus** at Stevenage, 10ha in size, which will provide a focus for innovation and investment. This is clearly of strategic economic significance for the lifesciences/pharma sector.

Gunnels Wood, Stevenage

- 6.26 Gunnels Wood is a 202 hectare employment site on the western side of Stevenage, adjacent to the A1(M). It was designated by the 1949 Masterplan for the Town and is one of the largest employment sites in Hertfordshire. It is home to 300 businesses and 18,800

employees¹². The area has evolved from an industrial focus to accommodate a mix of B-class employment activities today.

- 6.27 The A1072 Gunnels Wood Road provides good access through the site and to the A1(M) Junction 7. Stevenage Rail Station is located to the east of Gunnels Wood alongside Lytton Way, providing local services and express train service to London, Yorkshire and the North East. Local bus services run through the site. This is a sustainable location, within walking distance of the town centre and a key transport hub. There is limited provision of amenities within Gunnels Wood itself.
- 6.28 The site accommodates substantial economic activities across a range of sectors and company sizes, but there is limited organisation of land uses, which impacts amenity. The quality and age of built stock, environmental quality, and provision of parking and public transport all vary across Gunnels Wood. Investment is required to improve environmental quality and to deliver modern floorspace. Industrial rents are around £5.50 psf.
- 6.29 Stevenage Borough Council has developed a draft Area Action Plan for Gunnels Wood, building on a masterplanning process, to guide future investment and provide a framework for the progressive upgrading of the employment site. This is based on enhancing employment densities and the area's overall character. The masterplan proposes remodelling to create an office hub close to the station (termed Silkin Park), landmark buildings at key locations and a coordinated approach to investment in public realm. It is envisaged that this will deliver 70,000 sq.m of net new B-class development between 2001-26.
- 6.30 The Silkin Park area which is identified for office use is 19ha in size and focused around the Leisure Park. It is predominantly in existing, active use and comprises multiple ownerships. A number of larger employers such as EADS Astrium and Aeroflex occupy key sites. Piecemeal (as opposed to comprehensive) redevelopment is envisaged by the draft Submission AAP over the medium-term, linked to town centre regeneration.
- 6.31 Mixed use redevelopment of the leisure park is proposed within the Town Centre AAP Preferred Options document. This envisages creating a mixed use urban quarter, including active ground floor uses including retail and leisure together with office, hotel and residential uses as part of a higher density development scheme.
- 6.32 Given the proximity to the station and prospect of town centre regeneration, the Silkin Plaza and Silkin Park developments have the potential to deliver improvements in office floorspace supply in the town subject to market demand, but is likely to be phased over a sustained period.
- 6.33 Stevenage has a limited office market at present, and current office rents are low at £14 psf and currently insufficient to support a major new office development scheme. Delivery of the wider growth and regeneration agenda will be important in supporting market confidence and attracting investment to deliver an office-led scheme at Silkin Plaza. This will be influenced by market perception and phasing of development and is considered further in Section 8.

¹² DTZ (2006) Stevenage Employment Land Review

6.34 GlaxoSmithKline’s R&D facility is located on a secure site at the south of Gunnels Wood. This will be primarily accessed by the roundabout at the junction of Broadhall Way and Gunnels Wood Road. Within the GSK site, planning consent has been granted for delivery of a BioScience Campus comprising 10,000 sq.m of B1b/c floorspace. Preliminary works to support Phase 1 development, which has received funding from the Government, Wellcome Trust and EEDA. It will provide a supporting environment for early-stage biotechnology companies, strengthening innovation and supporting the bioscience/pharmaceuticals sector in the sub-region (as discussed above).

6.35 On the south side of Gunnels Wood, Goodman has also developed the Arlington Business Park (10ha). This provides primarily B1c light industrial and workshop space, with some office development, developed primarily for freehold occupation. Occupiers include Gates Ford, GO International and Avanti Brooks. The site has been developed since 2005 with one 0.95 ha (2.35 acre) plot remaining which was been sold to HPG Developments in 2008 and is currently being marketed.

Business Perceptions of Gunnels Wood

- The site has excellent transport links with good access to rail and road across most of the site (some, such as GSK are further away to the train station which makes public transport access more difficult).
- There are a number of established businesses on the site such as EADS which have a strong affiliation to the area.
- Due to the fact that some firms have been located there for some time and expanded, some are constrained in terms of future growth opportunities at their site.
- The main issue cited with regards to Gunnels Wood was congestion.
- Other concerns related more to the wider area, for example firms felt that the town centre in Stevenage was poor and suffers from problems associated with its image. Other issues relate to poor education and housing for employees.

6.36 Gunnels Wood is considered a **Strategic Mixed Use Employment Site**. Its scale supports sub-regional labour catchments, a wide range of economic activities and likely internal supply chains. It contains a range of activities and property types, supporting its attractiveness to:

- Lifesciences;
- High-tech manufacturing/engineering;
- Small-scale / start-up businesses;
- General manufacturing/ industrial;
- Environmental technologies;
- Back/ general offices.

6.37 There are notable opportunities for redevelopment and regeneration in the medium-to-long term associated with delivery of the Silkin Park and Silkin Plaza proposals within the emerging Gunnels Wood AAP to deliver additional and higher quality office floorspace. Immediate development potential comprises the former Kodak Site (3.44 ha) and the land adjacent to Whittle Way (0.95 ha).

Maylands Business Park

- 6.38 Maylands is one of the largest employment areas in the region, home to over 600 businesses and employing an estimated 16,500 people. It is located on the eastern side of Hemel Hempstead, close to Junction 8 of the M1.
- 6.39 The site is home to a mix of employment uses, ranging from large warehouse/distribution units, industrial units and larger floorplate office space. Office floorspace is currently concentrated on Maylands Avenue and at the Breakspear development on the south side of the A414 (occupied by BP). Office rents have however fallen from £17 to £13.50 psf and there is a recognised oversupply of office accommodation.
- 6.40 Following the Buncefield Oil Depot explosion in 2005, the Council produced the Maylands Masterplan. This proposes to rationalise land use, improve environmental quality and sustainable transport access, as well as the area's green credentials. It proposes delivery of a new, high quality mixed use centre to the area – the 'heart of Maylands' – to provide improved amenities; together with a new high quality business park, 'Maylands Gateway' focused around the A414 Breakspear Way – the entry point to the town from the M1. Considerable land is available at Maylands subject to market demand.
- 6.41 Maylands provides substantial areas of land for new development, clustered close to Buncefield and around the A414. The high quality 'People's Building' at the south of Maylands Avenue has set new standards in terms of building and public realm quality and achieved rents of £18 psf. This however remains notably below other employment centres in Hertfordshire and there has been no further development since the first phase in 2003.
- 6.42 Maylands Gateway offers 60 ha of land which is in the ownership of the Council and HCA. There is further development potential on Kier and third party land opposite; as well as in the zone close to Buncefield. Development land is either greenfield or cleared. The Masterplan provides a planning framework to guide development.
- 6.43 While the site benefits from strong access from the motorway network, given its proximity to M1 Junction 8, the office market at this location has not performed strongly. The site has been marketed for a number of years but has yet to attract a developer/investor. Public transport accessibility to the site is a key weakness, as are environmental quality (which is varied) and provision of local amenities. Delivery of the masterplan could help to address these, improving environmental quality along key corridors, and delivering new amenities as part of the 'heart of Maylands' project. An Esporta Health & Fitness Club has recently been developed and work is ongoing to develop a Green Transport Plan.
- 6.44 The site is an established location with good strategic road accessibility. Existing larger occupiers tend to be engaged in industrial or distribution activities. While the site is likely to remain more attractive for B2 and B8 activities and current perceptions are of it are mainly as an industrial location, there remains an opportunity over the longer-term to attract major footloose office occupiers if supported by strong and coordinated marketing and public sector investment.

Business perceptions of Maylands

- One of the main strengths is that the site is cost effective relative to other locations.
- The site is located some way from the train station and there are poor public transport links. As a

result many people drive to work and there is insufficient car parking on site which has led to tensions.

- The employment area is generally perceived as having a poor environment and negative image. The Buncefield site is particularly poor, creating a negative image for visitors to the site.
- There are a lack of facilities and amenities for employees such as shops and restaurants.
- Congestion was cited as an issue with the number of lorries using the employment area creating perceived issues for some firms on the site.
- There is evidence that some firms are wishing to relocate from the area. This in part stems from the fact that some firms feel that they are not aware of any improvement to the area despite a lot of work being carried out in the past including a masterplan for the site.
- Some existing firms feel that the site is likely to be unattractive to new companies, particularly office occupiers wishing to move to the area.

6.45 We would classify Maylands as a **Strategic Mixed Employment Site**. As with Gunnels Wood it offers significant regeneration potential. Potential suitable sectors comprise:

- Lifesciences
- High-tech manufacturing/engineering
- Large warehouse/distribution
- General manufacturing/ industrial
- Environmental technologies
- Back/general offices
- Professional banking and finance.

Leavesden Park

6.46 Leavesden Park is a former aerodrome site located to the south of the M25 on the north side of Watford, although the floorspace falls within Three Rivers District. It comprises Leavesden Studios, now owned by Warner Brothers, together with MEPC's Leavesden Park development at which two large floorplate Grade A office buildings have been built out in a landscaped, business park setting. Occupiers include Brighthouse, lawyers Pitney Bowes and BT.

6.47 The site provides a limited amount of Grade A office floorspace, but has not performed well. BT took a pre-let for an 17,930 sq.m HQ building in 2000, but the MEPC struggled to find tenants for the second building, which has been let only since the space was subdivided. We consider this to reflect a lack of critical mass, amenities and public transport accessibility. The site is reasonably located with regard to the strategic road network, with access from M25 Junction 19 (restricted) and Junction 20 via the A41, however access by public transport is limited. Rents are comparatively low at c. £18.50 psf.

6.48 We understand that a planning application has been submitted proposing mixed use redevelopment of the remaining allocated employment land, which does not include further commercial office development. We understand that the Councils are supportive in principle of this. In this regard and given the lack of existing critical mass of employment at this

location, we consider that the site supports **strategic activities**, related to the creative/film cluster, rather than this being an existing strategic employment site in regards to the County's overall investment/ sites and premises offer.

- 6.49 It is understood that Warner intends to invest £100m in the site in developing a Harry Potter-related tourism attraction at the site, alongside its continued use for film production. Warners' purchase represents a major inward investment and will support the film sector nationally. This will help to reinforce the strategic significance of the cluster within the County.
- 6.50 It is recognised that **Elstree Studios** also supports strategic activities but this site has not been considered here due to the fact that there is not considered to be immediate development potential on the site.

Park Plaza & Maxwell's Farm, Waltham Cross

- 6.51 There are a number of areas of land adjacent to Junction 25 of the M25 at Waltham Cross which are addressed collectively herein.

Park Plaza – East of the A10

- 6.52 Park Plaza in Waltham Cross is a 25 hectare site north of M25 Junction 25 and adjacent to the A10 which was allocated in the Broxbourne Local Plan, which was adopted in 2005.
- 6.53 The Local Plan policy identifies the site as suitable to meet the needs of firms associated with specialist technological activities or activities in the regional/ national interest, with development guided by a planning brief seeking high quality (B1) business development and complementary uses (hotel, training facilities, amenities).
- 6.54 News International purchased the southern portion of the site in 2004 and has developed a printworks, 83,164 sq.m in size and comprising a warehouse and adjacent service centre which opened in 2008. A hotel (Travel Lodge) has also been constructed.
- 6.55 A 2.1ha plot on the southern part of the site has outline consent for B1 office development with potential for a landmark office building of 25,000 sq.m (gross). However it is questionable as to whether sufficient parking provision can be provided to support this volume of development thereby affecting the market attractiveness of the proposal¹³.
- 6.56 A further 8.55 ha at Park Plaza North remains undeveloped. A revised development brief for the site sets out a requirement for a comprehensive planned scheme with iconic buildings which include business, high technology industries, research and development floorspace and possibly ancillary uses such as a hotel. The Council's aim remains to deliver a distinctive high quality development of national and regional significance. The development brief identifies appropriate uses and business and general industry (B1 and B2), with an aspiration for headquarters office development or activities in key higher-value sectors, further hotel development, or a medical facility/hospital. B8 development is not considered acceptable.
- 6.57 The site benefits both from its motorway junction location on the M25 and from visibility

¹³ Derek Wade Waters (2010) Broxbourne Employment Opportunity Report

from the motorway. It is currently accessed from a signal controlled junction on the A10. We understand that further development will be required to contribute to widening of M25 slip roads. As yet there are no on-site amenities, although a unit is being marketed for restaurant/café use.

Park Plaza West and Maxwell's Farm

- 6.58 Broxbourne Council's Submission Core Strategy indicates the potential for further development in this area, on what is currently green belt land, as part of a 'longer-term strategy' to release the site from the green belt and attract office-based activities and higher-value added activities in key sectors. Two sites are identified in the 'Southern A10 Corridor Area of Search' comprising Park Plaza West (40 hectares), adjacent to the M25, west of the A10; and to the north of this at Maxwells Farm West (26 hectares). The former particularly is considered suitable for high quality business park development.
- 6.59 There is sufficient land available to deliver a major business park subject which could prove attractive to major occupiers looking for a highly prominent and well accessed location. There are few comparable prospective business park locations on the M25, in terms of sites within the northern quadrants of the M25 with immediate accessibility to the motorway and sufficient scale to deliver a premier business park. A business park of 120,000 sq.m + could be delivered in terms of the land available.
- 6.60 The site's M25 location coupled with the land potential could make the site attractive to investors and national/international occupiers subject to market demand from. There is sufficient land to support substantial development. Emerging policy is supportive. The site is therefore considered as a potential location for a Premier Business Park.

Future Development Potential

- 6.61 As the Broxbourne Employment Opportunity Report states, it would be easy to conclude that the release of land on the sites in this location for B8 warehousing/ logistics uses would generate demand, and would be arguably easier to deliver. This reflects the location's strong strategic road accessibility and current market conditions. This would not however deliver the aspirations set out in the Council's emerging Core Strategy (or the existing development brief in respect of Park Plaza North) or fully capitalise on the opportunity which this location presents.
- 6.62 There is sufficient land available at this strategic location on the M25/A10 junction to deliver a critical mass of employment floorspace attractive to major occupiers and support on-site amenities. Significant investment would be required to improve public as well as private transport access. A new market image would also need to be created. However we consider that there is good potential to deliver in excess of 1 million sq. of employment floor space at a strategic location with excellent prominence. We also note that Park Plaza West has attracted new investors keen to promote the site. Timing will largely be dependent on achieving the necessary planning certainty and the state of the occupier market.

Business Perceptions of the Park Plaza area

- A key strength of the Park Plaza North site is perceived to be the excellent transport links.
- However, one issue is that there are poor facilities for employees in close proximity to the site.
- The existing occupier is likely to be favourable towards new development since this could result in benefits such as improved access to existing sites and improved facilities.

6.63 It is considered that this site offers particular opportunities to support the following activities:

- High-tech manufacturing engineering;
- HQ/Prestige office functions;
- Financial and business services.

6.64 As with any new strategic site, it is likely that significant investment would be required to stimulate the market including in addressing transport issues and provision of amenities. There are also practical and policy challenges associated with the location of land to the west of the A10 within the Metropolitan Green Belt.

6.65 The collection of sites at this location, which we refer to as Park Plaza, have the potential to become a **major** or **premier business park** subject to market demand and resolution of policy and infrastructure issues.

Hatfield Business Park

6.66 Hatfield Business Park is a modern business park developed by Goodman over the last 20 years following the closure of the British Aerospace plant at Hatfield Aerodrome. It provides a mix of employment floorspace (principally HQ Office, R&D and distribution uses) in a high quality, landscaped environment over 400 hectares and provides 3.5 million sq.ft of business space providing 10,000 jobs.

6.67 Key occupiers are T Mobile (HQ function), Veolia Water (offices), Eisai (pharma), Computacenter; Ocado, DHL, Booker and Royal Mail (distribution). Larger occupiers predominate, although there are a number of smaller business units located within the io centre.

6.68 The site is accessible from the A1(M) Junctions 3 and 4 (via the A1011 Comet Way). While it has strong access to the motorway network, it is not directly 'visible.' There is a consistency in the quality of environment, landscaping, public realm and signage on site which is replicated at few other locations in Hertfordshire. High quality office space is currently letting for £18.50 psf.

6.69 The site is adjacent to the district centre developed at Bishops Square, which provides a range of local amenities including several restaurants, a Travellodge hotel. There is a large leisure club, operated by David Lloyd, on Tamblin Way. The provision of amenities is thus strong. The site is served by a regular bus service which connects it with Hatfield Rail Station, as well as the Town Centre and the Galleria. Real time information is provided at bus stops.

6.70 A campus of the University of Hertfordshire is located on the south side of the site (DeHaviland Campus).

6.71 16ha of land remains available for development, primarily on plots to the west of Mosquito Way. This comprises the following plots, which benefit from planning consent:

Plots 4000-4600	22 acres (up to 550,000 sq ft)
Plot 5000	9.5 acres (up to 200,000 sq ft)
Plot 5600	3.85 acres (up to 80,000 sq ft)
Plot 6000	3.85 acres (up to 65,000 sq ft)

6.72 We consider this to be one of the highest quality employment locations within the County, reflecting both its location, the quality of environment, and strength of public transport and local amenities. It is one of the only high quality business park locations in Hertfordshire located on or close to a motorway junction. It is an established and successful employment location, which has demonstrated its ability to attract inward investment (T-Mobile from Watford, and more recently Eisai). The Councils may wish to consider the extension of site in the medium/ longer-term, potentially to the west or north linked to residential development options, subject to market demand and detailed feasibility testing.

Business Perception of Hatfield Business Park

- Hatfield Business Park is perceived to be a strong location by existing firms on the site.
- Businesses have been attracted to the area due to the high quality business park which is on offer. The site is well maintained and projects a good quality image not available in other parts of the county.
- The site is in an excellent location with good road links (A1/M1) and rail links.
- It was felt that there was a lack of available sites of this quality across Hertfordshire.
- In addition, Hatfield Business Park could do more to promote the existing site and to attract additional development.

6.73 We would classify the site as a **Major Business Park**. In our view it does not at this stage have sufficient critical mass or profile to be considered a Premier Business Park.

Watford Junction

6.74 Clarendon Road in Watford is currently the town’s main office location, linking the Town Centre and Watford Junction Train Station. It contains large floorplate office accommodation in 4/5 storey blocks, occupied by a mix of financial and professional service occupiers and HQ functions, as well as a Regus Business Centre providing space for smaller businesses. There is a strong representation of corporate occupiers including RBS, Vinci, Arup, Baker Tilly, TK Maxx, KPMG and Clydesdale Bank.

6.75 Public transport accessibility is strong, reflecting proximity to Watford Junction station which provides regional and national-level train links (to the Midlands and the North), as well as a coach service to Heathrow Airport. Car parking provision is more restricted than at other locations. Environment and public realm quality is reasonable, and a range of amenities are provided closeby within the Town Centre.

6.76 As we have identified, prime rental levels have held steady at £20.50 psf. However the stock of accommodation is ageing, with limited new-build development over the last 10 years.

Business Perceptions of Watford Junction

- Watford Junction is perceived to be a cost effective location (relative to elsewhere e.g. London).
- There are good train links into London and other parts of the country.
- Proximity to the town centre is also perceived to be a strength.

- One of the key concerns relates to congestion and insufficient parking.

- 6.77 We would classify the site currently as a **Major Town Centre Quarter**. It is attractive to the following sectors:
- HQ/ Prestige Office Functions
 - Financial and Business Services
- 6.78 There is potential for redevelopment of older office blocks over time, and a current site (1 acre) being marketed for refurbishment/redevelopment. The potential at Watford Junction relates primarily to the opportunity to deliver new employment floorspace around the station, on sites identified within the Watford Junction Development Brief. These includes sites on the opposite side of the rail line.
- 6.79 Across the railway line is the mixed employment area at Colonial Way, which contains a range of B class uses. This includes a number of ‘back office’ office occupiers, including within the Belfrey Centre as well as HSBC; albeit that the focus of activities is industrial. The potential for further development of this successful office quarter onto rail lands and the Colonial Way area warrants further exploration.
- 6.80 The wider development potential at Watford Junction coupled with the scale of its existing market and accessibility warrant consideration of the potential for the site to become a **Premier Business Location** subject to market demand and detailed feasibility testing, including the potential to support infrastructure investment.

Croxley and Watford Business Parks

- 6.81 We have sought to address Croxley and Watford Business Parks together, because of both their physical adjacency and the opportunity which potentially exists for redevelopment of Watford Business Park, building on the product and profile of Croxley, adjacent.
- 6.82 Croxley, owned by Greenhills Real Estate, provides 640,000 sq.ft of office floorspace in a high quality landscaped setting. It was developed in 1983, is well branded and includes a number of amenities including the ‘waterside café.’ It provides for corporate and HQ offices, with existing occupiers include GE Money, Ferrero UK, Standard Life, and Mediatonic. However the vacancy level is above average and the rental tone has fallen from £20 to £16-17 psf (dependent on a long-term lease).
- 6.83 A regular bus service serves the site, and it is within walking distance of the Metropolitan Line station at Croxley. However should the Croxley Rail Link be delivered, the site would benefit from adjacency to an Underground rail station providing strong public transport accessibility. This could have a critical impact on the strategic importance of this area.
- 6.84 Watford Business Park is immediately adjacent. It is older and more industrial in character. While generally well occupied, environmental quality is below average; and there is a higher proportion of older properties and a number of vacant warehouse plots. The site caters for a range of B-class activities including a data centre (Sentrum). There is evidence of some overspill on-street parking. There are a number of amenities nearby, including a pub and hotel. The Council’s Employment Land Review identifies sites/building with development

potential for 21,000 sq.m.

- 6.85 Overall Croxley provides a high quality campus environment, and well managed space but lacks critical mass and has an above average vacancy. The mixed pattern of occupancy and leases in the Watford Business Park will complicate delivery. There is an opportunity for progressive upgrading of the employment offer subject to detailed viability testing (linked to the prospective transport improvements through the Croxley Rail Link) to deliver critical mass, which will provide the potential in the longer-term for the site to take on a more strategic role. We thus regard this as a potential strategic site and major business park.

Business perception of Croxley Business Park

- Croxley is well located for motorway access.
- It is considered to be a good quality business park but facilities for employees could be improved (the management company may provide this in the future).
- The main disadvantage is the fact that the site is not located in close proximity to a town centre.

Assessment of Other Potential Locations

- 6.86 We address below 'potential' locations which might be able to accommodate strategic employment provision.

Knebworth Innovation Park

- 6.87 Knebworth Innovation Park represents a potential greenfield site at Stevenage immediately adjacent to, and accessed from, A1(M) Junction 7. The land is owned by and forms part of the Knebworth Estate. The site benefits from a motorway junction location and visibility, and location of an existing Novotel Hotel. We understand that the site has previously been promoted to Stevenage Council. It is included as a location for future employment development within the Council's draft Core Strategy. The draft Strategy identifies the site for a new high-quality innovation park of c. 65,000 sq.m employment floorspace capable of attracting R&D activities.
- 6.88 However the site is adjacent to a Site of Special Scientific Interest (SSSI), Knebworth Woods, and falls within the Green Belt. Exceptional circumstances would be required to support its removal from the Green Belt. The impact on the SSSI would require mitigation. Improvements in accessibility by sustainable modes would also need to be significantly improved.
- 6.89 The site is potentially of sufficient scale to offer some limited amenities within the development and could deliver a high quality working environment. Provision of public transport facilities would be required.
- 6.90 A key advantage of the site is its adjacency, but degree of separation from, an established employment location at Gunnels Wood and GSK's R&D facility. The form of development envisaged is expected to include a high science/ research and development component within a high quality environment at an accessible location. This high-tech/ science focus would differentiate it from Arlington Business Park and Gunnels Wood more widely where there is potential for further phases of development.
- 6.91 The site is considered as being of **potential strategic significance** because of the opportunity to deliver a high quality site to meet the needs of key sectors (as opposed to an issue of

scale). While the site could accommodate back/general offices, this in our view would not justify its release: the particular opportunity is for it to support R&D functions, such as in environmental technologies and lifesciences; including its potential to accommodate a pharmaceutical investment/relocation. It is a **potential business park site/ science park**.

- 6.92 The site would require joint working between Stevenage BC and North Hertfordshire DC to bring forward. Potential delivery risks associated with uncertainty over the Stevenage and North Herts Action Plan (SNAP), and future joint working, represent a key delivery risk to this site. Delivery of Council's broader regeneration agenda, including town centre regeneration and residential growth, will affect the attractiveness of the town for economic investment/relocations.

Watford Health Campus

- 6.93 Watford Health Campus is a major regeneration project which aims to deliver a mixed use development in association with a new hospital on a 26.5 ha site in West Watford. The site currently consists of the existing Watford General Hospital, Watford Football Club Stadium, a poor quality existing industrial estate and decommissioned power station.
- 6.94 Working together, the project partners which include the East of England Development Agency, Hertfordshire County Council, Watford Borough Council, the West Hertfordshire Hospitals Trust and the PCT, as well as the regional Strategic Health Authority, have brought forward and secured planning permission for development of a new hospital, 550 homes, employment space and leisure and recreation uses.
- 6.95 13,000 sq.m of employment floorspace is included within the proposals, comprising primarily office and research (B1a/b) floorspace mostly located in a potentially attractive setting adjacent to the River Colne. It is anticipated that this phase of development will be delivered in 2015-16 subject to market demand.
- 6.96 The hospital benefits from good existing public transport links, with the prospect that these could be improved by delivery of the Croxley Rail Link providing Underground access. The riverside setting provides an opportunity to create an attractive environmental setting, and a range of amenities are to be provided as part of the 'hub' proposals within the development.
- 6.97 In our view the site provides the potential for attraction of higher value-added activities, particularly where there are synergies associated with co-location with the hospital including in life sciences and medical-related research activities, as well as supply-chain related activities. We see the site as of strategic significance for the development of these sectors.

Building Research Establishment (BRE)

- 6.98 BRE is located to the south west of Bricket Wood, within St Albans District. It has developed from a Government-funded research establishment focused on building and the built environment, and is now run as a charitable trust focusing on research and development, testing and consultancy activities. Its role in undertaking cutting edge research and innovation including on sustainability in the built environment is of strategic economic significance.
- 6.99 BRE and its predecessor organisations have occupied the site since the 1920s and a number

of the buildings are now somewhat dated and in need of modernisation. The site is located within the Metropolitan Green Belt. Both strategic road and public transport access is relatively poor, the site being accessibly via Bucknalls Lane which runs through a residential area from the A405.

- 6.100 We understand that BRE have an aspiration to redevelop the site to provide upgraded facilities including space for new start-up/ spin-off companies as well as enabling development. An increased intensity of use of this site has a number of challenges, particularly in terms of access.
- 6.101 The poor visibility and access to this site we consider would limit its attractiveness to commercial activities/ investment, however the site is of potential strategic significance in supporting green activities and particular R&D in this area. Thus while we would not consider this to be a strategic site per se, we consider that it does support strategic activities.

Harlow North

- 6.102 Harlow North is a proposed development which would represent a strategic urban extension to Harlow, to the north of the River Stort. The site has previously been identified with potential for 10,000 dwellings within the East of England Plan but has physical capacity to provide significantly more in the longer-term. Part of the site falls within the Green Belt. With the proposed abolition of the East of England Plan, it is unclear whether the development will now go ahead.
- 6.103 East Hertfordshire included Harlow North as one of a number of options for development in the District in the recent Core Strategy Issues and Options Consultation (Sept – Nov 2010). If brought forward it is likely that there would be some employment component to the development.
- 6.104 Harlow, as with many New Towns, benefits from having a strong critical mass of employment – focused in Temple Fields on the north-side of the town and Pinnacles to the west. There is also some office employment around the town centre and Harlow Town Station.
- 6.105 Harlow North would relate well to the existing employment locations in the town and current market. However the disincentives relate to the limited strength of road connections to the M11, which might require improvement (such as through delivery of a link road to the north of the town and new junction). Perceptions of the town would also act as a disincentive to office investment, albeit recognising the potential for Harlow North to address deficiencies in its socio-economic/occupational profile from an investment perspective.
- 6.106 The location could be considered for possible strategic employment development should the wider Harlow North development be progressed, and depending on the scale of this and transport infrastructure provided. The site offers some potential for office accommodation, particularly close to the station as part of a broader district centre/ heart to the new development. However the scale of development may not be of a sub-regional/ regional significance. This would require delivery of a business park and likely a link road to the M11. To conclude however, at present, the Harlow North site is considered to have significant

delivery risks (due to uncertainties around the delivery of Harlow North) which suggest that the site may not come forward.

Bishops Stortford

- 6.107 Bishops Stortford is a town of 35,000 population located in the north-east of the County. This compares to 78,000 in Harlow. Its potential strategic significance is related not to existing sites/ economic activities, but to its location adjacent to the M11 mid-way between London and Cambridge and immediately adjacent to Stansted Airport.
- 6.108 Stansted Airport is the country's third busiest, after Heathrow and Gatwick, with passenger throughput currently of 19 million pa – but with approval to increase passenger numbers to 35 million pa (+ 84%). It is the only London airport with space and permission to grow. It is also the most modern.
- 6.109 The Stansted Airport Interim Masterplan identified direct on-airport employment of 10,600 in 2003, with off-airport, indirect and induced employment of a further 4,300. It estimates employment numbers which would arise from increasing passenger throughput to 35 mppa in 2015, taking account of productivity improvements. Direct employment was forecast to increase to 16,800 with wider employment to create an additional 6,400 jobs. While the figures may be dated, there is a clear economic opportunity.
- 6.110 We do not consider that there are currently any employment sites in Bishops Stortford which can be regarded as 'strategic' at a sub-regional or regional level. Employment in Bishops Stortford is concentrated within / around the Town Centre, on the north side of the town on Stansted Road (Birchanger Industrial Estate, Stort Valley Industrial Park) and at the Rainham Road Industrial Estate and Stortford Hall Industrial Park, on the A1250 Dunmow Road. The latter is the largest employment location.
- 6.111 The town's existing employment locations are relatively modern and offer good quality space, but are relatively small in size and cater primarily for local occupiers. Provision of larger floorplate units is limited, as is the presence of larger businesses operating at the national/ international level.
- 6.112 Stortford Hall Industrial Park offers modern B1c/ B2 / B8 units in a good quality environment. Key occupiers include Dab Pumps, Armour Home Electronics and Pioneer Europe Limited. Birchanger Industrial Estate and Stort Valley Industrial Park provide modern B1c units, together with car showrooms and repair facilities. They are of a good quality but limited in scale.
- 6.113 Rainham Road Industrial Estate is located nearby and comprises a mix of accommodation of varying age and quality. It is similarly principally occupied by small and medium-sized B1c/ B2 uses. It is occupied primarily by local manufacturing and trade counter businesses. Occupiers include Stortford Performance Tyres, Partco Auto Parts, First Signs and Labels. A new development of industrial units by HPC Developments is being developed, providing units of 3,500 – 40,500 sq.ft.
- 6.114 The site is close to M11 Junction 8 but is not well signposted. Environmental quality is reasonable however parking provision is tight, and the site is at some distance from the rail station.

- 6.115 Vacancy levels within the town are relatively limited, and there is an evident market for space from smaller local occupiers.
- 6.116 The opportunity to deliver a new modern business park warrants further consideration. Any such site would need to be well connected to the M11 and existing facilities. The council will consider the need for future employment land allocations through its emerging Local Development Framework, working with Essex authorities as appropriate.
- 6.117 The offer in our view needs to be considered in relation to existing employment locations in Harlow. Harlow is primarily a manufacturing/ industrial and warehouse location, but does have a stronger developed office market. The opportunity at Bishops Stortford would be to develop an employment offer which is complimentary to this, and linked to the proximity and potential growth of the Airport.
- 6.118 There is a lack of existing critical mass of employment space; however the potential for additional employment development at Bishops Stortford should be kept under review, particularly related to prospective growth at Stansted Airport and housing growth at the town. Our assessment concludes that Bishops Stortford might be considered suitable additional business park development in the medium/ long-term and that this should be considered through the Local Development Frameworks of East Herts and Uttesford Districts.
- 6.119 At the time of writing however there is limited clarity regarding the potential location and form of growth to Bishops Stortford, and thus we would attach notable risks to the delivery of further significant employment development at Bishops Stortford.

London Road, St Albans

- 6.120 This potential greenfield site, currently owned by a housebuilder, is located on the south-west side of St Albans between St Albans and London Colney. It is adjacent to the London Colney roundabout on the A414 which connects the A1(M) at Hatfield (Junction 2) with the M1 (Junction 7) and M25 (Junction 21A) and thus benefits from good access to a number of motorways.
- 6.121 With some of the strongest existing rents in the County in St Albans, from a commercial perspective there would be potential to deliver a attractive, successful business park scheme.
- 6.122 The site comprises flat land, with some mature trees although is not immediately visible from the London Colney roundabout. Achieving local access to the site is a potential constraint. The site is also within the green belt and has also been excluded from the Council's Core Strategy Preferred Options.
- 6.123 While the site relates well to St Albans which has a strong office market, albeit a relatively small one, the scale of potential development is relatively limited. The site is 18ha in size. It could be considered suitable for a small business park to complement the local market, we do not consider this site to represent an opportunity for strategic employment land development. Its release from the green belt and the very special circumstances which warrant this is a matter for the LDF to consider.

Radlett Aerodrome

- 6.124 Radlett Aerodrome comprises a 145 hectare site located to the south of St Albans, bounded by the A414 to the north, the M25 to the south, the St Albans Abbey-Watford Junction rail line and Park Street, Frogmore to the west and the Midland Main Line to the east. It is a former aerodrome, which was subsequently used for quarrying activity but has been remediated. It is a flat site, but falls within the Green Belt. As such it would need to be promoted through the development plan (which the local planning authority does not wish to entertain) or special circumstances would be required to justify its development.
- 6.125 The site benefits from good road access, with the A414 providing links to both the M25 (Junction 21a), A1(M) (Junction 3) and via the M10 to the M1 (Junction 7). The site has a frontage to both the A414, M25 and Midland Main Line. It is also located between St Albans and Watford, which have the strongest existing office markets.
- 6.126 The strength of the location would warrant consideration of this site amongst others for provision of a premier business park. However it is not included within St Albans Council's emerging Core Strategy, and thus does not have any policy support. Furthermore there is significant local opposition to development.
- 6.127 Delivery of a rail freight interchange has previously been promoted at this location in conflict with local planning policy. This has been rejected by both the local council and the Secretary of State, and subsequently at appeal in the High Court. Neither St Albans BC nor Hertsmeare BC supports its development. Against this context we would attach significant risk to the feasibility of delivery.

Bricket Wood

- 6.128 Land at Bricket Wood lies to the north of the A405 and traverses the M25, east of the intersection with the M1. Many of the issues relating to this site in location and market terms are similar to those considered in regard to the Radlett Aerodrome above.
- 6.129 The site falls within the Green Belt, and is dissected by the M25. It is adjacent to an already overloaded junction and it is considered that achieving suitable access is a key development constraint. Moreover the site suffers from poor public transport accessibility and is remote from rail links.
- 6.130 The site does however benefit from visibility from the motorway network and strategic road access.
- 6.131 While development of the site may provide funding to support upgrading of the layout to M25 Junction 21a, it is considered that the additional traffic demand placed on the A405 is likely to outweigh any benefit. Transport and access issues are considered further in Section 8.

Summary Appraisal

- 6.132 The tables below, provide a summary of the assessment for each site. The first table shows

• Hertfordshire Strategic Employment Sites Study •

how the sites which have been assessed perform against the site assessment criteria bringing together the information discussed in this section of the report¹⁴. Table 6-2 which follows draws together our conclusions on each of the site building on the summary appraisal below.

¹⁴ Bishops Stortford has been excluded from this particular analysis since a site has not been identified, therefore it is difficult to complete the assessment criteria. Instead, please refer to the text in this section.

● Hertfordshire Strategic Employment Sites Study ●

Table 6-1 Performance of Strategic Employment Sites against Criteria

	GSK Cluster	Gunnels Wood, Silkin Plaza	Maylands Business Park	Leavesden Park ¹	Park Plaza /Maxwell Farm	Hatfield Business Park	Watford Junction	Croxley / Watford Business Parks ²	Knebworth Innovation Park	Watford Health Campus	BRE	Harlow North	London Road	Radlett Aerodrome	Brickett Wood	Bishop Stortford
Scale																
(Re)development or expansion potential (scale)	✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓	✓✓✓	✓	✓✓✓	✓	✓	✓	✓	✓✓✓	✓✓✓	✓
Capable of delivery by 2031	✓✓✓	✓✓	✓✓	✓✓✓	✓✓	✓✓✓	✓	✓	✓	✓✓✓	✓	✓	✓	✓	✓	✓
(Potential) Quality																
(Potential to be of) regional/inter-regional/or national significance	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓	✓✓✓	X	✓✓	✓✓	✓✓	✓✓	X	✓✓	✓✓	X
Potential to support sub-regional scale labour catchments	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓✓	✓✓	✓✓✓	X	✓✓	✓✓	✓✓	✓✓	X	✓✓	✓✓	X
Potential to accommodate uses that serve regional/national markets	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓✓	✓✓	✓✓✓	✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓
Market appeal and perception/ or potential	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓✓	✓✓	✓✓✓	✓	✓✓	✓✓	✓✓	✓✓	✓	✓✓	✓✓	✓

● Hertfordshire Strategic Employment Sites Study ●

	GSK Cluster	Gunnels Wood, Silkin Plaza	Maylands Business Park	Leavesden Park ¹	Park Plaza /Maxwell Farm	Hatfield Business Park	Watford Junction	Croxley / Watford Business Parks ²	Knebworth Innovation Park	Watford Health Campus	BRE	Harlow North	London Road	Radlett Aerodrome	Brickett Wood	Bishop Stortford
(Potential) Clear Identity																
Clear focus (e.g. office, manufacturing)	✓✓✓	X	X	✓✓✓	✓✓	✓✓	✓✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓	✓	✓	✓	✓
Quality of floorspace should support large scale/higher value uses	✓✓✓	✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓
(Potential) Fit with Policy																
Accommodate key sectors identified in strategy	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	✓	✓	✓	✓	✓
Accommodate uses that will drive economic growth	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	✓	✓	✓	✓	✓
Offer high levels of access by public transport	✓✓	✓✓	✓	✓	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓	✓	✓✓	✓✓	✓	✓	✓	✓
Consistent with current and emerging policy	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓	X	X	X	X	✓
X Poor fit with assessment criteria																
✓ Low or uncertain fit ✓✓ Medium fit ✓✓✓ Strong fit with assessment criteria																
¹ relates to the Warner Brothers Proposals and ² subject to the Croxley Rail Link – unlikely to meet the majority of the criteria for a strategic site if rail link is not delivered																

6.133 Table 6.2 below, draws together our conclusions on each of the sites considering each type of site in turn (e.g. major business park, strategic mixed use site). Against the site typologies identified, we categorise the existing strategic employment sites as follows:

- Hatfield Business Park, Hatfield – Major Business Park
- Gunnels Wood, Stevenage – Strategic Mixed-Use Employment Site
- Maylands, Hemel Hempstead – Strategic Mixed-use Employment Site
- Watford Town Centre, Watford – Major Town Centre Office Quarter

6.134 While this represents a strong portfolio of sites, our assessment concludes that there is currently no site in Hertfordshire which would meet the definition of a ‘premier business park’ in terms of the scale, profile and quality of product. There is a strategic gap in the quantum and availability of high quality, modern business parks to support inward investment and business retention of blue chip employers. There is a clear rationale for intervention to maximise the county’s economic potential, building on its considerable existing assets.

6.135 On a number of the sites assessed, we consider that it is specific activities and key businesses which take place on these which are of strategic significance, in regard to specific key sectors, rather than the sites themselves which are strategic. These locations do not offer opportunities of a strategic nature for wider business investment or general property market activity. Sites which are of strategic significance to key sectors are:

- GSK, Ware and Stevenage (including Bioscience Campus at Stevenage)
- Building Research Establishment (BRE), Brickett Wood
- Leavesden and Elstree Studios

6.136 There are opportunities for regeneration and/or growth of all of the strategic sites identified above in the period to 2031. This includes proposals for new office quarters at Watford, Stevenage and Maylands.

6.137 A number of locations for new business park development have been assessed. These include. A comprehensive assessment of the potential of these locations is included within Section 8, addressing transport and infrastructure issues as well as their suitability from an environmental and commercial perspective.

6.138 A selected number of opportunities have been identified for delivery of additional strategic employment land provision subject to market demand in order to further develop the sites and premises offer in the period to 2031. These are:

- Park Plaza, Waltham Cross – Potential Premier Business Park
- Knebworth Innovation Park – Potential Science Park
- Regeneration of Watford Business Park (with delivery of the Croxley Rail Link).

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- 6.139 While a number of these sites have no current policy status, and so cannot be regarded as existing sites, we have considered their potential as candidate strategic employment sites to meet future needs.
- 6.140 In addition to the above, Watford Health Campus offers opportunities of strategic significance for the development of the health sector.

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Table 6.2 : Summary Appraisal		
Current Position		Nature & Scale of Future Potential
Premier Business Park	<ul style="list-style-type: none"> None 	
Major Business Park	<ul style="list-style-type: none"> Hatfield Business Park 	<ul style="list-style-type: none"> Prominent Business Park, and closest county comes to Premier Business Park. 16 ha of land remains available for development. Further long term extensions to the site to the west or the north could be considered, which would enable this site to increase its role.
Strategic Mixed Use Employment Site	<ul style="list-style-type: none"> Gunnels Wood 	<ul style="list-style-type: none"> A large (202ha) existing employment site on western edge of Stevenage. Overall the scale of the site supports a wide range of economic activities but there is a need for some reinvestment. A masterplan proposes remodelling Silkin Plaza to create an office hub close to station - the 19ha site is in active use and comprises multiple ownerships. There are also some small sites with development potential (c4ha).
	<ul style="list-style-type: none"> Maylands Business Park 	<ul style="list-style-type: none"> One of the largest employment areas in the region. Mix of uses, ranging from large warehouse/distribution units, industrial units and large office space. A masterplan for the site proposes rationalisation and improvements. There are significant areas with development potential including Maylands Gateway (30ha).
Single User/Sector Strategic Locations	<ul style="list-style-type: none"> GSK Cluster 	<ul style="list-style-type: none"> GSK occupies four sites within or near Hertfordshire. There are also plans for a £37m bioscience park which will provide a hub for small firms within the bio-tech sector. It is the activities on these sites which are strategically significant, supporting the life sciences sector and the bio-science campus will provide potential for an enhanced role.
	<ul style="list-style-type: none"> Leavesden 	<ul style="list-style-type: none"> The site comprises Leavesden Studios, now owned by Warner Brothers, together with MEPC's Leavesden Park office development. A planning application has been submitted for a mixed use development on the remaining land. The site supports strategic activities relating to the creative industries sector and the planned investment will enable an enhanced role. Warner Bros have proposals for investment in the site in developing the studios complex.
Strategic Town Centre	<ul style="list-style-type: none"> Watford Junction 	<ul style="list-style-type: none"> Opportunity for a town centre focused major commercial development subject to market demand. Some limited potential for redevelopment of older office blocks over time, and a current 1 acre site being marketed for refurbishment/redevelopment. The potential for further development of this successful office quarter onto rail lands and the Colonial Way area has been identified and the location may offer the opportunity for a 'in-town' premier business park.
Locations of Potential	<ul style="list-style-type: none"> Park Plaza & Maxwells Farm 	<ul style="list-style-type: none"> Park Plaza North and West and Maxwell Farm – further land (green belt) identified in Core Strategy and LT strategy to attract office-based/high value employment (66ha total). Park Plaza West (40ha) is considered to have potential for a high quality business park development. There is further land available at Park Plaza North (8.55ha) with News International occupying a print works on part of this site. These sites benefit from investor/developer interest. They collectively warrant further consideration for the development of a premier business park.

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<ul style="list-style-type: none"> • Croxley & Watford Business Parks 	<ul style="list-style-type: none"> • Croxley provides a high quality landscaped setting for 640,000 ft² office, good amenities and corporate/HQ occupiers. Watford Business Park which is immediately adjacent is older and more industrial with low environmental quality and vacant plots. Opportunity for progressive upgrading of employment offer across both sites to deliver critical mass with potential for an enhanced role (given Croxley Rail Link proposals). Scale insufficient and mix of uses likely to be too diverse to become a major business park.
<ul style="list-style-type: none"> • Knebworth Innovation Park 	<ul style="list-style-type: none"> • Knebworth Innovation Park represent a potential greenfield site at Stevenage immediately adjacent to, and accessed from, A1(M) Junction 7. The Core Strategy identifies the site for a new high-quality innovation park of c. 65,000 sq.m employment floorspace capable of attracting R&D activities. This site has potential to support strategic activities relating to priority sectors, particularly life sciences (though this may be dependent on a catalyst project).
<ul style="list-style-type: none"> • Watford Health Campus 	<ul style="list-style-type: none"> • Potential for delivery of 13,000 sq.m employment floorspace. There is potential for the site to take on an enhanced role supporting strategic activities relating to the life sciences sector.
<ul style="list-style-type: none"> • Building Research Establishment (BRE) 	<ul style="list-style-type: none"> • Building Research Establishment (BRE) is located on a 72 acre site in St Albans which comprises their own buildings, an Innovation Park which acts as a demonstrator for green building technologies and a cluster of green technology businesses. BRE would like to masterplan and consolidate the site and this provides potential for the site to take on an enhanced role supporting strategic activities relating to the green technologies sector. However there are significant development constraints, including in terms of achieving suitable access.
<ul style="list-style-type: none"> • Harlow North 	<ul style="list-style-type: none"> • A proposed development which would represent a strategic urban extension to Harlow. Potential for 10,000 homes and likely to be some employment potential. The potential for delivery of a major business park here warrants further consideration, however there are significant delivery risks which could prevent any development.
<ul style="list-style-type: none"> • Bishops Stortford 	<ul style="list-style-type: none"> • Located adjacent to M11, mid way between London and Cambridge and immediately adjacent Stansted Airport – the only London airport with space and permission to grow. Currently no site under review but strong transport links suggest that this could provide a potential location for a business park, which is likely to be of sub-regional significance. However, again there are significant delivery risks which could prevent any development taking place.
<ul style="list-style-type: none"> • London Road, St Albans 	<ul style="list-style-type: none"> • A greenbelt site (18ha) in a good location with potential for strong rental values which makes this commercially attractive. Considered in relation to the potential to deliver a local or sub-regional business park. However, there are significant delivery risks which could prevent any development coming forward.
<ul style="list-style-type: none"> • Radlett Aerodrome 	<ul style="list-style-type: none"> • A 145ha site to the south of St Albans. A former aerodrome subsequently used for quarrying but has been remediated. Good accessibility and strong office market. No policy support, green belt location and strong local opposition. Considered in relation to potential to deliver a major or premier business park. However, the delivery risks could prevent any development coming forward.

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	<ul style="list-style-type: none">• Land north of Bricket Wood	<ul style="list-style-type: none">• Green belt land, dissected by M25. Good location and strong commercial market. Considered in relation to potential to deliver a major or premier business park. However, the delivery risks could prevent any development coming forward.
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7. Conclusions

- 7.1 This section draws together the key findings from the preceding sections on the supply and demand for strategic employment sites and considers what this means in terms of conclusions for this study and delivery of an Action Plan. In particular, we consider employment growth scenarios for Hertfordshire in the future (drawing on the key findings of Section 5) and what the implications are for strategic site provision.

A summary of Key Points

- We consider that there are three potential economic growth scenarios for Hertfordshire which are as follows:
 1. **Status Quo Scenario** – assumes the modest growth rate experienced in Hertfordshire in the last ten years is assumed to continue over the next twenty years (equivalent to +4% overall, or +19,900 additional jobs created).
 2. **EEFM Achieved Forecast Growth Scenario** – assumes a 16% growth rate for Hertfordshire over the next twenty years (base case employment forecast) resulting in 79,300 jobs.
 3. **Aspirational Scenario** – applies the Cambridgeshire growth rate of 25% over the next twenty years resulting in a net growth of 122,900 jobs.
- Our report concludes that Hertfordshire has been underperforming compared to its potential and that the county has the assets and strengths necessary to outperform the Status Quo scenario.
- However, there are a number of weaknesses for the county which we feel dictate that the Aspirational Scenario is likely to be unachievable. Therefore, we recommend that Hertfordshire and partners should be seeking to realise the Achieved Forecast Growth scenario and that this represents a sensible basis to plan for future strategic site provision.
- We have considered what the implications of this preferred growth scenario are in terms of sector growth. Key headlines are that the majority of growth is expected to occur in priority sectors identified in this report. Growth is expected in the professional, finance and banking sector (23,100 jobs) and the software and digital sector (4,700 jobs) and the logistics sector (8,000 jobs). Other sectors are likely to be important but may be less significant in terms of jobs (e.g. life sciences, green industries).
- In terms of requirements, it is clear that Strategic Mixed-Use sites such as Gunnels Wood and Maylands are likely to be important in the future in accommodating a broad range of uses. A number of sites will need to enhance their role to support higher value uses, including Hatfield Business Park (potential expansion), Watford Junction (potential for a premier business park role) and Watford / Croxley Business Parks (supporting a range of uses as a sub-regionally significant site).
- Further, there is a clear gap in terms of the provision of a Premier Business Park which can support higher value uses. The broad location at Park Plaza, Waltham Cross at present offers the most potential in this respect subject to market demand.
- Given the need to support cluster development, existing sites which support strategic activities such as GSK Cluster, Leavesden and Elstree will have a role (which could be enhanced). Given predicted growth, there may also be an opportunity for further sites to enhance their role – including BRE (green industries), Watford Health Campus (life sciences) and Knebworth (lifesciences/ R&D).

Possible Scenarios for the Future

- 7.2 In Section 5 of this report, a number of possible employment growth scenarios were considered. Going forward, we conclude that there are three possible employment scenarios for Hertfordshire over the next three years:

- 1) **Status quo scenario:** assumes the same growth rate experienced by Hertfordshire in the last ten years (2% increase). If Hertfordshire performs as it has done in the past, a 4% growth rate can be assumed for the next twenty years. This would result in an additional 19,900 jobs for the county.
- 2) **East of England Forecasting Model (EEFM) forecast growth for Hertfordshire:** assumes a 16% growth rate over the next twenty year period, which is the Oxford Economics base case scenario. If Hertfordshire were to perform as the employment forecasts suggest, this would result in 79,300 additional jobs for the county.
- 3) **Aspirational scenario:** applies the Cambridgeshire growth rate of 25% over the next twenty years. If Hertfordshire were to 'raise its game' considerably and achieve similar growth levels to that expected by its competitors, this would result in an additional 122,900 jobs for the county.

7.3 Below, we consider the extent to which Hertfordshire might be able to achieve each of these growth scenarios, particularly the second and third of these.

1. Status Quo Scenario

7.4 Our research concludes that **Hertfordshire has been underperforming compared to its potential**. This is apparent from the socio-economic assessment which shows that in terms of GVA and employment growth Hertfordshire is behind competitors. This is also clear from the property market assessment and evident in rental values for the county and in terms of Hertfordshire's offer in terms of the portfolio of quality strategic sites relative to competitors such as Berkshire. There are however a number of real **strengths** for Hertfordshire which have not been capitalised upon to date and these present opportunities for the future.

7.5 The **key strengths** for Hertfordshire are as follows:

- Proximity to London with access to significant markets and a large pool of skilled labour. The area also has easy access to the Greater South East, which is home to 21 million people and around 750,000 VAT registered businesses.
- Strong transport connectivity:
 - Air: Luton and Stansted Airports are nearby and Heathrow is close (as close as it is to the Thames Valley)
 - Road: the M1, A1(M), M11 and M25 are all accessible within the county
 - Rail: there are strong commuter links to London, with parts of Hertfordshire only 20 minutes from Kings Cross/St Pancras and the Eurostar. The main rail line to the north is also accessible from Stevenage.
 - Underground: Metropolitan line access to Watford and Three Rivers.
- A strong and dynamic business base:

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- There are a number of sector strengths for the area which provide opportunities for the future (including those considered in more detail below).
- Related to this, there are opportunities to capitalise on the presence of leading firms in key sectors such as Elstree Studios, Leavesden, BRE and GSK. More could be done to build upon these strengths which could in turn attract other inward investment opportunities.
- Many global and UK HQ operations are located in Hertfordshire.
- A business-focused university with opportunities to support key sectors. Hertfordshire is within the golden research triangle of Oxford, Cambridge and Imperial Universities.

University of Hertfordshire

The University of Hertfordshire's history goes back to 1952, when Hertfordshire County Council built Hatfield Technical College on land donated by the de Havilland aircraft company for educational use. There are now 24,500 students at the University.

In 2010/11 the University of Hertfordshire was awarded the Entrepreneurial University of the Year award by the National Council for Graduate Entrepreneurship. This is in recognition of the University's work with under-graduates, graduates and the private sector including activities such as the Graduate Consulting Unit and the entrepreneurial society. Working with Exemplas and UH Ventures, the University has been a provider of the Business Link service.

The university has strengths in a number of the priority sectors which are important to this work.

There are three research institutes including two which are relevant:

- Health and Human Sciences Research Institute (HHSRI) which includes a Clinical Trials Co-ordinating Centre and a Centre for Lifespan and Chronic Illness Research (CLICIR)
- Science and Technology Research Institute (STRI)

In 2006, the University of Hertfordshire purchased a 100,000 ft² biotechnology and chemical Research and Development facility from Roche and in partnership with EEDA has created a biopark on site.

The University has also recently developed the Centre for Sustainable Communities with strengths in planning relating to the sustainable communities agenda, transport and energy strengths.

- Skilled workforce. More than half of Hertfordshire's population is qualified to at least level 3, which compares well to national and regional levels
- Strong quality of life. Much of Hertfordshire is seen as being an attractive location to live

7.6 During our business consultations, firms were asked what they considered to be the strengths of the area and the key points are summarised below. This reinforces the fact that Hertfordshire is generally seen as a good place to do business but more could be done to promote this and to work with existing firms to continue to build their affiliation with the area.

Business perceptions of the key strengths for Hertfordshire and opportunities for the future

- The businesses which we consulted were mainly located in Hertfordshire for historical reasons, with a number of these being located here for many years.
- It is recognised that there are a number of centres of excellence in Hertfordshire. Many firms are leading experts in their field and are nationally and internationally significant.
- The lower costs in relation to labour and premises, particularly relative to London was identified as a particular strength for the area.

- Connectivity to London and elsewhere (e.g. Cambridge) was considered to be a strength and the good transport links by road, rail and air were also important (proximity to ports was also identified as a relative strength).
- Hertfordshire provides an attractive place for people to live and many of the firms reported that they have strong access to a good, skilled workforce (though there are some issues recruiting graduates, semi-skilled and skilled staff).
- Hertfordshire University was perceived to be a good resource to find talent (in particular for the green industries) and many firms reported that they work closely with them to recruit.

7.7 Given the strengths and opportunities which exist, we therefore conclude that **Hertfordshire should look to 'raise its game' and achieve employment growth which is higher** than the status quo and past trends. This is considered in more detail below.

The risk of continuing along the status-quo

7.8 There are a number of **risks for Hertfordshire**, if it chooses not to support a higher level growth than the status quo. Hertfordshire risks losing its competitiveness against other locations such as Berkshire, in economic terms (e.g. as set out in Section 2 the county is under-performing in terms of Gross Value Added). In this way, Hertfordshire could become a less attractive investment proposition.

7.9 Some other locations, including neighbouring areas such as Luton and Central Bedfordshire are investing significantly in making their locations attractive to inward investment, for example through ensuring that there is a good supply of strategic employment sites. In the 2011 budget, the government announced plans for 21 Enterprise Zones¹⁵ to be created in local enterprise partnership areas in England. The first 11 LEPs which could benefit from the initiative have been identified and a further 10 will be announced. At this stage, it is not clear where these will be located and whether they will be in close proximity to Hertfordshire but these locations are likely to compete for investment with the county.

7.10 There is also a risk that levels of out-commuting increase as more people need to travel elsewhere to work, particularly if the population continues to grow at a faster rate compared to employment growth. This would put further strain on transport infrastructure and impacts on sustainability issues.

2. EEFM Achieved Forecast Growth Scenario

7.11 The EEFM achieved forecast growth scenario assumes that employment growth in Hertfordshire could increase by 16% or 79,300 jobs over the next twenty years. This is a significant level of employment growth for the county which is unlikely to be achieved without considerable effort from partners.

7.12 However, given the points made above, with regards to Hertfordshire's underperformance in the past, and the need to raise performance, we feel that this scenario represent a scale of growth that is possible in the future.

¹⁵ Enterprise Zones are about allowing areas with real potential to create the new business and jobs that they need. The core offer is around simplified planning and business rates discounts in Enterprise Zones areas, with the capability to develop innovative roles to address specific local economic challenges.

3. Aspirational Scenario

7.13 The aspirational scenario would require a significant increase in employment equivalent to 122,900 jobs. It is recognised that **Hertfordshire has different locational strengths compared to competitors such as Cambridgeshire** and some weaknesses which are difficult to change and influence. The key factors which may explain Hertfordshire's underperformance in the past are considered below:

- University / Research strengths. Compared to some other successful locations, there is no Tier 1 university such as Oxford, Cambridge and Imperial.
- Unlike other parts of the country, Hertfordshire has a fairly low impact brand and does not communicate a clear USP. The Thames Valley, for example is known as the Silicon Valley and Cambridgeshire is known for its strengths in life sciences.
- The districts have not been joined up to date in terms of their inward investment activities and have varying attitudes towards investment. Some are actively promoting their areas to potential investors and others are perceived as preferring to restrict new investment.
- One of the issues is that there is no one major centre which automatically acts as a focus for investment and instead some areas are 'competing' for investment.

7.14 During our consultations with businesses, we have spoken to them about their views on the strengths and weaknesses of the area. The key points are summarised below. As well as echoing the points made above, firms have referred to some of the wider issues for the area (e.g. housing) which also need to be addressed.

Business perceptions of the key disadvantages of Hertfordshire and areas for improvement

- Some firms felt that partners in Hertfordshire were not doing enough to brand the area and capitalise on some of the area's assets (e.g. as a location for the film industry or as a location which is 'open for business'). Related to this, it was felt that more could be done to encourage clustering (particularly in green technologies).
- Many firms would like to see change (e.g. at Maylands) and would like to be more involved in, for example, LEPs but do not necessarily know how to get involved or feel like the partnership could be more dynamic
- A number of firms reported constraints with regards to expansion or relocation plans, for example some were located close to greenbelt and other issues included difficulties with planning and transport. This could result in some firms considering other locations. It was felt that more could be done from a strategic planning perspective to retain firms, for example by safeguarding land for new developments and being more proactive in responding to planning and transport issues.
- Housing was considered to be a key disadvantage for the area. As well as a lack of family housing and smaller accommodation for graduates, affordability was cited as a key issue. This can result in difficulties recruiting some staff, particularly semi-skilled staff.
- Some locations suffer from issues relating to their image (e.g. Stevenage and Hemel Hempstead) more than others and the offer within some town centres is poor which can make them unattractive to some employees working in the area
- Access to sites by public transport can be an issue for some locations (e.g. Maylands, BBC). Congestion and lack of available parking were also cited as problematic.

7.15 Some of the issues identified above such as the inward investment offer, sites and premises and organisational change can be addressed. Nevertheless, a number of constraints do exist

which are more difficult to influence and Hertfordshire is still some way behind other areas such as Berkshire in terms of its 'overall offer'. We therefore conclude that it is unlikely that **Hertfordshire would be able to achieve the aspirational growth scenario.**

Conclusions on Scenarios

- 7.16 The EEFM Forecast Growth Scenario for Hertfordshire is the **employment growth forecast which we feel is most achievable** and which Hertfordshire County Council and partners should be seeking to achieve. It remains an aspirational scenario set against historic performance. As we set out above, there are a number of strengths to the area which the county could better capitalise on and there are some weaknesses which could be easily addressed with some concerted effort by partners.
- 7.17 As we identify above (the risk of continuing along the status quo), there are significant risks for Hertfordshire if the county continues along the same path as it has done previously.
- 7.18 Below, we consider in more detail what the implications are of the achieved forecast employment growth scenario on the requirement for **strategic sites**.

Implications for the Performance of Sectors

- 7.19 Before we consider the implications in terms of strategic site provision of the EEFM achieved forecast growth scenario, it is important to consider forecast levels of growth in priority sectors. This will inform our advice on the type of site provision required. Below, we draw upon the findings of our research set out in Sections 2 (socio-economic assessment and sector analysis) and Section 5 (sector forecast) of this report and the findings from our business consultations, to conclude on future prospects and requirements for each priority sector in turn.
- 7.20 Hertfordshire has a relative concentration of employment in the **software and digital sector** compared to national levels and whilst employment in the sector declined between 2003 and 2008, there has been an upturn since 2007. The 'business services – computer related' and 'communications' sector is expected to increase by 4,700 jobs to 2031 according to Oxford Economics (OE) forecasts. The software and digital sector also receives the highest level of inward investment. Some firms in this sector which have been consulted indicated that there was an insufficient choice of sites for firms in this sector, with a lack of prestigious business parks. Sufficient quality sites are required to support the growth of this sector and these could be met in part on quality strategic employment sites.
- 7.21 Hertfordshire has a clear strength in the **Life Sciences** sector. There are strong relative concentrations of employment compared to national levels and the sector has been growing in terms of employment in recent years. Pharmaceuticals is a particular strength for Hertfordshire, with twelve of the world's top pharmaceutical companies located in the county. GSK's plan to develop a bio-science park at Gunnels Wood presents an opportunity to attract SME firms and the Watford Health Campus proposals would also provide space for firms in the sector. Economic forecasts suggest that this sector will decline in employment terms but this largely reflects the predicted decline in manufacturing activities, with some activities in this sector such as research and development predicted to increase (though this would not counteract the declines in employment overall). The health sector on the other

hand is forecast to increase in employment terms. Given the county's strengths in life sciences and increasing government support - in recognition of its growth potential and value to the UK economy - there is a strong case for Hertfordshire to provide sufficient sites and premises to support the sector.

- 7.22 The **Advanced Manufacturing** sector in Hertfordshire has been growing in recent years and employment is becoming increasingly more concentrated compared to national levels. Overall, the sector is forecast to decline in Hertfordshire (using 'best fit' sub sectors used by OE forecasts) but there are some parts of the sector which are likely to grow such as R&D and technical testing and analysis relating to manufacturing. Our research has not however revealed any latent demand for sites and premises from firms in this sector. Firms in this sector tend to have very specific requirements and will make significant investments on sites at which they are located which makes it difficult to relocate. Any future provision in terms of sites is likely to be tailored to the specific needs of a particular business in the advanced manufacturing sector and their relocation plans. Our research therefore concludes that there is not a strong case to allocate strategic sites for this sector specifically. However, there is clearly a need to support the future plans of key firms within this sector such as EADS and Johnson Matthey, which provide an important contribution to the economy and to local employment needs.
- 7.23 The **Creative and Media** sector experienced a decrease in employment between 2003 and 2008 (but an upturn from 2007) and there are only average concentrations of employment compared to national levels. It is difficult to examine forecast employment growth for Hertfordshire but figures for the East of England suggest a marginal increase in employment in sub-sectors related to this sector (4,700 jobs across the region). Our experience suggests that firms in this sector are mainly SMEs and that there is a strong focus towards home working and town centre locations. The film industry in Hertfordshire does present an opportunity however and Elstree Studios is currently performing well. The significant investment at Leavesden also presents enormous opportunities. Whilst there are no immediate requirements for strategic sites to support this sector, the council should work closely with Leavesden, Elstree and BBC studios to ensure that the film sector which is important locally is supported and any subsequent space requirements catered for.
- 7.24 Hertfordshire has a relative concentration of employment in the **Green Industries** sector. Employment has declined in recent years but it is felt that this is due to productivity increases as the volume of business units has remained stable. It has not been possible to obtain 'best fit' employment forecasts for this sector. However, there are a number of centre's of excellence in the area such as BRE and Rothamsted Research. Both of these have indicated an interest in creating employment space to support a cluster of SME firms in the green industries sector and BRE are already attracting firms within this sector to their site. However, there are constraints with the existing sites and some government support may be required to help realise any future plans. Any future development within this sector is likely to be concentrated around these centre's of excellence and therefore additional sites are unlikely to be required.
- 7.25 The **Logistics** sector is a significant sector for Hertfordshire despite a decline in employment between 2003 and 2008 and despite lower concentrations of employment in the sector compared to national levels. Nevertheless, economic forecasts suggest that there will be significant employment growth in this sector. Over the next twenty years, the sector is

forecast to grow by around 8,300 jobs in Hertfordshire. The area’s attractiveness stems from the excellent transport infrastructure in the county. Hertfordshire will clearly need to ensure that there is sufficient employment land provision for the additional jobs forecast in the sector.

7.26 Employment in the **Professional, Banking and Finance** sector in Hertfordshire increased between 2003 and 2008 but there are only average levels of employment concentration in this sector compared to national levels. Employment forecasts for the sector are however extremely positive and 22,800 additional jobs are expected to be created in Hertfordshire over the next twenty years. Clearly, with such significant employment growth predicted for the sector, there is a need to ensure that there are sufficient, appropriate sites and premises to meet the needs of the professional, banking and finance sector in the future.

7.27 Table 7.1 below, summarises the level of forecast employment growth predicted for each priority sectors discussed above. This shows that these priority sectors account for around 43,500 of the forecast 79,000 jobs growth forecast.

Table 7.1 : Forecast Employment Growth 2011-2031	
Sector	Forecast Employment Growth
Software and digital	+4,700
Life sciences	+5,000 jobs (inc health)
Advanced manufacturing	+1,500 (taking into account higher value uses)
Creative and Media	Not possible to quantify precisely, but likely to be in the region of +1,200
Green Industries	Not possible to quantify precisely
Logistics	+8,300 jobs
Professional, banking and finance	+22,800
Total of Growth Sectors	+43,500
Total of All Sectors	+79,000

Source: Regeneris Consulting using Oxford Economic Forecasts, Autumn 2010
 Note: due to the way in which the forecasts are compiled, it is not possible to perfectly match data to the priority sectors identified and we have had to rely on ‘best fit’ definitions, which are indicative

Implications for Strategic Sites

7.28 We have also considered the needs of these sectors in relation to sites and premises and the key requirements are set out in the table below. There are some clear observations:

- Existing major business parks will continue to be important, and will need to grow/develop as a result. Businesses in all of the priority sectors except possibly creative industries and logistics are likely to require space on business parks.
- It is unlikely that partners will be able to fully develop this scenario without a new premier business park and wider strategy to develop the County’s offer of sites and premises, particularly in qualitative terms. As the table above shows, a large proportion of employment growth is likely to occur in the professional, banking and finance sector and the software and digital sector. Businesses in these sectors are most likely to wish to locate on a premier business park. Furthermore, it is clear that a premier business park is required to support higher value employment and the growth of this type of activity is a key priority for partners in Hertfordshire.

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- Strategic mixed use locations will be important to deliver on some of the predicted growth within advanced manufacturing and green industries. As the table above shows, the logistics sector is likely to remain important for Hertfordshire in the future and a strategic mixed-use site is an important location for growth in this sector.
- Given the high propensity to cluster in certain growth sectors (creative industries, life sciences etc) then the development of bespoke locations for these industries is likely to be appropriate. Sites which are important to the growth of priority sectors which are strategically significant will be required.

Table 7-2 Sites and Premises Requirements for Key Sectors		
Sectors	Key Requirements including property and site requirements	Type of Sites
Software and Digital	<ul style="list-style-type: none"> • High quality facilities in a prestige location for HQ functions • Access to advanced technologies and University Research for R&D • Low operating costs relative to London becoming increasingly important • Quality work environment • Increased home working is reducing need for space /increasing demand for flexible use of premises 	<ul style="list-style-type: none"> • Premier Business Park • Major Business Park • City/town centres
Life sciences	<ul style="list-style-type: none"> • High propensity to cluster • Access to leading technologies and an innovative environment • Presence of universities, researchers and skilled labour important • Excellent infrastructure and accessibility to labour, customers and markets • Quality work environment • Often require government support 	<ul style="list-style-type: none"> • Premier Business Park • Major Business Park • Strategic Sites • Strategic Mixed-use
Advanced Manufacturing	<ul style="list-style-type: none"> • Close to existing skilled workforce • Generally a large plot required with purpose built premises • Good communications and access to large and growing markets and key customers • Quality work environment • Often require government support 	<ul style="list-style-type: none"> • Strategic Site • Strategic Mixed-use • Major Business Park
Creative Industries	<ul style="list-style-type: none"> • High propensity to cluster • Excellent infrastructure and accessibility to labour, customers and markets • Low operating costs generally important • Access to leading technologies and an innovative environment is important • Presence of HEIs and skilled labour • Quality work environment • Often require government support to grow cluster • Increased home working 	<ul style="list-style-type: none"> • Existing Locations • Town centres • Strategic Sites
Green Industries	<ul style="list-style-type: none"> • High propensity to cluster • Access to leading technologies and an innovative environment is important • Presence of centres of excellence and skilled labour important • Excellent infrastructure and accessibility to labour, customers and markets • Often require government support to grow cluster 	<ul style="list-style-type: none"> • Major Business Park • Strategic Site
Logistics	<ul style="list-style-type: none"> • Close to motorway junction with market access and infrastructure critical • Large sites and purpose built facilities • Cost sensitive 	<ul style="list-style-type: none"> • Industrial estates / local site • Strategic Mixed-use

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Professional, Banking and Finance	<ul style="list-style-type: none"> • High quality facilities in a prestige location for HQ functions • Access to good quality facilities for staff nearby • Appropriate skills availability • Good transport links for staff (including public transport) • Low operating costs becoming increasingly more important • Rapid market access • Quality work environment 	<ul style="list-style-type: none"> • Premier Business Park • Major Business Park (Strategic Mixed-use) • City/town centres
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Source: Regeneris Consulting (drawing upon business consultations), GL Hearn and John Rutherford

Concluding thoughts on Strategic Sites

7.29 We have considered how well the existing portfolio of sites identified in Section 6 can meet the requirements of the priority sectors identified above. The following are the main points:

- **Gunnels Wood** and **Maylands** which have been identified as Strategic Mixed Use sites will remain important strategic sites in supporting the logistics sector as well as the advanced manufacturing and life sciences sector (as well as some business services). In relation to achieving the preferred scenario, these sites clearly have potential but as indicated in Section 6, there are clearly reinvestment needs in order to ensure that they can fulfil their role.
- Both of these sites provide opportunities over time to develop the employment offer, including through delivery of new office quarters – strengthening their economic offer and re-orientating it for the 21st century.
- In order to meet the requirement for Hertfordshire to raise its performance and support higher value employment, there is an opportunity and potential for certain strategic sites to increase their role:
 - **Hatfield Business Park**, there is an opportunity for expansion to support sectors associated with higher value uses such as the professional, banking and finance sector and the software and digital sector.
 - **Watford Junction**, there is potential for expansion and improvement to support further office development.
- In addition to these strategic sites there are a number of sites which support strategic activities. The **GSK cluster** and **Leavesden** areas will have an important role in supporting the life sciences and creative industries sector respectively.
- Given the need to support cluster development around priority sectors such as the life sciences and green industries sector, there is potential for certain other sites to enhance their role and support strategic activities. These include the **Watford Health Campus** (enhancing its role in supporting the life sciences sector), **BRE** (enhancing its role in supporting the green industries sector subject to resolution of infrastructure constraints) and **Knebworth innovation Park** (subject to a major inward investment project in for example life sciences facilitating further development).
- There is also an opportunity at **Watford / Croxley Business Parks** for expansion and improvement to support a broader mix of uses.
- As identified above, there is a clear gap in terms of the provision of strategic sites, since there is no Premier Business Park in Hertfordshire. Under the achieved forecast growth scenario for Hertfordshire, a large proportion of forecast employment growth will result from the professional, banking and finance sector (22,800 jobs) and the software and digital sectors (4,700 jobs). These are most likely to locate on Premier or Major Business Parks. The collection of sites at **Park Plaza**,

Waltham Cross at present appears to offer the greatest potential in this respect.

- A number of other sites have been considered as offering the potential to deliver a major or premier business park but the delivery risks/feasibility issues are so significant that this may be unachievable in the short to medium term. Radlett, Bricket Wood and Harlow North are included in this list. Whilst we recognise the need to support higher value uses at good locations, the deliverability risks may prevent development from coming forward at these locations. However, they should be kept under review as the other sites which have been identified above are progressed.

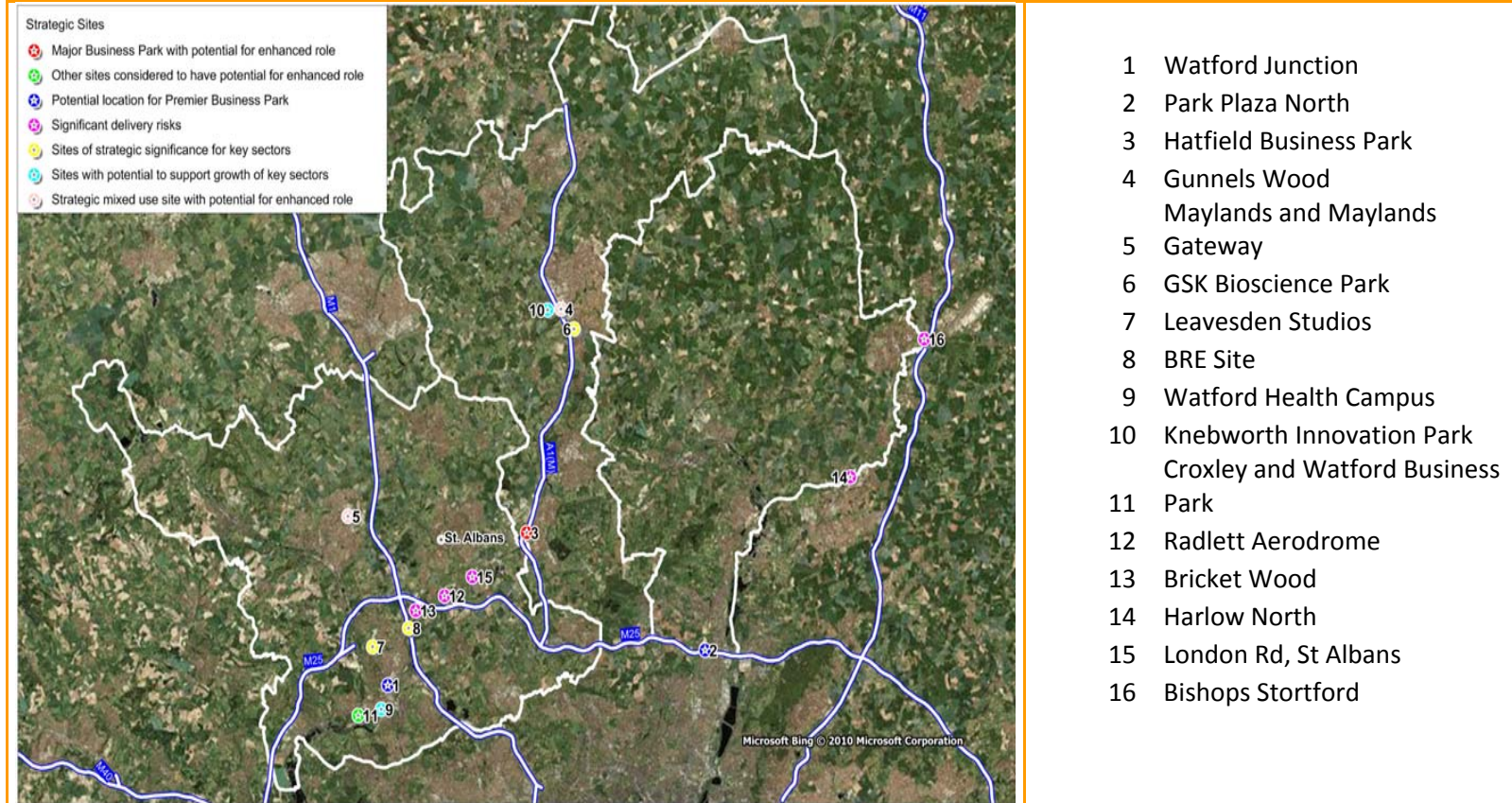
7.30 The location of the sites, together with the classifications are shown in the map below. This shows that we have identified a number of sites in West Hertfordshire and in Central Hertfordshire. Linking back to earlier sections of the report which considers the historic economic and property market performance of the area, together with economic forecasts, this showed strong potential at these locations. Further consideration is given to the implications for each of the three areas within Hertfordshire below.

7.31 **West Hertfordshire** has experienced the largest employment growth over the last ten years (1998-2008) out of the three areas, with employment increasing by 11,200. Furthermore, over the next twenty years employment is expected to increase by 46,400 jobs (again the highest level of predicted growth out of the three locations). The following sites are identified as being important strategic sites in West Hertfordshire: Maylands and Maylands Gateway, Watford Junction, Watford Health Campus, Croxley and Watford Business Park, Leavsdon Studios and the BRE site.

7.32 **Central Hertfordshire** experienced a decline in employment in the last ten years (equivalent to 7,400 jobs) but the area is expected to experience the second highest level of employment growth after West Herts, equivalent to 25,000 jobs between 2011-2031. The following sites have been identified as being important in central Hertfordshire: Gunned Wood, Hatfield Business Park and Knebworth Innovation Park.

7.33 **East Hertfordshire area** experienced an increase in employment of 4,000 jobs in the last ten years but is expected to achieve employment growth of 7,900 jobs in the next twenty years. One site has been identified as being important in the East Hertfordshire area which is Park Plaza. Other sites have been identified (Harlow North and Bishop Stortford) but these have significant delivery/other risks. Partners will therefore need to monitor whether these sites can be bought forward to meet future needs. At these locations (which are more rural in character) it is likely that smaller sub-regional sites will be important. These areas are also likely to be influenced by external factors such as the 'pull' of the Cambridge life sciences sector. Smaller sites in North Hertfordshire referenced earlier in the report (e.g. Royston) will therefore be important.

Figure 7-1: Employment Sites by Category



Source: Regeneris Consulting

- 7.34 It is important to recognise that not all future growth will be accommodated on strategic employment sites. Other sites such as town centre sites, sites (identified in Section 6) which are sub-regionally and locally significant, as well as other locations not identified in this report will meet some of the requirements resulting from the forecast growth under this scenario. It is also worth noting that the forecast decline in employment in some sectors, such as manufacturing, will impact on certain existing sites and potentially create some vacant space. It is difficult to predict with any certainty, the locations which will be most impacted upon and this should be monitored as the Action Plan for Strategic Sites is implemented.
- 7.35 More broadly, to improve the strategic employment sites offer and achieve the forecast employment growth scenario will require both targeted investment in existing sites, to maximise their potential to support economic growth (and particularly key sectors and higher value-added activities), selective expansion of these sites and designation of additional high quality sites, broadening Hertfordshire's sites portfolio in quantitative and qualitative terms.

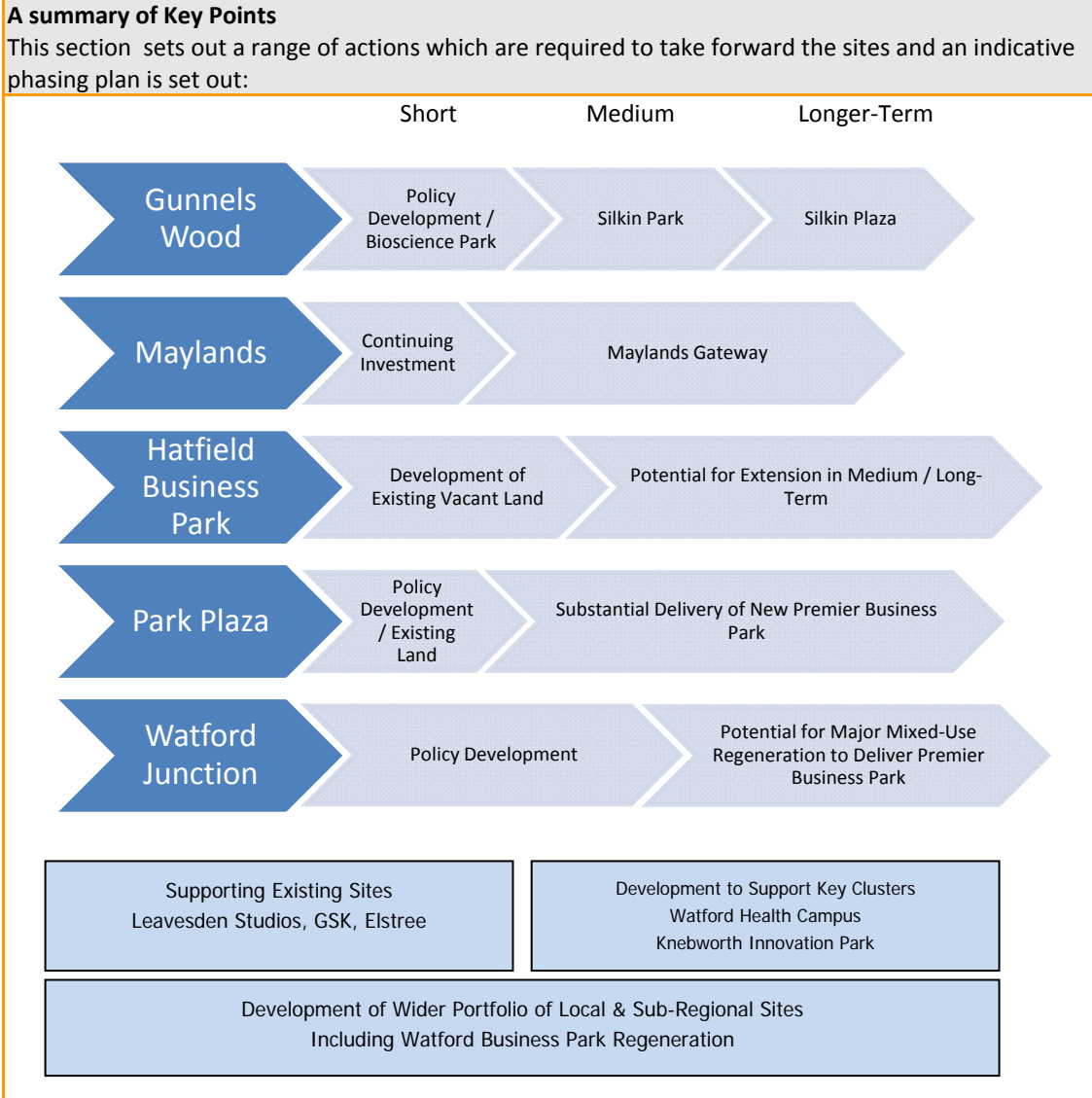
Other Considerations

- 7.36 The next section sets out an Action Plan for taking forward strategic sites which are capable of attracting inward investment and supporting the retention of existing firms. However, it is important to recognise that there are a number of other considerations which will also be important in taking forward the sites and supporting economic growth.
- 7.37 The provision of housing will clearly be important and as we set out in earlier chapter, based on previous estimates (set out in the Draft RSS), in the region of 99,800 homes will be required in Hertfordshire to support employment growth. The provision of transport (both public and private) will also be important in ensuring that sites are attractive to potential occupiers and in addressing issues for existing firms (supporting their retention).
- 7.38 Inward Investment will be important and Hertfordshire will need to be clear about its 'offer' and how it communicates this within the UK and Internationally. An inward investment strategy has been prepared and it is important that Hertfordshire County Council and partners progress this action plan. There is also a need to recognise the importance of existing firms in Hertfordshire, a number of which support employment in key sectors outlined in this document. Both Hertfordshire County Council and District Councils will need to be proactive in working with existing firms to support their retention in the local area (addressing issues of relevance such as transport, concerns over sites and so on).
- 7.39 In this report, we have identified the importance of key sectors and the work which Hertfordshire County Council are carrying out to produce sector strategies for key sectors will be important. The council has recently commissioned sector strategies for the advanced manufacturing sector, the creative industries sector and the life sciences sector and it is important that the actions which are set in these studies are progressed to support and grow key sectors which are important to future employment growth.
- 7.40 The achievement of economic growth requires investment in skills. Hertfordshire is home to a highly skilled workforce, however skills needs are likely to be identified through the sector studies and through other work and it is important that these issues are addressed.

- 7.41 Finally, it is important to recognise the role of smaller sub-regional and town centre sites in meeting future growth needs. It is important that partners work together to review their potential and investment needs and ensure that these complement strategic sites identified in this report.
- 7.42 Above all, partners – Hertfordshire County Council, District Councils and other partners through the LEP – will need to work together to achieve the preferred growth scenario set out in this report. As well as ensuring that there are strategic sites to meet future growth needs they will need to help tackle some of the wider issues and considerations set out here.

8. Emerging Delivery Strategy and Action Plan

8.1 This section sets out a delivery strategy and action plan for the sites which have been identified. A summary of the key points is provided below.



Investing in existing Strategic Employment Sites

8.2 We have defined in this study the following portfolio of existing strategic employment sites/locations in Hertfordshire with opportunities for development and investment to meet the needs of a range of businesses:

- Gunnels Wood, Stevenage
- Maylands, Hemel Hempstead
- Hatfield Business Park, Hatfield
- Watford Junction, Watford

8.3 We have also considered the following sites which have been classified as supporting strategic activities:

- GSK Cluster (including Bioscience Park at Stevenage)
- Leavesden Studios

8.4 Dealing with these six sites first, we consider below their status and future role and function, and identify specific actions which can be taken forward to support investment, employment growth and their continuing success.

1. Gunnels Wood, Stevenage

8.5 Stevenage Borough Council (SBC) has developed a masterplan for Gunnels Wood, and is taking this forward through preparation of an Area Action Plan. The emerging AAP sets out a clear vision for Gunnels Wood to become a high quality, well connected business area with a diverse employment base. We have defined Gunnels Wood as a strategic mixed use site and the emerging AAP accords with this.

8.6 We see the Gunnels Wood's role as continuing to provide an appropriate location for a range of employment sectors, including both small and large companies. However to retain and attract further investment, intervention will be needed to improve the quality of premises, environment/ public realm, amenities and public transport. The emerging AAP recognises and provides an appropriate policy framework for achieving this.

8.7 The emerging AAP seeks to restructure land use, increase the quality of development, environment and public realm, and deliver essential supporting services, public transport improvements and improve pedestrian/cycle routes. It provides a clear steer to the appropriate mix of uses in different parts of Gunnels Wood.

8.8 As we have identified we consider that this strategic mixed use employment site will be particularly suited to the following sectors/uses:

- Lifesciences;
- Advanced manufacturing/ engineering;
- Large warehousing/ distribution (logistics);
- Small-scale/ start-up businesses;
- General manufacturing/ industrial;
- Environmental (green) technologies; and
- Back/ general offices.

8.9 Delivery of the AAP will be important both in supporting retention of existing businesses and inward investment.

Actions

- 8.10 To support continuing investment and success the following actions should be progressed:
- SBC to include detailed design guidance in regard to specific sites either through Gunnels Wood AAP or through site-based development briefs to inform prospective development schemes – ongoing;
 - SBC prepare detailed implementation plan within Gunnels Wood AAP to include clear policy on planning obligations – by end 2011;
 - SBC to work with wider stakeholders, including HCC and the LEP, to identify sources of public and private funding for investment in Gunnels Wood, particularly in addressing public realm and environmental improvements, including through:
 - Implementation of Business Improvement District to support investment in public realm and environment, in consultation with businesses; and/or
 - Establishment of a tariff through a Planning Obligations Policy or the Community Infrastructure Levy.
 - SBC to progress Gunnels Wood AAP (or similar neighbourhood plan depending on the provisions of the Localism Bill) to adoption to provide clear planning policy;
 - SBC to review inward investment and marketing function to ensure dovetails with Hertfordshire-wide function – by end 2011;
 - SBC to work with GSK and wider stakeholders to identify funding support for further phases of Bioscience Campus development – by end 2012;
 - SBC to undertake ongoing engagement and liaison with businesses to support investment and improvement, and with prospective developers through pre-application discussions.
- 8.11 Our review of infrastructure requirements recognises that contributions may be required to support reinforcement of electricity infrastructure to support further development. This is recognised as a risk.
- 8.12 In transport terms, whilst Gunnels Wood is not far from Stevenage mainline railway station (0.5-1km) the site is severed from the railway station and the Town Centre by the A1072. Recommendations relating to improvements in transport (for development both at Silkin Park and Gunnels Wood more widely) would be:
- Revise layout /access so accessibility is improved for all modes and to give the form of a high quality employment location with a sense of place. This could include cycle, walk and public transport corridors;
 - Reduce severance across A1072 through changes to vehicular dominated part of Stevenage, such as through delivery of additional ad grade crossings, and changes to road layout;

- Junction 7 of A1(M) is being upgraded for the GSK expansion and this could provide some opportunities for growth in the short-term, however currently no proposals for capacity improvements on the A1(M) therefore phasing of growth (other than natural turnover) would be best matched to any such widening in the next round of national trunk road schemes over the medium to longer term;
- Could be improved capacity through A1(M) Managed Motorways for hard-shoulder running which could provide some short-term growth potential;
- Need sustainable transport strategy to manage trips at the destination to overcome Highways Agency policy on “nil-detriment” if phasing earlier than projected A1(M) improvements.

Silkin Park, Stevenage

- 8.13 Silkin Park forms part of Gunnels Wood, close to the town centre, and is currently occupied by a mix of uses. It includes two large sites occupied by aerospace occupiers EADS Astrium and Aeroflex.
- 8.14 The emerging Gunnels Wood AAP envisages the redevelopment of this area into a high quality office campus, but expects this to take place post 2021. The proposed timescale recognises (quoting from the draft AAP) that there is no current office market in Stevenage, that the delivery of the town centre regeneration will be necessary to enhance Stevenage as an office location (albeit that the relationship is somewhat reciprocal). The Gunnels Wood AAP also recognises the continued occupation of the Silkin Park area.
- 8.15 The timescale recognises that mixed use redevelopment of the leisure park (the Silkin Plaza scheme) is likely to occur before and provide an impetus to delivery of Silkin Park as the ‘final domino to fall.’ The leisure park redevelopment includes provision of office space as part of mixed use proposals.
- 8.16 Notwithstanding the delivery risks to the town centre scheme and redevelopment of the leisure park as well as the current mix of ownerships and occupiers within the Silkin Park area, it is clear that delivery of Silkin Park is a long-term aspiration. The lack of an existing successful office market in Stevenage will also inhibit delivery, and means that the quality of product and occupiers envisaged on a premier business park are unlikely to be achieved at this location. It is envisaged that the scheme will be particularly suited to the following sectors / uses:
- Back/general offices;
 - Small-scale/ start-up businesses;
 - Creative industries;
 - Professional, banking and finance (over time).
- 8.17 We support the aspiration for delivery in the longer-term of the Silkin Park proposals as part of a wider package of initiatives to support the regeneration of Stevenage. However there are evident delivery challenges, and we consider that in due course public sector

intervention, such as in site assembly, may well be required to create an attractive investment proposition for private sector investment. We concur with the emerging AAP that this site is unlikely to come forward before 2021.

8.18 The following key actions are required to progress the site:

- Progress Gunnels Wood AAP (or an equivalent neighbourhood plan) following adoption of the draft Core Strategy to provide clear long-term planning framework;
- Support delivery of new office floorspace as part of the mixed use Silkin Plaza redevelopment of the leisure park – by 2021;
- Take forward regeneration proposals for the leisure park in conjunction with landowners, including delivery of new office floorspace as part of mixed use redevelopment – by 2021;
- Consider delivery options for Silkin Park in longer-term linked to any investment / disinvestment decisions for key sites. This should include the potential for masterplanning and design guidance;
- Prepare sustainable transport strategy alongside any masterplanning, to include policies for improving quality of access to town centre, improvements to the station gateway and localised highways improvements to provide sustainable connectivity.

8.19 In the preceding section (Gunnels Wood), transport improvements relating to development at Gunnels Wood was addressed more widely.

8.20 The mix of uses and ownerships at Silkin Park may inhibit delivery of a comprehensive redevelopment scheme, unless a number of the key sites in the area become vacant. Should this occur, the Council should consider use of land assembly powers to support a comprehensive redevelopment.

8.21 It is more likely that the area will be developed in a piecemeal way over time. To deliver a high quality office location, the Council will need to provide clear guidance over the design of development and quality of materials and public realm. It should consider undertaking a masterplanning process for the area should key development sites or a number of development opportunities in the area become available.

2. Maylands, Hemel Hempstead

8.22 Dacorum Borough Council (DBC) has developed a Masterplan to support and provide a framework for investment in Maylands (as in the case with Gunnels Wood). The Masterplan provides a long-term vision for Maylands as a green business park, with a high quality of environment together with shops and amenities.

8.23 The Masterplan, which the Council has adopted as a Planning Policy Statement, sets out appropriate uses in each of a number of defined character areas, provides planning and design principles related to these, and provides indicative layouts in terms of the 'Heart of Maylands' project; with advice on phasing provided for the 'Maylands Gateway' scheme. It also provides a movement strategy, and a strategy for investment in green infrastructure. A

delivery strategy is also provided which identifies short and medium priorities and addresses management, branding and funding sources.

8.24 As we have identified we consider that this strategic mixed use employment site will be particularly suited to the following sectors / uses:

- Lifesciences;
- Advanced manufacturing/ engineering;
- Large warehouse/distribution (logistics);
- General manufacturing/ industrial;
- Environmental (green) technologies;
- Back/general offices.

8.25 We see Maylands future as functioning as a mixed use strategic employment site, with upgrading of the space, facilities and environment in line with the masterplan important in maintaining performing in the long-term. Over time there is potential to progressively increase the quantum of office floorspace and improve the quality of floorspace and environment generally. This is addressed further below (see Maylands Gateway). However the site and location is likely to attract continued market demand from industrial and warehouse/distribution uses, given its location and limited alternatives. Maylands continued success may rest on its ability to support and attract a range of employment uses.

8.26 The policy status of the masterplan proposals will be reinforced in time through preparation of an East Hemel Area Action Plan (AAP). Delivery of the AAP will be important both in supporting retention of existing businesses and inward investment. The AAP preparation should be used as a means of reviewing the masterplan, taking account of market dynamics and engagement with businesses and wider stakeholders.

Actions

8.27 To support continuing investment and success the following actions should be progressed:

- DBC should progress its Core Strategy and East Hemel AAP to provide a clear policy framework to support investment at Maylands – by 2013;
- DBC should continue to work to actively market land at Maylands Gateway for development of a high quality business park – ongoing;
- DBC to review implementation strategy for Maylands as part of AAP preparation process in light of changes to funding sources to include clear policy on planning obligations – by end 2011;
- DBC to work with wider stakeholders, including Hertfordshire County Council (HCC) and the LEP, to identify sources of public and private funding for investment in Maylands including improving public transport infrastructure and delivering the green strategy. To be progressed through consideration of potential for:

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- Implementation of Business Improvement District to support investment in public realm and environment, in consultation with businesses; and/or
- Establishment of a tariff through a Planning Obligations Policy or the Community Infrastructure Levy.
- SBC to undertake ongoing engagement and liaison with businesses to support investment and improvement, and with prospective developers through pre-application discussions.

8.28 In transport terms, Maylands, whilst it has been improved through more masterplanning exercises, still has a very traditional road / site layout. It is also some distance from rail (5km) and historically has not been successful in terms of public transport usage. Recommendations to improve transport and accessibility would include:

- Breakspear Way junction improvements to tackle existing congestion constraints;
- Further masterplanning to bring the site up to date in terms of business park layouts to improve sustainable permeability, particularly by bus and cycle given 39% workers live within 5km;
- Improve access to rail with better public transport (bus) offer linked to site wide Travel Plan coordination – there is a sustainable strategy;
- However, focus should be on what it does best, which is distribution and industry type uses, with lower traffic flows in peak periods to reduce impacts on the M1;
- Junctions 7 and 8 widened two years ago but there is little residual capacity. Combining managed motorway improvements with an improved sustainable transport offer could provide some spare capacity for growth or change of use in the short term. Further phasing would require significant improvements to the M1;
- New North East (NE) Relief Road could relieve some local network pressure, but no funding available and would be costly (£10m plus) and would still not potentially satisfy M1 capacity constraints.

Maylands Gateway

8.29 Within the Maylands Gateway area, as identified in the Maylands Masterplan, land fronting Maylands Avenue and Breakspear Park is allocated within the Council's Local Plan (adopted in 2004) for office development. Some areas of land are currently identified as open space. The Council is developing its Core Strategy which will in time replace the Local Plan as well as an East Hemel Area Action Plan. However further guidance on development is set out within the Maylands Masterplan Planning Policy Statement (Sept 2007).

8.30 The Masterplan's ambition is to deliver a first rate business park with some technology sector focus with high quality, sustainable buildings delivered within a green landscape and around a central lake. Delivery of HQ offices and potentially a hotel and conference facilities and potentially a higher education presence is promoted. A separate Development Brief for Maylands Gateway has been prepared.

- 8.31 High quality Grade A space at Maylands Gateway has been delivered in the form of the People Building, which was letting at £20 psf although current values have fallen to around £18 psf over the last 3 years. The People Building was however vacant for a considerable period following its completion in 2003 and build-out of high quality office floorspace has been slow. This illustrates the continuing need for strong public sector support and commitment to the regeneration programme for Maylands.
- 8.32 The masterplan identifies that there is sufficient land at Maylands Gateway to deliver around 110,000 sq.m (GIA) of office space. The location provides strong access to the motorway network. Through delivery of a substantial development scheme there is an opportunity to improve the quality of environment and deliver supporting amenities, and to improve public transport links. It is this collective package of investment that is necessary to support improvement of the product, profile and amenities at this location.
- 8.33 Public sector partners will need to continue to work actively and together to deliver a substantial new business park. Despite having been marketed by the HCA and Borough Council for a number of years the site has not yet attracted a major investor/developer which suggests that the site is less appealing to the international occupiers and corporate HQ office functions than other potential locations within Hertfordshire. Delivery of a significant quantum of office floorspace (100,000 sq.m + as proposed) in the period to 2026 will also need to be carefully phased vis-à-vis wider proposals in West Hertfordshire. Dacorum Borough Council and Watford Borough Council will need to work together, and through the LEP, to consider the relative phasing of development, and differences in the product and marketing strategy, to ensure that both can be successfully brought forward.
- 8.34 The following actions should be taken forward to progress this site:
- Continued work and investment to support delivery of Heart of Maylands to provide local services and amenities - 2011;
 - Undertake traffic modelling to test options and develop an expansion strategy in tandem with development of a masterplan and phasing strategy for development;
 - Assess options for delivering public transport improvements, including consideration of funding sources – by end 2012;
 - Work to identify investor and development partner to support delivery of Maylands Gateway project in medium-term with careful phasing of delivery proposal – ongoing;
 - Liaison between Dacorum BC and Watford BC to consider potential complementarities and phasing of development at Watford Junction and Maylands – ongoing;
 - There is a role for the LEP in bringing together key stakeholders, including DBC and HCC, to implement improvements in environment and transport; and in marketing Maylands – 2011-12.
- 8.35 In our view, delivery of the Maylands Gateway scheme alongside other proposals could result in a theoretical oversupply of employment space in West Herts. To progress the site, a

clear profile and marketing offer will need to be developed. There is however an element to which for instance different sites could appeal to and be targeted at different market segments. This should be considered further as the proposals evolve.

3. Hatfield Business Park, Hatfield

- 8.36 Hatfield Business Park represents perhaps the highest quality existing strategic employment site within the sub-region, and is perhaps the only site which offers a product which is comparable to the key sites identified on the M4 corridor. The former aerodrome site has been developed for a mix of uses, and contains not just business uses but a district centre and leisure facilities. It also benefits from strong strategic road access, from the A1(M), and good bus-based public transport connectivity at a local level.
- 8.37 This is an existing successful business park location, with a high quality environment, good existing occupiers and property offer. There is some remaining development land within Hatfield Business Park with 16 hectares vacant with potential for 895,000 sq.ft of B1 development. In the medium-term we would support consideration of the potential for a moderately sized extension of the site, such as to the north and west.
- 8.38 This site is already relatively successful in delivering sustainable travel, particularly bus links to the railway station. There is still severance from the A1(M), however sustainable accessibility is better than similar sites in Stevenage due to the local road layout and increased connectivity. Further expansion of the Hatfield site would require improvements to A1(M) junctions 2, 3 and 4 as well as a new link road to provide additional capacity and a substantial addition of sustainable travel (such as priority bus routes and cycle links) depending on the scale of development proposed.
- 8.39 The extension of this site would potentially represent a more deliverable option relative to employment development at a number of other locations, and thus could potentially be progressed in the medium-term.
- 8.40 The specific opportunity at this site is to deliver employment development at an existing and established high quality business park in the medium-term, capitalising on the site's established profile and amenities.
- 8.41 The following actions are required to progress development opportunities:
- Consider options for highways improvements to support additional development at Hatfield Business Park including requirement for and feasibility of a link road connection to the local highway network and transport strategy to mitigate impacts on A1(M);
 - Consult with Environment Agency and utilities providers to identify any issues related to electricity and water supply and sewage treatment capacity, particularly capacity of Mill Green WWTW to support further development;
 - Potentially take site forward through identification of area of search or allocation of land through LDF Core Strategy. This could be part of a wider mixed use scheme, including residential;

- Work with landowner/ developer to consider options for extension and develop masterplan to guide future investment in site.

8.42 Any masterplanning process should consider the future organisation of uses on the business park.

4. Watford Junction, Watford

8.43 The opportunity at Watford Junction as we see it would be for a comprehensive mixed use redevelopment scheme of land around the rail station.

8.44 Watford Junction currently has a number of major corporate office occupiers, which indicate the potential of this location which hinges on the town's role effectively as a sub-regional office / commercial centre, and the strength of its transport links (both to London, north and sub-regionally). This could be further bolstered by the Croxley Rail Link. Proximity to the Town Centre is another benefit for office occupiers. As with Silkin Park, this represents a sustainable location for major office development.

8.45 There is demand for high quality floorspace from existing occupiers in fast dating space. As we have set out, rental levels have been more resilient than in other locations in Hertfordshire as a result.

8.46 Unlike other M25 towns such as Reigate and Leatherhead, we have considered whether there is an opportunity for Watford to become a regional office centre. The challenges however are in delivery terms. Recent major office development in the UK within urban areas has focused on city centres. This includes for instance delivery of Allied London's Spinningfields scheme in Manchester, Temple Quay in Bristol or Brindleyplace in Birmingham. However in each case these have required a significant and sustained injection of public monies. In the current funding climate, there seems little opportunity of this now.

8.47 In a number of respects we consider Croydon in South London similar to Watford. It has a number of corporate occupiers, including professional services firms and public sector occupiers who benefit from access to a wide labour market catchment but cheaper rental values than in Central London. Croydon for a number of years has been trying and as yet failed to deliver new Grade A, high density office floorspace despite significant public sector support.

8.48 Development potential is supported by existing infrastructure, however compared to a greenfield location the costs of site assembly are high which may offset this. Thus while there may be an opportunity in the longer-term, likely post 2021 reflecting likely lead in times for planning and site assembly, we consider that this might be a tall order. Delivery would likely require substantial and coordinated public sector support and financial investment over a sustained period.

8.49 Discussions have been taking place with key landowners over a number of years and a project board has been established. The scheme is currently being reappraised following refusal of Department for Transport investment for funding, and new mechanisms for funding infrastructure are being explored.

8.50 The Watford Core Strategy provides an opportunity to consider this further. In reality we

would envisage that delivery of some office development as part of a wider mixed use scheme for the area would be feasible, with this unlikely to achieve the quantum or profile necessary to be regarded as a premier business park/location.

8.51 The following key actions are required to progress the site:

- Identify long-term aspiration for area through Core Strategy – 2011/12;
- Continue work in reassessing feasibility of development and potential funding of infrastructure in conjunction with landowners;
- Undertake soft market testing and consider delivery strategy.

8.52 To support development in the medium/ longer-term it will be necessary to provide clearer development guidelines, such as through the review of the development brief for the area and more detailed masterplanning work.

8.53 Key recommendations for expansion of the site in transport terms would be:

- Provide higher density development close to the railway station to maximise sustainable mode share and links to London;
- Tackle local congestion on Watford High Street and around the town centre, including through considering signalisation;
- Continue to consider feasibility for a new link road access and potential funding solutions.

5. GSK Cluster

8.54 GlaxoSmithKline (GSK) is the largest pharmaceuticals company in the UK and occupies four sites within or near Hertfordshire (Stevenage, Ware and Harlow).

8.55 GSK are currently developing a Bioscience Campus at Stevenage. Occupying a site of 10ha, Phase I of the development of a £37 million Bioscience Park will provide a hub for biotech companies. It is expected to generate 1,500 jobs and support spin-offs and clustering of businesses in the bioscience sector. This is clearly of strategic economic significance for the lifesciences/pharma sector. Thus, our main recommendations for this site are:

- Support GSK activities in Hertfordshire and specifically at Stevenage, which could have potential to strengthen the life sciences sector across the county, potentially supporting spin-off of other activities which themselves generate space requirements. This will be informed by the recent sector study which has been commissioned by Hertfordshire County Council.
- Working proactively with GSK to ensure / support their investment in sites in Hertfordshire (particularly in the light of their recent plans to rationalise their activities and the closure of Pfizer);

6. Leavesden Studios

- 8.56 Leavesden Park comprises Leavesden Studios, now owned by Warner Brothers, together with MEPC's Leavesden Park development which comprises Grade A office buildings. The site provides a limited amount of Grade A office floorspace, but has not performed well and the key issues are a lack of critical mass, amenities and public transport accessibility.
- 8.57 We understand that a planning application has been submitted proposing mixed use redevelopment of the remaining allocated employment land, which does not include further commercial office development. We understand that the Councils are supportive in principle of this.
- 8.58 In this regard and given the lack of existing critical mass of employment at this location, we consider that the site supports strategic activities, related to the creative/film cluster, rather than this being a strategic site in regards to an investment offer.
- 8.59 There are major investment plans at Leavesden Studio's with a £120 million investment planned. They are refurbishing existing studios on the site which will be used for filming (both for Warner Brothers and for existing companies). In addition, they are developing two new studios which will house a Warner Brothers studio tour (incorporating a Harry Potter attraction) and which is expected to attract 5,000 visitors per day.
- 8.60 Leavesden Studios do expect that there will be a requirement for additional space in Hertfordshire to meet the needs of SME businesses which will serve the studio and the wider development. Some firms may wish to be located on site. However, due to existing planning consents the current development is restricted in terms of the footprint which can be developed. This means that from a planning perspective there is insufficient capacity to support additional development on the site. However, the site itself does have capacity and Leavesden Studios would wish to see some additional space provided on site for support services.
- 8.61 There is currently no local centre at Leavesden and provision of additional retail and facilities would be an important consideration in the provision of additional employment uses.
- 8.62 The key actions are as follows:
- The council should support activities at Leavesden Studios and where possible provide support for the development of a creative industries cluster. In particular, the councils should work with Leavesden Studios to review whether there is potential to allow additional support activities on site. Any decision would need to be made by the planning authority (at Three Rivers) and this would involve a review of Green Belt. This would need to be taken forward through the Three Rivers Site Allocations DPD (and subject to resolution of environment impact, transport and detailed consideration of impact on the green belt).
 - At other locations such as Shepperton, media park type developments have developed to maximise local supply chains/ local economic benefits from the investment. This may be one consideration here.
 - Consider the potential for additional activities which can build on and support/develop the film industries in Hertfordshire, building upon the range of activities which exist (including Elstree and BBC Studios). This will no doubt be

considered in the recent sector study commissioned by Hertfordshire County Council.

- We should recognise that it is the tax incentives that are critical to investment in film within the UK, particularly for international studios such as Warner.

Developing the Portfolio of Strategic Employment Land

- 8.63 Having addressed the potential of existing strategic employment locations, we have next considered how the “portfolio” of strategic employment sites might be developed. This considers first the potential for development of existing employment locations which might develop to have strategic significance, before considering the potential of new greenfield (and in most cases green belt) sites.

1. Croxley & Watford Business Parks

- 8.64 Croxley Business Park is fully built out with limited further development potential. The opportunity which exists in this location relates to the potential for regeneration of Watford Business Park, through progressive redevelopment of dated industrial space for higher-value activities. 4.13 ha of vacant land had been identified within the Council’s Employment Land Review which together with vacant floorspace provides potential for 21,000 sq.m of additional employment floorspace. We understand that a further major site has recently become available.
- 8.65 We concur with the findings of the Council’s Employment Market Assessment which identifies the adjacency of Croxley Business Park and particularly prospect of a new Metropolitan Line Underground Station at the Ascot Road roundabout as providing a strong opportunity to deliver high quality office floorspace. The Department for Transport announced on 4th February 2011 that the Croxley Rail Link scheme has entered into the Development Pool of projects. A final funding bid is to be submitted in September 2011.
- 8.66 The area has been identified as a regeneration priority as the Western Gateway in the Council’s draft Core Strategy.
- 8.67 The following actions are required to progress development opportunities (subject to market demand):
- Hertfordshire County Council and other scheme partners should continue to work together to progress funding bid for Croxley Rail Link – 2011;
 - Watford Borough Council should progress the Core Strategy to provide policy support for development – 2011-12;
 - Watford Borough Council to consider undertaking masterplanning exercise to support long-term upgrade and regeneration, identify development opportunities, and provide planning and design guidance should rail link funding be confirmed.
- 8.68 It is considered that the rail link could provide a key impetus to investment in this area. Delivery of high quality new employment space is therefore a medium-term prospect, given that the rail link if brought forward is likely to be operational around 2019/20.

- 8.69 In transport terms, Croxley has similar characteristics to Watford Junction, but traffic can avoid the Town Centre. Recommendations include:
- Expansion would require contribution towards the Croxley Rail link, which DfT have now promoted into the Major Scheme Development Pool. Whilst this does not guarantee funding it is a positive step that an employment site could take advantage of for sustainable travel. Without such a rail link the site is less attractive for any substantial growth. Phasing would need to match delivery of any rail improvements;
 - Measures will be required to mitigate congestion through the local town centres;
 - A rail link adjacent to the development would allow higher densities and a greater amount of floorspace.
- 8.70 Should the rail link be brought forward, we consider that this location does take on an enhanced strategic significance as an employment location within Hertfordshire. The site's scale and existing development means that it is unlikely to achieve sufficient quantum and profile to be regarded as a premier business park.

2. Watford Health Campus

- 8.71 Watford Health Campus provides the opportunity for delivery of 13,000 sq.m of employment floorspace. As with Croxley & Watford Business Parks described above, the delivery of the Croxley Rail Link will provide a notable impetus to the scheme, should it come forward.
- 8.72 This site is considered to provide a significant opportunity to support research & development related activities, including in the lifesciences sector. The development has moved into its delivery phase, and is being taken forward through a partnership approach. In our view the focus of employment development should be on B1b activities related to health. The development is of strategic significance to the lifesciences sector.
- 8.73 However it is recognised that higher value-generating uses, including general office development, may be needed to support scheme viability. This is considered an issue for local policy.

3. Building Research Establishment

- 8.74 The presence of the Building Research Establishment (BRE) in St Albans Borough is a major strength for the county and potentially more could be done to exploit its presence and encourage new investors into the area. As well as the BRE buildings, there is an Innovation Park which acts as a demonstrator for green building technologies and a cluster of green technologies activities is increasingly occurring. This presents a real opportunity to develop a cluster around this centre of excellence. BRE would like to masterplan and consolidate the 72 acre site to improve its efficiency and potentially release parts of the site for redevelopment. However the site falls within an area of countryside and the Green Belt.
- 8.75 The research capability of BRE is a major asset for Hertfordshire and of strategic importance in supporting the potential for growth in green industries. The opportunity to consolidate and improve the BRE site to provide opportunities for clustering and improve the quality of

accommodation could be supported should it be possible to achieve this without harming the Green Belt and that sustainable access can be achieved. Access to the site is particularly problematic, with poor local road connections. Sustainable transport measures are required to improve accessibility. The site could potentially take advantage of rail proposals but road access is challenging and as such a new link road into the site would be required to support any significant development in the longer-term, which we consider might not be appropriate at this location.

8.76 The following actions are required in relation to this site:

- Work with BRE to consider future development options and prospective access improvements to support continuing use of and investment in this site;
- Consider potential for allocation of site for development, taking account of discussions above.

4. Knebworth Innovation Park, Stevenage

8.77 We understand that the site known as Knebworth Innovation Park, which sits adjacent to the A1(M) Junction 7, has been previously promoted for development by the Knebworth House Education and Preservation Trust and Terrace Hill Developments Ltd as a new, high technology employment site.

8.78 Stevenage's Submission Core Strategy makes references to working with North Hertfordshire District Council (NHDC) through the Stevenage and North Herts Action Plan (SNAP) to progress the site. However in light of the Government's intention to abolish the East of England Plan, NHDC has resolved to place work on SNAP in abeyance. North Herts are likely to review housing growth proposals at Stevenage West and this may undermine the rationale for strategic employment allocation on the western side of the A1(M). This is an evident risk to delivery.

8.79 The site falls within the Green Belt and is surrounded by the Knebworth Woods SSSI. Exceptional circumstances would be required to support its removal from the Green Belt. The impact on the SSSI would require mitigation. Improvements in accessibility by sustainable modes would also need to be significantly improved.

8.80 Stevenage does not have an existing office market as we have discussed, we would recommend that priority is given to be given to the Town Centre and Silkin Park within Gunnels Wood to support the regeneration of these areas. An open B1 allocation or consent at Knebworth could prejudice the delivery of these schemes. There are notable examples elsewhere, including Peterborough as well as Basingstoke in the South East where a substantial out-of-town development pipeline has frustrated efforts for delivery of new office space in or close to town centres.

8.81 This report has identified that lifesciences is a key sector within the Hertfordshire economy and we have considered the need for additional employment floorspace to support the sector. The introduction of a patent box will help to support growth in this sector and encourage investment in the UK. Hertfordshire has an acknowledged strength in this sector. However the level of forecast employment growth is not sufficient to support the release of a site with potential for 65,000 sq.m of employment space. It is more likely that it will

support investment by existing companies and creation of spin-off SMEs.

- 8.82 Delivery of an innovation centre or science park of the scale proposed in our view would need to be linked to either an inward investment from a major science/technology company or to a relocation or consolidation of an existing company's operations within the county. A key anchor tenant would be required to support delivery of the Innovation Park as currently envisaged.
- 8.83 In our view, the Study partners should consider safeguarding the site for a major inward investment and B1b research and development activities, and restricting development of B1a office space. However the risks to delivery of office floorspace within Gunnels Wood, as described above, should be recognised. Inclusion of a review mechanism could therefore be considered whereby if delivery of office floorspace at Gunnels Wood is held back, greater flexibility of use at Gunnels Wood might be permitted with certain controls.
- 8.84 The following key actions are required to progress this site:
- Stevenage Borough Council and North Herts District Council to work together to consider continued rationale and support for allocation of Knebworth Innovation Park, and potential mechanisms for jointly progressing;
 - If appropriate, the two Councils should work together and liaise with infrastructure providers to address access issues and infrastructure requirements;
 - Site allocation could be progressed through North Herts Core Strategy with clear guidelines set on appropriate uses but with focus on B1b research and development floorspace, and on parameters for site release and infrastructure contributions;
 - The Councils might wish to consider a mechanism whereby should significant barriers to delivery of office floorspace within Gunnels Wood persist, greater flexibility of use at Kneborth Innovation Park might be permitted;
 - Stevenage Borough Council to take lead on promoting site as opportunity for major inward investment.
- 8.85 In transport terms, this site is similar to Gunnels Wood. Whilst Knebworth Park is not far from Stevenage mainline railway station (0.5-1km) the site is severed from Stevenage railway station and the town centre by both the A1(M) and the A1072. Recommendations would be:
- Reduce severance across A1072 through change to vehicular dominated part of Stevenage (as with Gunnels Wood);
 - Junction 7 of A1(M) is being upgraded for the GSK expansion and this could provide some opportunities for growth in the short-term. However, there are currently no proposals for capacity improvements on the A1(M) and phasing of growth (other than natural turnover) would be best matched to any such widening in the next round of national trunk road schemes over the medium to longer term;
 - This site would compete for capacity on A1(M) with both GSK Stevenage and

Gunnels Wood. It is not likely that all proposed development can proceed at once without significant infrastructure investment. Improvements are likely to be beyond the feasibility of the individual sites viability (i.e. A1(M) widening and junction upgrades). Therefore there is a need to focus on one site in this area combined with specialised employment at GSK Stevenage;

- There could be improved capacity through A1(M) Managed Motorways for hard-shoulder running. This could provide some short-term growth potential but not at a scale sufficient to enable an entire business park;
- There is a need for a sustainable transport strategy to manage trips at the destination to overcome Highways Agency policy on “nil-detriment” if phasing earlier than projected A1(M) improvements;
- Improvements required to support sustainable access across the A1(M) from the site to Stevenage Town Centre and Rail Station, such as a bus priority and cycle/foot bridge over the A1(M) which could cost £10-15m. However unlikely that even the most sustainable transport scenario would overcome any A1(M) capacity constraints to achieve “nil-detriment;”
- The combined impact of development proposals at Gunnels Wood, GSK and this site needs to be considered collectively in regard to the impact on A1(M) Junction 7. It is also understood that the site would require investment to deliver electricity, water and waste water infrastructure across the A1(M). These combined costs impact on deliverability, and have influenced our conclusions relating to this site and its safeguarding for substantial investment linked to a major occupier, rather than gradual incremental development.

Potential for a Business Park

8.86 We have identified through this report that Hertfordshire does not currently have a ‘premier business park.’ A premier business park is defined in this context as one which:

- Appeals to international occupiers and has a regional or national profile;
- Is at an ideal location, close to existing markets and major employment centres;
- Is in close proximity to the motorway network and airports and has strong public transport infrastructure;
- Provides a range of infrastructure, high quality landscaping and amenities on site, and is of sufficient scale to support these.

8.87 This is a strategic gap in the county’s portfolio of sites and affects its ability to compete with other locations, and particularly with the Thames Valley which has a number of sites which would fall into this category.

8.88 National planning policies (as set out in PPS4) are based on a ‘town centres first’ approach to major trip-generating uses such as office development, and promote use of brownfield in preference to greenfield land (as set out in PPS1). From the areas assessed, Watford

Junction and Silkin Park within Gunnels Wood, Stevenage both represent brownfield development opportunities in locations which are close to existing town centres. Both benefit from strong public transport accessibility and are close to rail stations with a fast link into London.

- 8.89 Of the sites considered above, only Watford Junction is considered realistically to provide some potential to provide a premier business park location. There are a number of delivery risks associated with this, as discussed. In this section we therefore consider other locations within the County.
- 8.90 Existing office rents in those towns in Hertfordshire with a stronger office market are currently around £20 psf. This would need to increase to £25 psf plus to make delivery of a substantial business park viable. To achieve this, a well located site will need to be allocated, which provides the accessibility, profile and scale to support rental value growth. In effect a site suitable for delivery of a premier business park needs to be identified.
- 8.91 We consider that a site for a premier business park would need to be capable of delivering at least 1 million sq.ft (90,000 sq.m) of employment floorspace to achieve a regional or national profile and attract investor interest. It must be well located with regard to the strategic road network, and to be successful must have strong public transport accessibility not just to be sustainable but to be commercially successful.

Park Plaza, Waltham Cross

- 8.92 The Park Plaza sites benefit both from a location adjacent to and visible from the M25 and from the availability of a significant quantum of land, taking the remaining land at Park Plaza North and South, and future potential at Park Plaza West. There are few other similar opportunities, or indeed existing business parks, with a location and prominence on the M25.
- 8.93 It is recognised that there are however also a number of challenges for the location. It is further from Heathrow than locations in West Herts, the socio-economics of the immediate catchment are somewhat less strong than in other parts of the County and public transport accessibility would need to be improved.
- 8.94 The attractiveness of the wider site (particularly to the east of the A10) as a location for a high quality campus B1-focused location has also been potentially effected by delivery of the print works and distribution space. The land at Park Plaza West is at a further distance than that to the east of the A10 from Waltham Cross Town Centre and the rail stations.
- 8.95 There is however sufficient land available on at Park Plaza West together with Park Plaza North to deliver a critical mass of B1 development and to create a high quality business park environment subject to market demand. High quality development on the North site will be necessary to provide a strong link between the area and the town centre/ rail stations. It may also be a suitable location at which to deliver a range of supporting amenities, including a higher quality hotel.
- 8.96 Park Plaza West and Maxwell's Farm in particular provide an opportunity, in our view, to deliver a premier business park in the medium and long-term given lead in times, if highways and utilities infrastructure issues can be resolved. It has been identified as an "area of

search” for potential release from the green belt in a submitted LDF Core Strategy, with an area of land of sufficient scale to deliver a high quality, landscaped business park with supporting amenities. It is adjacent to the Theobalds Park De Vere Hotel and Conference Centre, providing additional amenities.

8.97 The deliverability of the site is supported by the fact that there is a now a developer, Commercial Estates Group, seeking to promote a strategic business park on land to the west of the A10.

8.98 It is recognised that substantial investment will be required to deliver improvements to the highways network and public transport accessibility and that further feasibility testing is required to assess the potential of the highways network to support development, to consider utilities investment requirements and infrastructure funding options.

8.99 The following key actions are required to progress the site:

- Progress Core Strategy to identify area of search for major new business park;
- Bring together landowners and investor/developers across all three sites to agree a programme to progress the wider opportunity, and work together potentially through a coordinated masterplanning process;
- Undertake feasibility exercise in coordination with developers/landowners to consider potential highways/access options, landscape and environmental constraints and utilities requirements to support development;
- Work with landowners, developers and infrastructure providers to prepare masterplan to inform planning applications.

8.100 In transport terms, any further expansion in the area will require significant transport interventions. Recommendations would include the following package of measures:

- Requirement for A10 widening and junction upgrades – but need to develop policy status for new A10 access (A10 Route Strategy);
- Requirement for M25 Junction 25 improvements, to include increased circulatory carriageway and widened approaches and possibly a separate A10 flyover (which may be prohibitively costly for any viability);
- Assess development phasings in context of infrastructure needing to be in place;
- Sustainable transport links and strategy required towards town centre and railway station together with measures to reduce the severance caused by the A10 as site distinct from services and facilities – for example a 10-minute frequency bus service could cost around £1m per annum;
- This section of the M25 is between Junctions 23 to 27 is not currently being widened, but is subject to delivering managed motorway status with hard shoulder running to manage existing capacity rather than create new capacity;
- Any site would need to achieve “nil-detriment” however this section is marginally

less congested than the M25 in SW Herts.

- 8.101 In this commission we have undertaken no detailed development appraisals, but in general terms we consider that development of a premier business park at this location in the order of 1,000,000 sq. could look to support the broad transport costs identified, assuming no abnormal development costs or delivery of an A10 flyover. The latter would be prohibitively expensive. Clearly detailed development appraisals will be required in due course, in particular to set out potential cash flow and how “up front” infrastructure would be funded.
- 8.102 To progress this site will proposal would require detailed joint working between Broxbourne Borough Council, Hertfordshire County Council (HCC) and the Highways Agency (HA). A Route Management Strategy would need to be developed for the A10, and the existing junction to Park Plaza North/South upgraded.
- 8.103 To support sustainable access, it will be important that masterplanning across the wider site (both sides of the A10) considers cycle and walking links to Waltham Cross Town Centre/ Station including how the severance issue of the A10 is addressed, as well as public transport measures.

Radlett Aerodrome

- 8.104 Radlett Aerodrome is raised herein in the context of its suitability to accommodate a B1 business park. We recognise previous developer-led proposals for a rail freight depot: this has been considered through the planning system and rejected.
- 8.105 From a commercial perspective we consider that the Radlett Aerodrome site has some virtues. It benefits from good strategic road access to the M25, M1 and A1(M) and is bordered by two rail lines. There is sufficient land available over the 145 hectare site to deliver a premier business park. Plus the site relates well to St Albans and Watford, which arguably have the strongest existing office markets of the sub-region’s towns.
- 8.106 To be brought forward, it is likely that in transport terms the site would require a rail solution to support business park development. Investment would also be required to tackle access onto the local road network and junction upgrades to the M25, together with local highway widening.
- 8.107 Public transport accessibility to this site is less strong than at a number of other locations considered, albeit the site could at significant cost support a parkway rail station. Additional development costs would relate to delivering a suitable drainage system.
- 8.108 The cost of transport infrastructure works could range between £20 – 40 million depending on what junction and link upgrades would be required, and are potentially higher than at a number of the other locations considered.
- 8.109 The site falls within the Green Belt and its development is not supported by either existing or emerging planning policy. In the context of the Government’s localism agenda, without local support we consider that the prospect of delivery of this site is limited at the time of writing. This however will need to be kept under review in the longer-term.

Bricket Wood

- 8.110 Land at Bricket Wood lies to the north of the A405 and traverses the M25, east of the intersection with the M1. Many of the issues relating to this site in location and market terms are similar to those considered in regard to the Radlett Aerodrome above.
- 8.111 The site falls within the Green Belt, and is dissected by the M25. It is adjacent to an already overloaded junction and it is considered that achieving suitable access is a key development constraint. Moreover the site suffers from poor public transport accessibility and is remote from rail links.
- 8.112 While development of the site may provide funding to support upgrading of the layout to M25 Junction 21a, it is considered that the additional traffic demand placed on the A405 is likely to outweigh any benefit.
- 8.113 Notwithstanding the fact that this would represent development within the Green Belt and is not supported by current or emerging planning policy, we conclude that there is very difficult to achieve an appropriate access, and that access arrangements would likely significantly erode the developable area of the site. It would also result in settlement coalescence.

Harlow North

- 8.114 East Herts District Council has consulted on Harlow North as one of a number of options for development within the district. Should the development be progressed, we have considered herein the potential of the location to support strategic employment development. We recognise that the District Council has consistently proposed development at Harlow North.
- 8.115 Should substantial development of Harlow North occur, as proposed within the East of England Plan, additional new employment development could be expected to occur in order to support a sustainable community and commuting patterns. Development of a strategic nature could be brought forward with appropriate transport improvements.
- 8.116 Whilst this site is not fully outlined it could be linked to housing growth. If it was brought forward, the following transport issues are apparent:
- The site would be well located for access to rail so any masterplan would need to focus on rail accessibility and pedestrian and cycle links to the railway station and the town centre;
 - A new M11 junction is likely to be challenging and costly when taken together with a new Harlow North Link Road. Also considerable environmental impacts that would need to be addressed to overcome objections;
 - The A414 is currently being upgraded from Junction 7 of the M11 but this is unlikely to provide sufficient capacity to cater for an additional strategic employment site to the north of Harlow in its entirety. Could be some limited phasing in advance of agreeing further infrastructure;

- Would require measures to improve the A414 through Harlow – ECC and HCC already considering measures for reducing congestion that could benefit some limited employment development;
- Would need joint work with Essex CC on strategies for M11 access (Essex County Council are already progressing work on this).

8.117 We consider that should the development be brought forward through the East Herts Core Strategy a substantial employment component should be included as a coherent high quality business park site for a mix of uses, in addition to employment development within the central area.

8.118 Any *strategic* employment development at this site would likely require delivery of a link road and new M11 junction to the north of Harlow. The Highways Agency currently have an objection to additional junctions on the strategic road network, and HCC would have to work closely with ECC to resolve this. The environmental impact of delivery of a new link road would also have to be addressed. Development would also likely require some upgrading to the sewage and electricity infrastructure. Given the lead-in times, it is realistic to assume that any strategic employment development would be unlikely to come forward before 2021.

London Road Business Park

8.119 We have concluded in Section 6 that the London Road Business Park could be considered suitable for a small business park to compliment the local market, however we do not consider that this site represented an opportunity for strategic employment development. The site falls within the Green Belt. Its 18ha size means that it does not achieve sufficient critical mass to be considered a potential location for strategic employment development. We do not therefore consider it appropriate to further comment on actions to progress delivery.

Bishops Stortford

8.120 The potential for further employment development at Bishops Stortford in our view should be related to the overall growth strategy for the town taken forward as part of the Local Development Framework and the long-term future development of the Airport. A mix of B-class uses could be supported, including advanced manufacturing, food and drink, logistics, and general/ back office activities.

8.121 The potential for employment development could be considered in the longer-term, linked to the opportunity to capture investment related to the development and growth of the airport and to wider housing growth proposals for the town, contributing to infrastructure investment.

8.122 A suitable location would provide a strong connection to the M11 and to Stansted Airport. From a commercial perspective, development to the north of the existing bypass would be an attractive location. In transport terms, development would require consideration of the following points:

- Strategic access would be through the M11 Junction 8, which has been recently

upgraded but capacity still limited for future growth in traffic. BAA Stansted Airport G1 proposals for passenger numbers still not reached. Only G2 (now shelved by Gov't) provided additional junction capacity proposals;

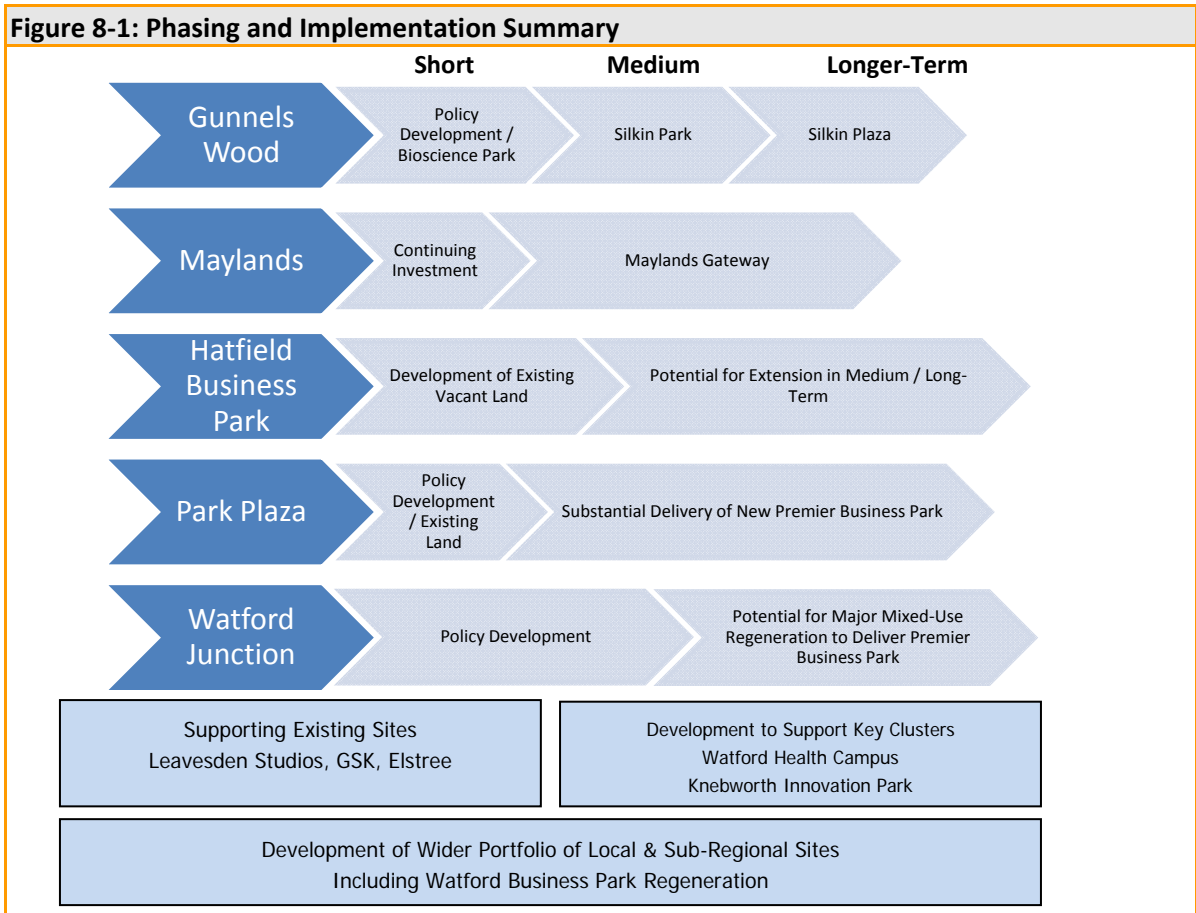
- M11 Junction 8 could be further upgraded but likely to be expensive and challenging due to recent works seeking additional capacity;
- A120 would need dualling west of M11 and any proposals could be linked to Bishop's Stortford North housing to create a mixed use development that reduces commuting distance – hence needs phasing to match;
- Linkages to rail and town centre facilities limited – smaller site could link to Stansted

8.123 Given the scale of the existing settlement, it is likely that further employment development would be of local rather than county-wide significance. We consider that the potential for additional employment development is a matter for the Local Development Framework.

Bringing Forward Strategic Sites

A Summary of Phasing and Implementation

8.124 It is clear that there needs to be some 'product differentiation' between sites and phasing linked to the current status of strategic sites and their future prospects. We consider that the indicative phasing of delivery of sites might be as follows:



- 8.125 Our assumptions on phasing have taken account of the current policy status of proposals, lead-in times for planning, site assembly where appropriate, and delivery of key infrastructure. Clearly they will also be driven by the state of the occupiers market and the commercial attraction of the individual sites.
- 8.126 In the short as well as the medium and long-term, there are continuing opportunities for investment and regeneration within the portfolio of current strategic employment sites – Maylands, Gunnels Wood, Hatfield Business Park, and at Park Plaza North. These are existing allocated employment sites.
- 8.127 In the short-term, work will also need to progress in progressing further feasibility analysis and development of planning policy to develop the portfolio of sites across the County to meet medium and long-term needs. This includes progressing the local authorities' respective LDF Core Strategies, Area Action Plans for Gunnels Wood and East Hemel, and allocations for site proposals including at Park Plaza, Hatfield Business Park and Watford Junction. This is necessary to provide greater planning certainty and support investment.
- 8.128 This will provide a platform from which delivery of development over the medium and long-term can progress.
- 8.129 Recognising the lead-in times to delivery (as opposed to plan led targets), it is likely that Hatfield Business Park, Maylands and Park Plaza North will provide stronger opportunities in the period to 2016 for strategic employment development, with substantial development at Park Plaza West/Maxwells Farm and Silkin Plaza coming on-stream in the medium-term and development at Silkin Park, potentially at Knebworth Innovation Park and at Watford Junction in the longer-term.
- 8.130 Development proposals at Watford Health Campus are progressing and may contribute to supply in the short-to-medium term. Proposals at Watford Business Park are considered to relate to the prospect of delivery of the Croxley Rail Link, and thus most likely to come forward in the medium-term onwards.
- 8.131 Our conclusions regarding the phasing of development should be regarded as indicative and should opportunities arise to bring forward development earlier than identified, this should be supported subject to assessment of relative impacts.
- 8.132 Alongside this, work will need to be progressed in the short-term to coordinate the inward investment offer and marketing, led by the LEP.

Sites with Significant Delivery Risks

- 8.133 Due to a number of factors the following sites are subject to significant delivery risks, which mean that it is not possible to provide a timeframe for development.
- **Radlett:** considered in relation to its potential to accommodate a major or premier business park. However, the site falls within the green belt and is not supported by existing or emerging policy and finally there is unlikely to be local support.
 - **Bricket Wood:** considered in relation to its potential to accommodate a major or premier business park. However, the site falls within the green belt and is not

supported by existing or emerging policy and there are significant issues in relation to transport.

- **London Road:** considered in relation to the potential to support a Business Park of local or sub-regional significance. As well as being located on green belt land and the fact that the site is not supported by current or emerging policy, this site does not offer the critical mass to be regionally significant.
- **Harlow North:** considered in relation to the potential to provide a major business park. There are a number of constraints and development is dependent on residential development coming forward.
- **Bishops Stortford:** considered in relation to the potential to provide a strategic mixed-use development of sub-regional significance. No specific site has been defined and there are many variables which would impact on the ability to bring forward this site (such as further housing development and the expansion of the airport).

Monitoring of the Phasing and Implementation Plan

8.134 As we have set out above, all of the sites which have been identified (excluding those with significant delivery risks) will be required to support the forecast employment growth. There will be a need to review the phasing and implementation plan on a regular basis to ensure that there are sufficient sites available to support employment growth in Hertfordshire.

8.135 In the future, certain factors may change which makes some sites more or less viable or attractive to developers. If this does occur, the implementation plan will need to be reviewed in order to reflect these changes. It may be that other sites (which have not been identified or which we have suggested have significant delivery risks) need to be bought forward at a later date if one or more of the sites identified in the delivery plan cannot be implemented (for whatever reason). Alternatively, some sites (e.g. Knebworth Innovation Park) could come forward sooner and play a more important role if there is strong policy support for development and significant interest from an a developer or occupier.

Over-Arching Actions and Co-ordination

8.136 It is clear from our discussions to date that the delivery of strategic sites in the past has been carried out by individual districts which have a specific focus on the requirements of their district. In the future, there needs to be a more joined up approach to the implementation of strategic employment sites recognising the need to support employment growth in priority sectors and proactively target national and international markets for investment. Hertfordshire County Council – through the Hertfordshire Local Enterprise Partnership (LEP) - must work closely with the ten districts in Hertfordshire to implement this Action Plan. Strong leadership and vision will be required to progress plans for growth and a pro-active approach by all stakeholders. It needs to be clear to investors from outside of the area that Hertfordshire is ‘open for business’.

8.137 Below, we set out a number of actions for partners:

- Key Partners – including Hertfordshire County Council, District Councils and the LEP

– need to give in principle support for the recommendations set out in this report. In particular, there should be agreement of support for the EEFM Forecast Growth Scenario, which indicates the potential for 79,000 jobs by 2031. There needs to be support for progressing the strategic sites identified in this report to support employment growth.

- Partners need to recognise that they will need to work collectively to achieve the recommendations set out in this report. Local authorities are the main enablers through their regulatory role in planning policy and development control. There needs to be recognition that strategic sites will meet employment needs beyond borough boundaries and therefore a joined up approach is necessary and beneficial for the future prospects of Hertfordshire. The findings and recommendations as set out in the Action Plan will need to be incorporated into local planning policy and an approach is required which can allow local authorities to work together collectively to bring forward the following sites across the three parts of Hertfordshire as follows:
 - **West Hertfordshire**¹⁶. The key sites which have been identified include the following: Watford Junction, Watford Health Campus, Croxley and Watford Business Park, Maylands and Maylands Gateway, BRE Site, Leavesden Studios,
 - **Central Hertfordshire**¹⁷. The key sites which have been identified include the following: Gunnels Wood and Silkin Park, Knebworth Innovation Park and Hatfield Business Park.
 - **East Hertfordshire area**¹⁸. The key site which has been identified include the following: Park Plaza.
- Partners should collectively review the potential to promote the sites identified and to examine funding opportunities (e.g. through the LEP) which may be available to support the delivery of key sites identified.
- There needs to be a recognition that high quality sites, which are well designed and attractive to inward investors are important. This will ensure that Hertfordshire has an attractive property offer and differentiates itself from other locations.
- Partners should carry out additional work to identify additional requirements which are required to support employment growth (particularly housing and transport). Existing strategies on housing and transport may need to be updated to take into consideration the recommendations for strategic sites.
- The Inward Investment Strategy should be adopted by partners and progressed in order to secure inward investment and if not considered within this document, the requirements to support the retention of existing firms should also be considered.

¹⁶ The West Hertfordshire area includes: Dacorum, Hertsmere, St Albans, Three Rivers and Watford

¹⁷ The Central Hertfordshire area includes: North Hertfordshire, Stevenage and Welwyn Hatfield

¹⁸ The East Hertfordshire area includes Broxbourne and East Hertfordshire

• Hertfordshire Strategic Employment Sites Study •

- Sector Strategy recommendations as set out in recent studies for the advanced manufacturing sector, the creative industries sector and the life sciences sector, should be progressed to grow key sectors.
- As the strategy is implemented, other considerations to support growth such as skills needs, should also be considered.
- On particular site opportunities, the relevant public agencies should take a lead, over and above their planning roles, to promote sites bringing together potential partners and creating a shared vision for the sites and their delivery.

Corrections to the Report

- 9.1 Following completion of the Hertfordshire Strategic Employment Sites report, some additional comments have been received. In response to these, the following corrections have been agreed and these should be considered when reading the report.
- 1) Paragraph 8.84. The final bullet should read “**Hertfordshire County Council, Hertfordshire Local Enterprise Partnership, Stevenage Borough Council and North Herts District Council** to lead on promoting the site as an opportunity for major investment”
 - 2) Paragraph 8.114. The final sentence should read “We recognise that the District Council has consistently **opposed** development at Harlow North.”
 - 3) Paragraph 8.83. The final sentence which reads as follows should be **removed**: “Inclusion of a review mechanism could therefore be considered whereby if delivery of office floorspace at Gunnels Wood is held back, greater flexibility of use at Gunnels Wood might be permitted with certain controls.”

Appendix A

1. Appendix A is a separate document which includes the following information:

- A more detailed economic baseline to be read in conjunction with Section 2 of this report
- More detail on the economic forecasts, to be read in conjunction with Section 5 of this report
- More detailed analysis of the transport/accessibility issues associated with each of the 16 potential strategic sites reviewed.



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**Appendix A: Hertfordshire
Strategic Employment Sites
Supporting Research**

**A Final Report by
Regeneris Consulting**

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1. Socio Economic Conditions in Hertfordshire

1. This chapter provides an overview of socio economic conditions and recent economic performance in Hertfordshire. The analysis draws on a detailed interrogation of key socio economic datasets and highlights key messages about the structure and performance of Hertfordshire’s economy in relation to key national, regional and local comparator areas.
2. The analysis focuses on trends in wealth generation, labour market conditions and the sectoral structure of the business and employment base and highlights the key strengths and weaknesses of Hertfordshire’s economy.

Hertfordshire Overview

3. Like many areas bordering London, Hertfordshire has seen strong population growth over the past ten years. The 7% population increase between 1999 and 2009 was slightly greater than the national increase of 5% and saw Hertfordshire’s population increase to almost 1.1 million residents (691,000 of whom are working age).

Hertfordshire generates high levels of GVA...

4. Hertfordshire is amongst the UK’s largest economic areas; in 2008 the county’s GVA was £26 billion (the fifth largest contribution in the UK outside of London). The county’s current GVA per head of £24,000 remains markedly higher than the national average of £21,100 and is almost £5,000 per head greater than the average for the East of England.

Table 1-1: GVA 1998 – 2008

	1998		2008		Change 1998 - 2008	
	Total GVA (£ millions)	GVA per head	Total GVA (£ millions)	GVA per head	Total GVA (£ millions)	GVA per head
UK	781,985	13,370	1,295,665	21,100	66%	58%
East of England	65,930	12,440	110,775	19,380	68%	56%
Hertfordshire	15,820	15,570	26,010	24,000	64%	54%
Surrey	16,765	16,120	28,025	25,460	67%	58%
Essex	13,920	10,840	24,250	17,480	74%	61%
Central Beds	4,600	12,470	7,020	17,160	53%	38%
Berkshire	15,240	19,150	26,860	31,900	76%	67%
Buckinghamshire	7,200	15,250	10,965	22,320	52%	46%

Source: ONS Headline GVA and GVA per head at current basic prices.

...but GVA growth is much slower than in comparator areas

5. While Hertfordshire’s GVA has grown by more than £10 million over the past ten years, this 64% increase has not kept pace with regional (68%) or national (66%) GVA growth. Other counties in the East of England (notably Essex) have seen much larger increases in GVA in the same period.
6. Although Hertfordshire’s GVA per head is greater than regional and national averages, the rate of growth over the past ten years has not kept pace with key comparators in the East and South East of England and high growth rates elsewhere have seen comparator areas

● **Hertfordshire Strategic Employment Sites: Appendix A** ●

overtake Hertfordshire on this measure. For example, the large growth in Berkshire's GVA (67%) has seen it increase from £15,200 in 1998 (slightly lower than Hertfordshire's then GVA per head of £15,800) to £31,900 in 2008, almost £8,000 per head more than Hertfordshire's current GVA per head.

Strong economic links with Central and Outer London...

- Hertfordshire is an exporter of labour with a net outflow of just under 36,000 people. The county's location bordering London to the South has brought with it strong economic and transport links to Central and Outer London. Travel to work patterns suggest a strong interdependence between the Hertfordshire and London economies.

Figure 1-1: Hertfordshire Area Context



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- Table 1-2 indicates that the largest outflows of commuters from Hertfordshire are to central London districts (with Westminster and the City of London ranking highest). Ten of the fifteen districts receiving the largest inflow of commuters from Hertfordshire are within London, the remainder are within the East of England region.
- Residents of London boroughs are less well represented amongst those commuting into Hertfordshire. The largest inflows are from within the East of England region with Central Bedfordshire and Luton accounting for the largest proportion. There are some substantial flows from a small number of outer London boroughs including Barnet, Harrow and Enfield.

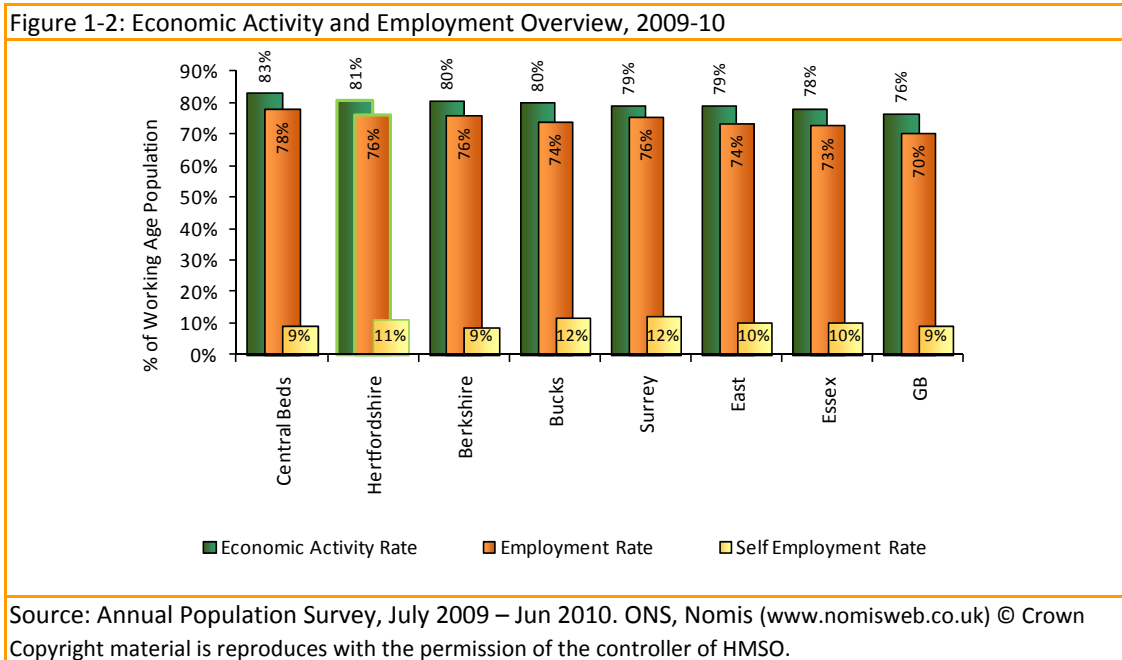
Table 1-2: Overview of Key Travel to Work flows into and out of Hertfordshire

Commuting into Hertfordshire 117,980			Commuting out of Hertfordshire 153,873		
LA of residence	Number	% of in-commuters	Destination LA	Number	% of out-commuters
Central Bedfordshire	18,000	15%	Westminster	16,500	11%
Luton	9,000	8%	City of London	12,900	8%
Barnet	7,400	6%	Barnet	10,300	7%
Harrow	6,000	5%	Enfield	10,100	7%
Enfield	6,000	5%	Camden	9,000	6%
Aylesbury Vale	5,000	4%	Harrow	6,800	4%
Harlow	4,500	4%	Harlow	6,000	4%
Epping Forest	3,900	3%	Luton	5,900	4%
Uttlesford	3,800	3%	Hillingdon	5,700	4%
Hillingdon	3,400	3%	Islington	5,200	3%
South Cambridgeshire	3,300	3%	Brent	4,700	3%
Chiltern	2,900	2%	Central Bedfordshire	4,400	3%
Brent	2,500	2%	Tower Hamlets	3,800	2%
Milton Keynes	2,100	2%	Uttlesford	3,600	2%
Bedford	1,700	1%	Epping Forest	2,700	2%

Source: 2001 Travel Flows (Local Authority) UK Census ONS Nomis (www.nomisweb.co.uk) © Crown Copyright
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A strong and resilient labour market...

10. Levels of economic activity and employment in Hertfordshire are high overall and compare well to national and regional averages; 81% of Hertfordshire’s working age population are economically active (two percentage points greater than the East of England average and four greater than the national average).



11. The employment rate of 76% also compares favourably. Hertfordshire’s strong self employment rate provides a further indicator of the strength of the county’s labour market

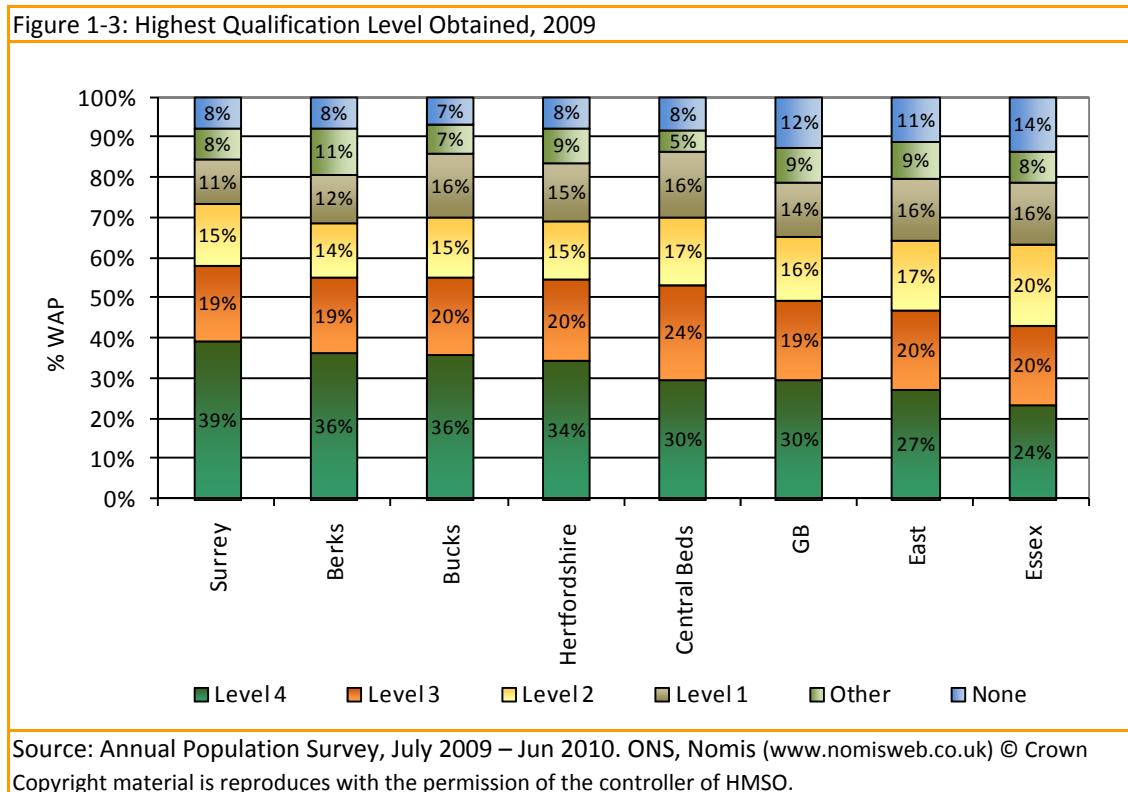
● Hertfordshire Strategic Employment Sites: Appendix A ●

and economy - 11% of the county's working age population are self employed - two percentage points more than the national average.

12. Rates of economic activity and employment have been less badly affected by the recession in Hertfordshire than elsewhere in the country; nationally and regionally, economic activity rates decreased slightly (by 0.5%) between 2008/09 and 2009/10 while there was a slight increase in Hertfordshire in the same period. This apparent resilience is also evident in the relative stability of Hertfordshire's employment rate over recent years; between 2007/08 and 2009/10, the employment rate has decreased by more than two percentage points nationally and regionally. In the same period, Hertfordshire's employment rate decreased by just 1.4%. There have also been signs in the past 12 months that Hertfordshire's employment rate has started to stabilise (decreasing by just 0.2% between 2008/9 and 2009/10 while decreases in excess of one percentage point were evident nationally and regionally).

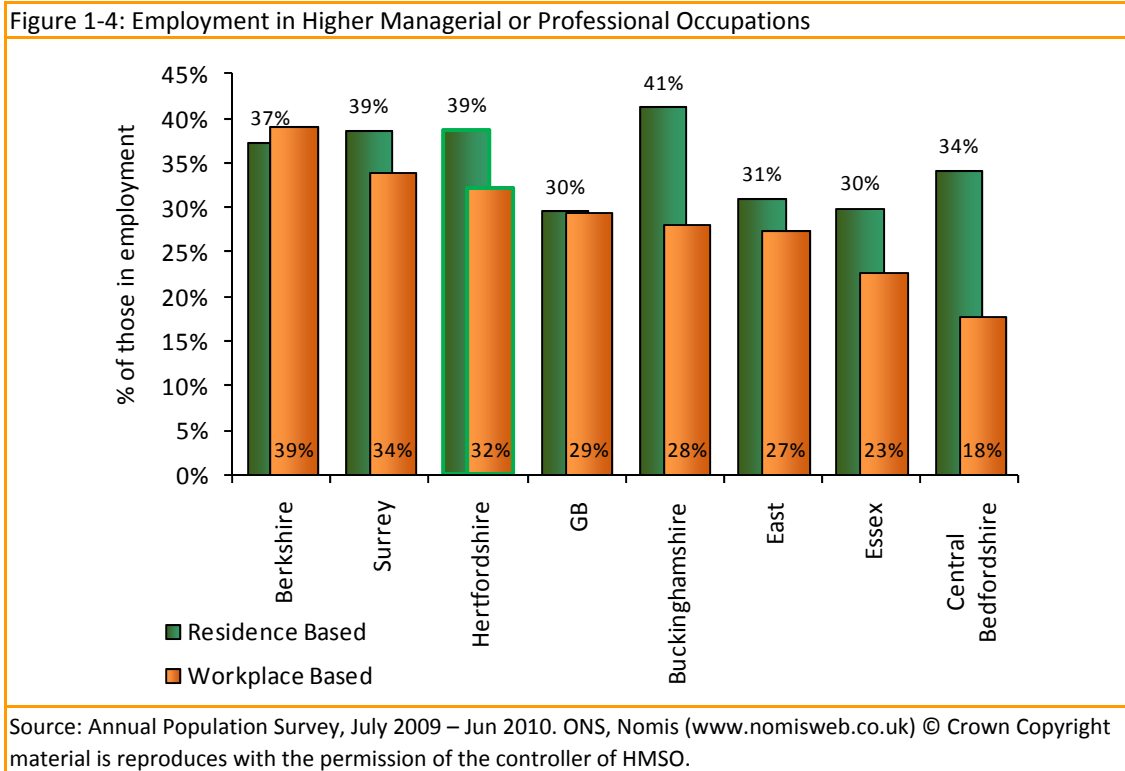
... with evidence of a highly skilled population

13. The skills profile of Hertfordshire residents compares favourably to national and regional comparators and is on par with other similar comparators in the East and South East of England. More than half of Hertfordshire's population is qualified to at least level 3 which compares well to the national level of 47% but is somewhat behind Surrey (58%) and Berkshire (55%).



14. The strong skills profile of Hertfordshire's residents is reflected in their occupational profile; 39% are employed in Higher Managerial or Professional occupations, second only to Buckinghamshire and significantly above the national and regional averages. The proportion of people employed in HMP employment has increased considerably in Hertfordshire over recent years; increasing from 35% of WAP in 2006-07 to its current level of 39%.

15. Figure 1-4 shows that while the proportion of people living in Hertfordshire and working in HMP occupations is particularly high, a much smaller proportion of those working in Hertfordshire are employed in HMP occupations (32%). This suggests a tendency for highly skilled residents to commute out of the county for employment, a characteristic that is common to other comparators including Surrey and (to a much greater extent) Buckinghamshire.



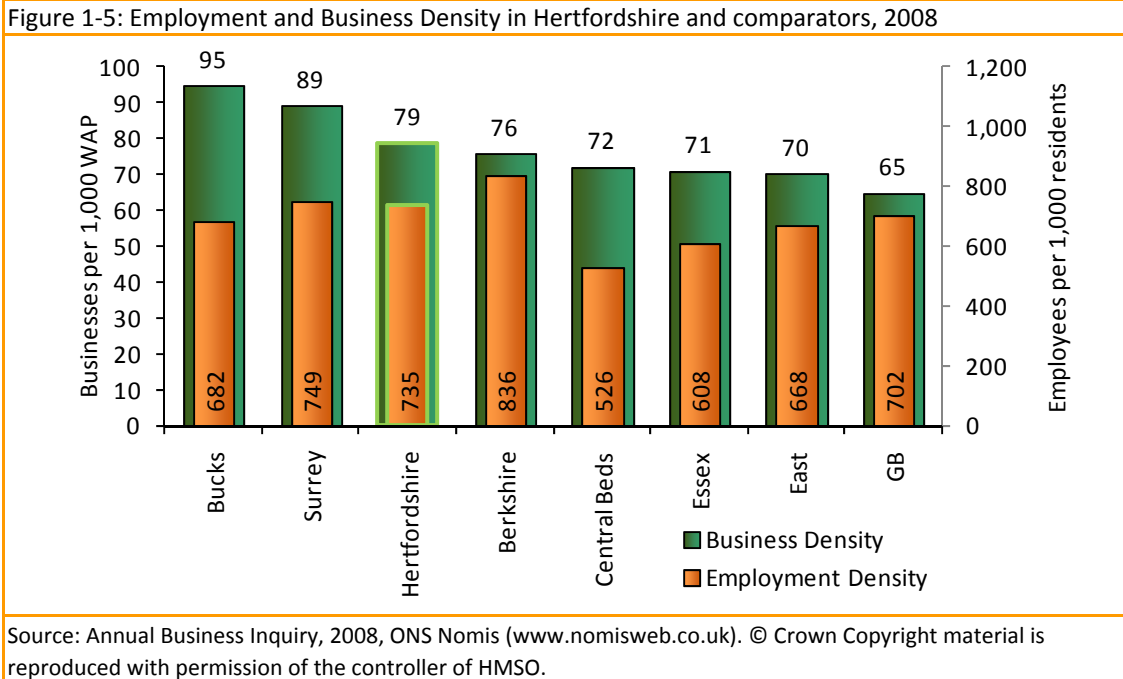
Business Base and Employment

16. The most up to date information about employment levels is available through the Office for National Statistics new dataset the Business Register and Employment Survey (BRES). This dataset has replaced the Annual Business Inquiry as the central source of employment and sector data from 2008. Methodological differences between BRES and ABI mean that there is now a discontinuity in the analysis of employment trends as the two datasets are not comparable.
17. Our analysis of employment in Hertfordshire first provides an up to date snapshot of the sectoral breakdown of the county's employment in 2009 using BRES data and then undertakes a separate analysis of recent trends using ABI data which is available for 1998 to 2008. This analysis of ABI data has been undertaken using 2003 SIC definitions so that sectoral change can be analysed over an adequate timescale. This means that the trend analysis is not fully compatible with the 2009 data presented as the 2003 SIC do not read across fully to the 2007 codes, although given the methodological differences between the two sources, the two sets of analysis should be treated separately in any case.

¹ Methodological differences between the two datasets mean that the 2009 BRES figures should not be compared with the ABI figures and any differences between 2008 ABI stats and 2009 BRES stats can not be considered to be part of observed trends in the ABI data.

High Business and Employment Densities...

18. Hertfordshire’s business density of 79 businesses per 1,000 working age residents is very high in comparison to national and regional levels but remains some way behind key comparator areas of Buckinghamshire and Surrey which have business densities of 95 and 89 businesses per 1,000 WAP respectively. To catch up with Buckinghamshire in terms of business density, and additional 11,000 businesses would need to be formed in Hertfordshire.



19. Hertfordshire’s employment density is also high and second only to Berkshire, which has a particularly high employment density of 836 jobs per 1,000 working age residents. This is more than 100 jobs per 1,000 working age residents greater than that of Hertfordshire.

Trends in Employment

Employment growth has not kept pace with national and regional trends...

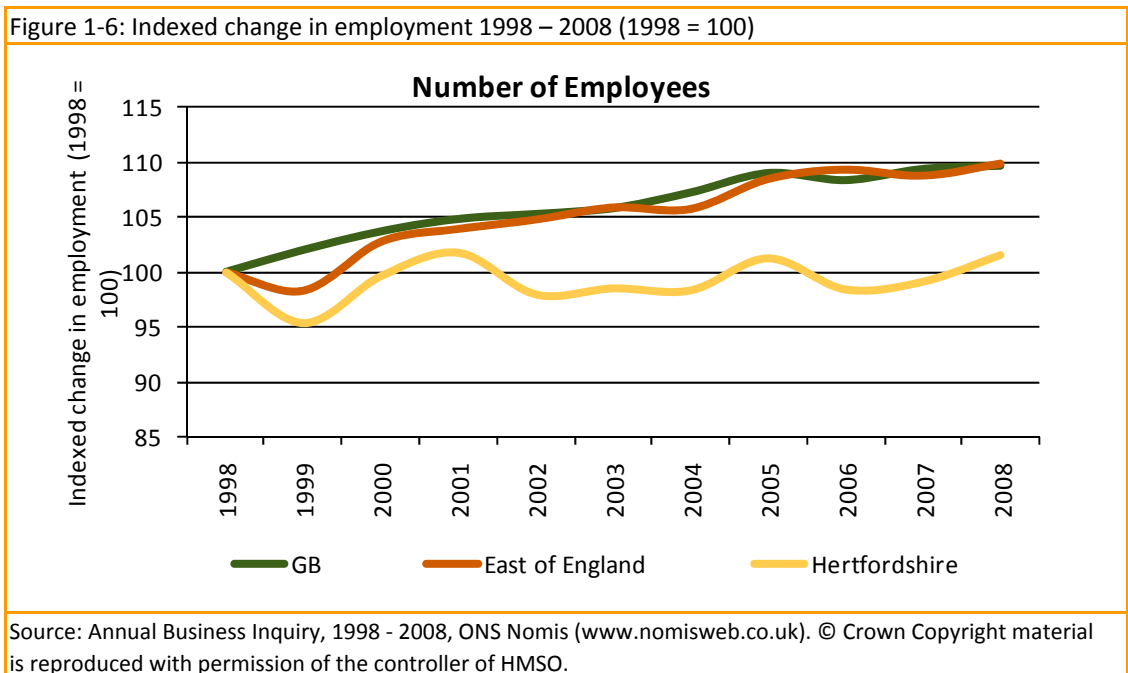
20. In 2008, there were just over 500,000 people employed in Hertfordshire. Growth over the last ten years has been positive (a 2% increase in employment overall) but has not kept pace with employment growth nationally or regionally (both of which grew by 10% in the same period).

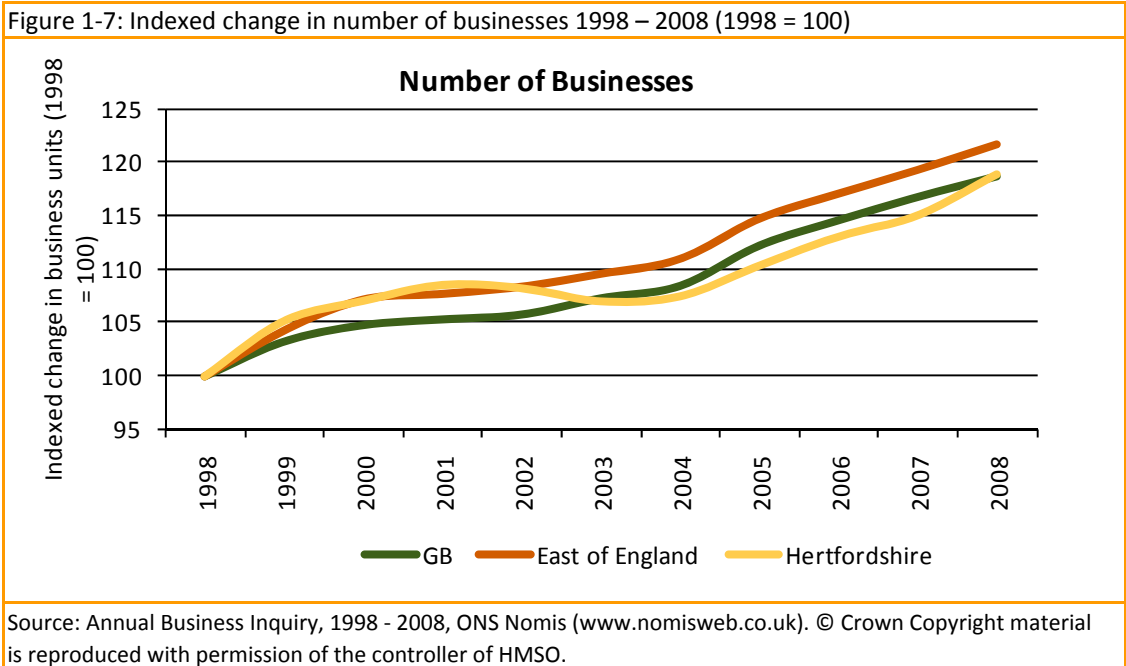
Table 1-3: Business base and employment change 1998 – 2008

	1998		2003		2008		Absolute change 1998 - 2008		% change 1998 - 2008	
	Empl (000s)	Data Units (000s)	Empl (000s)	Data Units (000s)	Empl (000s)	Data Units (000s)	Empl	Data Units	Empl	Data Units
GB	24,144	2,062	25,553	2,212	26,494	2,446	941	234	10%	19%
East of England	2,157	204	2,283	224	2,368	248	85	24	10%	22%
Hertfordshire	496	45	489	49	503	54	14	5	2%	19%
Surrey	477	53	501	56	514	61	13	5	8%	16%
Essex	443	49	507	54	518	60	11			
Berkshire	415	36	454	39	462	42	8	3	11%	18%
Buckinghamshire	208	25	210	27	207	29	-3	2	-1%	17%
Central Beds	80	10	78	10	84	12	6	2	5%	20%

Source: Annual Business Inquiry, 2008, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright material is reproduced with permission of the controller of HMSO.

21. Employment growth rates of other comparator areas have significantly outstripped the rate of employment growth in Hertfordshire, with all comparators except Buckinghamshire growing by at least double the rate of Hertfordshire. This can, to some extent, be attributed to the relatively high baseline level of employment from where Hertfordshire has started, but as Figure 1-6 shows, employment has been relatively volatile in Hertfordshire over recent years and has not followed the strongly positive trends observed nationally or for the East of England as a whole.





22. Growth in the number of business units has been more stable but, as for employment, the increase has been slower than regional and national comparators. The shortfall in growth appears to be attributable to a reduction in the number of businesses in Hertfordshire between 2001 and 2004. In all other years, Hertfordshire’s growth rate has been similar to the national and regional rates and as Figure 1-6 shows, the rate of growth between 2007 and 2008 actually exceeded them.

Wholesale and Retail and Administration and Support are dominant sectors...

23. The sectoral breakdown of 2009 employment figures in Table 1-4 suggests that Hertfordshire’s employment base is weighted towards employment in wholesale and retail and administrative and support services to a greater extent than nationally; more than one in five of the county’s 509,000 jobs are in wholesale and retail and 13% are in administration and support services. The high Location Quotients² (LQs) of these sectors indicate that employment in these sectors is more concentrated in Hertfordshire than nationally.

² The location quotient of sectoral employment in an area is used as a way of analysing the degree of concentration of that sector relative to some benchmark figure, in this case, Great Britain. A location quotient above 1 indicates a higher degree of concentration locally than in the benchmark area.

	Employees 000s	% of total	LQ vs GB
G : Wholesale and retail trade; repair of motor vehicles/cycles	105	21%	1.3
N : Administrative and support service activities	65	13%	1.7
M : Professional, scientific and technical activities	43	8%	1.2
Q : Human health and social work activities	45	8%	0.7
P : Education	45	9%	0.9
F : Construction	31	6%	1.3
C : Manufacturing	35	7%	0.8
I : Accommodation and food service activities	26	5%	0.8
J : Information and communication	24	5%	1.3
H : Transportation and storage	20	4%	0.8
O : Public administration and defence; compulsory social security	18	4%	0.6
K : Financial and insurance activities	14	3%	0.7
S : Other service activities	12	2%	1.2
R : Arts, entertainment and recreation	11	2%	0.9
L : Real estate activities	10	2%	1.2
E : Water supply; sewerage, waste management and remediation	3	1%	0.9
All sectors	509	100%	1.0

Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright Material is reproduced with the permission of the controller of HMSO.

24. The LQ of 1.7 for administrative and support service activities is particularly high and suggests that employment in this sector is substantially more concentrated in Hertfordshire than nationally. Within this broad section, key concentrations of employment are present in the following sectors³:

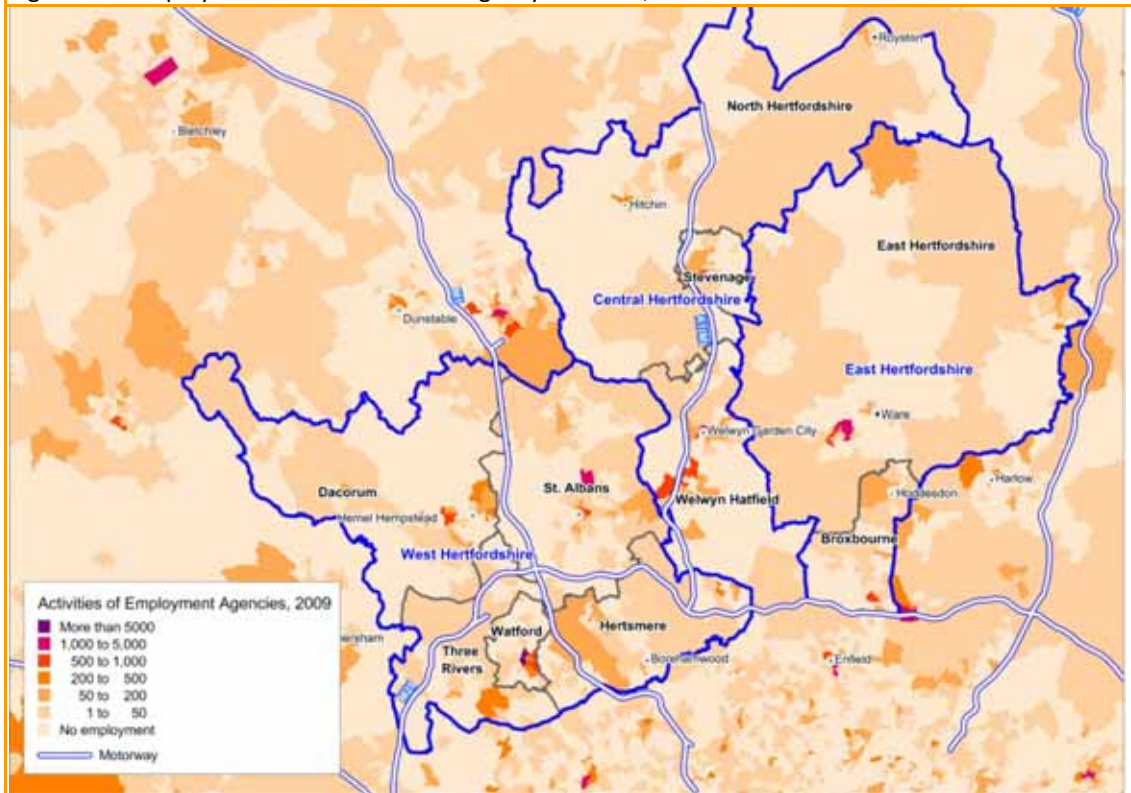
- **Activities of employment and recruitment agencies.** Hertfordshire has a large base of concentrated employment in temporary employment agency activities (26,000 employees / LQ 2.3) and activities of employment placement activities (5,400 employees / LQ 1.9). Together, these two 4 digit SIC categories account for almost 6% of overall employment in the county. Many of these positions are likely to be temporary staff employed by employment agencies but on assignments across a range of sectors. Figure 1-8 shows that although employment in this sector is quite widespread across the county, there is a very particular concentration of employment within a single SOA in Watford (13,000 employees). This, together with the location of a number of HQs of large recruitment consultancies in Watford (e.g. McGinley Ltd and The Kellis Group suggest that much of this temporary employment may be with companies located outside of Hertfordshire.
- **General cleaning of buildings.** Although this is a relatively low value adding sector,

³ More detailed data tables for the sectoral analysis are available in the appendix

● Hertfordshire Strategic Employment Sites: Appendix A●

it provides significant employment in Hertfordshire, accounting for 17,800 of the county's jobs. Hertfordshire is more dependent on employment in this sector than nationally, with an LQ of 2.4.

Figure 1-8: Employment and Recruitment Agency activities, 2009



Source: Business Register and Employment Survey, 2009. ONS, Nomis (www.nomisweb.co.uk) © Crown Copyright Material is reproduced with the permission of the controller of HMSO. Digital Mapping Solutions from Dotted Eyes. Reproduced by permission of Ordnance Survey on behalf of the controller of HMSO © Crown Copyright 2009. All rights reserved. Licence number 10001998

... and Hertfordshire is less dependent on the public sector than elsewhere

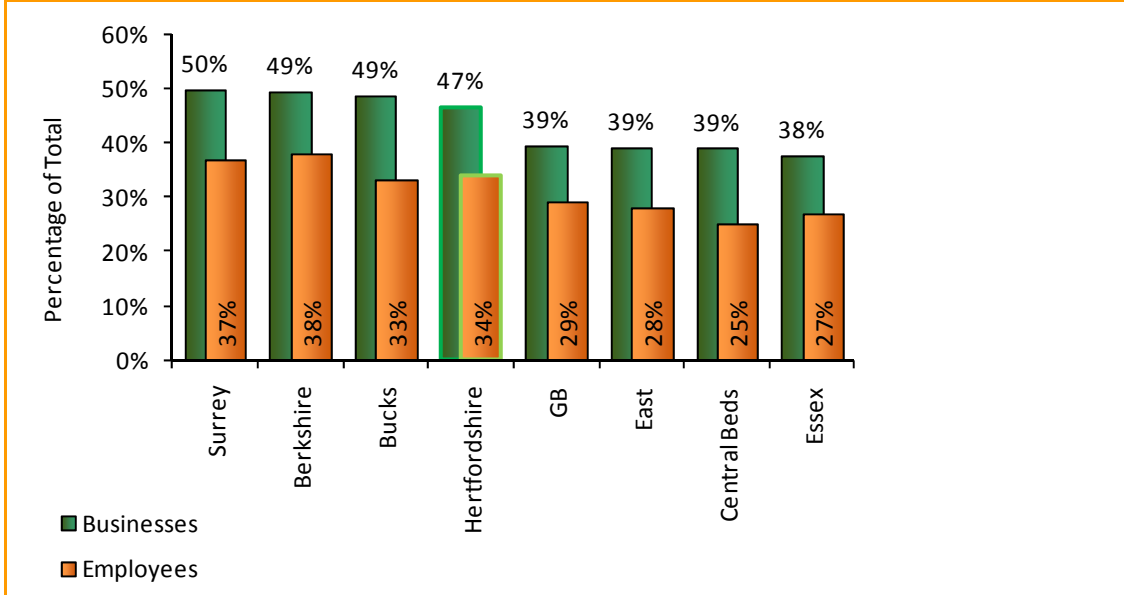
25. Interestingly, the main sources of public sector employment are considerably less concentrated in Hertfordshire than nationally. While human health and social work, education and public administration and defence employ more than 20% of the Hertfordshire total between them, their low LQs mean that in comparison to the national average, Hertfordshire's economy is less dependent on public sector employment. The strong private sector component of Hertfordshire's economy is likely to make the area much less vulnerable to the impact of reduced availability of public funding in the coming years.

Concentrations of employment in knowledge based industries...

26. Almost half of Hertfordshire's businesses and 34% of the county's employees are within sectors that are classed as Knowledge Based Industries (Figure 1-9). This places Hertfordshire's KBI sector well ahead of the national and regional averages, but lagging slightly behind that of Surrey, Berkshire and Buckinghamshire.
27. It is worth noting however that this analysis is based on the 2003 OECD definition of KBIs (see appendix for full SIC breakdown) which does not include some of the more creative sectors that are included in other KBI definitions (e.g. Work Foundation). Because of the

county's large creative sector, the exclusion of these sectors from the OECD definition may disadvantage Hertfordshire slightly in this analysis. However, this definition is widely accepted and internationally comparable and can still provide a helpful indicator of the extent of KBI activity in an area.

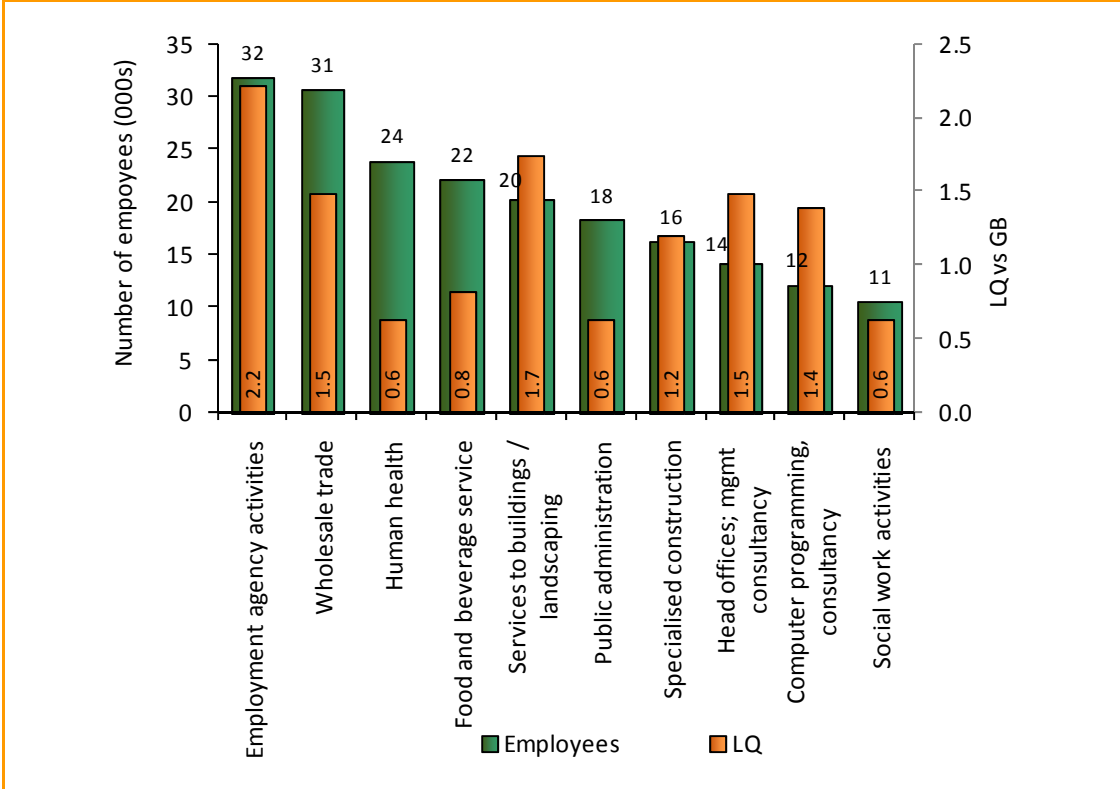
Figure 1-9: Proportion of employment and business units in Knowledge Based Industries, 2008



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28. A considerable proportion (8%) of Hertfordshire's workforce are employed in professional, scientific and technical activities. The relatively high concentration of employment of this type (LQ of 1.2) is an indication that Hertfordshire's economy is providing employment for a highly skilled workforce. At a more detailed sectoral level, notable concentrations of employment within this sector suggest a specialism in research into natural / life sciences. In particular, research and experimental development on natural sciences and engineering has an LQ of 3 and employs 22,000 people across Hertfordshire.
29. Activities of head offices and management consultancies also contribute significantly to the concentration of employment in the professional, scientific and technical activities sector. This sub-sector employs 14,100 people in Hertfordshire and has a high LQ of 1.5.
30. The Information and Communication sector is another example of a knowledge intensive sector with a strong presence in Hertfordshire. Employment in telecommunications is particularly important to the Hertfordshire economy with wired telecommunications activities being a particularly highly concentrated sector (with an LQ of 16.7 and employing 2,200 people). A further 5,600 people are employed in other telecommunications activities with an LQ of 1.5.
31. Motion picture, video and television programme production is a key sub-sector within the Information and Communication section, employing 1,200. The high concentration of employment of this type in Hertfordshire (this sector has an LQ of 1.4) is likely to be related to the location of TV and film studios within Hertfordshire (e.g. Elstree Studios in the South of the county) as well as supply chain companies serving key studios in neighbouring counties (e.g. Pinewood Studios in Berkshire) and London.

Figure 1-10: High volume sectors 2009



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32. Hertfordshire’s relatively large construction workforce (31,000 jobs) also appears to be at the higher skilled / knowledge intensive end of the construction sector; key concentrations in this sector are in the professional and skilled trades including:

- Construction of other civil engineering projects (5,400 people / LQ 2)
- Electrical Installation (6,600 people / LQ 1.5)
- Development of building projects (1,900 / LQ 1.3)
- Plumbing, heat and air conditioning installation (3,200 employees / LQ 1.3)

33. Around 7% of Hertfordshire’s workforce is employed in Manufacturing, a smaller proportion than nationally (with a location quotient of 0.8 suggesting this sector is less important Hertfordshire’s employment base than nationally). There are some key concentrations however, and the highest volume activities appear to be in the higher value, advanced manufacturing area. For example, there are high concentrations of employment in manufacture of weapons and ammunition (which employs 1,700 people and manufacture of pharmaceutical preparations which employs 3,000 people and has an LQ of 5.4.

... with specialisms in Life Sciences and Software and Digital and Green Industries

34. Employment in Life Sciences and Software and Digital industries is particularly concentrated in Hertfordshire. As Table 1-5 shows, more than 10,000 people (2% of the workforce) are employed in Life Sciences in Hertfordshire, double the concentration nationally and regionally and only matched by Berkshire.

● Hertfordshire Strategic Employment Sites: Appendix A ●

Table 1-5: Employees in Priority Sectors, 2009

Sector		GB	East of England	Hertfordshire	Berkshire	Surrey	Essex	Buckinghamshire	Central Bedfordshire
Creative and Media	Number	1044.2	82.2	17.5	16.5	27.3	18.7	9.1	3.4
	%	4%	3%	3%	4%	5%	4%	5%	4%
Life Sciences	Number	181.4	32.3	10.4	7.1	3.7	4.1	2.1	0.6
	%	1%	1%	2%	2%	1%	1%	1%	1%
Software and Digital	Number	598.6	53.8	18.6	46.0	21.4	9.6	7.5	1.8
	%	2%	2%	4%	10%	4%	2%	4%	2%
Advanced Engineering	Number	926.9	102.1	18.6	13.7	17.4	22.1	7.5	3.7
	%	4%	4%	4%	3%	3%	4%	4%	5%
Green Industries	Number	364.5	50.1	10.1	10.9	11.7	8.4	2.7	1.0
	%	1%	2%	2%	2%	2%	2%	1%	1%
Logistics	Number	1212.1	123.2	19.9	17.2	14.8	27.6	4.9	5.4
	%	5%	5%	4%	4%	3%	5%	2%	7%
Prof, Banking and finance	Number	1440.9	97.0	25.0	21.0	37.4	25.0	11.3	2.3
	%	5%	4%	5%	5%	7%	5%	6%	3%

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Note: These figures will differ from those presented in Table 1-8 because they are based on 2009 BRES data. Aside from the methodological differences between BRES and ABI data, the sectors have been defined using 2007 SIC which differs slightly from the 2003 SIC used for ABI data.

35. Software and Digital industries (which includes telecommunications) are also very well represented in Hertfordshire, with 4% of the county’s employment being in this sector. While this is clearly a key concentration for Hertfordshire, employment in this industry is significantly more concentrated in Berkshire, where it accounts for 10% of the county’s total employment.
36. Hertfordshire has a strong employment base in advanced engineering, which employs almost 19,000 people however employment in this sector is not particularly concentrated. Similarly, employment in the Creative and Media sector is significant in volume, but does not represent a sector specialism for Hertfordshire. Conversely, Green Industries and Environmental consultancy represents a key specialism relative to the national average (the LQ of the sector is 1.4) but employment is much lower volume; the 10,100 employees in this sector represents 2% of Hertfordshire’s employment base.

Sources of Employment Growth

37. Overall, employment in Hertfordshire grew by 2% between 1998 and 2008, significantly behind the national growth rate of 10% in the same period. Table 1-1 provides an overview

	GB			Hertfordshire		
	Number of employees 2008 (000s)	Absolute change 1998 – 2008	% change 1998 - 2008	Number of employees 2008 (000s)	Absolute change 1998 – 2008	% change 1998 - 2008
Education	2,485	624.2	34%	45	9.3	26%
Construction	1,269	160.8	15%	31	8.1	35%
Recreation, culture and sport	751	189.6	34%	14	4.1	43%
Health and social work	3,282	762.5	30%	45	4.1	10%
Retail trade	2,792	163.2	6%	62	2.9	5%
Real estate activities	511	206.5	68%	9	2.2	31%
Other business activities	3,490	920.9	36%	88	2.2	3%
Public admin	1,441	74.8	5%	16	1.8	13%
Other service activities	338	64.2	23%	7	1.1	20%
Hotels and restaurants	1,802	238.5	15%	29	1	4%
Supporting and aux transport	464	135	41%	7	0.9	15%
Sewage and refuse disposal	117	12.7	12%	2	0.7	54%
Auxiliary to financial intermediation	324	117.8	57%	5	0.7	17%
W'sale and commission trade	1,115	-34.3	-3%	30	0.7	2%
Agri, hunting and related	71	23	48%	1	0.6	78%
Research and development	112	15.9	17%	6	0.6	11%
Manuf wood, cork & straw prods	69	-14.3	-17%	1	0.2	24%
All sectors	26,493.6	2,349.3	10%	503.4	7.8	2%

Source: Annual Business Inquiry, 2008, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright material is reproduced with permission of the controller of HMSO.
 Note: All sectors employing more than 500 people with above Hertfordshire average growth rate (2%) between 1998 and 2008

Limited growth in Knowledge Based Industries...

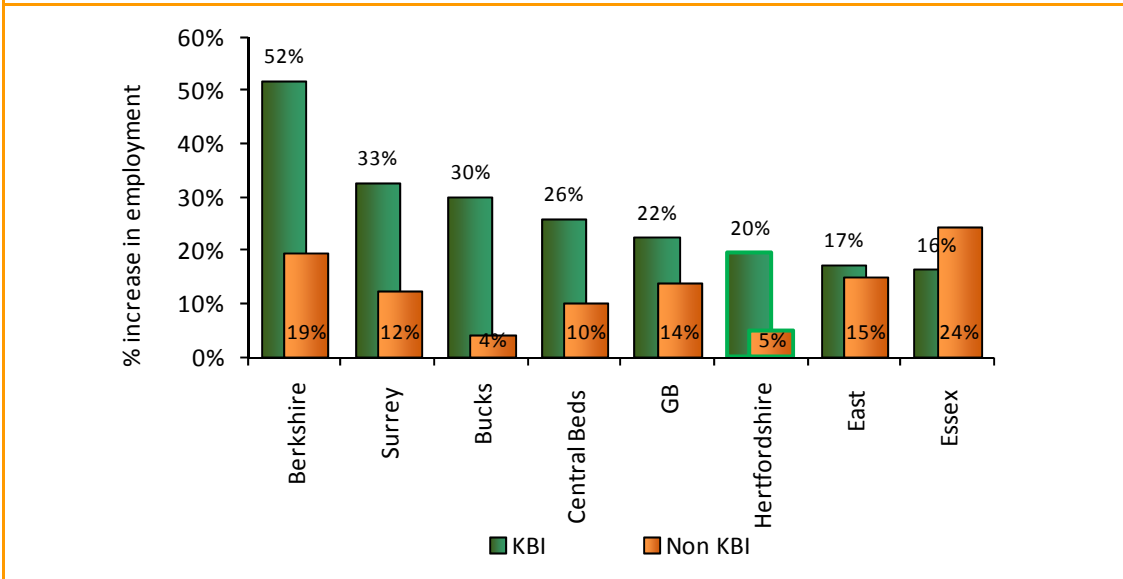
38. Given the high value nature of Hertfordshire's economy, higher value added or knowledge intensive sectors are not as strongly represented amongst the key growth sectors outlined in Table 1-6 as might be expected. For example,
- While there has been growth in R&D and activities auxiliary to financial intermediation this is modest in absolute terms and growth rates have been far outstripped by the national averages. For example the increase in R&D employment was six percentage points less in Hertfordshire than nationally and the increase in activities auxiliary to financial intermediation was 40 percentage points less than nationally.

● Hertfordshire Strategic Employment Sites: Appendix A ●

- Nationally, employment in Real Estate Renting and Business grew by 38% between 1998 and 2008 while growth in Hertfordshire was comparatively very low (3% in the same period). This relatively low rate of growth can, to some extent be explained by the pre-existing high level of employment in this sector (it had an LQ of 1.6 in 1998) but the slow rate of growth has weakened Hertfordshire’s strength in this sector; its LQ has reduced to 1.3.

39. Figure 1-11 provides a breakdown of the growth in employment in KBI employment and non-KBI employment between 1998 and 2008 for Hertfordshire and comparators. While the overall growth in KBI employment of 20% in this 10 year period on Hertfordshire was slightly greater than regional growth in KBI employment, this rate of growth is slightly behind the national rate of growth and significantly behind that of other local comparators. For example, Berkshire has increased its KBI employment by more than half in the same period and Surrey and Buckinghamshire by more than 30%.

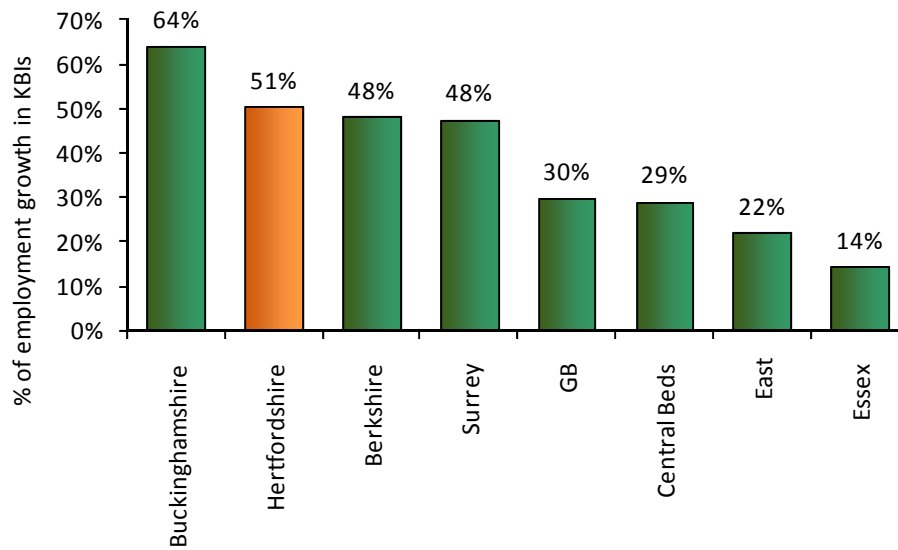
Figure 1-11: Growth in Knowledge Based employment (1998 – 2008)



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40. However, the comparatively slow growth in KBI employment does not signify a transition to a lower value economy in Hertfordshire. Figure 1-12 shows that more than half of Hertfordshire’s overall employment growth between 1998 and 2008 was accounted for by KBIs, a larger proportion than nationally and regionally and second only to Buckinghamshire, which has seen a particularly large increase.

Figure 1-12: Proportion of employment growth accounted for by KBI employment 1998 - 2008



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... but growth in public sector employment

41. Education has made by far the largest contribution to employment growth in Hertfordshire (9,300 jobs) although the 26% increase is significantly less proportionally than that occurring nationally in the same period. Increases in employment in some other sectors that tend to be public sector funded have been less proportionally than nationally (e.g. employment in Health and Social work grew by 10% in Hertfordshire compared to 30% nationally).
42. Limited growth in these sectors has been offset to some extent by the very large growth in public sector admin which increased by 13% in Hertfordshire compared to 5% nationally. However, given the limited availability of public sector funds, it is unlikely that this trend will continue in the short to medium term.

... as well as a growing construction industry

43. After education, the construction sector has made the most significant contribution to growth with a net increase of 8,100 employees between 1998 and 2008 (35%). The majority of growth has occurred within the plumbing sub sector which has grown by more than 1000 jobs (more than 80% increase) and more general construction and civil engineering employment which has grown by almost 3,000 jobs. Interestingly, manufacture of wood, cork and straw products has increased by 24% (c 200 jobs) in Hertfordshire while it has been decreasing nationally. This could be related to the increase in construction employment as all of this growth is accounted for by Manufacture of builders carpentry and joinery sub-sector.
44. Recreation, culture and sport has been another key source of employment growth and has increased by 43%, nine percentage points more than nationally. Operation of sporting arenas and stadiums accounts for a large proportion of this increase (900 new jobs) and a further 1,500 new jobs were provided through other sporting activities.

Shrinking sectors

45. Overall, employment growth in expanding sectors was more than 77,000 between 1998 and 2008. However the overall net increase has been slowed to 37,500 jobs in the same period due to significant shrinkage of some sectors.

	GB			Hertfordshire		
	Number of empl 2008 (000s)	Absolute change 1998 – 2008	% change 1998 – 2008	Number of empl 2008	Absolute change 1998 – 2008	% change 1998 – 2008
30:Manuf office machinery/comps	19	-30	-62%	0	-1.3	-81%
18:Manuf wearing apparel	25	-112	-82%	0	-0.8	-76%
21:Manuf pulp, paper and products	59	-46	-44%	0	-0.6	-65%
66:Insurance and pension funding	149	-83	-36%	2	-2.4	-60%
15:Manuf of food and beverages	377	-102	-21%	2	-2.4	-56%
32:Manuf radio, TV / coms equipment	55	-70	-56%	1	-0.7	-35%
33:Manuf medical, precision, optical instr	111	-28	-20%	3	-1.7	-35%
36:Manuf furniture n.e.c.	137	-67	-33%	3	-1.2	-33%
28:Manuf fabricated metal products	317	-86	-21%	4	-1.8	-32%
31:Manuf electrical machinery / app	101	-82	-45%	3	-1.3	-31%
25:Manuf rubber and plastic products	166	-79	-32%	2	-0.9	-31%
29:Manuf machinery and equipment nec	256	-126	-33%	5	-2.1	-30%
22:Publish, print & repro recorded media	273	-84	-23%	6	-2.1	-27%
24:Manuf chemicals and chemical prod	157	-98	-38%	6	-2.0	-26%
64:Post and telecommunications	452	-22	-5%	12	-3.9	-24%
60:Land transport; transport via pipelines	528	18	4%	7	-2.1	-22%
50:Sale, maintenance, repair motor vehicles	521	-45	-8%	12	-2.8	-19%
65:Finance intermed, ex insurance / pension	590	-4	-1%	7	-0.6	-8%
72:Computer and related activities	549	174	46%	17	-1.2	-6%

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Considerable decline in Manufacturing Employment overall...

46. Overall, employment in manufacturing has decreased by 33% (just under 20,000 jobs) in Hertfordshire in the past ten years. This trend has been echoed elsewhere and Hertfordshire's manufacturing employment base has declined by a similar proportion to nationally and regionally.

... with some shrinkage in higher value manufacturing sectors

47. While it is therefore no surprise to see so many manufacturing sectors in the list of shrinking sectors outlined in table 1-7, it is a concern that employment in some of the higher value manufacturing sectors has also contracted over recent years. The 56% reduction in

● Hertfordshire Strategic Employment Sites: Appendix A●

employment in manufacture of chemicals and chemical products and 30% reduction in manufacture of medical, precision and optical instruments employment are a key concern given their importance to Hertfordshire’s life sciences cluster.

... as well as in other Knowledge Based Industries

48. In addition to losses in the manufacturing sector, there have also been some notable loss of employment in higher value, higher skilled sectors. In particular
- Post and telecommunications. Employment has decreased by 24% (2,100 jobs). The majority of this reduction has occurred between 2006 and 2008.
 - Financial intermediation, except insurance and pension funding has declined by more than 600 jobs (a loss of 8%). All of this decrease can be accounted for by the sub-sector Other Monetary intermediation.
 - Computer and related activities. Loss of employment has been focused on lower value added sub sectors including data processing (which lost c1,600 jobs and maintenance and repair of office computers which lost 1,400 jobs. In both of these sub sectors, the majority of this decline in employment has occurred during the recession.

Recent Trends for priority sectors

49. Table 1-8 provides overview of recent the change in employment in the four priority sectors for Hertfordshire⁴.

Table 1-8: Hertfordshire change in employment in priority sectors 2003 – 2008.

	2003 Employment (000s)	2003 LQ vs GB	2008 Employment (000s)	2008 LQ vs GB	Absolute Change 2003 – 08 (000s)	% change 2003 - 08
Life Sciences	9.7	2.7	11.2	3.1	1.4	15%
Advanced Manufacturing	19.1	0.8	21.8	1.0	2.8	14%
Professional banking and finance	27	0.9	30	1.0	3.0	11%
Logistics	16	0.8	15.9	0.8	-0.1	-0.5%
Software and Digital	22.5	1.6	21.9	1.5	-0.6	-3%
Green Industries (ex consult*)	11	1.6	10.7	1.4	-0.3	-3%
Creative Industries	25.7	1.1	24.5	1.0	-1.2	-5%

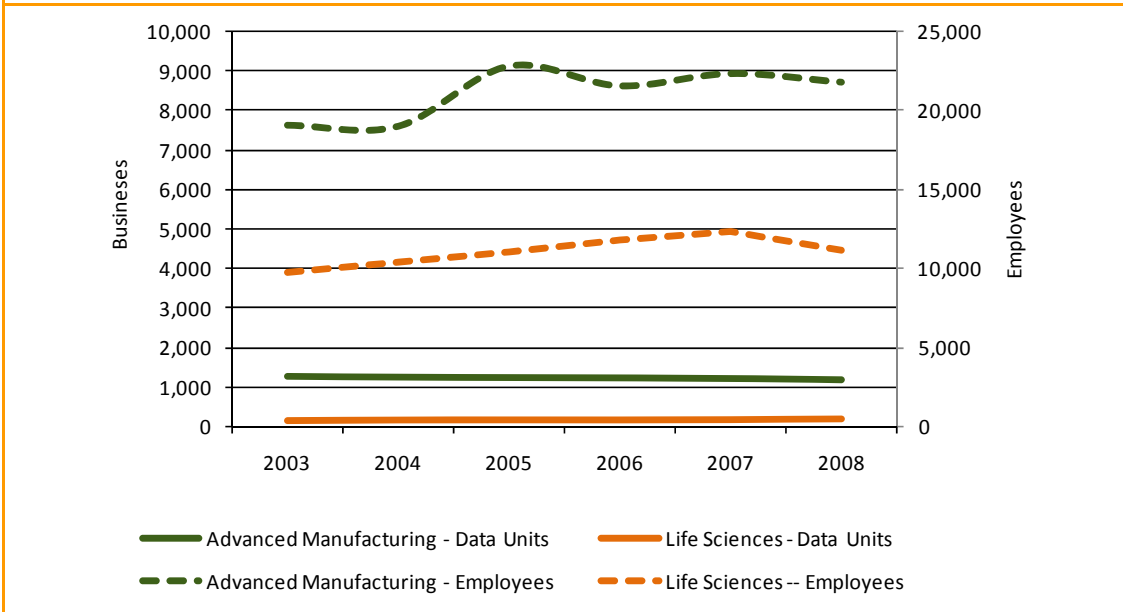
Source: Annual Business Inquiry 2003 – 2008
 Note: 2003 SIC codes do not adequately provide for environmental consultancy activities. The SIC code in which environmental consultancy activities fit covers all business management and consultancy activities. The large variety of businesses included in this SIC code would skew the analysis considerably.

⁴ These figures presented in Table 1-8 are based on Annual Business Inquiry data and will therefore differ from those in Table 1.5, which is based on BRES data. Aside from the methodological differences between BRES and ABI data, the grouped sectors in the analysis in Table 1-8 have been defined using 2003 SIC which differs slightly from the 2007 SIC used for BRES data.

Significant growth in Life Sciences and Advanced manufacturing...

- 50. The past five years have seen Hertfordshire consolidating its existing strengths in Life Sciences and Advanced Manufacturing. The increase of 1,400 employees (15%) in the Life Sciences sector has further increased the concentration of employment in this field in Hertfordshire – the LQ of the sector has increased from 2.7 to 3.1. In the same period, the number of Life Sciences companies in Hertfordshire has increased by 40.
- 51. Employment in advanced Manufacturing has also increased notably by 2,800 people. Although the sector remains no more concentrated in Hertfordshire than it is elsewhere, there are signs that the importance of this sector to the regional economy has increased, since its LQ has increased from 0.8 to 1.0 in the past five years. Although employment has increased significantly, the number of advanced manufacturing business has decreased by just less than 100. This is likely to be due largely to improvements in efficiency and technology reducing the labour requirements of advanced manufacturing businesses.

Figure 1-13: Trends in employment and business units in Advanced Manufacturing and Life Sciences 2003 – 2008



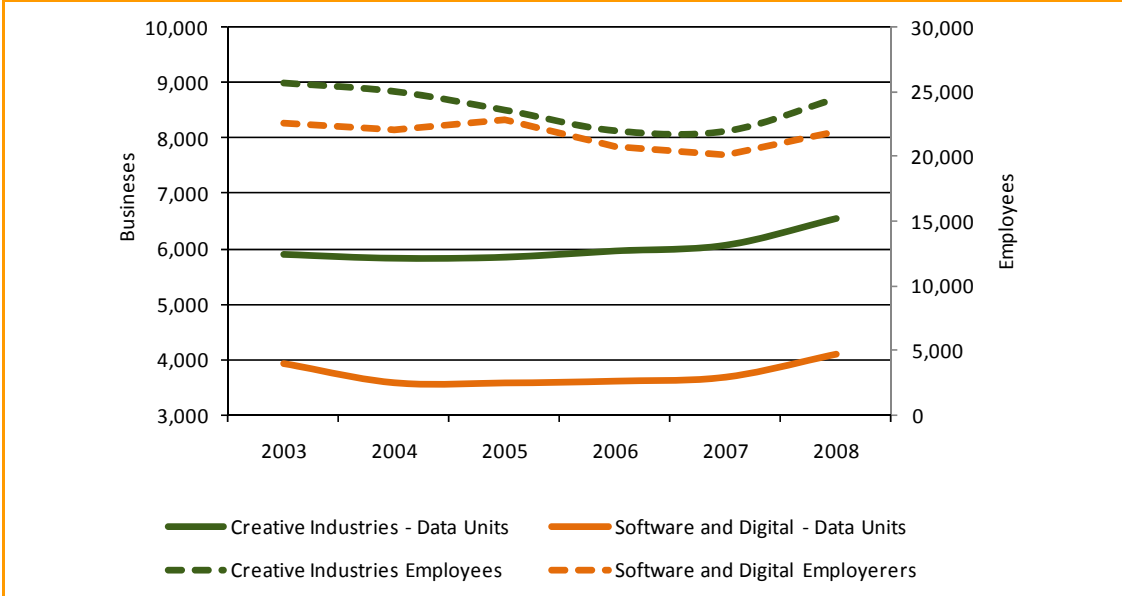
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- 52. Between 2003 and 2008, employment in the Professional, Banking and Finance sector increased by 3,000 representing an increase of 11%. However, even with this large growth, employment in this sector remains no more concentrated in Hertfordshire than it is nationally.

... and a recent upturn in Creative and Media and Software and Digital

- 53. Although Table 1-8 suggests that overall employment in the Creative and Media and Software and Digital sectors has decreased overall, the trends plotted in show significant upturns in job creation and business formation in these sectors since 2007

Figure 1-14: Trends in employment and business units in Creative and Media and Software and Digital

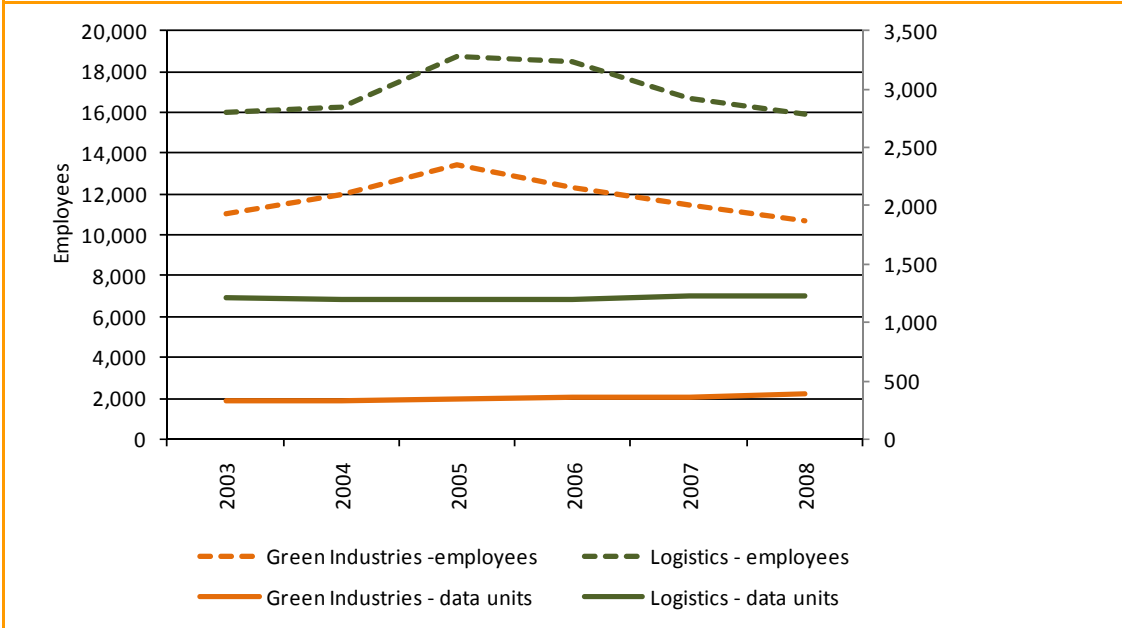


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... but contraction of employment in Green Industries

54. The volume of employment in Green Industries shrank by 3% overall between 2003 and 2008. This represents a loss of 1,400 jobs. shows that the contraction in employment has occurred rapidly and steadily since 2005 and there is some evidence to suggest that this contraction in employment may be related to increases in productivity in the sector as the volume of business units remained stable during this period.

Figure 1-15: Trends in employment and business units in Green Industries and Logistics

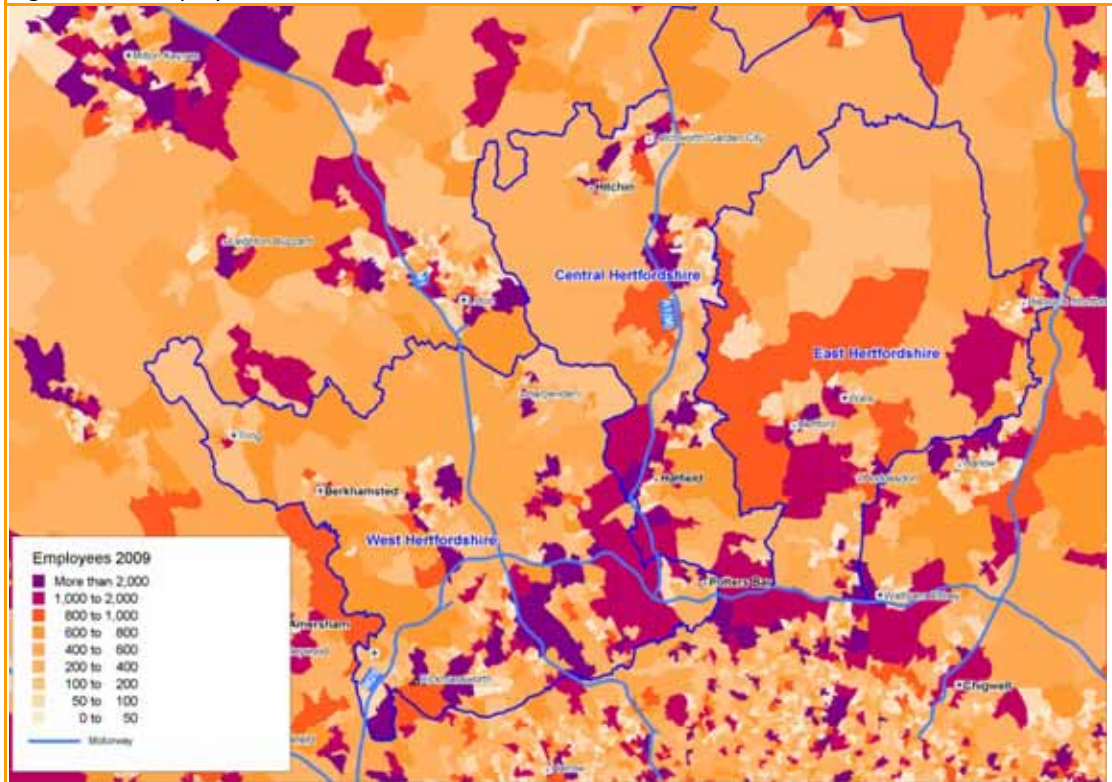


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Local Area Analysis

55. Hertfordshire is not a homogenous area economically, the ten Local Authority Areas that make up the county vary significantly in terms of the size and type of their business and employment bases. Figure 1-16 shows that employment is particularly concentrated along the county's motorway corridors, particularly the M1 through Stevenage and Welwyn Hatfield and the M25 through Three Rivers, Hertsmere and Watford. The importance of Hertfordshire's connections to and relationships with London are illustrated by the concentration of employment towards the south of the county and along the M1 motorway.

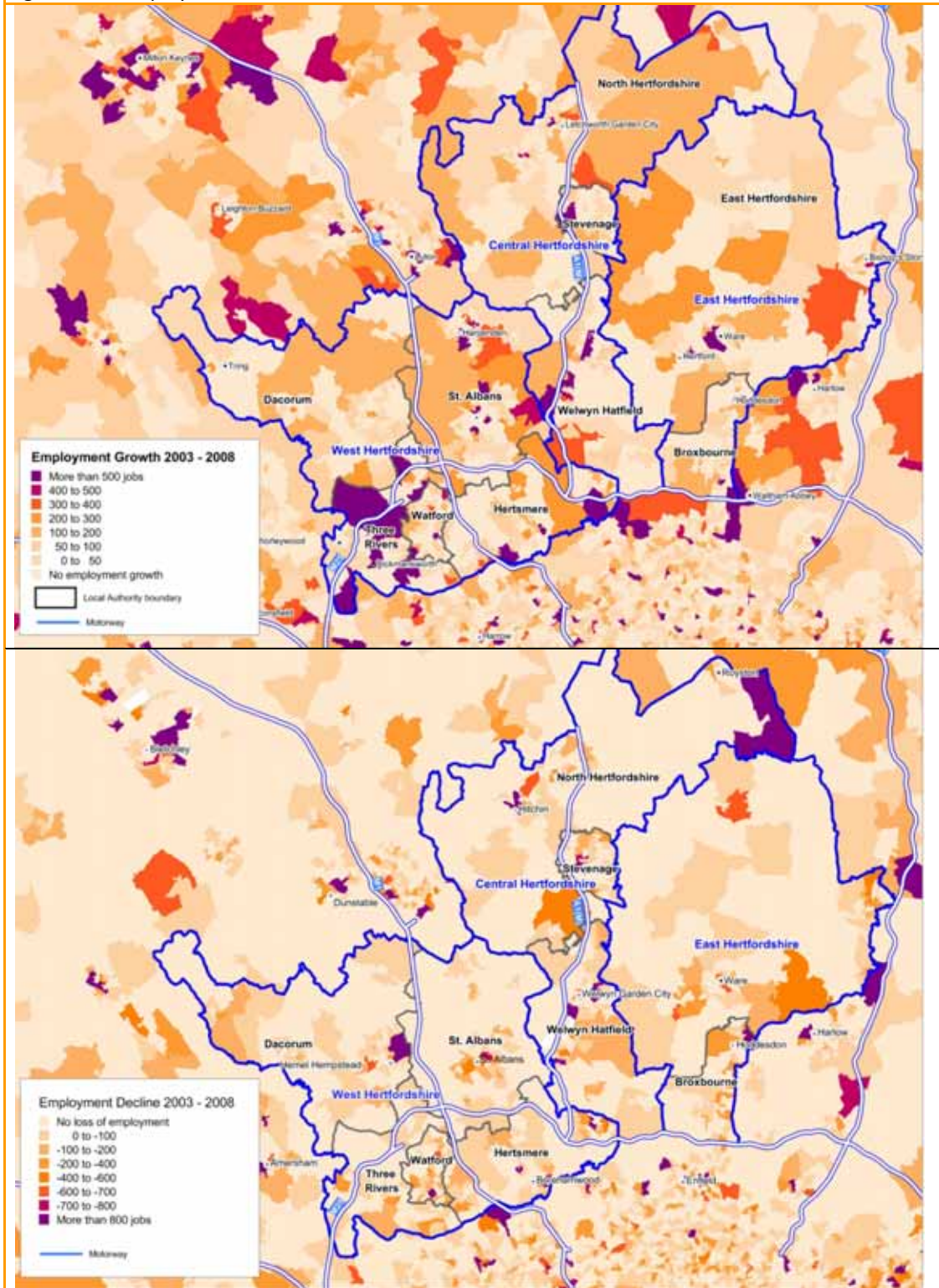
Figure 1-16: Employment in Hertfordshire, 2009



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56. Growth in employment has been strongly focused around the motorway network and to the South of the County, particularly in areas with existing concentrations of employment. West Hertfordshire in particular has seen a significant growth in employment, particularly around Three Rivers and Watford. Pockets of growth in St Albans and Harpenden are also notable.
57. Elsewhere in the county, there have been other pockets of high growth primarily along the motorway network (particularly along the M1). There are also small pockets of high employment growth in East Hertfordshire in Ware and Hertford.

Figure 1-17: Employment Trends - 2003 – 2008

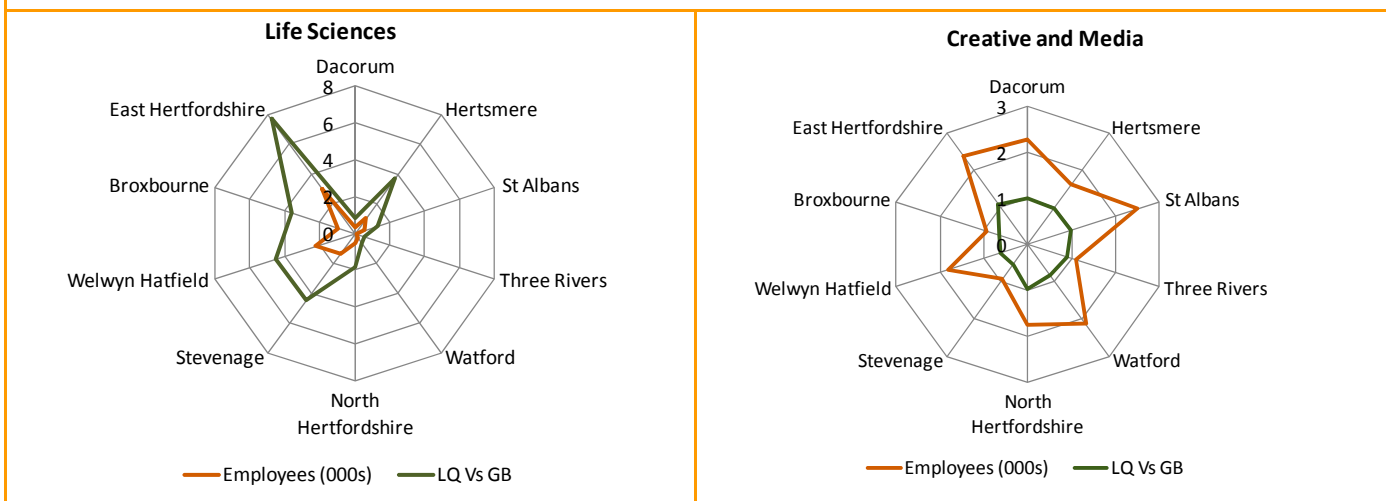


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58. There are only a handful of isolated areas where employment has declined significantly. These are focused around East Hertfordshire although there are a small number of isolated SOAs in West Hertfordshire that have seen very large decreases in Employment.
59. An overview of employment, business base and labour market indicators for each of the Local Authority areas is provided in Table 1-9. The key differences in the sectoral make up of local economies across Hertfordshire are outlined in Figure 1-18. The following section drawn on this, as well as more detailed data provided in the appendix, to provide a headline overview of each of Hertfordshire’s three key economic areas:
- **West Hertfordshire:** Including the local authority areas of Dacorum, Hertsmeire, St Albans⁵, Three Rivers and Watford.
 - **Central Hertfordshire:** Covering North Hertfordshire, Stevenage and Welwyn Hatfield
 - **East Hertfordshire:** Covering Broxbourne and East Hertfordshire Local Authorities.

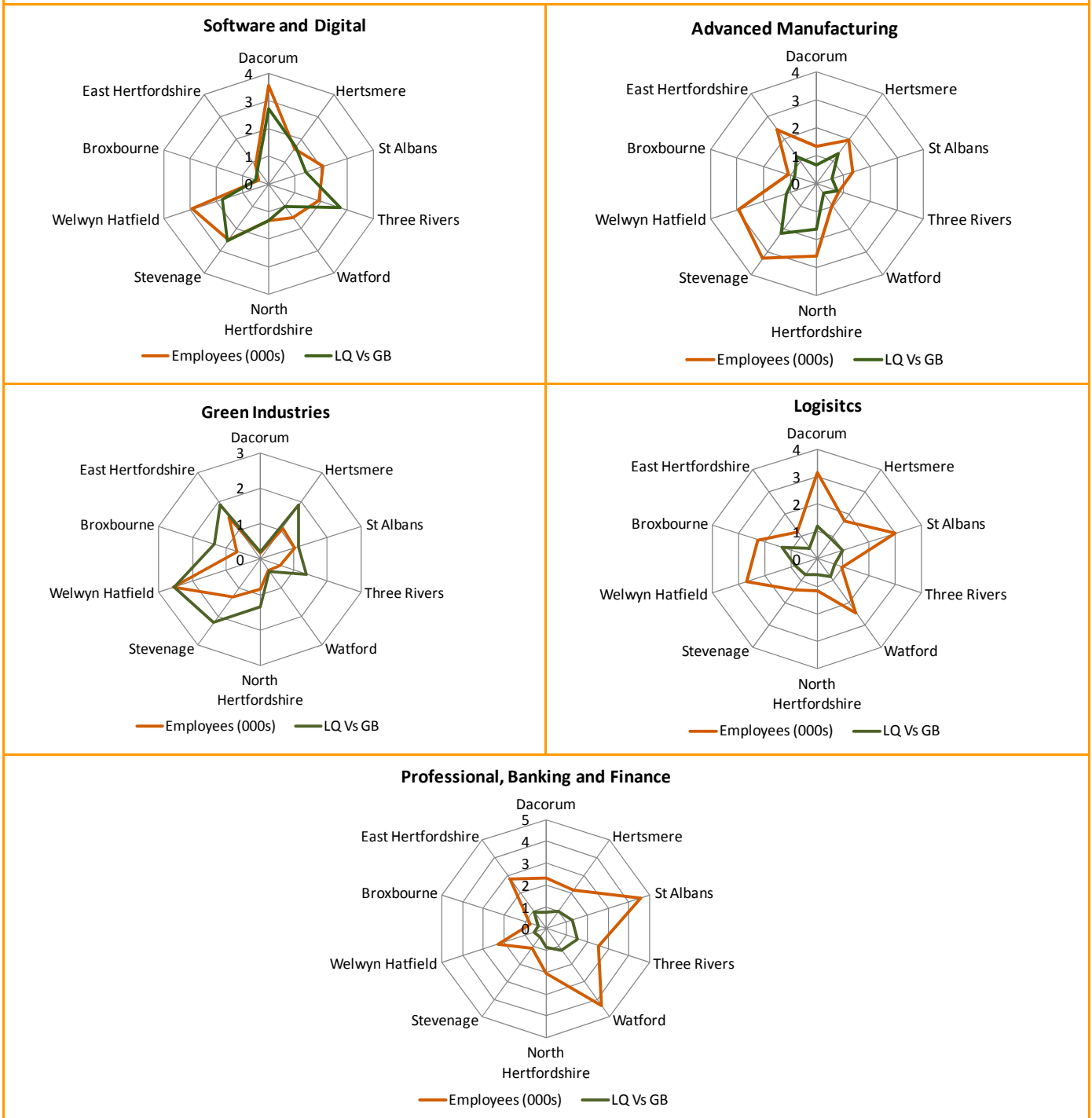
Figure 1-18: Employment and LQs (vs GB) in Priority Sectors, 2009



⁵ Note: 2008 Annual Business Inquiry figures for St Albans should be treated with caution, particularly those for the Banking and Finance sector. The veracity of this data has been questioned due to a particularly large increase between 2007 and 2008 that is believed to be anomalous.

● Hertfordshire Strategic Employment Sites: Appendix A ●

Figure 1-18: Employment and LQs (vs GB) in Priority Sectors, 2009

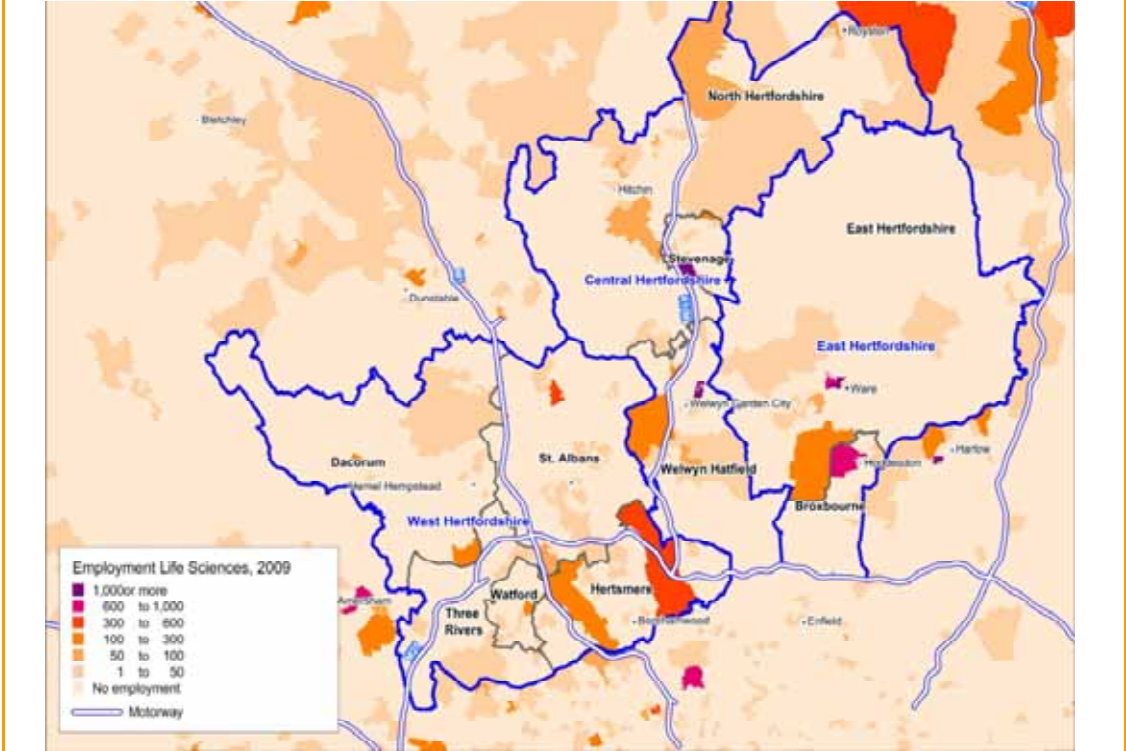


Source: Business Register and Employment Survey, ONS Nomis (www.nomisweb.co.uk)

● Hertfordshire Strategic Employment Sites: Appendix A●

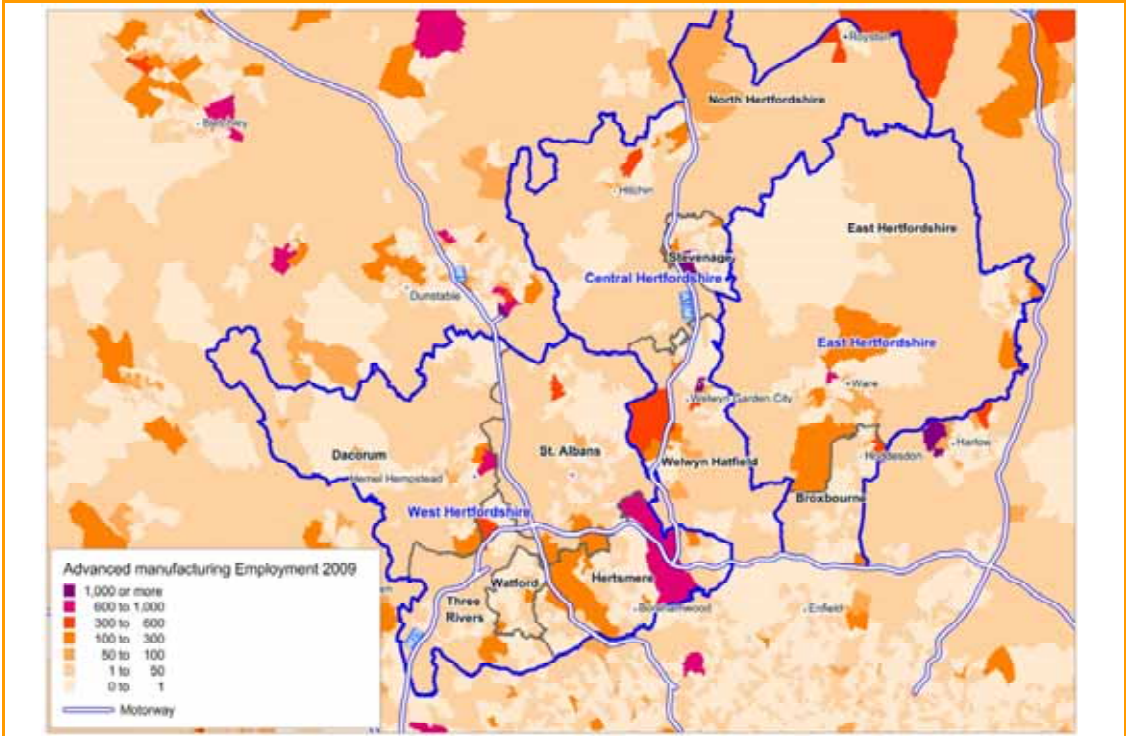
	Employment				Business Base				Travel to Work Flows Net flow	Economic Activity		Occupations	
	Total 2009 (000s)	% of total	% change 1998 - 2003	% change 2003-8	Number of Businesses 2008 (000s)	% of Herts Total	% change 1998 - 2003	% change 2003-8		Economic Activity Rate 2009/10	Percentage point change 2004/5 to 2009/10	% residents HMPs	Percentage point change 2004/5 to 2009/10
Hertfordshire	508.9	100%	-1%	3%	54.0	1.0	↑7%	↑11%	-36,000	81%	-1%	39%	↑4%
West Hertfordshire	258.2	51%	↓-8%	↑5%	28.5	53%	↑6%	↑10%	-13,800	78%	↓-3%	42%	↑4%
Dacorum	57.0	11%	2%	↓-5%	7.4	14%	↑7%	↑9%	-700	78%	↓-7%	40%	↑4%
Hertsmere	41.3	8%	↑5%	↓-1%	5.2	10%	↑9%	↑14%	-1,500	78%	1%	39%	↑8%
St Albans	64.7	13%	↓-32%	↑23%	7.4	14%	-1%	↑9%	-9,800	78%	↓-4%	50%	3%
Three Rivers	30.9	6%	↑19%	↑18%	4.3	8%	↑13%	↑13%	-9,800	79%	-1%	43%	↑9%
Watford	64.3	13%	↓-4%	-3%	4.2	8%	↑4%	↑7%	7,900	81%	-1%	35%	-1%
Central Hertfordshire	158.8	31%	6%	1%	14.1	26%	↑9%	↑10%	-440	83%	0%	37%	↑6%
North Hertfordshire	44.7	9%	2%	↓-8%	6.4	12%	↑9%	↑6%	-11,000	83%	↑2%	37%	1%
Stevenage	42.4	8%	2%	-2%	3.1	6%	↑8%	↑17%	2,200	87%	↑2%	31%	↑9%
Welwyn Hatfield	71.6	14%	↑13%	↑12%	4.6	9%	↑10%	↑12%	8,600	80%	↓-2%	40%	↑8%
East Herts Area	91.9	18%	↑5%	0%	11.5	21%	↑8%	↑15%	-21,300	83%	↑1%	35%	1%
Broxbourne	36.4	7%	↑12%	-1%	3.9	7%	↑11%	↑19%	-11,300	82%	↑3%	32%	6%
East Hertfordshire	55.5	11%	1%	0%	7.5	14%	↑7%	↑13%	-10,100	84%	↑2%	37%	↓-3%

Figure 1-19 : Distribution of employment in Life Sciences, 2009



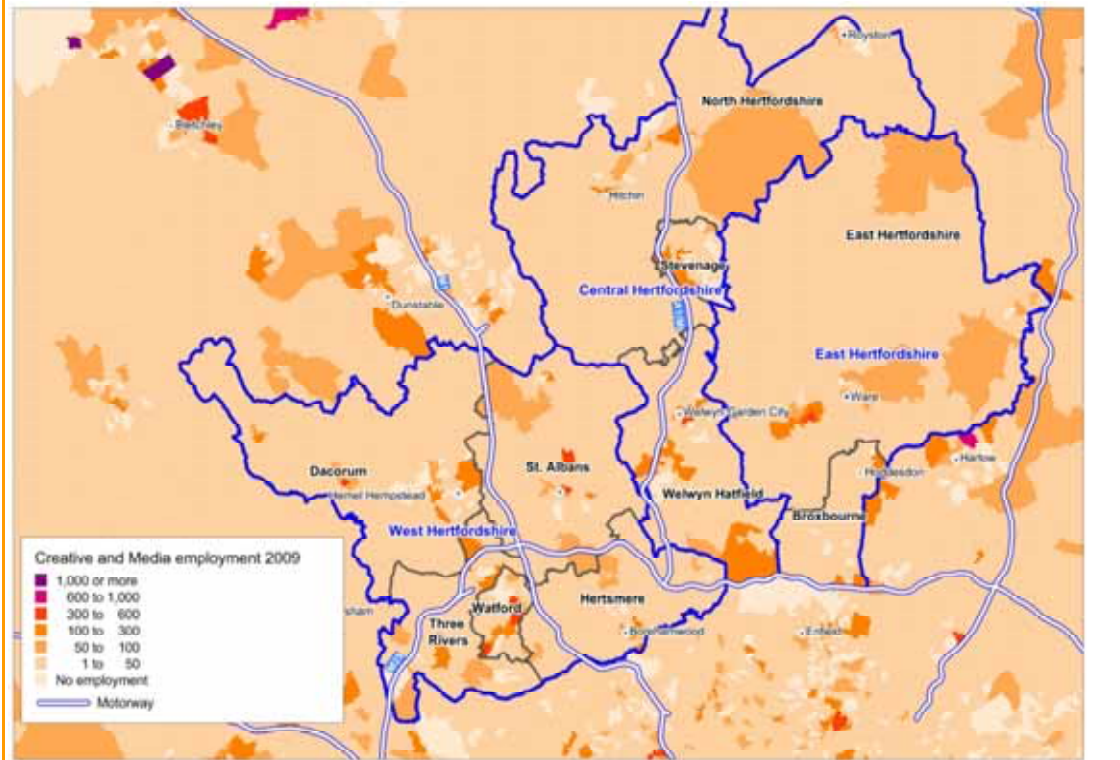
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Figure 1-20 : Distribution of employment in Advanced Manufacturing, 2009



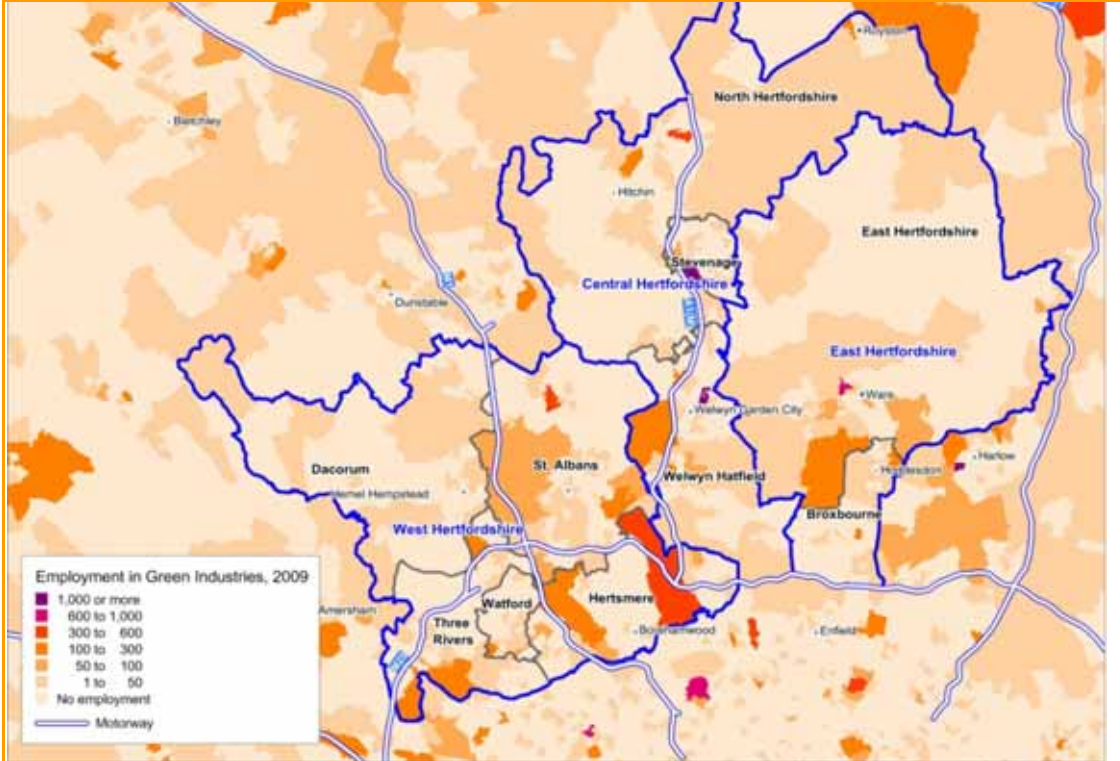
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Figure 1-21 : Distribution of employment in Creative and Media, 2009



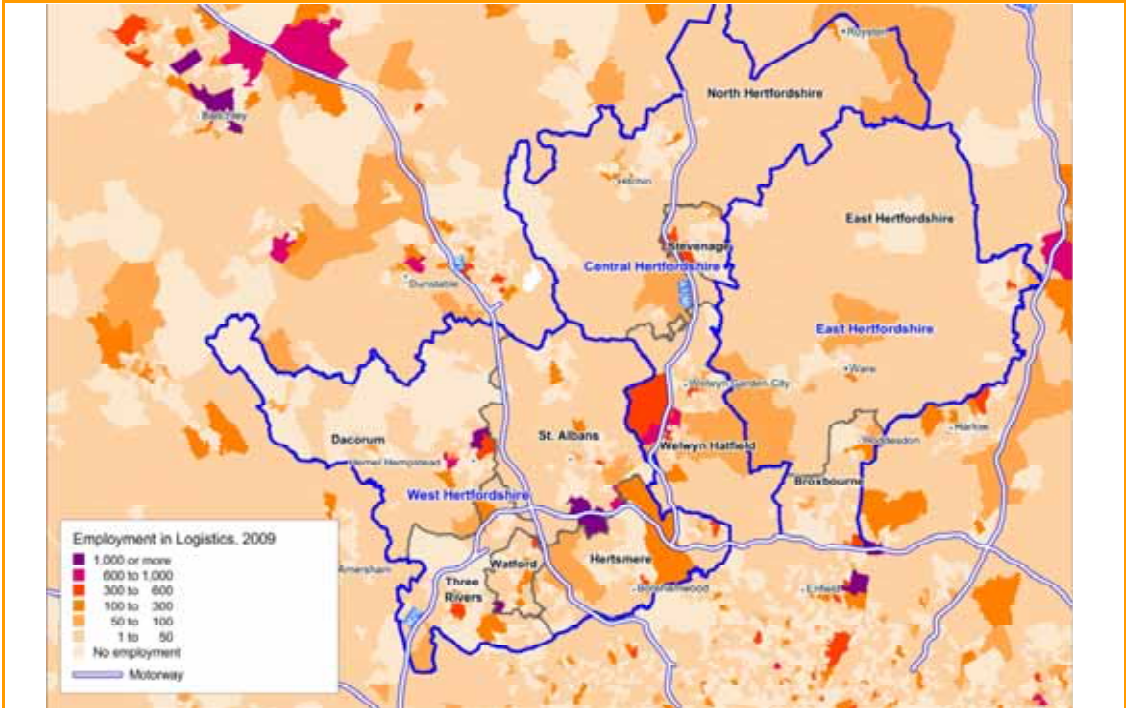
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Figure 1-22 :: Distribution of employment in Green Industries and Consultancy, 2009



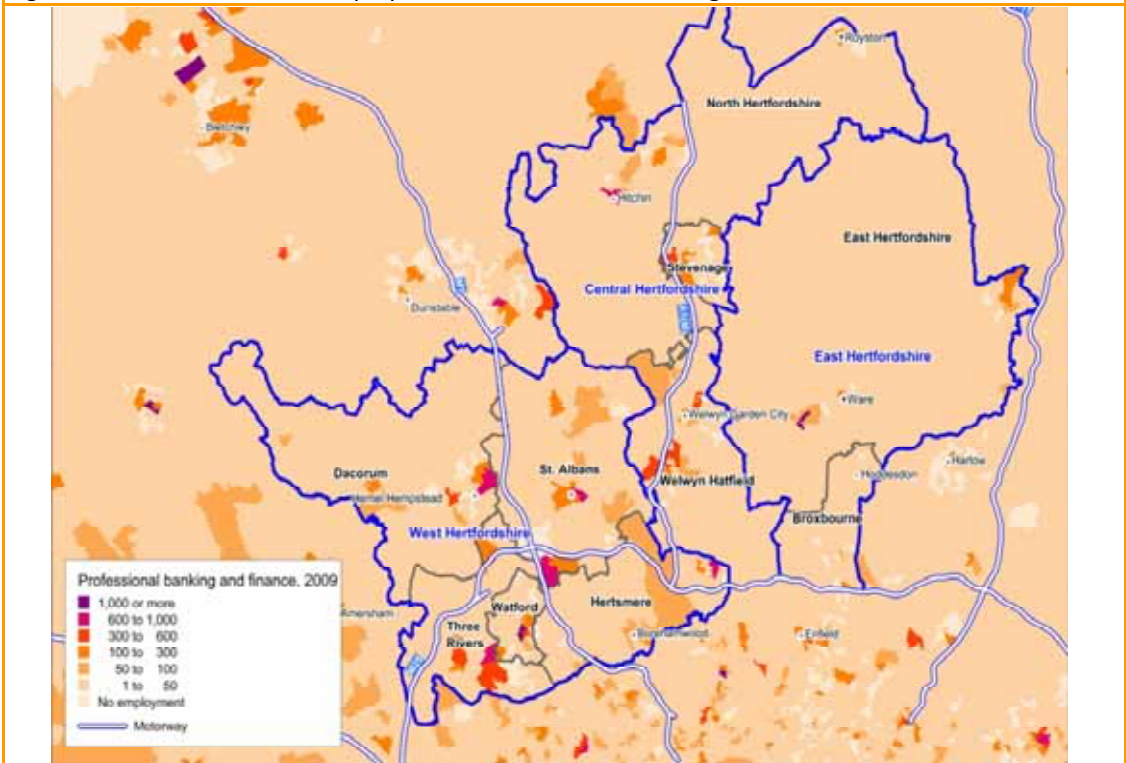
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Figure 1-23 :: Distribution of employment in Logistics, 2009



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Figure 1-24 :: Distribution of employment in Professional, Banking and Finance 2009



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West Hertfordshire Overview

West Hertfordshire - Key Characteristics:

Key focus of employment in Hertfordshire, accounting for more than half of the county's employment.

Overall **increase in employment** over the past ten years but growth has been unstable and there is considerable variation between the growth trajectories of the local authorities within West Hertfordshire

Strong increases in employment in St Albans and Three Rivers but overall declining employment in Dacorum and Watford (with a sustained **trend of decreasing employment in Watford**)

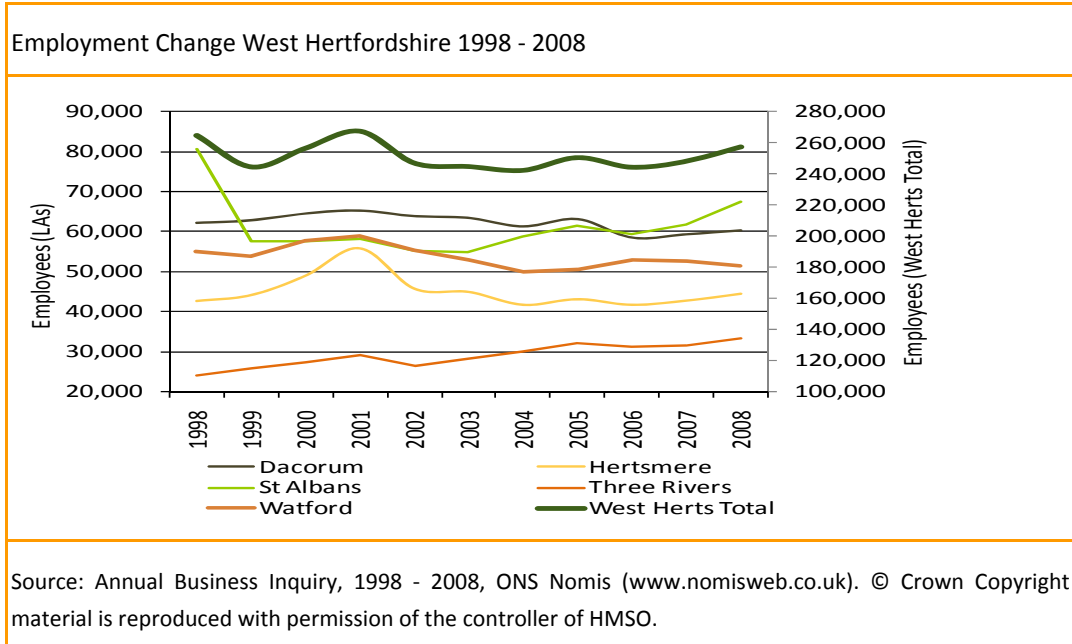
Net exporter of labour from all local authorities with the exception of Watford.

Strong representation of **knowledge based industries** in the West Hertfordshire, particularly St Albans and key concentrations of employment in **Creative and Media** and **Software and Digital** industries.

Other important sectors include **Post and Telecommunications** and Research and Development.

Business Base and Employment

60. West Hertfordshire has made a key contribution to economic growth in Hertfordshire over past 10 years. Employment in this part of the county accounts for more than half of the Hertfordshire total and the rate of employment growth in West Hertfordshire between 1998 and 2008 has outstripped the county average. Within West Hertfordshire, Watford and St Albans have the highest volume of employment, each host to more than 60,000 jobs and together accounting for almost half of the 258,000 jobs in West Hertfordshire.



61. While the volume of employment in West Hertfordshire has grown overall in the past five years (by 5%), there have been significant fluctuations over the past ten years and large variations in the growth trajectories of individual local authorities. While employment in St Albans and Three Rivers has increased remarkably over since 2003 (by 23% and 18%), there have been small declines in employment in Dacorum and Watford. While much of the more recent decline can be put down to the impact of the recession, the sustained trend of

declining employment numbers in Watford should be highlighted, particularly as this authority is part of Hertfordshire's southern employment core.

62. Although employment numbers have been unstable overall, the number of businesses in each LA has increased markedly in the past 10 years. The rate of business base growth in Hertsmere and Three Rivers has been particularly large. Although Watford's business base has grown, the overall increase of 7% is the slowest growth rate of all the West Hertfordshire local authorities.

Travel to Work and Labour Market

63. West Hertfordshire is a net exporter of labour and has a daily net outflow of commuters of 13,800. Within West Hertfordshire, only Watford is a net importer of labour, with a daily inflow of 7,900.
64. The economic activity rate of West Hertfordshire's residents (78%) is below the Hertfordshire average of 81%. This has declined by almost three percentage points between 2004/5 and 2009/10. The majority of this decrease has actually occurred in the last 12 months when the actual number of economically active residents decreased by almost 3,000, resulting in a two percentage point decrease in the economic activity rate. This recent decline suggests that the West Hertfordshire labour market may have been more severely affected by the economic downturn than other parts of the county.
65. Although the economic activity rate is lower than the county average, a high proportion (42%) of West Hertfordshire's residents are employed in Higher Managerial or Professional occupations. This is significantly greater than the Hertfordshire average and has increased by four percentage points in the last five years. St Albans has a particular high concentration of HMP residents; half of its population.

Key Sectors

66. West Hertfordshire has the highest proportion of KBIs in all of Hertfordshire's economic areas. Almost half of the businesses in West Hertfordshire are KBIs and there is a particularly large cluster of KBIs in St Albans, where 53% of the businesses are trading in knowledge intensive sectors.
67. West Hertfordshire is a hub for much of the county's employment in Creative and Media and the sector is well represented (in volume terms) in all of West Hertfordshire's local authorities (although the LQ is around 1 for all, so employment is not particularly concentrated). There are particular concentration of employment in the Software and Digital sector in Dacorum (where there are 3,500 employees in this sector) and Three Rivers (where the 2,000 Software and Digital employees give the sector an LQ of almost 3).
68. At the local authority level, employment in Life Sciences and Advanced Manufacturing is not particularly concentrated, although there are some concentrations within SOAs in Hertsmere, particularly to the West and East of Borhamwood. Hertsmere also has a relative specialism in Green Industries and Environmental consulting, which employs more than 1,000 people in the borough with an LQ of almost 2.
69. Other notable sectors include:
- Wholesale and Commission Trade: employs 16,700 people across West Hertfordshire with concentrations of employment in Hertsmere and Dacorum

• Hertfordshire Strategic Employment Sites Study: Appendix A •

- R&D Just over 1,500 people are employed in R&D in West Hertfordshire, the majority of these are employed in Hertsmere, where the LQ of this sector is 4.2.
- Post and Telecommunications: Employs 5,800 people with particular concentrations in Dacorum (LQ 1.7) Three Rivers (LQ 1.9) and Watford (LQ 1.6).

Central Hertfordshire Overview

Central Hertfordshire - Key Characteristics

Employment has grown at a considerably higher rate than the rest of the county over the past ten years

Concentrations of employment are primarily focused on the **motorway network**. Motorway corridors have also been the key focus of employment growth over recent years.

The overall impact of significant and sustained **employment growth in Welwyn Hatfield** has been countered by **declines in employment in Stevenage and North Hertfordshire** since 2005.

Very small net exporter of labour overall, but this is primarily due to the **large net outflow from North Hertfordshire**, Stevenage and Welwyn Hatfield are both net importers.

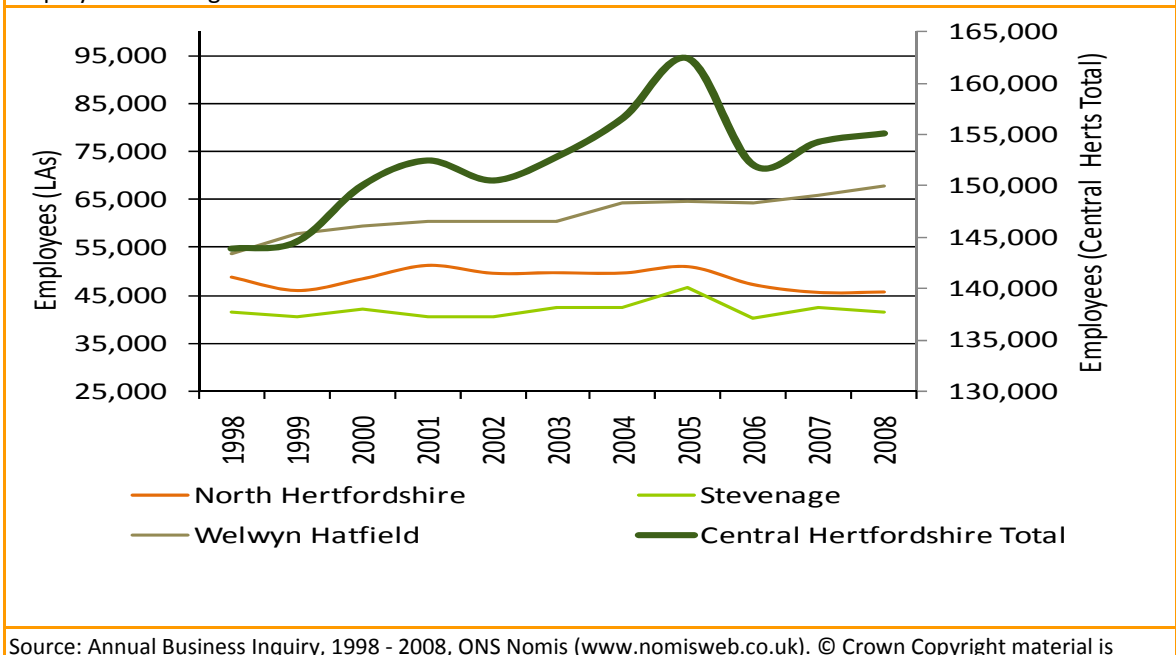
Concentrations of employment in **higher value, knowledge intensive** sectors particularly R&D and telecommunications.

Significant concentrations of employment in **Life Sciences** and **Software and Digital industries** and a strong presence of **Advanced Manufacturing** employment (with a particular specialism in manufacture of machinery and equipment and medical instruments).

Business Base and Employment

70. Central Hertfordshire has been a key source of economic growth in Hertfordshire over the past ten years. The overall increase in employment in Central Hertfordshire (8%) in this period has significantly outstripped the county average of 2%. Just under a third of Hertfordshire's employment and a quarter of the county's business base is located within the three local authority districts that make up Central Hertfordshire. Concentrations of employment are primarily focused around the M1 motorway, which runs through the Centre of Central Hertfordshire.

Employment Change Central Hertfordshire 1998 - 2008



Source: Annual Business Inquiry, 1998 - 2008, ONS Nomis (www.nomisweb.co.uk). © Crown Copyright material is

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71. The steady rate of employment growth in Central Hertfordshire over the last ten years masks some significant variations at the local authority level; Welwyn Hatfield appears to be the key source stable growth in this part of the county and has seen a 27% increase in the number of jobs the local authority supports. Conversely, employment levels in Stevenage and North Hertfordshire have been more unstable and have seen significant declines since 2005.
72. Of the three local authorities, North Hertfordshire has seen the largest decline in its employment base over recent years; declining by 8% between 2003 and 2005. While there was some growth in the size of North Hertfordshire's business base in this period, the 6% increase in the number of businesses lags significantly behind the 12% and 17% increases in Welwyn Hatfield and Stevenage.

Travel to Work and Labour Market

73. There appears to be near equilibrium in Central Hertfordshire's travel to work patterns, with only a marginal net export of 440 commuters. However, this masks significant differences within the area. Stevenage and Welwyn Hatfield has significant daily inflows of commuters while the large outflow of North Hertfordshire (11,000) reflects the relative under performance of this area's economy.
74. Rates of economic activity are high across Central Hertfordshire and are particularly high in Stevenage (87%). Slight increases in economic activity in North Hertfordshire and Stevenage over the past five years have counterbalanced the 2% decrease evidence in Welwyn Hatfield and kept the overall economic activity rate of Central Hertfordshire stable at 83%.

Key Sectors

75. Retail and Wholesale and Commission Trade are key employers in Central Hertfordshire and employ 42,000 people between them. While employment in both of these sectors is more concentrated here than nationally, the area's key concentrations of employment are in higher value, more knowledge intensive sectors. Employment in Research and Development is particularly important to the area's economy employing almost 4,000 people (at almost six times the national concentration). The focus of this employment is in Stevenage and Welwyn Hatfield (with all but 400 of these jobs being located in these local authorities).
76. This R&D focus is evident in the concentrations of employment in Life Sciences and Software and Digital industries in Central Hertfordshire. There are key concentrations of employment in both of these sectors in central Stevenage and Welwyn Garden City.
77. In Welwyn Hatfield, 3,000 people are employed in Software and Digital industries (a concentration of employment almost twice the national average for the sector). There are also concentrations of advanced manufacturing employment in these two authorities with particular specialisms in machinery and equipment and medical instruments.
78. There is a large and significant presence of the telecommunication sector in Welwyn Hatfield as well as a large Green Industries and Environmental consulting sector, which employs more than 2,000 people in the borough (more than twice the concentration as nationally).
79. The public administrative and defence sector has growth particularly strongly in Stevenage and Welwyn Hatfield (5,400 additional jobs in the past 5 years) while actually declining in

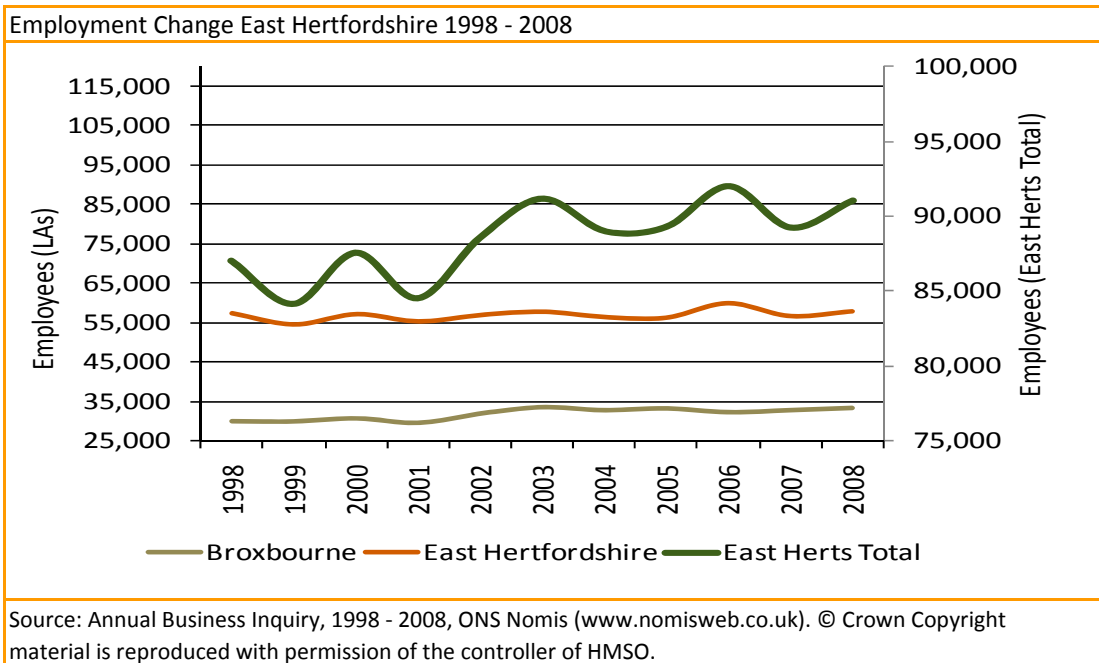
North Hertfordshire. In spite of this recent growth, public sector employment remains much less concentrated locally than nationally.

80. North Hertfordshire has been the source of considerable growth in the Manufacture of Furniture sector, in which employment has grown by 48% in the past five years. There are now 1,000 people employed in this sector in North Hertfordshire with a very high LQ of 4.4.

East Hertfordshire Overview

Business Base and Employment

81. East Hertfordshire has seen steady employment growth over the past ten years, increasing by 5% overall. Although there have been some fluctuations in overall employment levels, there has been a slight increasing trend within both Broxbourne and East Hertfordshire. Overall, East Hertfordshire's employment base has grown by 5% between 1998 and 2008.



82. Although there has been limited recent growth in employment levels, East Hertfordshire's business base has grown by a much larger proportion in the past five years than the Hertfordshire average, increasing by 15%. The increase has been particularly large in Broxbourne, which has seen an increase of almost 20%

Travel to Work and Labour Market

83. East Hertfordshire has the largest net outflow of commuters (21,300) of all the economic areas in Hertfordshire; both Broxbourne and East Hertfordshire have net daily outflows in excess of 10,000 residents.
84. Rates of economic activity are above average in East Hertfordshire (83% across the two authorities compared to 81% for the county as a whole) although there appears to be less employment in highly skilled occupations than elsewhere in Hertfordshire. While 35% of residents being employed in HMP occupations is still a large proportion, it is markedly lower than the Hertfordshire average.

Key Sectors

85. There are very large concentrations of life sciences employment in East Hertfordshire. The sector employs 3,000 people overall and has an LQ in excess of 7. The R&D sector as a whole has a strong presence in East Hertfordshire, but has contracted considerably (by 41%) in the last five years. Advanced manufacturing also has a strong presence in East Hertfordshire, with manufacture of chemicals and chemical products being particularly prominent, employing 3,600 people (the majority of these in East Hertfordshire).
86. There is a large volume of employment in Creative and Media in East Hertfordshire (almost 2,500 employees) and the logistics sector is particularly well represented in Broxbourne.
87. Recreational cultural and sporting activities has been a key source of employment growth, increasing by 65% in the past five years to its current level of 1,900 employees. This increase has affected both LAs similarly. Real estate activities have also increased significantly in their importance to the local economy. Broxbourne has been the key focus for this growth, where employment in this sector has more than doubled.

Conclusions / Summary

88. Hertfordshire is amongst the key economic areas in Great Britain in terms of wealth generation; the county is in the top five GVA NUTS 3 areas outside of London in terms of the absolute levels of GVA it creates and GVA per head in Hertfordshire is markedly higher than the national average. Hertfordshire has strong economic links with London and the county's residents and workers enjoy rapid transport links to outer and central London, which have facilitated Hertfordshire's development into a net exporter of labour (primarily to central and outer London), encouraged businesses to locate in the county to take advantage of these economic links and contributed to the relative wealth of the county.
89. In spite of the clear benefits of its geographical position and the strength of its labour market, this analysis has found some clear indications that, over recent years, Hertfordshire's economy has not been performing as well as it might. Although Hertfordshire's current economic performance is well above the national and regional averages, the county's performance does not compare favourably to areas with similar labour markets and positions relative to London. For example, both Buckinghamshire and Surrey have a lot in common with Hertfordshire in terms of the headline characteristics of their labour markets, but both have markedly higher business and employment densities.
90. Hertfordshire's GVA has grown considerably over recent years but the rate of growth has not kept pace with national or regional increases and has been significantly outstripped by other local comparable economies including Berkshire, Essex and Surrey
91. Recent trends suggest that Hertfordshire's economic performance has been slipping behind for a number of years, growth in the size of the business base has only just kept pace with the national average and has been behind that of the East of England. Similarly, the 2% increase in the county's employment base between 1998 and 2008 is particularly low – employment in all other comparators considered in this analysis has grown by at least twice the rate of Hertfordshire; the county's employment growth rate was eight percentage points less than the national average, nine behind Berkshire and fifteen less than Essex's in the same period.
92. There is evidently a need to boost the economic performance of Hertfordshire and although economic growth has been sluggish, Hertfordshire has some important sectoral strengths

and assets on which to build. The county has a strong base of Knowledge Intensive Industries and a particular concentration of employment in professional, scientific and technical occupations. Hertfordshire's strength in Research and Development, Life Sciences and Advanced Manufacturing alongside clusters of Media and Creative and Software and Digital businesses in some parts of the county will provide a solid foundation for growth. The county's comparative under-reliance on public sector employment will also stand it in good stead as the availability of public sector funding decreases.

SIC Definitions of grouped Sectors

Advanced Manufacturing 2003 SIC
2710 : Manufacture of basic iron and steel and of ferro-alloys
2851 : Treatment and coating of metals
2852 : General mechanical engineering
2861 : Manufacture of cutlery
2862 : Manufacture of tools
2863 : Manufacture of locks and hinges
2911 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2912 : Manufacture of pumps and compressors
2913 : Manufacture of taps and valves
2914 : Manufacture of bearings, gears, gearing and driving elements
3161 : Manufacture of electrical equipment for engines and vehicles not elsewhere classified
3162 : Manufacture of other electrical equipment not elsewhere classified
3530 : Manufacture of aircraft and spacecraft
7310 : Research and experimental development on natural sciences and engineering
7430 : Technical testing and analysis
3410 : Manufacture of motor vehicles
3420 : Manufacture of bodies for motor vehicles: manufacture of trailers and semi-trailers
3430 : Manufacture of parts and accessories for motor vehicles and their engines
3310 : Manufacture of medical and surgical equipment and orthopaedic appliances
3320 : Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
3210 : Manufacture of electronic valves and tubes and other electronic components
3220 : Manufacture of television and radio transmitters /apparatus line telephony and line telegraphy
3230 : Manufacture of television and radio receivers, sound or video recording or reproducing
272 : Manufacture of tubes
273 : Other first processing of iron and steel nec; production of non-ECSC ferro-alloys
274 : Manufacture of basic precious and other non-ferrous metals
275 : Casting of metals
292 : Manufacture of other general purpose machinery
293 : Manufacture of agricultural and forestry machinery
294 : Manufacture of machine tools
295 : Manufacture of other special purpose machinery
297 : Manufacture of domestic appliances not elsewhere classified
311 : Manufacture of electric motors, generators and transformers
312 : Manufacture of electricity distribution and control apparatus
313 : Manufacture of insulated wire and cable
314 : Manufacture of accumulators, primary cells and primary batteries
315 : Manufacture of lighting equipment and electric lamps
Advanced Manufacturing 2007 SIC
242 : Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
243 : Manufacture of other products of first processing of steel
244 : Manufacture of basic precious and other non-ferrous metals
245 : Casting of metals

271 : Manufacture of electric motors, generators, transformers and electricity distribution apparatus
272 : Manufacture of batteries and accumulators
273 : Manufacture of wiring and wiring devices
274 : Manufacture of electric lighting equipment
275 : Manufacture of domestic appliances
281 : Manufacture of general purpose machinery
283 : Manufacture of agricultural and forestry machinery
284 : Manufacture of metal forming machinery and machine tools
289 : Manufacture of other special-purpose machinery
2410 : Manufacture of basic iron and steel and of ferro-alloys
3030 : Manufacture of air and spacecraft and related machinery
7219 : Other research and experimental development on natural sciences and engineering
7120 : Technical testing and analysis
2910 : Manufacture of motor vehicles
2920 : Manufacture of bodies for motor vehicles; manufacture of trailers and semi-trailers
2931 : Manufacture of electrical and electronic equipment for motor vehicles
2932 : Manufacture of other parts and accessories for motor vehicles
3250 : Manufacture of medical and dental instruments and supplies
2790 : Manufacture of other electrical equipment
2561 : Treatment and coating of metals
2562 : Machining
2571 : Manufacture of cutlery
2572 : Manufacture of locks and hinges
2573 : Manufacture of tools
2611 : Manufacture of electronic components
2612 : Manufacture of loaded electronic boards
2620 : Manufacture of computers and peripheral equipment
2630 : Manufacture of communication equipment
2640 : Manufacture of consumer electronics
2651 : Manufacture of instruments and appliances for measuring, testing and navigation
2652 : Manufacture of watches and clocks
2660 : Manufacture of irradiation, electromedical and electrotherapeutic equipment
2670 : Manufacture of optical instruments and photographic equipment
2680 : Manufacture of magnetic and optical media
Life Sciences 2003 SIC
2441 : Manufacture of basic pharmaceuticals
2442 : Manufacture of pharmaceutical preparations
3310 : Manufacture of medical and surgical equipment and orthopaedic appliances
7310 : Research and experimental development on natural sciences and engineering
Life Sciences 2007 SIC
2110 : Manufacture of basic pharmaceutical products
2120 : Manufacture of pharmaceutical preparations
3250 : Manufacture of medical and dental instruments and supplies
7219 : Other research and experimental development on natural sciences and engineering
Software and Digital 2003 SIC
7221 : Publishing of software
7222 : Other software consultancy and supply
7260 : Other computer related activities
3002 : Manufacture of computers and other information processing equipment
3340 : Manufacture of optical instruments and photographic equipment
6420 : Telecommunications
3210 : Manufacture of electronic valves and tubes and other electronic components
3220 : Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
3230 : Manufacture of television and radio receivers, sound or video recording or reproducing

apparatus and associated goods
Software and Digital 2007 SIC
5821 : Publishing of computer games
5829 : Other software publishing
6201 : Computer programming activities
6202 : Computer consultancy activities
2611 : Manufacture of electronic components
2620 : Manufacture of computers and peripheral equipment
2640 : Manufacture of consumer electronics
2670 : Manufacture of optical instruments and photographic equipment
6110 : Wired telecommunications activities
6120 : Wireless telecommunications activities
6130 : Satellite telecommunications activities
6190 : Other telecommunications activities
Creative and Media 2003 SIC
173 : Finishing of textiles
174 : Manufacture of made-up textile articles, except apparel
175 : Manufacture of other textiles
176 : Manufacture of knitted and crocheted fabrics
177 : Manufacture of knitted and crocheted articles
183 : Dressing and dyeing of fur; manufacture of articles of fur
221 : Publishing
223 : Reproduction of recorded media
363 : Manufacture of musical instruments
722 : Software consultancy and supply
921 : Motion picture and video activities
922 : Radio and television activities
1930 : Manufacture of footwear
2052 : Manufacture of articles of cork, straw and plaiting materials
2621 : Manufacture of ceramic household and ornamental articles
3621 : Striking of coins and medals
3622 : Manufacture of jewellery and related articles not elsewhere classified
7420 : Architectural and engineering activities and related technical consultancy
7440 : Advertising
7481 : Photographic activities
9231 : Artistic and literary creation and interpretation
9232 : Operation of arts facilities
1810 : Manufacture of leather clothes
Creative and Media 2007 SIC
1520 : Manufacture of footwear
1629 : Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting
2341 : Manufacture of ceramic household and ornamental articles
3211 : Striking of coins
3212 : Manufacture of jewellery and related articles
7111 : Architectural activities
7112 : Engineering activities and related technical consultancy
7311 : Advertising agencies
131 : Preparation and spinning of textile fibres
132 : Weaving of textiles
133 : Finishing of textiles
139 : Manufacture of other textiles
141 : Manufacture of wearing apparel, except fur apparel
143 : Manufacture of knitted and crocheted apparel
151 : Tanning and dressing of leather; manufacture of luggage, handbags,
181 : Printing and service activities related to printing

182 : Reproduction of recorded media
321 : Manufacture of jewellery, bijouterie and related articles
322 : Manufacture of musical instruments
581 : Publishing of books, periodicals and other publishing activities
582 : Software publishing
591 : Motion picture, video and television programme activities
592 : Sound recording and music publishing activities
601 : Radio broadcasting
602 : Television programming and broadcasting activities
741 : Specialised design activities
742 : Photographic activities
900 : Creative, arts and entertainment activities
Logistics 2003 SIC
6010 : Transport via railways
6024 : Freight transport by road
6110 : Sea and coastal water transport
6120 : Inland water transport
6210 : Scheduled air transport
6220 : Non-scheduled air transport
6311 : Cargo handling
6312 : Storage and warehousing
6321 : Other supporting land transport activities
6322 : Other supporting water transport activities
6323 : Other supporting air transport activities
6340 : Activities of other transport agencies
6411 : National post activities
6412 : Courier activities other than national post activities
Logistics 2007 SIC
4910 : Passenger rail transport, interurban
4920 : Freight rail transport
4931 : Urban and suburban passenger land transport
4932 : Taxi operation
4939 : Other passenger land transport n.e.c.
4941 : Freight transport by road
4942 : Removal services
4950 : Transport via pipeline
5010 : Sea and coastal passenger water transport
5020 : Sea and coastal freight water transport
5030 : Inland passenger water transport
5040 : Inland freight water transport
5110 : Passenger air transport
5121 : Freight air transport
5210 : Warehousing and storage
5221 : Service activities incidental to land transportation
5222 : Service activities incidental to water transportation
5223 : Service activities incidental to air transportation
5224 : Cargo handling
5229 : Other transportation support activities
5310 : Postal activities under universal service obligation
5320 : Other postal and courier activities
Green Industries (inc Business management and Consultancy) 2003 SIC
2830 : Manufacture of steam generators, except central heating hot water boilers
2911 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2912 : Manufacture of pumps and compressors
3110 : Manufacture of electric motors, generators and transformers

3120 : Manufacture of electricity distribution and control apparatus
3710 : Recycling of metal waste and scrap
3720 : Recycling of non-metal waste and scrap
4011 : Production of electricity
4021 : Manufacture of gas
4030 : Steam and hot water supply
4100 : Collection, purification and distribution of water
5157 : Wholesale of waste and scrap
9001 : Collection and treatment of sewage
9002 : Collection and treatment of other waste
9003 : Sanitation, remediation and similar activities
7310 : Research and experimental development on natural sciences and engineering
7414 : Business and management consultancy activities
Green Industries (inc Business management and Consultancy) 2007 SIC
2530 : Manufacture of steam generators, except central heating hot water boilers
2811 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2813 : Manufacture of other pumps and compressors
2711 : Manufacture of electric motors, generators and transformers
2712 : Manufacture of electricity distribution and control apparatus
3811 : Collection of non-hazardous waste
3812 : Collection of hazardous waste
3821 : Treatment and disposal of non-hazardous waste
3822 : Treatment and disposal of hazardous waste
3831 : Dismantling of wrecks
3832 : Recovery of sorted materials
3511 : Production of electricity
3521 : Manufacture of gas
3530 : Steam and air conditioning supply
3600 : Water collection, treatment and supply
4677 : Wholesale of waste and scrap
3700 : Sewerage
7211 : Research and experimental development on biotechnology
7219 : Other research and experimental development on natural sciences and engineering
Green Industries (ex Business management and Consultancy) 2003 SIC
2830 : Manufacture of steam generators, except central heating hot water boilers
2911 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2912 : Manufacture of pumps and compressors
3110 : Manufacture of electric motors, generators and transformers
3120 : Manufacture of electricity distribution and control apparatus
3710 : Recycling of metal waste and scrap
3720 : Recycling of non-metal waste and scrap
4011 : Production of electricity
4021 : Manufacture of gas
4030 : Steam and hot water supply
4100 : Collection, purification and distribution of water
5157 : Wholesale of waste and scrap
9001 : Collection and treatment of sewage
9002 : Collection and treatment of other waste
9003 : Sanitation, remediation and similar activities
7310 : Research and experimental development on natural sciences and engineering
Green Industries (ex Business management and Consultancy) 2007 SIC
2530 : Manufacture of steam generators, except central heating hot water boilers
2811 : Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
2813 : Manufacture of other pumps and compressors
2711 : Manufacture of electric motors, generators and transformers

<p>2712 : Manufacture of electricity distribution and control apparatus 3811 : Collection of non-hazardous waste 3812 : Collection of hazardous waste 3821 : Treatment and disposal of non-hazardous waste 3822 : Treatment and disposal of hazardous waste 3831 : Dismantling of wrecks 3832 : Recovery of sorted materials 3511 : Production of electricity 3521 : Manufacture of gas 3530 : Steam and air conditioning supply 3600 : Water collection, treatment and supply 4677 : Wholesale of waste and scrap 3700 : Sewerage 7211 : Research and experimental development on biotechnology 7219 : Other research and experimental development on natural sciences and engineering</p>
<p>Professional, Banking and Finance, 2003 SIC</p> <p>6511 : Central banking 6512 : Other monetary intermediation 6521 : Financial leasing 6522 : Other credit granting 6523 : Other financial intermediation not elsewhere classified 6601 : Life insurance 6602 : Pension funding 6603 : Non-life insurance 6711 : Administration of financial markets 6712 : Security broking and fund management 6713 : Activities auxiliary to financial intermediation not elsewhere classified 6720 : Activities auxiliary to insurance and pension funding 7412 : Accounting, book-keeping and auditing activities; tax consultancy 7414 : Business and management consultancy activities</p>
<p>Professional, Banking and Finance, 2007 SIC</p> <p>6411 : Central banking 6419 : Other monetary intermediation 6491 : Financial leasing 6492 : Other credit granting 6499 : Other financial service activities, except insurance and pension funding, n.e.c. 6511 : Life insurance 6512 : Non-life insurance 6520 : Reinsurance 6530 : Pension funding 6611 : Administration of financial markets 6612 : Security and commodity contracts brokerage 6619 : Other activities auxiliary to financial services, except insurance and pension funding 6629 : Other activities auxiliary to insurance and pension funding 6630 : Fund management activities 6920 : Accounting, bookkeeping and auditing activities; tax consultancy 7022 : Business and other management consultancy activities</p>
<p>Knowledge Based Industries 2003 SIC</p> <p>2441 : Manufacture of basic pharmaceuticals 2442 : Manufacture of pharmaceutical preparations 3001 : Manufacture of office machinery 3002 : Manufacture of computers and other information processing equipment 3210 : Manufacture of electronic valves and tubes and other electronic components 3220 : Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy</p>

3230 : Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods
 3310 : Manufacture of medical and surgical equipment and orthopaedic appliances
 3320 : Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
 3330 : Manufacture of industrial process control equipment
 3340 : Manufacture of optical instruments and photographic equipment
 3350 : Manufacture of watches and clocks
 3530 : Manufacture of aircraft and spacecraft
 6420 : Telecommunications
 6511 : Central banking
 6512 : Other monetary intermediation
 6521 : Financial leasing
 6522 : Other credit granting
 6523 : Other financial intermediation not elsewhere classified
 6601 : Life insurance
 6602 : Pension funding
 6603 : Non-life insurance
 6711 : Administration of financial markets
 6712 : Security broking and fund management
 6713 : Activities auxiliary to financial intermediation not elsewhere classified
 6720 : Activities auxiliary to insurance and pension funding
 7210 : Hardware consultancy
 7221 : Publishing of software
 7222 : Other software consultancy and supply
 7230 : Data processing
 7240 : Data base activities
 7250 : Maintenance and repair of office, accounting and computing machinery
 7260 : Other computer related activities
 7310 : Research and experimental development on natural sciences and engineering
 7320 : Research and experimental development on social sciences and humanities
 7411 : Legal activities
 7412 : Accounting, book-keeping and auditing activities; tax consultancy
 7413 : Market research and public opinion polling
 7414 : Business and management consultancy activities
 7415 : Management activities of holding companies
 7420 : Architectural and engineering activities and related technical consultancy
 7430 : Technical testing and analysis
 7440 : Advertising
 7481 : Photographic activities
 8030 : Higher education
 8511 : Hospital activities
 9211 : Motion picture and video production
 9220 : Radio and television activities
 9231 : Artistic and literary creation and interpretation

Knowledge Based Industries 2007 SIC

2110 : Manufacture of basic pharmaceutical products
 2120 : Manufacture of pharmaceutical preparations
 2611 : Manufacture of electronic components
 2620 : Manufacture of computers and peripheral equipment
 2630 : Manufacture of communication equipment
 2651 : Manufacture of instruments and appliances for measuring, testing and navigation
 2652 : Manufacture of watches and clocks
 2670 : Manufacture of optical instruments and photographic equipment
 3030 : Manufacture of air and spacecraft and related machinery
 3250 : Manufacture of medical and dental instruments and supplies

2823 : Manufacture of office machinery and equipment (except computers and peripheral equipment)
6110 : Wired telecommunications activities
6120 : Wireless telecommunications activities
6130 : Satellite telecommunications activities
6190 : Other telecommunications activities
6511 : Life insurance
6512 : Non-life insurance
6530 : Pension funding
6611 : Administration of financial markets
6612 : Security and commodity contracts brokerage
6619 : Other activities auxiliary to financial services, except insurance and pension funding
6621 : Risk and damage evaluation
6629 : Other activities auxiliary to insurance and pension funding
6630 : Fund management activities
5821 : Publishing of computer games
5829 : Other software publishing
6311 : Data processing, hosting and related activities
6201 : Computer programming activities
6202 : Computer consultancy activities
3320 : Installation of industrial machinery and equipment
9511 : Repair of computers and peripheral equipment
9512 : Repair of communication equipment
6910 : Legal activities
6920 : Accounting, bookkeeping and auditing activities; tax consultancy
7022 : Business and other management consultancy activities
6411 : Central banking
6419 : Other monetary intermediation
6420 : Activities of holding companies
6491 : Financial leasing
6492 : Other credit granting
6499 : Other financial service activities, except insurance and pension funding, n.e.c.
7120 : Technical testing and analysis
7311 : Advertising agencies
7320 : Market research and public opinion polling
7420 : Photographic activities
8610 : Hospital activities
5911 : Motion picture, video and television programme production activities
5912 : Motion picture, video and television programme post-production activities
9003 : Artistic creation
601 : Radio broadcasting
602 : Television programming and broadcasting activities
711 : Architectural and engineering activities and related technical consultancy
721 : Research and experimental development on natural sciences and engineering
722 : Research and experimental development on social sciences and humanities
854 : Higher education

2. Sector Forecasts

Introduction

1. The analysis and creation of sector forecasts forms a key component in identifying potential future demand for strategic employment sites in Hertfordshire to 2031. This section sets out the main findings from this analysis.
2. The approach was formed of five stages:
 - Analysis of Oxford Economics base, low and high employment forecasts for Hertfordshire (2011-2031) which are available through the East of England Development Agency's (EEDA) Insight East website;
 - A regional drill down into 59 more detailed employment sub-sectors to understand how particular elements of the economy are expected to change across the region. This helped to inform an understanding of how Hertfordshire's key sectors may change over time;
 - Analysis of employment forecasts for locations which have been successful in attracting inward investment. Berkshire and Cambridgeshire were identified for this purpose. The findings were then compared to the Hertfordshire forecasts;
 - Development of three employment forecasts for Hertfordshire to be used to guide thinking on strategic employment sites. These were status quo, base growth and aspirational growth.
 - Converting the employment growth of three chosen scenarios into employment land.
3. Total employment figures (sum of full and part time employees) have been used throughout unless stated as Full Time Equivalent.
4. While the analysis of forecasts does help to form an assessment of the demand for strategic employment land, the sectors it needs to appeal to and the most suitable locations, it does not provide a definitive answer. The figures should be viewed alongside other elements of analysis including findings from consultation with key businesses and the assessment of potential sites for strategic employment uses.

East of England Forecasting Model for Hertfordshire

5. The East of England Development Agency (EEDA) held a contract with Oxford Economics to provide bi-annual employment forecasts for the region⁶. The forecasts covered the period to 2031 and were available by county and district across 28 employment sectors. Three forecasts were produced each Spring and Autumn to provide a base forecast, low growth forecast and high growth forecast. The key messages from the most recent, and final, of these base, low and high forecasts (Autumn 2010) are provided within this section.
- 2.1 The method takes account of the supply and demand of labour and uses location quotients

⁶ This contract ended on 6th January 2011.

(LQs) as a starting point (building on Annual Business Inquiry data). Location quotients provide an indication of the level of concentration of a particular sector in a particular area, relative to the regional average. **Forecast trends in the LQs are based on how they have changed over time as well as how the sector is expected to perform regionally.** Three forms of location quotient are used in the model:

- Exporting sectors (e.g. manufacturing) – LQ is based on an area’s share of the region’s employees in a particular sector. Growth forecasts at the local level relate to the ‘interaction of the relevant LQ forecasts with the regional sector employee forecasts from Oxford’s Regional Model’.
- Service-based sectors (e.g. retail, health) – LQ is based on the number of employees in the sector per head of the local population. Forecasts for these sectors are driven by forecast changes in the local and regional population.
- Business services (e.g. finance, R&D and technical testing) – LQ is based on the number of a sectors employees relative to all jobs in the area, relative to the regional average. Local employee growth forecasts for these sectors are calculated through ‘the interaction of the relevant LQ forecasts with the regional sector employment forecasts from the Regional Model’.

6. The forecasting method used by Oxford Economics is based on ‘observed past trends only’ and therefore ‘reflect past infrastructure and policy environments’. They do not take into account new infrastructure or policy environments that have not yet had an effect on local data. Where past growth or decline of employment would lead the forecasts to produce extreme figures Oxford Economics temper these down to produce more realistic extrapolations. Further detail on the method can be found in Oxford Economics’ Technical Report at <http://www.insighteast.org.uk/viewResource.aspx?id=18086> .
7. The high and low growth forecasts show the implications in the East of England of future UK economic growth being higher or lower than in the baseline forecast. The base forecast applies the UK average annual percent GVA growth of 3% over 2011-2018 and 2.2% over 2018-2031 (overall growth over the period of 2.5%). The high growth forecast applies a UK average annual percent growth of 3.5% over 2011-2018 and 2.7% over 2018-2031 (overall growth over 2011-2031 of 3%). The low growth forecast is based on UK average annual percent GVA growth of 2.5% over 2011-2018 and 1.7% over 2018-2031 (equating to overall growth over 2011-2031 of 2%).

Forecast	Annual average percent GVA growth 2011-2018	Annual average percent GVA growth 2018-2031	Annual average percent GVA growth 2011-2031
Base	3.0	2.2	2.5
High	3.5	2.7	3.0
Low	2.5	1.7	2.0

8. Oxford Economics’ **base growth forecast** for Hertfordshire predicts total employment growth of 79,300 across the County from 2011 to 2031. Full Time Equivalent (FTE) employment is around 84% of total employment in each of the ten districts, giving FTE employment growth across the County of 66,845.
9. Growth is distributed across Hertfordshire as shown in Table 2-1. St Albans is forecast to experience the highest level of employment growth (+14,600 employees) while Broxbourne

is forecast to experience the lowest level of growth (+2,100 employees). This broadly reflects the general distribution of employment across the County at present.

10. Short term growth is likely to be more significant than in subsequent time periods. Table 2-1 shows, an additional 44,800 employees are forecast across the County in the five year period from 2011 to 2016 while only a further 34,500 employees are forecast for the subsequent fifteen year period from 2016 to 2031. This will have important repercussions for the timely response of the provision of employment land to accommodate this substantial short term employment growth.
11. In the ten year period from 2021-2031 some of Hertfordshire's ten districts are forecast declines in employment. This includes Broxbourne (-1,100 employees), East Hertfordshire (-500 employees), North Hertfordshire (-600 employees), Three Rivers (-100 employees) and Watford (-700 employees).

Table 2-1 Employment Change by District and Time Period (2011-2031) (Non-FTE)					
BASE SCENARIO (non-FTE)	Change in Employment (000's)				
	2011-2031	2011-2016	2016-2021	2021-2026	2026-2031
Broxbourne	2.1	2.6	0.6	-0.5	-0.6
Dacorum	9.5	5.6	2.5	0.7	0.7
East Hertfordshire	5.8	4.7	1.6	-0.3	-0.2
Hertsmere	13.4	6.0	3.5	1.9	2.0
North Hertfordshire	3.3	3.1	0.8	-0.3	-0.3
St Albans	14.6	6.6	3.6	2.1	2.2
Stevenage	9.3	3.9	2.4	1.5	1.6
Three Rivers	3.3	2.6	0.8	-0.1	0.0
Watford	5.6	4.5	1.7	-0.3	-0.4
Welwyn Hatfield	12.4	5.3	3.1	1.9	2.2
Hertfordshire	79.3	44.8	20.6	6.6	7.3

12. The baseline earlier in the report provided analysis of **historic employment growth trends**. Table 2-2 compares historic trends over the last ten years with the Oxford Economics forecast for the next ten years. From 1998 to 2008 employment grew by 7,800 jobs (2%) across the County. The districts with the largest employment growth were Welwyn Hatfield (+14,300 employees) and Three Rivers (+9,400 employees). Over the next ten years, Oxford Economics base forecast shows that the County is predicted to experience a growth rate of 13% (+65,400 employees). This is around seven times greater than the employment change for the previous ten years. The base forecast identifies St Albans (+10,200 employees) and Hertsmere (+9,500 employees) as having the largest absolute growth between 2011 and 2021.

Table 2-2 Forecast Growth Compared to Historic Trends (Non-FTE)								
	Trend		Forecast Growth 2011-2021					
	Historic Growth 1998-2008		Base Case Forecast		Higher Growth Forecast		Lower Growth Forecast	
	Total (000's)	%	Total (000's)	%	Total (000's)	%	Total (000's)	%
Broxbourne	3.5	12	3.2	9.8	4.7	14.4	2.7	8.3
Dacorum	-1.9	-3	8.1	13.4	10.1	16.7	7.3	12.1
East	0.5	1	6.3	10.9	8.7	15.1	5.4	9.4

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Hertfordshire								
Hertsmere	1.8	4	9.5	21.0	12.1	26.6	8.6	19.0
North Hertfordshire	-3.1	-6	3.9	8.7	5.7	12.6	3.2	7.3
St Albans	-13.3	-17	10.2	16.4	12.6	20.2	9.4	15.1
Stevenage	0	0	6.2	14.9	7.8	18.6	5.6	13.4
Three Rivers	9.4	40	3.4	10.0	5.0	14.6	2.9	8.6
Watford	-3.4	-6	6.2	12.1	8.6	16.8	5.4	10.5
Welwyn Hatfield	14.3	27	8.4	12.3	10.6	15.5	7.7	11.3
Hertfordshire	7.8	2	65.4	13.1	85.9	17.2	58.24	11.72

Source: Oxford Economics, Autumn 2010; ABI Employment Data

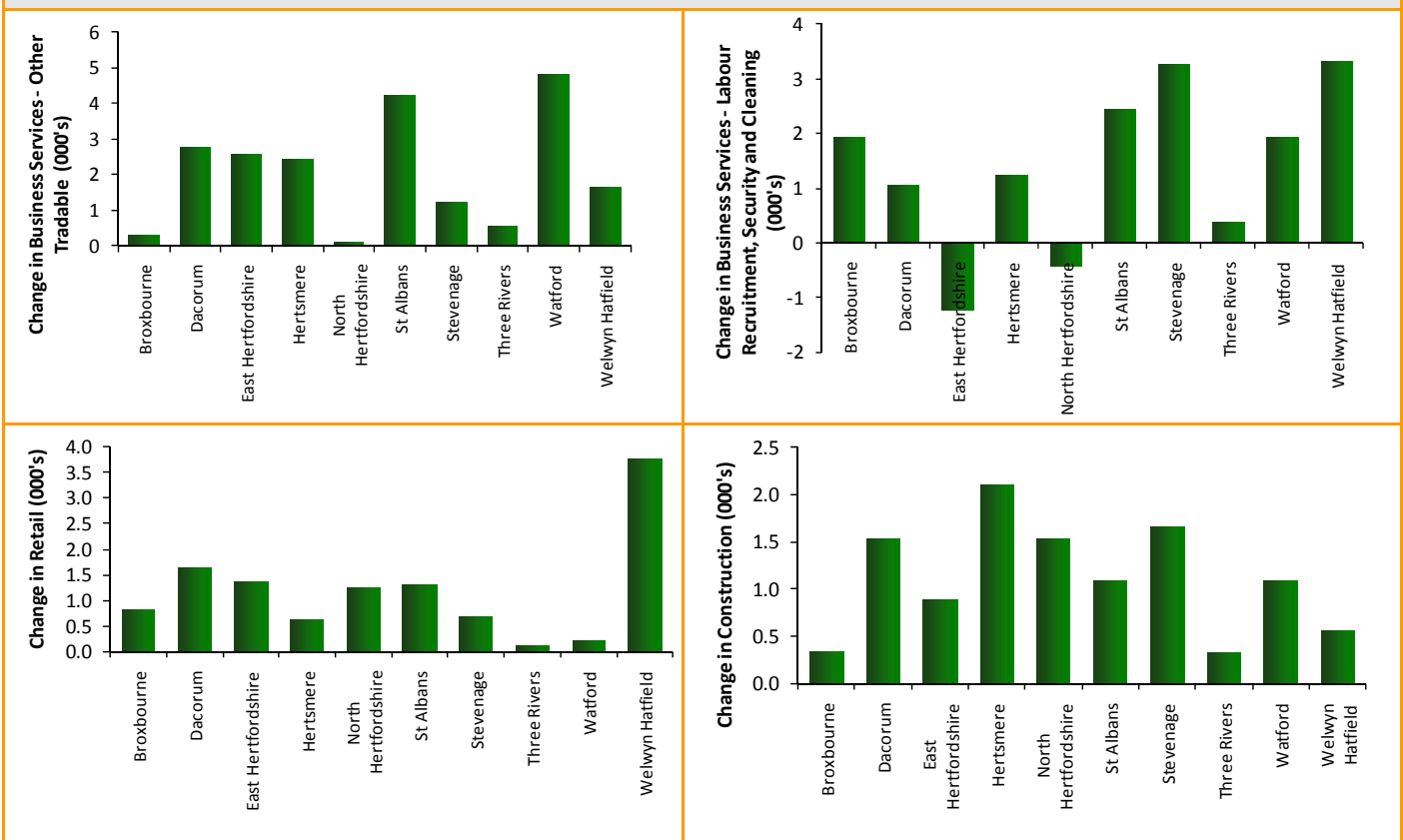
13. In terms of the base forecast to 2031, employment change varies considerably by **sector**. A number of sectors, particularly those within the professional and service industries, are forecast notable growth while other sectors, such as those within the manufacturing industry, are forecast considerable declines. Table 2-3 below shows the breakdown of employment change in Hertfordshire by sector.

Sector	Total Change	% Change
Agriculture and Fishing	-1.3	-35.7
Extraction	-0.1	-57.8
Manufacturing - Food, Drink and Tobacco	-0.7	-36.6
Manufacturing - Other Low Tech	-3.0	-48.4
Manufacturing -Metals and Engineering	-7.4	-46.5
Manufacturing - Chemicals and Process	-2.2	-30.7
Manufacturing - Other and Recycling	-0.3	-11.7
Utilities	-0.4	-25.2
Construction	11.1	37.8
Wholesale, Distribution and Sale/Maintenance of Motor Vehicles	7.7	18.9
Retailing	11.8	20.6
Hotels and Catering	3.2	10.9
Air Transport	0.0	18.9
Communications	1.2	9.3
Land and Other Transport	0.6	4.6
Water Transport	0.0	-45.7
Finance	2.1	16.2
Business Services - Computer Related	3.5	21.7
Business Services - Labour Recruitment, Security and Cleaning	13.9	36.9
Business Services -Other Including Call Centres	1.5	15.6
Business Services - R&D and Technical Testing	1.5	20.5
Business Services - Real Estate and Renting	3.8	27.0
Business Service - Other Tradable	20.7	52.2
Public Admin	-2.0	-12.5
Education	-1.6	-3.4
Health	7.2	14.8
Personal Services - Miscellaneous	7.9	31.1
Personal Services - Waste	0.3	13.6

Source: Oxford Economics, Autumn 2010

14. The sector forecast the greatest absolute employment growth is ‘other tradable’ business services. This sector is forecast a growth of 20,700 employees over the twenty year time period and covers activities such as legal services, advertising and architecture. ‘Other tradable’ business services are typically higher value added activities.
15. Other sectors forecast large levels of employment growth across the County are ‘labour recruitment, security and cleaning’ (+13,900 employees), retail (+11,800 employees) and construction (+11,100 employees). This set of sectors are typically lower end, lower value added activities. However, the labour recruitment category can also disguise employment demand from those sectors which use agencies to source employment on a permanent or ad hoc (seasonal) basis, some of which will be higher value added employment activities. A number of high end manufacturing businesses consulted for this study referred to a considerable proportion of their workforce being sourced from such agencies (in some instances up to 50% of the total workforce were from agencies and received the same training as the staff employed directly). This was taken into account during the floorspace calculations later in this Appendix through the redistribution of employment growth in this sector across the other sectors. Figure 2-1 shows the variations in employment change of the four main growth sectors by district.

Figure 2-1 Sectors Forecast Largest Absolute Growth in Employment 2011-2031 (Oxford Economics, Base Forecast) (Non-FTE)



Source: Oxford Economics, Base Forecast Autumn 2010; Regeneris Consulting, 2011

16. Looking at the percent growth of employment by sector provides another dynamic to understanding those sectors forecast to grow. While some sectors may not employ significant numbers, the rate of growth they are forecast to experience will be an important factor in the changing economy of Hertfordshire over the coming years. The sectors forecast the highest percent growth to 2031 are the same as those which are forecast the greatest absolute growth, stated above. In addition, wholesale and distribution (19%

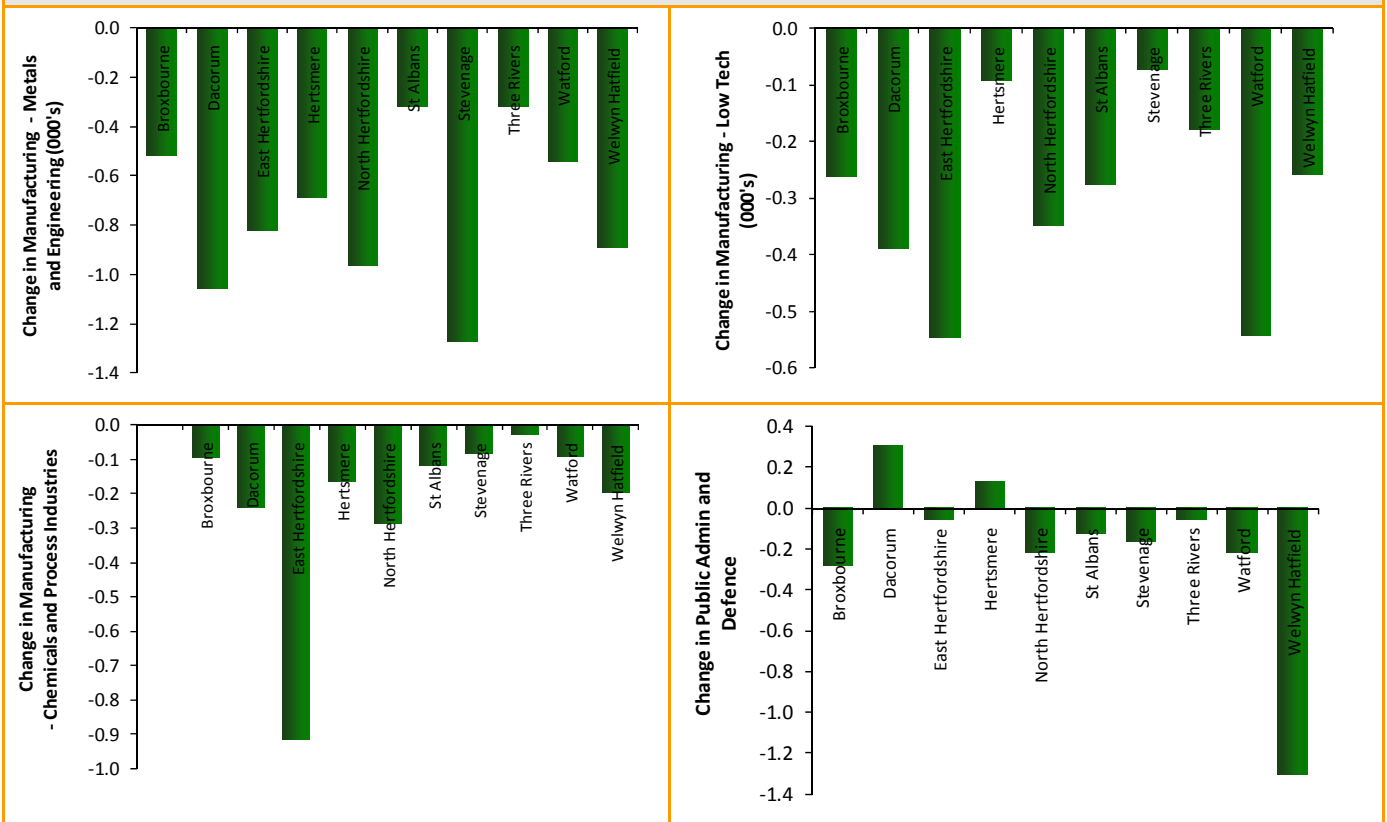
growth, +7,700 employees), air transport (19% growth, marginal employment change), computer related business services (+22% growth, +3,500 employees), R&D and technical testing (27% growth, +1,500 employees) and real estate and renting (27% growth, +3,800 employees) are all forecast notable percent growth.

17. The table below shows the top ten sectors by absolute and percent employment growth.

Table 2-4 Top 10 sectors showing growth (Non-FTE)			
Absolute Change(000's)		Percent Change (%)	
Business services - other tradable	20.7	Business services - other tradable	52.2
Business services - labour recruitment, security & cleaning	13.9	Construction	37.8
Retail	11.8	Business services - labour recruitment, security & cleaning	36.9
Construction	11.1	Other personal services - miscellaneous	31.1
Other personal services - miscellaneous	7.9	Business services - real estate & renting	27.0
Wholesale & distribution	7.7	Business services - computer related	21.7
Health	7.2	Retail	20.6
Business services - real estate & renting	3.8	Business services - R&D, technical testing	20.5
Business services - computer related	3.5	Air transport	18.9
Hotels & catering	3.2	Wholesale & distribution	18.9

18. A number of sectors are forecast to decline in employment over the 2011-2031 period. These are primarily in industrial sectors such as manufacturing. Variations by district are shown in Figure 2-2 for the sectors forecast the largest employment growth. The greatest absolute declines are forecast in metals and engineering manufacturing (-7,400 employees), 'other low tech' manufacturing (-3,000 employees), chemical and process industries (-2,200 employees) and public administration and defence (-2,000 employees). These manufacturing declines are forecast as a result of ongoing structural changes across the country and county. There will clearly be implications for industrial employment sites (B2). The decline in public administration is a reflection of public sector budget cuts which are affecting the country following the recession. The decline of office space used for public sector employment will be more than matched by growth in other office sectors, in particular business services. However, it is likely that the specific land and space requirements will be different for the two groups and must therefore be taken into account in the distribution of employment land by scale, location and quality.

Figure 2-2 Sectors Forecast Largest Absolute Declines in Employment 2011-2031 (Oxford Economics, Base Forecast) (Non-FTE)



Source: Oxford Economics, Base Forecast Autumn 2010; Regeneris Consulting, 2011

19. In terms of percent decline, the extraction industry is forecast the greatest change (-58%). This is, however, from a small employment base of around 100 jobs. Other sectors forecast notable percent declines in employment from 2011 to 2031 include those with the largest absolute decline and are 'other low tech' manufacturing (-48%, -3,000 employees), metals and engineering (-47%, -7,400 employees), water transport (-46%, marginal absolute decline) and food, drink and tobacco manufacturing (-37%, -700 employees).
20. The following table shows the top sectors by absolute and percent employment decline.

Table 5 Top 10 sectors showing decline (Non-FTE)			
Absolute Change (000's)		Percent Change (%)	
Manufacturing - metals & engineering	-7.4	Extraction	-57.8
Manufacturing - other low tech	-3.0	Manufacturing - other low tech	-48.4
Manufacturing - chemicals & process industries	-2.2	Manufacturing - metals & engineering	-46.5
Public admin & defence	-2.0	Water transport	-45.7
Education	-1.6	Manufacturing - food, drink & tobacco	-36.6
Agriculture	-1.3	Agriculture	-35.7
Manufacturing - food, drink & tobacco	-0.7	Manufacturing - chemicals & process industries	-30.7
Electricity, gas & water	-0.4	Electricity, gas & water	-25.2
Manufacturing - other & recycling	-0.3	Public admin & defence	-12.5
Extraction	-0.1	Manufacturing - other & recycling	-11.7

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21. Table 2-6 was included in the interim presentation delivered to the Steering Group in January 2011. This focuses on some of those sectors with a B Use Class (and therefore requiring employment land) as well as incorporating target sectors (discussed subsequently).
22. It also provides analysis for three specific geographies which were used in the baseline analysis (West, East and Central Hertfordshire).

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Table 2-6 Total Change in FTEs from 2011-2031 by Key Sector (000's) (FTE)

	Total Employment Change	Manufacturing					Wholesale and Distribution	Finance	Business Services			Key Sectors Employment Change
		Food, Drink and Tobacco	Low Tech	Metals and Engineering	Chemicals and Process Industries	Other and Recycling			Computer Related	Other including Call Centres	R&D and Technical Testing	
Broxbourne	1.77	-0.02	-0.22	-0.43	-0.08	-0.04	-0.23	-0.06	0.09	-0.09	0.01	-1.06
Dacorum	8.05	-0.09	-0.33	-0.90	-0.20	0.00	1.10	0.84	-0.07	0.41	0.10	0.86
East Hertfordshire	4.83	-0.07	-0.45	-0.68	-0.76	-0.10	1.09	0.07	0.34	0.04	-0.49	-1.00
Hertsmere	11.41	-0.01	-0.08	-0.58	-0.14	-0.02	2.70	0.57	0.74	-0.03	0.28	3.43
North Hertfordshire	2.77	-0.04	-0.29	-0.81	-0.24	0.06	0.29	0.04	0.80	0.01	0.17	0.00
St Albans	11.87	-0.03	-0.22	-0.26	-0.10	-0.04	0.53	0.41	0.61	0.24	0.25	1.39
Stevenage	7.88	-0.10	-0.06	-1.07	-0.07	0.00	0.29	0.17	0.68	0.16	-0.14	-0.14
Three Rivers	2.89	-0.11	-0.16	-0.28	-0.02	-0.06	0.15	0.06	0.32	0.23	0.03	0.16
Watford	4.75	-0.03	-0.46	-0.46	-0.08	-0.03	-0.29	-0.50	-0.16	0.09	0.00	-1.92
Welwyn Hatfield	10.44	-0.06	-0.22	-0.75	-0.16	0.00	0.87	0.14	-0.39	0.17	1.03	0.63
West Hertfordshire	38.97	-0.27	-1.25	-2.48	-0.54	-0.15	4.19	1.38	1.45	0.94	0.66	3.92
East Hertfordshire	6.60	-0.08	-0.67	-1.12	-0.84	-0.14	0.86	0.01	0.44	-0.05	-0.48	-2.07
Central Hertfordshire	21.09	-0.20	-0.57	-2.63	-0.48	0.06	1.45	0.36	1.09	0.34	1.06	0.49
Hertfordshire	66.66	-0.55	-2.49	-6.23	-1.86	-0.23	6.50	1.75	2.98	1.23	1.25	2.34

Source: EEDA, Variable Forecasts Baseline Forecast ABI, Oxford Economics, Autumn 2010 Update – Employee Tables; analysis by Regeneris Consulting

West Hertfordshire: Including the local authority areas of Dacorum, Hertsmere, St Albans, Three Rivers and Watford.

Central Hertfordshire: Covering North Hertfordshire, Stevenage and Welwyn Hatfield

East Hertfordshire: Covering Broxbourne and East Hertfordshire Local Authorities.

23. As identified in the main report, Hertfordshire County Council considers the following sectors to be a priority for the County's economy: Software and Digital; Life Sciences; Advanced Manufacturing; Creative and Media; Green Industries and Consultancy; Logistics; and Professional Banking and Finance. These sectors are forecast to experience varying degrees of growth or decline over the next twenty years. A full breakdown of the forecast for Hertfordshire is not possible by all of these sector categories due to the sectors used in the Oxford Economics forecast. Instead, we provide an overview of the sectors with the closest fit below. Later in this Appendix the regional forecast for the East of England is used to provide a more detailed illustration of how these priority sectors are forecast to change in the region.
24. **Software and Digital** activities are most closely aligned to the 'Business Services – Computer Related' and 'Communications' sectors used in the Oxford Economics forecasts. Computer Related business services are forecast to grow by 3,500 employees in Hertfordshire from 2011 to 2031. This is a 21.7% increase from a base of 16,400. By 2031 19,900 employees are forecast for this sector. The largest growth in this sector is forecast in North Hertfordshire (1,000 additional jobs). However, declines are forecast in Dacorum, Watford and Welwyn Hatfield. In 2011, 18,900 people were employed in Communications in Hertfordshire. This is forecast to increase by 1,200 jobs to 13,900 in 2031 (9.3% increase). Growth is forecast in six of the ten districts. The district with the highest forecast growth is Welwyn Hatfield with a forecast increase of 1,900 employees. Decreases in other districts bring the net employment change in this sector to below this number. Overall, growth of 4,700 jobs is forecast in the two sectors.
25. **Life Sciences** can be broadly analysed using 'Health' and the 'Manufacturing – Chemicals and Process Industries' sector group which incorporates a number of activities such as nuclear fuels, minerals, chemicals and rubber and plastics (this sector includes pharmaceuticals). All Manufacturing sectors are forecast to decline under the 2011-2031 forecast. However, the Chemicals and Process Industries group is forecast a lower percent decline (-30.7%) than other Manufacturing groups such as 'Other Low Tech' (-48.4% change 2011-2031). A total of 2,200 jobs are forecast to be lost in the Chemicals and Process Industries group between 2011 and 2031. This is from a base of 7,200 employees in 2011 to 5,000 in 2031. It is important for any analysis of this information to bear in mind that, while this is negative change, it relates to a wider classification than Life Sciences alone. However, this forecast highlights that Hertfordshire's current strength in this type of activity is not a given and that additional public sector support may be required to sustain and indeed enhance the sector. In terms of employment in Health, the sector is forecast to be within the top ten growth sectors of the County, with 7,200 additional jobs by 2031. East Hertfordshire (+1,400), St Albans (+1,400) and Stevenage (+1,200) are notable for their high levels of forecast employment growth both in absolute and percentage terms. This sector demonstrates the population concentrations in these areas but may also be a reflection of an advanced health services industry.
26. **Advanced Manufacturing** can be broadly analysed using 'Manufacturing – Metals and Engineering' sector group (incorporating a number of activities such as metals, machinery, electrical, optical and transport equipment) and 'Business Services – R&D and Technical Testing'. Metals and Engineering activities are forecast to decline by 7,400 jobs across Hertfordshire between 2011 and 2031. This is a 46.5% decrease from the 2011 employment figure in this sector (15,900 employees in 2011). In absolute terms, this is the largest loss of employees forecast across all sectors (-7,400). Stevenage, which demonstrates a

concentration of employment in this activity, is forecast the largest decline (-1,300 employees). Dacorum (-1,100) and North Hertfordshire (-1,000) are also forecast substantial decline. It is important for any analysis of this information to bear in mind that, while the data shows negative change, it relates to a wider range of manufacturing activities than Advanced Manufacturing alone. Higher end manufacturing is likely to see positive change comparative to lower added value manufacturing activities which are increasingly being relocated to cheaper locations abroad. However, ensuring that the necessary support is available to businesses operating within Advanced Manufacturing will still be important to ensure that they are retained in the County. The 'Business Services – R&D and Technical Testing' sector is forecast a more positive future. It is forecast to be the eight largest growth sector in terms of percentage change to 2031 (20.5%) though this translates into only 1,500 employees. Two locations in Hertfordshire (East Hertfordshire and Stevenage) are forecast declines (-600 and -200 respectively) while Welwyn Hatfield is forecast the largest growth (+1,200). While the 'R&D and Technical Testing' sector is forecast to grow in employment terms, it is unlikely to counteract the projected level of decline in 'Manufacturing – Metals and Engineering' (though this is not exclusively Advanced Manufacturing). As such, the R&D and technical testing functions should be supported and attracted as far as possible in order to maintain and strengthen the county's position as an Advanced Manufacturing location.

27. **Creative and Media** activities are particularly difficult to align to the 28 sector groups used within the Oxford Economics forecast. This is accentuated by the varying types of creative and media occupations available, for example covering architecture, textiles and other design activities as well as film and publishing. As a result, these activities fall within a number of broader sector groups (Other Low Tech Manufacturing; Other Manufacturing and Recycling; Business Services – Computer Related; Business Services – Other Tradable; Business Services – Other Including Call Centres; and Miscellaneous Services). For this reason, creativity and media is not reviewed here in terms of the Hertfordshire forecasts but instead is reviewed in the section on regional drill down later on in this Appendix.
28. **Green Industries and Consultancy** are again difficult to identify as they may fall within a number of other categories where individual businesses apply environmentally friendly practices, develop and manufacture environmentally friendly products, or offer advice to other businesses in applying environmentally friendly practices. As a result, Green Industries and Consultancy may come within a number of broader sectors covered in the Oxford Economics forecasts such as Construction, Manufacturing and Business Services. Construction employment is forecast to increase by 11,100 jobs from 2011 to 2031 while all Business Services categories (Computer Related, 'Labour Recruitment, Security and Cleaning', Other including Call Centres, R&D and Technical Testing, Real Estate and Renting and Other Tradable) are forecast to increase, resulting in an additional 44,900 jobs over the forecast period. While only a proportion of employment in Construction and Business Services is likely to be linked to Green Industries and Consulting it is likely that this proportion will increase over time and will be an important sector to support, particularly given heightened political attention on such industries. As a contrast, Manufacturing is forecast to decrease across the board (Metals and Engineering, Chemicals and Process Industries, Other and Recycling, Other Low Tech and Food, Drink and Tobacco). Despite this, it is anticipated that there will be an increase in green operations within the Manufacturing sectors nationwide. This is supported in the Hertfordshire context through our business consultations with organisations such as BRE who are pioneering new green technologies and help to attract similar organisations to the area.

29. **Logistics** can be analysed with relative accuracy by reviewing the forecasts for 'Wholesale, Distribution and Sale/Maintenance of Motor Vehicles' together with 'Land and Other Transport'. The Wholesale and Distribution sector is forecast to grow by 7,700 employees by 2031 while 'Land and Other Transport' is forecast to grow by 600 employees. This gives a total employment increase of 8,300 across the forecast period for the Logistics sector. Hertsmere is forecast the largest employment growth in 'Wholesale, Distribution and Sale/Maintenance of Motor Vehicles' (+3,200 employees) though both Broxbourne and Watford are forecast declines of 300 employees each. Hertsmere is forecast an increase of 500 jobs in 'land and other transport' and St Albans if forecast an increase of 300 jobs. However, both Dacorum and Watford are forecast declines of 300 and 400 employees respectively. The overall Logistics growth of 8,300 employees is reflective of the current strengths in these types of activities in certain parts of Hertfordshire at present. There are a number of high profile logistics companies, as well as companies in other sectors which operate distribution as a subset of their main business activity (such as News International who print and distribute papers across the country from their Hertfordshire location) which report that they are located in Hertfordshire due to its road network and connectivity.
30. **Professional, Banking and Finance** is covered by 'Finance' and 'Business Services – Other Tradable' (covering activities such as legal services, advertising and architecture). The finance sector is forecast to grow by 2,100 employees from 2011 to 2031. While this is not the most substantial growth forecast for the Business Services sectors, it reflects the strengths of this sector nationally and the general direction of employment change for professional services. The greatest increases are forecast in Hertsmere (+700 employees) and St Albans (+500 employees). However both Broxbourne and Watford are forecast declines (-100 and -600 jobs respectively). 'Business Services - Other Tradable' employment is forecast to be the largest growth sector in Hertfordshire, in terms of both absolute growth (+20,700) and percentage growth (52.2%). Watford (+4,800) and St Albans (+4,200) are forecast the largest growth while Dacorum (+2,800), East Hertfordshire (+2,600) and Hertsmere (+2,400) are also forecast large employment growth. Overall it is evident that the Professional, Banking and Finance priority sector is a key growth sector for the future. Companies operating within this sector across the UK can vary in size and there are a number of notable larger employers in this sector in Hertfordshire, though it is common for a large number of small organisations to exist in this sector, characterised by entrepreneurial activity and home working. As such, the support and offer which the sector may respond to may differ from that of other sectors which typically require large employment sites.
31. As mentioned previously, Oxford Economics also produced two additional employment forecasts alongside the base forecast on a bi-annual basis. These are a low growth scenario and high growth scenario. The general direction of travel of employment change is broadly in line with the base scenario for each sector.
32. The **low growth scenario** forecasts total employment change of 69,600 employees from 2011-2031. This equates to 9,700 fewer employees than the base scenario forecast of 79,300. Similar to the base scenario, the largest employment growth is expected to be seen in St Albans (+13,460) as well as Hertsmere (+12,050 employees), and Welwyn Hatfield (+11,590). The lowest level of growth is again forecast to be in Broxbourne (+1,430).

LOW SCENARIO (non-FTE)	Change in Employment (000's)				
	2011-2031	2011-2016	2016-2021	2021-2026	2026-2031
Broxbourne	1.4	2.3	0.4	-0.6	-0.7
Dacorum	8.5	5.1	2.2	0.6	0.6
East Hertfordshire	4.6	4.3	1.1	-0.4	-0.4
Hertsmere	12.1	5.6	3	1.7	1.8
North Hertfordshire	2.4	2.7	0.5	-0.4	-0.4
St Albans	13.5	6.2	3.3	1.9	2.1
Stevenage	8.5	3.6	2	1.4	1.5
Three Rivers	2.6	2.3	0.6	-0.2	-0.1
Watford	4.4	4.1	1.3	-0.4	-0.6
Welwyn Hatfield	11.5	4.9	2.8	1.8	2
Hertfordshire	69.5	41.1	17.2	5.4	5.8

Source: Oxford Economics, Autumn 2010

33. The **high growth scenario** forecasts employment in Hertfordshire to grow by 124,300 employees from 2011 to 2031. This is an increase of 45,000 employees above the base forecast. Again, the largest growth in employment is expected in St Albans (+19,790 employees) while Hertsmere is forecast a similar level of growth (+19,450). Broxbourne is forecast the smallest increase in employment with an additional 5,170 employees).

HIGH SCENARIO (non-FTE)	Total Change (000's)				
	2011-2031	2011-2016	2016-2021	2021-2026	2026-2031
Broxbourne	5.1	3.2	1.4	0.3	0.2
Dacorum	13.1	6.6	3.5	1.5	1.5
East Hertfordshire	11.7	5.7	3	1.3	1.7
Hertsmere	19.4	7.1	5	3.5	3.8
North Hertfordshire	6.9	3.9	1.7	0.6	0.7
St Albans	19.8	7.7	4.9	3.4	3.8
Stevenage	12.8	4.7	3.2	2.3	2.6
Three Rivers	6.8	3.3	1.7	0.8	1
Watford	11	5.5	3.1	1.1	1.3
Welwyn Hatfield	17.7	6.3	4.3	3.3	3.8
Hertfordshire	124.33	54.14	31.79	18.11	20.29

Source: Oxford Economics, Autumn 2010

34. Finally, it is important to understand how the Oxford Economics base forecast relates to the **Employment Land Review (ELR)** forecasts adopted by each of the ten Hertfordshire districts. The ELR forecasts have guided employment land strategies in the districts to date. It is important to bear these in mind as they may demonstrate the aspirations a district has for its economy. Columns two to five in Table 2-9 provide a comparison between the preferred employment growth scenario of each district with the Oxford Economics base, low and high forecasts, which have been aligned to the relevant time period (to match that of the preferred scenario forecast). Columns six to nine provide a comparison between Regional Spatial Strategy (RSS) employment growth and the Oxford Economics base, low and high forecasts.

35. Summing all preferred scenarios (87,000 jobs) gives a total change which falls between that of the base scenario (72,100 jobs) and high growth scenario (101,800 jobs). However, the preferred scenario's, and therefore the corresponding Oxford Economics scenario figures, relate to a variety of different time periods. None of the base scenario forecasts are reflective of the districts' preferred scenarios. However, the preferred scenarios for Dacorum and Watford are broadly in line with the low growth scenario for the corresponding time period and the preferred scenarios for East Hertfordshire and North Hertfordshire, are broadly similar to the high growth scenario. The preferred scenario forecasts for Broxbourne, Hertsmere and Stevenage are considerably higher than even the high growth scenario produced by Oxford Economics while the preferred scenarios for St Albans, Three Rivers and Welwyn Hatfield are lower than the low growth forecast provided by Oxford Economics. It should be noted however, that there is great variation between the Oxford Economics forecasts for the time periods corresponding to the ELR preferred scenarios and the 2011-2031 forecasts. For example, Oxford Economics forecast a decrease of 1,300 jobs in Hertsmere in the time period relating to the preferred scenario but an increase of 13,400 jobs between 2011-2031.
36. There is a large degree of variety between the RSS and Oxford Economics forecasts. The RSS forecast is greater than the Oxford Economics high growth forecast for four of the ten Hertfordshire districts. In St Albans and Welwyn Hatfield the RSS forecast is lower than the Oxford Economics low growth scenario while for Hertsmere, Stevenage, Three rivers and Watford the RSS forecast is between the high and base scenarios.

Geography	OE (various time periods aligned to ELR forecast dates)			Preferred Scenario	OE (2011-2031)			RSS (2011-2031)
	Base	High	Low		Base	High	Low	
Broxbourne	5.7	7.30	5.13	12.7	2.12	5.17	1.43	6.2
Dacorum	11.0	14.84	9.97	9.8	9.49	13.10	8.52	16.5
East Hertfordshire	7.9	10.58	6.99	11.6	5.82	11.66	4.53	13.6
Hertsmere	-1.3	1.51	-2.26	11.6	13.40	19.45	12.05	17.9
North Hertfordshire	2.2	5.06	1.44	7.1	3.31	6.95	2.47	9
St Albans	13.7	16.25	12.80	5.9	14.56	19.79	13.46	11.4
Stevenage	7.2	8.99	6.57	16.7	9.32	12.74	8.48	11.4
Three Rivers	6.0	9.62	5.33	1.6	3.31	6.76	2.65	4.3
Watford	3.8	9.49	2.67	2.2	5.56	11.01	4.45	10.7
Welwyn Hatfield	15.8	18.18	15.02	7.7	12.42	17.69	11.59	7.1
London Arc	73.2	106.53	36.45	60.9	60.85	92.96	54.16	74.1
Hertfordshire	72.1	101.8	63.7	87.0	79.3	124.3	69.6	108.1

Regional Drill Down

37. As part of the Hertfordshire Strategic Sites study we requested additional, more detailed sectoral, information from Oxford Economics. While this is only available at the regional level it provides a more detailed insight into the way that sectors are forecast to change in the East of England over the twenty year period to 2031, by providing a breakdown by 59 different sectors. This allows more detailed sector analysis than is available for the Hertfordshire level data which splits employment into 28 sectors. Such analysis is particularly important for Hertfordshire's priority sectors, as reviewed previously in this Appendix.

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38. Across the East of England, the forecast estimates employment growth in the region of 298,400 from 2011 to 2031. This suggests that Hertfordshire’s forecast growth (of 79,300 employees) contributes 27% of the regional growth.
39. As shown in Table 2-10, the sectors forecast to experience the largest absolute growth across the region are Legal and Accounting Services (+50,800 employees), Health (+36,600 employees), Retail Distribution (+36,600 employees), Labour Recruitment (+33,600 employees) and Miscellaneous Personal Services (+30,800 employees). Other sectors forecast to experience the largest increases include some business services (Industrial Cleaning, Real Estate, Computer Related and ‘Other’) as well as construction.
40. In terms of percent change, the top ten business sectors showing growth all fall within Business Services, demonstrating the national trend for growth of professional and services activities. It will be particularly important to bear this trend in mind when devising a strategy for the provision of strategic employment land given the tendency of such activities to occupy both town centre and business park locations. Table 2-10 shows these sectors.

Table 2-10 Top 10 Sectors Showing Growth in East of England (2011-2031) (Non-FTE)			
Absolute Change (000’s)		Percent Change (%)	
Business services - legal & accounting services	50.8	Business services - industrial cleaning	63.0
Health	36.6	Business services - legal & accounting services	54.2
Distribution - retail	36.6	Business services - technical testing & analysis	51.0
Business services - labour recruitment	33.6	Business services - renting services	47.6
Other personal services - miscellaneous	30.8	Business services - investigation & security services	45.5
Business services - industrial cleaning	28.9	Business services - other business services	44.3
Construction	26.8	Business services - research & development	43.6
Business services - real estate services	20.9	Business services - architectural & engineering	42.4
Business services - computer-related services	19.6	Business services - labour recruitment	42.1
Business services - other business services	18.6	Business services - advertising	40.9
Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis			

41. The sectors forecast the largest declines in employment are shown in Table 2-11. In terms of absolute employment decline Manufacturing sectors dominate the score board, with Agriculture being the only non-Manufacturing sector to appear. Particularly notable are the presence of high tech manufacturing activities such as Electrical and Optical goods which are forecast to decrease by between 5,000 employees (Instruments and Optical), 4,600 employees (Electrical) and 3,900 employees (Electrical Machinery).
42. In terms of the sectors with the greatest percent decline forecast over the coming twenty years, Manufacturing activities again dominate and Electrical and Optical goods again have a presence. However, Textiles (both ‘Leather and Clothing’ and ‘textiles’) and Extraction (Oil and Gas, Other Mining and Coal) display the largest percent decreases ranging from -74.5% to -57.2%.

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Absolute Change (000's)		Percent Change (%)	
Agriculture	-15.8	Textiles & leather - leather & clothing	-74.5
Machinery & equipment nec	-11.0	Textiles & leather - textiles	-67.0
Pulp, paper & printing	-10.7	Extraction - oil & gas	-62.2
Food, drink and tobacco - food	-9.1	Extraction - other mining	-59.7
Public administration & defence	-8.6	Extraction - coal	-57.2
Metals - metal goods	-8.4	Electrical & optical goods - electronics	-43.8
Electrical & optical goods - instruments & optical	-5.0	Pulp, paper & printing	-43.4
Electrical & optical goods - electronics	-4.6	Machinery & equipment nec	-42.8
Rubber & plastic products	-4.3	Electrical & optical goods - electrical machinery	-42.4
Electrical & optical goods - electrical machinery	-3.9	Metals - basic metals	-41.9

Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis

43. As noted previously, Hertfordshire has recognised the following sectors as priority sectors: Software and Digital; Life Sciences; Advanced Manufacturing; Creative and Media; Green Industries and Consultancy; Logistics; and Professional Banking and Finance. The regional forecasts provided by Oxford Economics enable a closer interrogation of the forecast change within these sectors.

2.2 Overall, employment in **Software and Digital** activities is forecast to grow by 16,100 between 2011 and 2031 (a 15.9% increase). Growth is forecast to be particularly strong in Computer Related business services (19,600 additional employees) While overall growth in employment in these activities is anticipated, Manufacturing of Electronics (-4,600 employees) is forecast to decline.

SIC	Sector	2011 Employment	2031 Employment	Total Change	% Change
30,32	Manufacture of Electronics	10.4	5.8	-4.6	-43.8
64	Communications	41.6	42.8	1.1	2.8
72	Business Services - Computer Related	49.3	68.9	19.6	39.8
Total		101.3	117.5	16.1	15.9

Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis

2.3 The forecasts for both Hertfordshire and the East of England in activities related to the Software and Digital sector show growth over the next twenty years. Given the existing strengths of the sector, for example with the presence of Computacentre who employ 1,000 people on the Hatfield Business Park, this area of employment has significant potential and, with correctly aligned support, could mark Hertfordshire out above its competitors.

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44. **Life Sciences** can be analysed using Pharmaceuticals (2003 SIC 24.4), manufacture of Instruments and Optical equipment (2003 SIC 33) and Research and Development (2003 SIC 73) sectors.
45. Table 2-13 highlights that between 2011 and 2031 Pharmaceuticals and the manufacture of Instruments and Optical equipment are both forecast to experience a decline of between 36 and 40%. Conversely, Research and Development is forecast to increase by 43.6% and 9,500 jobs. Using this definition, Life Sciences therefore shows a positive change of 5.6% (2,300 employees) in the East of England. However, this relies on the growth within Research and Development which is not solely related to Life Sciences activities.

	2011	2031	Total Change	% Change
Pharmaceuticals	6.3	4.0	-2.3	-36.0
Instruments and Optical	12.6	7.6	-5.0	-39.6
Research and Development	21.8	31.4	9.5	43.6
Total	40.8	43.0	2.3	5.6

Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis

46. Based on the Oxford Economics forecasts for Hertfordshire the Life Sciences sector, at worst, is likely to decrease by around 2,200 jobs across Hertfordshire (with particular losses forecast in East Hertfordshire, -900 jobs) and, at best, increase by 2,300 jobs across the East of England (though this is buoyed by strong growth in Research and Development activities which are not exclusive to the Life Sciences sector). Any actions to support the Life Sciences operations in Hertfordshire will need to focus on ways of restricting the forecast losses and maximising potential gains across the range of activities encompassed by the sector. Hertfordshire already displays sector strengths with the presence of a number of high profile pharmaceuticals companies including GSK.
47. The activities shown in Table 2-14 fit broadly within our definition of **Advanced Manufacturing**. Overall, using this grouping of SIC codes (which is aligned to, but essentially not the same as, the definition used in our baseline analysis), the sector is forecast to decline by 25,700 jobs between 2011 and 2031 across the East of England. The only growth sectors within the group are shown as the two business services orientated sectors: Research and Development and Technical Testing and Analysis. Unfortunately it is not possible to disaggregate this data further. The largest absolute losses of employment are forecast to be in the Manufacturing of Machinery and Equipment (-11,000 jobs) and Metal Goods (-8,400 jobs).

SIC	Sector	2011 Employment	2031 Employment	Total Change	% Change
28	Metals - Metal Goods	20.3	11.9	-8.4	-41.4
29	Manufacturing – Machinery and Equipment	25.7	14.7	-11.0	-42.8
30,32	Electrical and Optical Goods - Electronics	10.4	5.8	-4.6	-43.8

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31	Electrical and Optical Goods – Electrical Machinery	9.3	5.3	-3.9	-42.4
33	Electrical and Optical Goods – Instruments and Optical	12.6	7.6	-5.0	-39.6
34	Transport Equipment – Motor Vehicles	9.1	6.4	-2.7	-30.0
35.3	Transport Equipment - Aerospace	6.7	4.7	-2.0	-30.4
35 excluding 35.3	Transport Equipment – Other Transport Equipment	1.5	1.1	-0.5	-30.2
73	Research and Development	21.8	31.4	9.5	43.6
74.4	Business Services – Technical Testing and Analysis	5.7	8.6	2.9	51.0
	Total	123.2	97.5	-25.7	-20.9

Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis

48. Though forecasts are not the definitive answer to what will happen in the future, it is clear that manufacturing industries will need particular support to assist the retention and attraction of the higher value added functions that Advanced Manufacturing businesses bring to Hertfordshire.
49. **Creative and Media** activities are very difficult to analyse at the Hertfordshire level using the County forecasts. However, it is possible to identify this sector within the East of England forecasts to a broad degree by using Textiles, ‘Pulp, Paper and Printing’, ‘Architecture and Engineering’ and Advertising sectors (unfortunately there is no sector which clearly reflects either the film or design industry). Combined, these four sectors are expected to grow by 4,700 employees from 2011 to 2031 (an increase of 7.3%). The largest areas of growth are predicted within the business and professional services of ‘Architecture and Engineering’ (14,200 employees) and Advertising (2,200 employees) while the manufacturing elements of Textiles and ‘Pulp, Paper and Printing’ are both forecast to decline (by 800 and 10,700 jobs respectively).

SIC	Sector	2011 Employment	2031 Employment	Total Change	% Change
17	Textiles	1.3	0.4	-0.8	-67.0
21-22	Pulp, paper and printing	24.7	14.0	-10.7	-43.4
74.2	Architecture and Engineering	33.4	47.6	14.2	42.4
74.4	Advertising	5.3	7.4	2.2	40.9
	Total	64.7	69.4	4.7	7.3

Source: Regional 59 Sector Forecasts, Oxford Economics, Autumn 2010; Regeneris Consulting analysis

50. There are therefore mixed messages about the future potential of the Creative and Media sectors within the East of England, with business services related activities forecast to increase and manufacturing related activities forecast to decline. It is disappointing that a closer analysis cannot be provided of the film industry though it is acknowledged that

Hertfordshire demonstrates particularly strengths in this area, with the presence of Elstree Studios and Leavesdon.

51. **Green Industries and Consultancy, Logistics and Professional Banking and Finance** sectors were analysed in detail previously using the Hertfordshire forecasts. Application of the East of England forecasts does not provide any further insight into the future growth prospects of these sectors.

How are Other Areas Forecast to Change?

52. In informing our understanding of how Hertfordshire's employment and economy may change over the next twenty years it was interesting to interrogate areas which have been successful in developing their economy in the way in which the County aspires. Berkshire and Cambridgeshire were chosen as aspirational comparator locations and their employment forecasts were reviewed in order to understand the level of development Hertfordshire would require in order to achieve growth on a par.
53. **Cambridgeshire** forecasts were obtained from the Insight East forecasts produced by Oxford Economics. These therefore use the same sectors as analysed for Hertfordshire throughout this Appendix. Between 2011 and 2031, Cambridgeshire's employment is forecast to grow by 70,200. This is a 25% increase compared to Hertfordshire's forecast increase of 16%. Notable growth is forecast in the business sectors, some of which (computer related, other including call centres and R&D and technical testing) are forecast absolute growth which is double, triple, or indeed quadruple, that forecast for Hertfordshire over the same time period. This is reflective of the existing sector strengths in the County, which are supported by high quality and high profile business parks as well as Cambridge's international status. Education employment in Cambridgeshire is also forecast to increase by 6,400 employees compared to a decline of 1,600 employees in Hertfordshire. This is likely to be a reflection of the current strengths in education in Cambridgeshire including the University of Cambridge.
54. In terms of percentage change, all Business Services activities are forecast to increase at a greater rate than for Hertfordshire. Finance is forecast an increase of 26.6% which is ten percentage points greater than the 16.2% increase forecast for Hertfordshire. However, in absolute terms, Hertfordshire is actually forecast a greater employment change in this sector (2,100 jobs compared to 1,000 jobs in Cambridgeshire). Sectors for which Cambridgeshire is forecast a lower percent increase than Hertfordshire are those in which Hertfordshire demonstrates sector strengths, such as Wholesale, Distribution and Sale/Maintenance of Motor Vehicles which reflects its optimum location for logistics operations (reported through a number of our business consultations); and Air Transport, reflecting proximity to Stansted airport.
55. Employment is forecast to decrease in all but one of the manufacturing sub-sectors in the County in both absolute and percentage terms. Interestingly, Cambridgeshire is forecast marginal growth in 'Other and Recycling' manufacturing. The forecast predicts a growth of 100 jobs in this sector (4.6% increase) in comparison to Hertfordshire's loss of 300 jobs (-11.7%).
56. The following table contains the forecast change in employment for Cambridgeshire's sectors.

Table 2-16 Cambridgeshire Employment Forecast (2011-2031) (Non-FTE)		
Sector	Total Change	% Change
Agriculture and Fishing	-2.8	-34.2
Extraction	-0.1	-55.1
Manufacturing - Food, Drink and Tobacco	-1.3	-26.7
Manufacturing - Other Low Tech	-1.7	-42.3
Manufacturing -Metals and Engineering	-4.3	-34.2
Manufacturing - Chemicals and Process	-11.2	-33.9
Manufacturing - Other and Recycling	0.1	4.6
Utilities	-0.2	-23.9
Construction	2.2	21.3
Wholesale, Distribution and Sale/Maintenance of Motor Vehicles	2.6	14.6
Retailing	5.6	25.5
Hotels and Catering	1.7	11.8
Air Transport	0.0	8.0
Communications	-0.6	-20.0
Land and Other Transport	3.1	40.7
Water Transport	0.0	-9.4
Finance	1.0	26.6
Business Services - Computer Related	6.2	63.7
Business Services - Labour Recruitment, Security and Cleaning	11.6	85.4
Business Services -Other Including Call Centres	3.0	50.2
Business Services - R&D and Technical Testing	9.6	82.7
Business Services - Real Estate and Renting	4.3	59.7
Business Service - Other Tradable	13.8	76.7
Public Admin	-0.7	-5.1
Education	6.4	16.4
Health	8.0	21.1
Personal Services - Miscellaneous	4.1	40.4
Personal Services - Waste	0.5	32.7
Source: Oxford Economics, Autumn 2010		

57. **Berkshire** forecasts were obtained from SEEPB and SEEDA. They were produced by Cambridge Econometrics in June 2010 and cover a broader set of sectors in comparison with the Oxford Economics forecasts (9 sectors instead of 28) as well as a slightly shorter timescale (2011 to 2030). Between 2011 and 2030, Berkshire's employment is forecast to increase by 23%, demonstrating total growth of 122,600 jobs. This is in comparison with Hertfordshire's forecast of 16%. The broad sector demonstrating the highest absolute growth forecast is 'Financial, Business and Other Market Services' (+102,400 employees, 54% increase). Construction, 'Distribution, Hotels etc', 'Transport and Communications' and 'Non-Market Services' are also forecast to experience growth in employment. However, reflecting the Hertfordshire forecasts, traditional industries are again forecast to decline. Agriculture, 'Mining and Quarrying', Manufacturing and 'Electricity, Gas and Water' are all forecast employment losses. The largest employment loss is expected to be in Manufacturing which is forecast a decline of 12,000 employees.

	Total Change 2011-2030	% Change 2011-2030
Agriculture etc	-1.3	-27.2
Mining & Quarrying	-0.2	-32.8
Manufacturing	-12.0	-32.9
Electricity, Gas & Water	-0.6	-31.1
Construction	1.9	6.0
Distribution, Hotels etc	13.8	12.1
Transport & Communications	1.9	5.7
Fin., Bus. & Other Mkt. Services	102.4	54.1
Non Market Services	16.6	16.7
Total	122.6	23.9

Source: Cambridge Econometrics, June 2010

Agreed Employment Scenarios

58. The previous sections of the Sector Forecasts Appendix have provided an overview of those forecasts which already exist. These help to build an understanding of Hertfordshire's employment growth overall and by sector as well as demonstrate how these compare to employment growth forecast in other, possibly more economically successful, locations.
59. In order to apply these findings usefully to the Hertfordshire Strategic Sites Study we developed two further employment scenarios for Hertfordshire. These are:
- **Status Quo Scenario** – applying the 2% growth rate experienced in Hertfordshire over the past ten years to generate an employment scenario which forecasts growth of 4% over the next twenty years (2% growth per decade). This was achieved by reflecting the current employment profile of the County.
 - **Aspirational Scenario** – applying the Cambridgeshire growth rate of 25% to Hertfordshire's 2011 employment figure. This was achieved by applying the percent change forecast for each sector for 2031.
60. These two additional scenarios, together with the **Oxford Economics base forecast**, provided base (Base Scenario, 16% growth rate), low (Status Quo Scenario, 4% growth rate) and high (Aspirational Scenario, 25% growth rate) growth scenarios to feed into the assessment of requirements for strategic employment sites across the County.
61. Table 2-18 provides a comparison of the employment figures by sector for the three scenarios. As already discussed, the Base Scenario forecasts employment growth of 79,300 for the County over the twenty year time period. By applying the sector growth rates forecast for Cambridgeshire to the Hertfordshire sectors a total employment growth of 122,900 is forecast. Conversely, should the County's employment continue to grow in accordance with historic trends of 2% per decade, only an additional 19,900 jobs are likely to arise by 2031.

	Base		Aspirational		Status Quo	
	Total Change	% Change	Total Change	% Change	Total Change	% Change
Agriculture	-1.3	-35.7	-1.2	-34.2	-0.3	-9.0

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Extraction	-0.1	-57.8	-0.1	-55.1	0.0	-14.5
Manufacturing - food, drink & tobacco	-0.7	-36.6	-0.5	-26.7	-0.2	-9.2
Manufacturing - other low tech	-3.0	-48.4	-2.6	-42.3	-0.7	-12.2
Manufacturing - metals & engineering	-7.4	-46.5	-5.4	-34.2	-1.9	-11.7
Manufacturing - chemicals & process industries	-2.2	-30.7	-2.5	-33.9	-0.6	-7.7
Manufacturing - other & recycling	-0.3	-11.7	0.1	4.6	-0.1	-2.9
Electricity, gas & water	-0.4	-25.2	-0.4	-23.9	-0.1	-6.3
Construction	11.1	37.8	6.3	21.3	2.8	9.5
Wholesale & distribution	7.7	18.9	6.0	14.6	1.9	4.7
Retail	11.8	20.6	14.7	25.5	3.0	5.2
Hotels & catering	3.2	10.9	3.4	11.8	0.8	2.7
Air transport	0.0	18.9	0.0	8.0	0.0	4.7
Communications	1.2	9.3	-2.5	-20.0	0.3	2.3
Land and other transport	0.6	4.6	5.6	40.7	0.2	1.2
Water transport	0.0	-45.7	0.0	-9.4	0.0	-11.5
Finance	2.1	16.2	3.4	26.6	0.5	4.1
Business services - computer related	3.5	21.7	10.4	63.7	0.9	5.4
Business services - labour recruitment, security & cleaning	13.9	36.9	32.2	85.4	3.5	9.3
Business services - other including call centres	1.5	15.6	4.7	50.2	0.4	3.9
Business services - R&D, technical testing	1.5	20.5	6.0	82.7	0.4	5.1
Business services - real estate & renting	3.8	27.0	8.5	59.7	1.0	6.8
Business services - other tradable	20.7	52.2	30.4	76.7	5.2	13.1
Public admin & defence	-2.0	-12.5	-0.8	-5.1	-0.5	-3.1
Education	-1.6	-3.4	7.6	16.4	-0.4	-0.9
Health	7.2	14.8	10.3	21.1	1.8	3.7
Other personal services - miscellaneous	7.9	31.1	10.3	40.4	2.0	7.8
Other personal services - waste disposal	0.3	13.6	0.7	32.7	0.0	3.4
Total	79.3	15.9	122.9	24.7	19.9	4.0

Source: Oxford Economics, Autumn 2010; Regeneris Consulting, 2011

62. The key growth sectors of the Base Scenario are Construction (+ 11,100), Retail (+11,800), Labour Recruitment, Security and Cleaning (+13,900), and 'Other Tradable' business services (+20,700). The same sectors are identified as the key growth sectors in the Status Quo Scenario, but at much lower employment growth levels (around 300 to 500 jobs per sector). The Aspirational Scenario demonstrates how sectors would change if Cambridgeshire's forecast growth rates were to occur in Hertfordshire. As such this Scenario combines both Cambridgeshire's forecast growth rates with Hertfordshire's sector strengths. This similarly identifies key employment growth sectors as Retail (+14,700), Labour Recruitment, Security and Cleaning (+32,200) and 'Other Tradable' business services (+30,400).
63. In terms of Hertfordshire's priority sectors:
- **Software and Digital** employment uses 'Computer Related' business services and

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‘Communications’ as proxy sectors. According to these sectors, employment in Software and Digital activities is forecast to increase overall in all three Scenarios, though the Communications element is forecast to decrease under the Aspirational Scenario.

- **Life Sciences** employment, using ‘Chemicals and Process Industries’ as a proxy, is forecast to decline in all three Scenarios. Both the Base and Aspirational Scenarios forecast decline around 2,200-2,500 employees.
- **Advanced Manufacturing** employment is forecast to decline in all three Scenarios (reflected in declines in Manufacturing sectors as a proxy).
- It is not possible to forecast specific **Creative and Media** employment growth using the sectors available under these Scenarios.
- **Green Industries and Consultancy** is again difficult to identify. It is likely to decline in accordance with both the Base and Status Quo scenarios (reflecting declines in Manufacturing overall) though may increase in the Aspirational Scenario (based on a marginal increase of 100 employees in ‘Other and Recycling’ manufacturing).
- **Logistics** employment is forecast to grow in all Scenarios. This is a reflection of the County’s existing strengths in ‘Wholesale, Distribution and Sale/Maintenance of Motor Vehicles’ and ‘Land and Other Transport’. Both sectors are forecast employment growth in all three Scenarios.
- Professional **Banking and Finance** employment is forecast to grow in all Scenarios when using Finance as a proxy.

Implications for Employment Land

64. To make the scenario employment growth applicable to employment sites, the figures were applied to our in-house employment land model. This required a number of steps including conversion to Full Time Equivalent jobs and application of employment densities using the Offpat/Home and Communities Agency *Employment Densities Guide* (2010) produced by Drivers Jonas Deloitte.
65. Table 2-19/20 below provides a breakdown of additional B use class employment. The B Use Classes are those which require employment land. Not all employment forecast in each sector is accounted for by B Class uses; this is taken into account in the figures shown below.
66. Of the 79,300 additional employment forecast for the County under the Oxford Economics base forecast, only 33,513 jobs (42%) are likely to require employment land as defined by B Use Classes. The same percentage applies for the Status Quo Scenario which predicts 8,415 of the total 19,900 employees requiring employment land while over half of the Aspirational Scenario employment growth (56%) would require B Use Class land.
67. The sectors which would require the most employment land are ‘Other Tradable’ business services (totalling 17,874 employees in office uses in the Base Scenario) and Wholesale and Distribution (totalling 6,872 employees in the Base Scenario). Declines in employment are expected in B Use Classes for all Manufacturing sectors in the Base Scenario, reflecting the loss forecast in employment in such activities overall. However, under the Aspirational

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Scenario growth of around 125 employees in 'Other and Recycling' is forecast in B Use Classes. Some activities, such as 'Agriculture', 'Electricity, Gas and Water', 'Hotels and Catering', 'Air Transport', 'Water Transport' and 'Waste Disposal' do not have any B Use Class employment needs forecast.

	Base	Aspirational	Status Quo
Agriculture	0.0	0.0	0.0
Extraction	-0.9	-0.9	-0.2
Manufacturing - food, drink & tobacco	-543.1	-383.5	-136.4
Manufacturing - other low tech	-2475.4	-2127.5	-621.6
Manufacturing - metals & engineering	-6165.0	-4439.2	-1548.0
Manufacturing - chemicals & process industries	-1832.9	-1979.7	-460.2
Manufacturing - other & recycling	-212.4	124.6	-53.3
Electricity, gas & water	0.0	0.0	0.0
Construction	483.9	299.4	121.5
Wholesale & distribution	6861.5	5860.2	1722.9
Retail	3365.8	4351.4	845.2
Hotels & catering	0.0	0.0	0.0
Air transport	0.0	0.0	0.0
Communications	735.8	-1265.1	184.8
Land and other transport	146.4	1137.3	36.8
Water transport	0.0	0.0	0.0
Finance	1866.1	3133.4	468.6
Business services - computer related	3139.7	9130.2	788.4
Business services - labour recruitment, security & cleaning	3916.5	9053.3	983.4
Business services - other including call centres	1313.9	4146.5	329.9
Business services - R&D, technical testing	1313.1	5193.9	329.7
Business services - real estate & renting	3375.8	7485.2	847.7
Business services - other tradable	17873.6	26627.5	4488.1
Public admin & defence	-1247.9	-355.7	-313.3
Education	-42.1	298.9	-10.6
Health	972.1	1442.1	244.1
Other personal services - miscellaneous	668.9	893.6	168.0
Other personal services - waste disposal	0.0	0.0	0.0
Total	33513.2	68625.6	8415.2

Source: Regeneris Consulting, 2011
 Note: Figures are as shown and are not in thousands as in previous tables.

68. Table 2-20 provides a further breakdown of employment by B Use Class by the three Scenarios. Office based employment is forecast to grow the most across all three Scenarios; totalling 32,769 employees in the Base Scenario, 63,624 employees in the Aspirational Scenario and 8,228 employees under the Status Quo Scenario. Industrial employment is forecast to decrease in all Scenarios while Warehouse employment is forecast moderate increases of around 9,700/9,800 according to the Base and Aspirational Scenario respectively.

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Table 2-20 Number of Jobs Forecast by B Use Class by 2031 (FTE)									
	B1/A2			B2			B8		
	Base	Aspirational	Status Quo	Base	Aspirational	Status Quo	Base	Aspirational	Status Quo
Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extraction	-0.9	-0.9	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing - food, drink & tobacco	0.0	0.0	0.0	-488.8	-345.1	-122.7	-54.3	-38.3	-13.6
Manufacturing - other low tech	-574.6	-493.9	-144.3	-1710.7	-1470.3	-429.5	-190.1	-163.4	-47.7
Manufacturing - metals & engineering	0.0	0.0	0.0	-5548.5	-3995.3	-1393.2	-616.5	-443.9	-154.8
Manufacturing - chemicals & process industries	0.0	0.0	0.0	-1649.6	-1781.7	-414.2	-183.3	-198.0	-46.0
Manufacturing - other & recycling	0.0	0.0	0.0	-191.2	112.1	-48.0	-21.2	12.5	-5.3
Electricity, gas & water	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction	483.9	299.4	121.5	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale & distribution	0.0	0.0	0.0	0.0	0.0	0.0	6861.5	5860.2	1722.9
Retail	0.0	0.0	0.0	0.0	0.0	0.0	3365.8	4351.4	845.2
Hotels & catering	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Air transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Communications	367.9	-632.6	92.4	0.0	0.0	0.0	367.9	-632.6	92.4
Land and other transport	0.0	0.0	0.0	0.0	0.0	0.0	146.4	1137.3	36.8
Water transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Finance	1866.1	3133.4	468.6	0.0	0.0	0.0	0.0	0.0	0.0
Business services - computer related	3139.7	9130.2	788.4	0.0	0.0	0.0	0.0	0.0	0.0
Business services - labour recruitment, security & cleaning	3916.5	9053.3	983.4	0.0	0.0	0.0	0.0	0.0	0.0
Business services - other including call centres	1313.9	4146.5	329.9	0.0	0.0	0.0	0.0	0.0	0.0
Business services - R&D, technical testing	656.5	2596.9	164.9	656.5	2596.9	164.9	0.0	0.0	0.0
Business services - real estate & renting	3375.8	7485.2	847.7	0.0	0.0	0.0	0.0	0.0	0.0
Business services - other tradable	17873.6	26627.5	4488.1	0.0	0.0	0.0	0.0	0.0	0.0
Public admin & defence	-1247.9	-355.7	-313.3	0.0	0.0	0.0	0.0	0.0	0.0
Education	-42.1	298.9	-10.6	0.0	0.0	0.0	0.0	0.0	0.0
Health	972.1	1442.1	244.1	0.0	0.0	0.0	0.0	0.0	0.0
Other personal services - miscellaneous	668.9	893.6	168.0	0.0	0.0	0.0	0.0	0.0	0.0
Other personal services - waste disposal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	32769.3	63623.7	8228.4	-8932.2	-4883.4	-2242.9	9676.1	9885.2	2429.7

Source: Regeneris Consulting, 2011

Note: Figures are as shown and are not in thousands as in previous tables.

69. Table 2-21 shows the **floorspace requirements** for Hertfordshire as a result of the forecast B Use Class employment growth. The Base scenario forecasts an additional requirement of 857,069 sqm of floorspace by 2031. The Aspirational Scenario forecasts 1.7 times this amount (1,488,258 sqm) while if the County continues to grow at its current rate over the next twenty years (4% growth) only an additional 215,209 sqm will be required.

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70. All three scenarios suggest a decline in Industrial (B1c and B2) floorspace by 2031. This is reflective of the employment declines forecast for the Manufacturing sectors. Both Office (B1a) and Warehouse (B8) floorspace are forecast to increase in all scenarios, reflecting the continued national growth of professional and business services as well as the existing strengths in logistics within the County.

Table 2-21 Hertfordshire Floorspace Requirements by Scenario (sqm)				
	Sqm			
	B1a (Office)	B1c and B2 (Industrial)	B8 (Warehouse)	Total
Employment Density (Averages)	17.4sqm	41.5sqm	75sqm	
Base Scenario (15.9% growth)	502039.5	-370688.3	725708.6	857059.7
Aspirational (Cambridge) Scenario (24.7% growth)	949526.4	-202659.6	741390.7	1488257.5
Status Quo (4% growth)	126062.7	-93080.3	182226.3	215208.7

Source: Regeneris Consulting, 2011

71. Converting the floorspace requirements to hectares enables identification of possible employment land requirements. There is significant variation between the three scenarios. Should Hertfordshire experience employment growth in line with the Base Scenario (16%) around 159 ha of employment land may be required. However, almost double this (299ha) would be required should the County follow the projected growth trajectory of Cambridgeshire (25%) and less than a third of this would be required should historic growth of 2% every ten years occur (40ha).

Table 2-22 Hertfordshire Employment Land Requirements by Scenario (ha)					
	Ha				
	B1a (Office)		B1c and B2 (Industrial)	B8 (Warehouse)	Total
	Business Park	Town Centre			
Plot ratio	0.3	1.1	0.4	0.5	
Base Scenario (15.9% growth)	83.7	22.8	-92.7	145.1	159.0
Aspirational (Cambridge) Scenario (24.7% growth)	158.3	43.2	-50.7	148.3	299.0
Status Quo (Historical Growth) Scenario (4% growth)	21.0	5.7	-23.3	36.4	39.9

Source: Regeneris Consulting, 2011

72. While these hectare figures provide an illustration of the potential employment land requirements, it must be noted that not all such employment will take place on strategic employment sites. Some organisations and sectors will favour town centre locations, while others will require less space than predicted due to changing working practices such as home working. For example, one business consultee reported that though their workforce is likely to grow steadily over the coming years they are in fact likely to reduce their floorplate as a large proportion of employees now work from home on at least two out of five working days.

Some Considerations

73. The figures and commentary provided within this Appendix must be interpreted sensitively. Forecasts do not tell us everything we need to know about employment growth and

resultant employment land requirements. A number of factors will influence the level of employment growth which will occur in Hertfordshire over the next twenty years.

74. Forecasts are typically based on historical trends and do not take into account public sector policy changes (including local or county wide inward investment activities), changing working patterns (which impact on the requirement for, and type of, employment space), the ability of an area to attract businesses in sectors forecast to grow, local nuances or dramatic sector change (such as the dot com boom in the past).
75. All of these factors need to be taken into consideration when interpreting the results, applying them to the Hertfordshire context and identifying the need for, and characteristics required of, strategic employment land.

Concluding Comments

76. This Forecast Appendix has introduced a number of scenarios for employment growth over the next twenty years (2011-2031). These have been sourced from Oxford Economics (base, high and low) as well as generated by Regeneris Consulting through the application of both historical growth trends (Status Quo Scenario) and forecast sector growth rates of County's which have followed growth trajectories that Hertfordshire may wish to reflect (Aspirational Scenario).
77. The three chosen Scenarios (Base, Status Quo and Aspirational) produce different employment growth forecasts for Hertfordshire ranging from 19,900 in the Status Quo Scenario, 79,300 in the Base Scenario and 122,900 in the Aspirational Scenario.
78. While these figures are vastly different, the employment change forecast by sector for each Scenario retains a distinct profile; manufacturing employment is forecast to decline in the future while professional and business services are likely to increase substantially. This has important implications for the requirement of employment land, with office based uses likely to require additional and better quality provision and industrial uses expected to require a reduction in employment space. Warehouse employment land is forecast growth, in part reflecting the existing strengths of the County in logistics activities, but not to the level expected for office use.
79. In applying these findings to strategic employment sites it must be borne in mind that forecasting and hard quantitative figures do not provide the full picture. Local interpretation and knowledge of the changing context, including policy as well as profile raising activities, must also be considered.

3. Transport and Infrastructure Summary Appraisal

1. The Transport and Infrastructure Assessment has been prepared by WSP Group and is a high level assessment of the opportunities and constraints for each of the sites which have been assessed in the main report.

Ref	Potential Site	Strengths	Weaknesses	Opportunities	Constraints	Transport and Infrastructure				Phasing	Actions	Costs (ballpark estimate)	
						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
1	Waltham Cross / Park Plaza	<p>Located close to motorway junction and primary route network. Improvements to A10 already carried out as a result of News International permission.</p> <p>Relative proximity to West Anglia Mainline (WAML) Adjacent M25 J25</p>	<p>Poor public transport in the area and therefore high mode share to car likely, which is unsustainable. Distant from other services.</p> <p>Possible highway access constraints given Primary Route Status of much of local network</p>	<p>M25 capacity increases underway and planned for 2014. Existing permissions have obligation to improve M25 eastbound (clockwise) off-slip to A10.</p> <p>Rolling stock enhancements on WAML being introduced during 2011</p>	<p>Highway network congested. Poor alternative mode provision. Policy objection to new access to A10.</p> <p>Beyond easy walking distance from Cheshunt Station (opportunity for enhanced bus services?)</p>	✓	✓	✓	✓	<p>Flood Risk Near flood plain</p> <p>Water Supply Three Valleys Water Existing infrastructure is likely to require upgrade and expansion to support Harlow growth</p> <p>Groundwater Constraints</p> <p>Aquifer designation</p> <p>Potential for use of infiltration</p> <p>SW/FW Network network recently upgraded as part of development of News International Print works</p> <p>Sewage Treatment Capacity</p> <p>Electricity Supply</p> <p>Gas Supply</p>	<ul style="list-style-type: none"> Limited expansion prior to need for significant highway infrastructure taking advantage of managed motorway M25 junctions 23-27 Medium term 	<ul style="list-style-type: none"> Deal with policy decision on objection to additional A10 access Need to progress an A10 Route Strategy 	<ul style="list-style-type: none"> A10 improvements £10-20m M25 Junction 25 Improvements £10-15m (prohibitively expensive if A10 flyover required) Sustainable Transport Measures to tackle severance caused by A10 and provide links to rail £1-2m
2	Harlow North	<p>Connection to A414 would provide for some movements.</p> <p>Potential strong links to Harlow Town on WAML</p> <p>Good links west to Herts via A414</p>	<p>Limited public transport provision. Existing congestion within Harlow impacts on wider network.</p> <p>Physical separation from Harlow (Stort Valley)</p> <p>Limited highway capacity in absence of significant investment – Govt support for new link road uncertain even in medium term given recent spending review settlement so may need significant developer-funded investment</p> <p>- HA presumption against new junctions on m/ways</p>	<p>Harlow Council and Essex CC currently investigating transport improvements in the area. Some within Harlow planned for implementation.</p> <p>New rolling stock on WAML</p> <p>Links to STN via STN Express Rail</p>	<p>Existing peak period highway congestion. Policy objection from Highways Agency to new junction on M11. High cost and environmental objections to new road link to M11.</p> <p>A414 east via Harlow congested at peak times</p>	✓	✓	✓	✓	<p>Flood Risk Majority of area is outside of the flood plain. Site is crossed by 3 EA main rivers.</p> <p>Water Supply Thames Water</p> <p>Groundwater Constraints Outer GWPZ</p> <p>Aquifer designation Some secondary superficial deposits.</p> <p>Potential for use of infiltration may not be acceptable due to presence of GWPZ (dependent upon underlying geology type and potential for leaching of contaminants)</p> <p>SW/FW Network Little spare capacity in the drainage system to cater for the new developments</p> <p>Sewage Treatment</p>	<ul style="list-style-type: none"> A414 improvements currently underway together with Harlow transport improvements would allow for some additional trips Could have a phased approach of 20% with current proposals, 30% with further A414 and M11 Junction 7 improvements and then remainder with the housing and a new link road Any new roads and link to M11 would be combined with 	<ul style="list-style-type: none"> Essex CC progressing M11 access study. HCC need to share and involve HA to move forward any new junction (HA policy to object to new junctions) Further work required to consider environmental impacts of a new northern link road 	<ul style="list-style-type: none"> New link road plus new M11 Junction could cost around £20m

Ref	Potential Site	Strengths	Weaknesses	Opportunities	Constraints	Transport and Infrastructure				Phasing	Actions	Costs (ballpark estimate)	
						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
										<p>Capacity Reliant upon upgrades to Rye Meads WwTW</p> <p>Electricity Supply Supply to Harlow town and adjacent town of Sawbridgeworth is at capacity</p> <p>Gas Supply</p>	<ul style="list-style-type: none"> housing development Medium to longer term 		
3	Bishop's Stortford	<p>Located close to Stansted Airport and adjacent to M11 junction and A120 primary route.</p> <p>Proximity to Stansted Proximity to M11 J8 Potential to link to WAML at Stansted Mountfitchet or Bishops Stortford, or to STN-X at STN airport</p>	<p>Location would encourage unsustainable car commuting. A120 in Hertfordshire single carriageway and congested in peaks.</p> <p>Constrained capacity on highway links to west eg: A120 Little Hadham shuttle-working?</p>	<p>Potential housing development on Areas of Special Restraint (ASRs) north of BS could provide for short distance commuting in future.</p> <p>New rolling stock on WAML Links to STN via STN Express Rail</p>	<p>No planned proposals for transport improvements in the area.</p> <p>Peak period congestion in Bishops Stortford – impacts on accessibility of station Barrier effect of M11 etc to cycle / other access to STN</p>	✓ ✓	✓	✓ ✓	✓	<p>Flood Risk Majority of area is outside of the flood plain. Site is crossed by EA main river.</p> <p>Water Supply Thames Water</p> <p>Groundwater Constraints</p> <p>Aquifer designation Unproductive strata</p> <p>Potential for use of infiltration Low permeability deposits and bedrock.</p> <p>SW/FW Network</p> <p>Sewage Treatment Capacity Reliant upon upgrades to Rye Meads WwTW</p> <p>Electricity Supply</p> <p>Gas Supply</p>	<ul style="list-style-type: none"> Limited development prior to A120 dualling and M11 Junction 8 improvements Phasing of some growth could be linked to housing on Bishop's Stortford North to reduce commuting distances Growth linked to Stansted Airport jobs expansion Medium term 	<ul style="list-style-type: none"> Revise Transport Strategy for town to develop sustainable links to town centre and railway station 	<ul style="list-style-type: none"> Costs for A120 dualling and M11 Junction Upgrade significant (£20m+)
4	Radlett Aerodrome	<p>Located close to A414 with onward connections to M1/M25.</p> <p>Transportation issues previously investigated through SRFI planning application and Inquiry.</p> <p>Ease of connecting to Abbey Line / light rail conversion</p>	<p>Local highway network congestion. Objections to previous proposal for a SRFI. Significant traffic impact on the A414, one of the busiest roads in the county, and A5183 through Radlett. Likely to require new junction with the A414 leading to further congestion. Remote site that will require significant sustainable transport measures to overcome the lack of accessibility and poor existing provision.</p> <p>Adjacent to M25 but no direct access Potentially difficult to get highway access from A414 as PRN? Relatively free-standing site</p>	<p>Abbey Line conversion to tram. SRFI proposal included access arrangement that provided a by-pass for Park Street.</p>	<p>High Court challenge to Strategic Rail Freight Interchange (SRFI) decision. Cost of infrastructure.</p> <p>Peak period congestion at A414 junctions</p>	✓ ✓ ✓	✓	✓ ✓	✓	<p>Flood Risk Adjacent to EA main river. Some areas within flood plain.</p> <p>Water Supply Thames Water</p> <p>Groundwater Constraints Inner and Outer GWPZ</p> <p>Aquifer designation Principal bedrock and secondary superficial aquifers</p> <p>Potential for use of infiltration Infiltration may not be acceptable due to presence of GWPZ (dependent upon underlying geology type and potential for leaching of contaminants)</p> <p>SW/FW Network Minor historical foul sewer flooding</p>	<ul style="list-style-type: none"> Phasing needs to be linked to any Abbey Line upgrade Unlikely to get any development before infrastructure in place Improvements to M25 Junctions 21 and 21a (HA agreed mitigation for the rail freight proposal) Medium to longer term 	<ul style="list-style-type: none"> Need to consider change from rail freight (with current traffic concerns) to a higher traffic generator 	<ul style="list-style-type: none"> Significant costs of infrastructure (rail connection, bypass and new A414 junction)

Ref	Potential Site	Strengths	Weaknesses	Opportunities	Constraints	Transport and Infrastructure				Phasing	Actions	Costs (ballpark estimate)	
						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
			not immediately abutting urban areas and potential barrier effect of M25 / railway / A414 to providing sustainable access?										
5	Oxylane Decathlon Village	<p>Similar issues as Radlett Aerodrome. No particular strengths apart from how accessible it is for cars through being located close to M1, M25 and A405.</p> <p>Proximity to J21 / J21A of M25</p>	<p>Location would encourage unsustainable car commuting. Adjacent to already overloaded M25 junction and route between St Albans and Watford suffers from significant congestion. Poor accessibility without a car due to limited public transport provision and poor access to rail.</p> <p>Relative remoteness from rail links Relatively free-standing site not immediately abutting urban areas and potential barrier effect of surrounding highways to providing sustainable access?</p>	<p>M25 capacity increase under way. It is understood the Highways Agency have prepared a signalised junction layout for junction 21a. A large development of this scale may provide sufficient funding to upgrade the layout. However, the additional demand placed on the A405 is likely to outweigh the benefit.</p> <p>M25 widening increases strategic highway capacity</p>	<p>No plans for improved public transport. Site access to A405 difficult to achieve due to limited distance available between M25 J21a and Noke Roundabout. Access likely to include upgrade to the A405/ Noke Lane junction to an all movement signalised junction, which is currently opposed by HCC as LHA.</p>	✓	✓	✓	✓	<p>Sewage Treatment Capacity</p> <p>Electricity Supply</p> <p>Gas Supply</p> <p>Flood Risk</p> <p>Water Supply Thames Water</p> <p>Groundwater Constraints Outer GWPZ</p> <p>Aquifer designation Principal bedrock and secondary superficial aquifers</p> <p>Potential for use of infiltration Infiltration may not be acceptable due to presence of GWPZ (dependent upon underlying geology type and potential for leaching of contaminants)</p> <p>SW/FW Network</p> <p>Sewage Treatment Capacity Capital investment will be required to cater for growth</p> <p>Electricity Supply New infrastructure required to support growth</p> <p>Gas Supply</p> <ul style="list-style-type: none"> Subject to A405 upgrade and capacity improvements to M25 Junctions 21 and 21a (HA agreed mitigation for the rail freight proposal) Very limited scope for development without significant infrastructure on local road network whilst the M25 widening may provide scope for capacity on the strategic trunk road network Medium to Longer Term 	<ul style="list-style-type: none"> Need to develop a sustainable transport strategy given lack of connectivity to rail 	<ul style="list-style-type: none"> Suitable road access improvements potentially fundable except the A405 Rail access not possible Public transport access challenging but viable 	
6	BRE south of Bricket Wood	<p>Apparent proximity to strategic network. Existing site already being used for various employment uses.</p> <p>Potential to link to rail at Bricket Wood Strategic rail connectivity via Watford Junction Proximity to M1 Jct 6 and strategic nth-sth connectivity, and to M25 J21A for east west connectivity</p>	<p>Poor local road network and connections to strategic network. Several existing accesses to the area available which are residential roads and may restrict the scale and type of development.</p> <p>Impact of Govt decision not to fund Watford Junction scheme in this Spending Review period?</p>	<p>Potential for new station on Abbey Line once converted to tram. Some work already done in SADC Core Strategy Review to identify sustainable transport measures required to improve accessibility.</p> <p>M25 widening increases strategic highway capacity</p>	<p>No proposals to improve local transport network.</p> <p>Congestion at M1 J6 Barrier effect of M1 to sustainable transport connections to Watford?</p>	✓	✓	✓	✓	<p>Flood Risk</p> <p>Water Supply Thames Water</p> <p>Groundwater Constraints Outer GWPZ</p> <p>Aquifer designation Principal bedrock aquifers</p> <p>Potential for use of Infiltration Infiltration may not be acceptable due to presence of GWPZ (dependent upon underlying geology type and potential for leaching of contaminants)</p> <p>SW/FW Network</p> <p>Sewage Treatment Capacity Capital investment will be required to cater for growth</p> <ul style="list-style-type: none"> Limited development until new link road and access provided onto suitable local road network Longer term 	<ul style="list-style-type: none"> Need to progress sustainable transport strategy to demonstrate accessibility by non-car modes 	<ul style="list-style-type: none"> Would require new road link and railway station with significant costs 	

Ref	Potential Site	Strengths	Weaknesses	Opportunities	Constraints	Transport and Infrastructure				Phasing	Actions	Costs (ballpark estimate)	
						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
										Electricity Supply New infrastructure required to support growth			
										Gas Supply			
7	Maylands, Hemel	<p>Location benefits from good connections to M1 and A414. Existing site already being used for various employment uses and it has been identified as an employment site for future expansion by the Borough Council. A Sustainable Transport Plan has been developed to identify measures to provide improved sustainable transport links to Hemel Hempstead.</p> <p>Adjacent Hemel urban area – scope to promote sustainable access (see opportunities too)? Strategic highway accessibility – at A414/M1 ‘crossroads’</p>	<p>Poor public transport facilities and long distance from rail connection. Previous proposals prepared by the Borough Council have included a new access onto the A414 which is likely to lead to further congestion to an already heavily congested section of the road network.</p> <p>Relatively remote from rail</p>	<p>The delivery of the North East Relief Road has been linked to the expansion of this major employment site. Some preliminary investigations have been prepared to identify a route and may lead to further transport improvements to the town. A transport model has recently been prepared that can test access and development impacts.</p> <p>Adjacent Hemel urban area – scope to promote sustainable access (see opportunities too)?</p>	<p>Connection to B487 could encourage additional traffic flow through Redbourn.</p> <p>Peak period congestion on A414 (and at M1?)</p>	✓	✓	✓	✓	<ul style="list-style-type: none"> • Potential for additional growth from M1 Managed Motorway capacity enhancements following M1 junction improvements some 2-3 years ago • Further phasing subject to North East Relief Road and tackling local congestion together with providing improved bus links • Short to medium term 	<ul style="list-style-type: none"> • Utilise local traffic model to test options and develop an expansion strategy • Develop masterplan for sustainable growth and to improve site further 	<ul style="list-style-type: none"> • North East Relief Road around £5-10m • Local junction improvements £2-5m • Sustainable measures £2-3m 	
						✓	✓	✓	✓	Flood Risk Three Valleys Water			
						✓	✓	✓	✓	Water Supply Three Valleys Water			
						✓	✓	✓	✓	Groundwater Constraints Principal Bedrock Aquifer			
						✓	✓	✓	✓	Aquifer designation Principal Bedrock Aquifer			
						✓	✓	✓	✓	Potential for use of infiltration			
						✓	✓	✓	✓	SW/FW Network Sewage Treatment Capacity			
						✓	✓	✓	✓	Electricity Supply			
						✓	✓	✓	✓	Gas Supply			
						✓	✓	✓	✓	Flood Risk Three Valleys Water			
						✓	✓	✓	✓	Water Supply			
						✓	✓	✓	✓	Groundwater Constraints Secondary SD Aquifer + Principal Bedrock Aquifer			
						✓	✓	✓	✓	Aquifer designation Secondary SD Aquifer + Principal Bedrock Aquifer			
						✓	✓	✓	✓	Potential for use of infiltration			
						✓	✓	✓	✓	SW/FW Network Existing sewerage network may not support development.			
						✓	✓	✓	✓	Sewage Treatment Capacity			
						✓	✓	✓	✓	Electricity Supply Major reinforcement required to primary Substation			
						✓	✓	✓	✓	Gas Supply Reinforcement required, though connections easier to west of Stevenage			
9	Knebworth Innovation Park	<p>Good connections to A1(M) and A602.</p> <p>Stevenage rail station provides</p>	<p>Remote from residential areas and other facilities in Stevenage. Poor public transport facilities. Would</p>	<p>Enhance case for A1(M) improvements. Utilise network improvements being implemented by</p>	<p>A1(M) acts as a barrier to pedestrian and cyclists. Viability of public transport provision.</p>	✓	✓	✓	✓	<ul style="list-style-type: none"> • Scope for growth due to A1(M) Junction 7 capacity enhancements for 	<ul style="list-style-type: none"> • Need to consider strategy for growth given close proximity of 2 	<ul style="list-style-type: none"> • Would require significant investment to overcome A1(M) 	
						✓	✓	✓	✓	Flood Risk			
						✓	✓	✓	✓	Water Supply Three Valleys Water			
						✓	✓	✓	✓	Groundwater Constraints			

Ref	Potential Site	Strengths	Weaknesses	Opportunities	Constraints	Transport and Infrastructure				Phasing	Actions	Costs (ballpark estimate)	
						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
		<p>long distance services on ECML (plus routes to Cambridge / Kings Lynn via 'Great Northern' line but would need improved connections)</p> <p>Relative ease of access to LTN airport</p> <p>North south strategic highway connections via A1(M)</p>	<p>encourage unsustainable car commuting. Peak period congestion on A1(M) and A602.</p> <p>Detached from Stevenage urban area – barrier impact of A1(M)</p>	<p>Glaxo.</p> <p>Recent increased seating capacity on First Capital Connect Services</p>	<p>Peak period congestion on A1(M) at J7 plus some queuing on main carriageway – HA confirmed</p>		✓			<p>Aquifer designation</p> <p>Potential for use of infiltration</p> <p>SW/FW Network Severe sewage capacity constraints</p> <p>Sewage Treatment Capacity Severe sewage capacity constraints</p> <p>Electricity Supply Major reinforcement required</p> <p>Gas Supply Reinforcement required, though connections easier to west of Stevenage</p>	<p>GSK and Managed Motorway approach to A1(M)</p> <ul style="list-style-type: none"> Any large scale expansion dependent upon A1(M) widening (currently not proposed) and would compete for capacity with GSK and Gunnels Wood Longer term 	<p>other important sites all separated by major routes</p>	<p>barrier to provide sustainable links to Stevenage costing around £10-15m</p>
10	Hatfield	<p>Builds on existing development area and transport infrastructure. Opportunity to link into the sustainable transport measures that were introduced as a result of the redevelopment of the BAe site.</p>	<p>Local highway network poor to north and west of the site and connection could lead to unacceptable rat-running. Site poorly located for rail access.</p> <p>The further development of this site will lead to increased congestion on the already heavily congested A1057 between St Albans and Hatfield. A1(M) identified as an existing congestion hotspot.</p>	<p>Take advantage of Business Park transport improvements. Previous discussions relating to this site have investigated the possibility of a link road between the A414 and the minor road network to the north.</p>	<p>Existing congestion and finite capacity of local network. No plans for improvement to A1(M) beyond current tunnel enhancement works.</p>	✓	✓	✓	✓	<p>Flood Risk</p> <p>Water Supply Three Valleys Water</p> <p>Groundwater Constraints</p> <p>Aquifer designation</p> <p>Potential for use of infiltration</p> <p>SW/FW Network Sewage Treatment Capacity Reliant upon capacity at Mill Green WwTW</p> <p>Electricity Supply</p> <p>Gas Supply</p>	<ul style="list-style-type: none"> Additional growth would need to be phased with new highway infrastructure Short to medium term 	<ul style="list-style-type: none"> Need sustainable transport strategy to mitigate impacts on the A1(M) Develop proposals for a new link road 	<ul style="list-style-type: none"> Sustainable transport measures building on existing successes £2-3m New link road and local capacity improvements around £10m
11	Watford Junction	<p>Good public transport network. Local bus services, strategic rail connections at Watford Junction, good local rail services.</p> <p>Access to strategic road network to the east via A4008 Stephenson Way to M1 junction 5 if new connection to Colonial Way provided.</p> <p>North south strategic highway connections via A1(M) Ease of westbound highway linkages via A414 Close to both St Albans and Hatfield urban areas but...</p>	<p>Local traffic congestion. Congested connections to strategic highway network. Would be overcome by new Colonial Way Link road but recent withdrawal of central government support makes this unlikely in the short to medium term.</p> <p>...not physically abutting either</p>	<p>Croxley Rail Link will provide good connections to London Underground Abbey Line passes through site. Service frequency would be increased through conversion to tram. Development could provide Watford Junction Interchange scheme which improves highway connectivity to M1 Link Road.</p> <p>Alban Way cycle network? Choice of rail connections via Hatfield / St Albans but relatively remote from both?</p>	<p>Funding and timescale of improved transport network. Abbey Line railway line passes through site. Any development or/ near railway land is highly regulated.</p> <p>Peak period congestion on A414 / A1057?</p>	✓	✓	✓	✓	<p>Flood Risk Minor historical surface water sewer flooding</p> <p>Water Supply Three Valleys Water</p> <p>Groundwater Constraints Outer GWPZ</p> <p>Aquifer designation</p> <p>Potential for use of infiltration Infiltration may not be acceptable due to presence of outer GWPZ (dependent upon underlying geology type and potential for leaching of contaminants)</p> <p>SW/FW Network Minor historical surface water sewer flooding</p> <p>Sewage Treatment</p>	<ul style="list-style-type: none"> Phasing dependent upon funding for local rail improvements and new link road Medium to long term (subject to delivery of new link road) If local congestion can be tackled provides for dispersed trips onto strategic trunk road network which might make growth easier to deliver 	<ul style="list-style-type: none"> Develop strategy for new access and links to rail in discussion with NR Need a transport strategy for tackling Watford congestion issues 	<ul style="list-style-type: none"> New link road £5m+ Tackling local highway congestion £5-10m

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						Proximity		Accessibility					Infrastructure
						Private Transport	Public Transport	Private Transport	Public Transport				
				Uni bus services provide good local bus network coverage					Capacity Electricity Supply Gas Supply				
12	Croxley	<p>Good connections to Metropolitan Line.</p> <p>Existing LU links at Croxley / Watford</p> <p>Impact of Croxley Rail Link?</p>	<p>Congested local highway network.</p> <p>Constrained highway access ?</p> <p>Potential barrier effect of surrounding rail lines?</p>	<p>Croxley Rail Link enhances connectivity to London Underground and Watford Junction. New station planned at Ascot Road.</p> <p>Ebury Way cycle network? Croxley Rail Link?</p>	<p>Poor local highway network and possibility of adverse rat running along Tolpits Lane.</p> <p>Complex local highway network? General local peak period congestion?</p>	✓	✓	✓	✓ ✓ ✓	Flood Risk Surrounded by/adjacent to flood plain Water Supply Three Valleys Water Groundwater Constraints Inner GWPZ Aquifer designation Potential for use of infiltration No Infiltration within Inner GWPZ SW/FW Network Minor historical foul flooding. Sewage Treatment Capacity Minor historical foul flooding. Electricity Supply Gas Supply	<ul style="list-style-type: none"> Phasing subject to DfT approval of Croxley Rail link (likely to be determined over next 1-2years) Also dependent upon improved road access If local congestion can be tackled provides for dispersed trips onto strategic trunk road network which might make growth easier to deliver Medium term 	<ul style="list-style-type: none"> Progress strategy for site in conjunction with Major Scheme Bid Need a transport strategy for tackling Watford congestion issues 	<ul style="list-style-type: none"> See Croxley Rail Link bid and note need for significant local funding (£130m + total scheme with approx. 25% local contribution) New road access and local highway improvements to tackle congestion £5-10m



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