

NW Bicester

An application for the exemplar phase of the
NW Bicester Eco Development proposals submitted by
P3Eco (Bicester) Limited and the A2Dominion Group

Economic Strategy

P3Eco Ltd

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Foreword

The Exemplar will create over 460 new jobs over a period of four to five years, with the potential for an additional 140+. It will also begin a transformation the economy and the re-positioning of Bicester that will be realised through the NW Bicester Eco Development.

The Exemplar will begin to position Bicester as a hub for eco activity, leading to the development over time of a cluster of sustainable construction and other eco- businesses, and related training provision. It will also help Bicester build on existing strengths such as advanced manufacturing and motorsports and to develop a distinctive role within the Oxfordshire high tech cluster.

The Exemplar will put in place some of the key building blocks in this process, including; an innovative partnership with the Midlands Co-operative; a partnership between P3Eco and Oxford and Cherwell Valley College (OCVC) to develop courses for the eco-economy; and an Eco-Bicester Research and Innovation Centre (EBRIC), a partnership between P3Eco, Oxford Brooks University and Oxford Innovation.

The construction of the Exemplar itself will provide a significant number of construction jobs specialising in niche eco building skills. Working on a basis of 0.7 person years per dwelling this equate to 70 FTE jobs at an indicative rate of 100 dwellings a year (at 150 jobs at the peak of construction activity. On site facilities are expected to provide approximately 250 additional jobs. These will be located in the eco-business centre and other office provision, retail units, a primary school, nursery and community facilities. Indirect job creation will result from spend by the Exemplar's residents, mainly in service jobs. These are expected to equate to 40 FTE jobs based on a standard multiplier applied to the average number of dwellings built per year.

The homes will include flexible space to encourage home working, alongside next generation broadband and social spaces within the development. This will be marketed actively to encourage home-working amongst residents. Given this, and national trends for increased home working, an assumption of one FTE home worker for every three dwellings is reasonable. Allowing for those delivering services locally (and therefore already counted), this equates to 105 FTE jobs on site once full occupancy is reached.

As the home of one of the first large-scale eco developments in the UK, Eco Bicester constitutes an attractive location for inward investment, particularly in high-tech manufacturing, engineering and environmental industries. It is too early to quantify these jobs, but given the appeal of Bicester's offer and the mechanisms already under discussion to attract firms into the area, they could significantly boost local employment opportunities.

The Exemplar will also contribute to the wider economic context in three ways. First, it will provide an attractive and supportive environment for people to live and work locally, benefitting from Bicester's excellent connectivity and the strong economic opportunities in the wider Oxfordshire area. Second, the Exemplar will kick start the development of a new eco economy in the town, capable of serving a wider area. Third, the Exemplar will begin a transformation of the image of Bicester, which in turn will change the town's economic relationship with the wider area. The Exemplar provides the opportunity to support the strong and distinctive growth of 'high tech Oxfordshire', northwards from Oxford, rebalancing the bias influenced by the location of research institutes to the south of the county and major business and science parks.

Executive summary

1. The Exemplar development for North West Bicester is a crucial first step in creating the proposed eco development and transforming the Bicester economy. The Exemplar will create new jobs, it will initiate new opportunities that will only be fully realised through the full eco development, and it will begin the transformation of the image and economy of Bicester.
2. The Exemplar development will stimulate the emergence of a new eco economy for Bicester and begin to position the town as a hub for 'eco' activity. Drawing on its Eco Town status, Bicester will over time attract an active cluster of eco-businesses, become a centre of expertise for sustainable construction techniques and materials, and support a vibrant skilled population.
3. The eco development will also enable Bicester to build on existing strengths such as advanced manufacturing and motorsport, and to forge stronger links with the Oxfordshire high tech cluster.
4. The Exemplar will put in place some key building blocks in this process, including:
 - a partnership between P3Eco and OCVC to develop a range of courses relating to the eco economy and other growth opportunities, to be delivered in Bicester, enabling residents to benefit from the economic opportunities that will be created
 - an eco-business centre, to be developed on the Exemplar
 - an innovative partnership with the Midshires Co-operative, support the sourcing of locally grown food and sustainable products
 - the Eco-Bicester Research and Innovation Centre (EBRIC), a partnership between P3Eco, Oxford Brookes University and Oxford Innovation. The EBRIC will initially be a virtual centre with a web presence, housed in Oxford Brookes, then later provide physical accommodation in Bicester focusing on eco development and creating a hub for research based around low carbon living.
5. The Exemplar will also attract people with eco skills and interests to live and work there, and provide new job and business opportunities which will enable people who currently commute out to work part or all of their time in Bicester.
6. As well as attracting new investment and firms into Bicester, the Exemplar will help lift the general level of expectation within Bicester, and improve training and upskilling opportunities – particularly through a partnership between the Oxford & Cherwell Valley College and P3Eco to support training for eco industries.

Employment supported by the Exemplar

7. As part of this application, this economic strategy demonstrates that the Exemplar development of 394 dwellings will support the creation of over 460 jobs over a period of four

to five years, with the potential for the creation of another 200 over a slightly longer timescale.

Construction jobs

8. Construction jobs supported by the Exemplar will include both on-site construction, and retrofit jobs expected to be created as part of the wider drive towards turning Bicester into an Eco-town, using the skills driven by construction on-site.
9. The construction of the Exemplar will in itself provide construction jobs. Working on a basis of 0.7 person years per dwelling, this equates to **70 FTE jobs** at an indicative rate of 100 dwellings per year (and up to 150 at the peak of construction activity). These are considered to be long-term jobs, as building out the long-term Masterplan will provide ongoing future (similar) employment opportunities up to 2026, drawing on specialist skills developed alongside and for the delivery of the eco development.

On-site jobs

10. The application for the Exemplar includes on-site employment space expected to provide approximately **250 additional jobs**. These will be primarily located in an eco-business centre (up to 105 jobs), a convenience store (20), other office provision (65), a primary school (10) and nursery (4) as well as a range of retail stores and community facilities. An independent energy solution is planned for the Exemplar which could provide an additional five jobs.
11. P3Eco is also committed to deliver manufacturing of eco houses and internal fittings in Bicester (a factory), and we are working to identify a site to deliver this. However, the build of the Exemplar and delivery of jobs in pace with the development are not contingent on a factory being built during the Exemplar phase. Estimates by an established manufacturer of eco houses interested in locating production facilities in Bicester suggest that over 100 direct jobs and 350 indirect jobs could be created by the new facility, but there is a three year lead time once a suitable site is found, and another year to train staff and ramp up production.

Additional population-derived jobs

12. The growth in population associated with any such large development will have important endogenous employment effects. The number of service (e.g. leisure and retail) jobs associated with the growth in population is expected to be approximately **40 FTE jobs**, based on a standard multiplier related to the approximate number of homes built per year.

Supporting home-working

13. The build specification for the Exemplar homes will include flexible space to support home-working. For example, all homes will have a designated area designed for home working and some homes will also have a garage space which can be converted into office space. Home-working will also be encouraged via the provision of next generation high-speed broadband, the creation of social spaces within the development, and active marketing of this aspect of the scheme.

14. With its additional support for homeworking, it is a reasonable assumption that the Exemplar development will be the main place of work for the equivalent of one full-time employee (1 FTE) in an average of every three households. Across 394 households that accounts for 131 FTE jobs on-site. To account for potential double-counting (as some of these jobs will be providing services to the local population, accounted for in the section above), the estimated number of jobs has been reduced by 20% to **105 FTE jobs** on-site.

Investment from outside the area

15. It is expected, as the vision of Eco Bicester takes shape, that the town will attract inward investment, and thereby additional employment, particularly in high-tech manufacturing, engineering and environmental industries. P3Eco and A2Dominion are developing mechanisms to ensure that these jobs are encouraged and will actively seek to attract businesses to be (re)located in Bicester. Although it is likely that these will begin to be attracted to Bicester during the construction of the Exemplar, it is too early to quantify these jobs.

Table 1: Summary of jobs supported by the North West Bicester Exemplar development

Core employment	Number of jobs anticipated
Construction jobs	70 FTE
On-site jobs	250 FTE
Population-derived jobs	40 FTE
Home working	105 FTE
TOTAL	465 FTE
Additional potential employment	
Eco-factory	100 FTE+
New investment	<i>Too early to quantify</i>
Retrofit	40FTE
TOTAL	140+ FTE

Looking to the future

16. The Exemplar settlement relates to this the wider economic context in three main ways:
- it will provide an attractive and supportive environment for people to live and work locally, whilst benefitting from Bicester’s excellent connectivity and the strong economic opportunities in the wider Oxfordshire area
 - it will kick start the development of a new eco economy in the town, which will also be capable of serving a much wider area, where demand is likely to increase through initiatives such as the recent formation of a business led consortium to promote a commercially successful low energy building market in Oxfordshire, involving the County Council, Oxford University's Environmental Change Institute and Said Business School, and others

- it will begin a transformation of the image of Bicester, which in turn will change the town’s economic relationships with the wider area. The Exemplar provides an opportunity to support stronger and distinctive growth of ‘high tech Oxfordshire’ northwards from Oxford, thereby rebalancing the southwards bias influenced by the location of major research institutes and of most of the existing major business and science parks.
17. The full eco development will enable the potential of the changes initiated by the Exemplar to be fully realised:
- it will further enhance Bicester’s attractions as a place to live and work, encouraging existing residents who currently commute out to re-assess their lifestyle choices based on the new opportunities on their doorstep, and new residents to find jobs or set up businesses within the town
 - it will provide a continuing flow of job and business opportunities in the eco economy, and enable a critical mass of expertise to develop which will form a new cluster serving a much wider area
 - it will secure a transformation in Bicester’s image and role in the Oxfordshire economy, enabling specialisms such as green technologies and advanced manufacturing to develop. Development of the full potential of the Oxfordshire economy requires greater balance between north and south: the Bicester eco development will support that re-balancing
 - the additional population which the eco development will bring is likely to take Bicester above some thresholds for retail and service provision, which will make it more attractive to a wider range of businesses simply because it is a bigger place – leaving aside the fact that it will also be a different place because of the NW Bicester development.

Action points

18. Throughout the economic strategy, there are ‘Action Points’ which are summarised in the table below:

Table 2: Action points for the employment strategy

Action point
<p>Developing a strong local economy</p> <p>Local employment clauses and the support of local supply chains will be built into procurement contracts based on appropriate selection criteria including eco credentials.. Partnering terms with contractors will include a requirement for the provision of trade apprenticeships, use of local labour, sub contractors and suppliers.</p> <p>Ensure the local construction sector is fully aware of the opportunities available and skill requirements.</p> <p>Set up web site to enable local sub contractors and suppliers to submit their details for pre tender selection by the main contractor based on appropriate selection criteria as set out in the partnering contract.</p> <p>Work with Cherwell District Council, as lead organisation for the Bicester retrofit scheme, to support the development of plans to develop and implement a large-scale retrofitting programme in Bicester (including an examination of the supply chain and how/where to locally source materials).</p>

Action point

Identify local manufacturing companies with growth aspirations and potential, and explore the opportunities to a) exploit opportunities in the eco economy, and b) develop stronger links to the science and technology base in Oxfordshire.

Business and enterprise support

Work in partnership with OCVC to develop a range of courses relating to the eco economy, delivered in Bicester.

Work in partnership with Oxford County Council and OCVC regarding sustainable construction training to be registered with CSkills.

Work with OCVC, Oxford Brookes and the County Council to ensure education and skills provision adapts and improves to enable local residents to develop the skills demanded by growth sectors in the Bicester economy.

Work with the partnering contractor(s) to deliver: a) programmes developing skills to get people into work; b) short-term work experience programmes; c) craft-based NVQ course (the craft-based apprenticeship scheme can lead to full time employment with the main contractor and ultimately the supply chain); d) management training programmes.

Examine opportunities to draw down funding to support existing businesses to adopt more environmentally sustainable business models.

Draw on the resources of the EBRIC to support the early-stages of interest around the development of knowledge economy and 'eco-technologies' cluster.

Work with local partners (such as Bicester Vision, Chamber of Commerce and LEPs) to examine how to support the development of the social, institutional and professional infrastructure for business networking.

Explore with Cherwell District Council the economic model for an Eco-business centre on-site to provide high quality space for the attraction of early inward investment in target industries.

Infrastructure requirements

Market homeworking provision in A2Dominion's marketing strategy.

Ensure the roll out of next generation super fast broadband for the Exemplar, full eco development and also assist to enable this for the whole of Bicester.

Support Chiltern is marketing the rail improvements to potential in-movers and inward investors, emphasising the fact that Bicester is a great place to live, and to locate and grow a business.

Delivery mechanisms

Explore options with local partners (such as Bicester Vision, Chamber of Commerce and LEPs) for additional specific roles to be created to support the messages associated with the wider Eco Town concept.

Examine ways to actively work with local schools, other education and skills providers and community groups to raise awareness of the eco-message behind North West Bicester.

Work with Bicester Town Council to support the marketing push behind Eco Bicester, drawing on planned infrastructure and existing marketing messages for Bicester.

Monitor progress against the baseline conditions and these actions as the Exemplar is developed.

Source: North West Bicester: Economic Strategy for the Exemplar development

1: Introduction and Economic vision

Key points:

- this strategy responds to the Eco Towns supplement to PPS1, which includes the requirement for an economic strategy to support “access to one employment opportunity per new dwelling that is easily reached by walking, cycling and/or public transport”
- the North West Bicester development (the ‘eco development’) will help to re-position Bicester itself as a leading location for ‘eco’ activity
- whilst this document sets out the economic strategy for the Exemplar phase only, it provides a clear indication of ‘direction of travel’ looking forward to the full-scale eco development at NW Bicester. In preparation for the full Masterplan economic strategy, it is necessary to provide groundwork by working with existing businesses; seeking how to attract inward investment; and supporting the development of new businesses.

PPS1 requirements

- 1.1 This economic strategy responds to the requirements outlined in the Supplement to Planning Policy Statement 1 (PPS1; published in July 2009), which states:

*“ An economic strategy should be produced to accompany planning applications for eco-towns that demonstrate how access to work will be achieved. The strategy should also set out facilities to support job creation in the town and as a minimum there should be access to **one employment opportunity per new dwelling that is easily reached by walking, cycling and/or public transport**”*

(Planning Policy Statement: Eco-Towns – para ET10, CLG, 2009).

- 1.2 In preparing this document we have made use of the guidance contained within the TCPA ‘Eco-towns Economy Worksheet’¹. This worksheet suggests that the strategy should cover three key components or phases:

- **formulation** – covering the initial stages of the development
- **evolution** – demonstrating how the economy will evolve, particularly in response to a new and changing context, and in particular how it may lead to more efficient resource use and low-carbon production
- **implementation** – guidance on how relevant key actions will be taken forward.

¹ *Developing effective economic strategies for eco-towns*, TCPA, March 2009

- 1.3 This document ('Economic Strategy for the Exemplar development') will primarily focus on the initial stages of the development (**Formulation**), whilst providing a clear indication of 'direction of travel' looking forward to the full-scale settlement (**Evolution**). The full Masterplan will, subsequently, be supported with its own Economic Strategy which will develop further these longer-term aspects of the eco development. Both documents will contain guidance on **Implementation**.

Eco-Bicester – a vibrant green economy

- 1.4 The North West Bicester development is an important development, although it is not – in itself – the proposed Eco Town. The intention is for the development to help boost a new eco economy for Bicester as a whole and to re-position the town as a hub for 'eco' activity.
- 1.5 As the UK moves towards a Low Carbon Economy, the aim is to place Bicester in a leading position, building on the strategic location and geographic advantages that the town already enjoys.
- 1.6 Bicester, drawing on its Eco Town status, will over time attract an active cluster of eco-businesses, become a centre of expertise for sustainable construction techniques and materials and support a vibrant skilled population.
- 1.7 As well as attracting new investment and firms into Bicester, this entails lifting the general level of aspiration among the town's population, and supporting the growth of existing businesses and new starts. It also entails working with the local population to draw on available training and upskilling opportunities to seize the economic opportunities that will be created.

The Exemplar

- 1.8 The aim of the Exemplar, in addition to trialing the first phase of eco-dwellings, is to try out new ways of working, to test new economic partnerships, and to develop practical ways of moving Bicester towards a new position as a market leader in green technologies.
- 1.9 It should be noted that bringing forward the Exemplar coincides with a period of slow economic growth as the UK economy emerges from a deep recession, and is subject to severe cuts in public sector spending and employment.
- 1.10 Nonetheless, the eco development provides an exciting and entirely new opportunity for the local economy of Bicester and the wider Oxfordshire sub-region, and P3Eco is keen to use this economic strategy to 'kick-start' a range of new activities in Bicester in anticipation of the whole Masterplan. This will have three components:
- *working with existing businesses* – much of the employment growth over the next 10 years at least will be created by existing local businesses. For the existing businesses in Bicester therefore, this requires a two-pronged approach: i) increasing awareness of the opportunities relating to the green economy, and ii) developing the capacity to take those opportunities. In practical terms, two points arise:

- unless there is support for local businesses the planned jobs growth is unlikely to be delivered
- many local businesses have products and services which could be adapted to meet demand from NW Bicester – for eco construction materials, services, etc. This will require them to acquire new skills, which the initiatives associated with the Exemplar will address
- *attracting inward investment* – this will focus on firms in target sectors, which should either relate to existing strengths or to opportunities related to the eco development. Initially this will be suppliers of goods and services demanded by the Exemplar constructors and residents. Later it will be broader, based on the changing image and reality of Bicester as a place to live and work (eg professional and business services serving a sub regional/regional market), and changing demands (eg an ageing population will demand more healthcare and leisure services, a growing population of young families will require new services such as nurseries, private as well as state schools, etc.)
- *supporting the development of new businesses* – those started by existing and new residents. At least some of the new residents will be attracted to live in an eco development because of their professional skills and interests – they will have specialist skills which will mean they will be interested and inclined to work on the eco project. In exploring new partnerships, we will examine ways of working with schools, with the unemployed, with prisons, etc. But the strategy should also target individuals who live locally and work in, for example, London or Oxford – to work more of their time at home and use local facilities eventually to set up their own business locally. This means providing:
 - *the right working environment in the Exemplar*, including homes with areas designed for home working, business hubs, the Eco-business centre and related facilities, including a visitors centre, café and conference/meeting rooms, and other coffee shops/meeting places
 - *targeted start up support*, to ensure existing and new residents get good advice at the right time to enable their businesses to survive and grow, and can access local networks of entrepreneurs and service providers. The Eco business centre would play an advisory and signposting role for prospective entrepreneurs.

2: Economic functions

Key points:

- Bicester has experienced a rapid rate of growth over the last 15 years, and it is expected to grow yet further. This rapid growth may take Bicester above some thresholds for retail and service provision, thereby making it more attractive to a wider range of businesses
- Bicester has a solid economic workbase, with high percentages of the working age population economically active and employed. Nonetheless, there are issues around relatively poor skills attainment levels (compared to Oxfordshire and the wider south east) and the occupational profile of residents employed within the town tends to be skewed to the lower level occupations
- due in part to its accessible location and good transport links, Bicester has a low level of self-containment and a relatively high rate of out-commuting. This leads to localised congestion problems, particularly at certain times of the day. Improvements to public transport and walking and cycling routes within Bicester and its immediate surrounds – some of which are planned as part of the eco development – will encourage more people to work locally, and more to use sustainable means of transport to get to work
- Bicester is clearly functionally within the Oxford sub-region. The Exemplar settlement will kick-start the development of a new eco economy in the town and begin the transformation of Bicester's image, supporting a growth of 'high tech Oxfordshire' northwards from Oxford. At the same time it will provide an attractive and supportive environment for people to live and work locally whilst retaining the benefits of close links to Oxford.

Bicester, now and in the future

Bicester's resident population

- 2.1 The estimated population of Bicester in 2007 was 29,850 people, and of Cherwell District 137,900. The working age populations were estimated at 19,581 (65.6%) and 86,600 (62.8%) respectively.²
- 2.2 Cherwell's population is less ethnically diverse than regional and national comparators, and is also categorised by a high proportion of residents in the 0-14 and 30-64 age ranges. The resident population has increased faster than national and regional comparators in the last decade or so. The district's estimated population increased by 12,000 people between 1995

² Bicester population estimates – ONS ward mid-year population estimates for England and Wales 2007 (experimental)

Cherwell population estimates – ONS mid year population estimates 2007

and 2009, or 9.2%. Over the same period, the rate of increase in the South East was 8.7%, and in England, 7.1%.³ Previous studies indicate that the fast rate of growth in Cherwell has been particularly pronounced in Bicester.

- 2.3 This rapid rate of expansion is expected to continue. Cherwell's population is predicted to increase by 14.2% between 2010 and 2033. As is the case in many areas, the predicted rate of growth amongst the working age population is much lower, at 2.3%. As a result, there is expected to be a decline in the proportion of Cherwell's population which is of working age (however, standard definitions of 'working age', on which these estimates are based, may be misleading as more people work longer and retire later).
- 2.4 In the light of these statistics, two key consequences of the additional population which the eco development will bring are:
- the working age population of Bicester is likely to be boosted by the eco development, because a development of this type will typically attract a relatively high proportion of young working couples and families rather than a high proportion of elderly people. This should make the town more attractive to inward investors seeking a growing workforce
 - population growth is likely to take Bicester above some thresholds for retail and service provision, which will make it more attractive to a wider range of businesses simply because it is a bigger place – leaving aside the fact that it will also be a different place because of the NW Bicester development.

Employment and economic activity

- 2.5 81 percent of Cherwell's working age population are economically active, and 78 percent are employed. This compares favourably to the national (77%, 71%) and regional averages (80%, 75%).⁴
- 2.6 Of those employed, 26.6% work part time, compared to 24.7% nationally, 25.7% regionally and 25.4% across Oxfordshire.⁵ Rates of self employment, as measured in 2001 and 2006-9 are slightly lower than other comparators. Both measures (Census and Annual Population Survey (APS)) estimated that 12% of Cherwell's economically active (Census) and employed (APS) residents were self employed. Rates in England, the South East and Oxfordshire were typically higher.⁶
- 2.7 Cherwell's residents are less likely to be employed in managerial, professional and associate professional occupations than national and regional averages. This is more pronounced when comparing the district to Oxfordshire generally, which has a high proportion of residents working in these occupational groups. Cherwell residents are more likely to be employed in

³ ONS mid year population estimates 1995-2009.

⁴ Annual Population Survey, resident analysis averaged 2009-10.

⁵ Annual Population Survey, resident analysis averaged 2006-2009.

⁶ Census 2001 – Percentage of economically active residents self employed (2001) & Annual Population Survey – percentage of employed residents self-employed (averaged 2006-2009)

personal service occupations, process/plant and elementary occupations than other comparators.⁷

- 2.8 As might be expected, the broad sectors of agriculture; distribution, hotels and restaurants; and particularly manufacturing are over-represented in Cherwell. Manufacturing strengths are particularly in evidence in Bicester, where a number of specialist manufacturing sectors are well represented. Retail, wholesale trade, publishing and power/water supply are also strongly represented in the town.⁸

Skills and learning

- 2.9 The skills profile of Cherwell and Bicester residents is perhaps lower than might be expected, given the area's strong performance on other economic indicators. The proportion of Cherwell's GCSE students achieving 5 good GCSE's is 70%, but this falls to 51.4% when Maths and English are included. This latter figure in particular falls short of the South East Average of 53.7%.⁹
- 2.10 Average A-level point scores in Cherwell are also significantly below the regional average¹⁰, as is the proportion of resident adults qualified to NVQ 4 and above (29.9%, compared with 31.4% for the region and 34.6% for Oxfordshire. The proportion of adults with no qualifications is also low, at 9.4%, but not as low as for Oxfordshire as a whole (7.2% of residents).¹¹ The proportion of workers receiving training at work is slightly lower than comparator areas, at 18% of employed residents in 2009. This compares to 19% in England, 21% in the South East and 21% in Oxfordshire.¹²

Economic linkages

- 2.11 Bicester's economy has low levels of self-containment, as demonstrated by high levels of outwards commuting. The town is well connected via the A41, A34 and crucially the M40. These connections provide good access by road to Oxford, Banbury, Milton Keynes, London, Warwick and Birmingham. The town also benefits from good and improving rail links to London, Birmingham and Oxford.
- 2.12 The Oxfordshire Local Economic Assessment concludes that Bicester is categorised by high levels of out-commuting. Whilst 57.1% of people who work in Bicester also live there, only 39.9% of Bicester's working population actually work in the town, with the rest commuting out to jobs elsewhere. Other strategy documents specifically mention London, Oxford, Banbury, Birmingham and Milton Keynes. Commuting data¹³ suggests that Bicester is linked strongly to other settlements, and that commuters travel in both directions. Links of particular importance include:

⁷ Annual Population Survey, resident analysis averaged 2006-2009.

⁸ Annual Business Inquiry 2008.

⁹ Department for Education, 2008/9.

¹⁰ Department for Education, 2008/9.

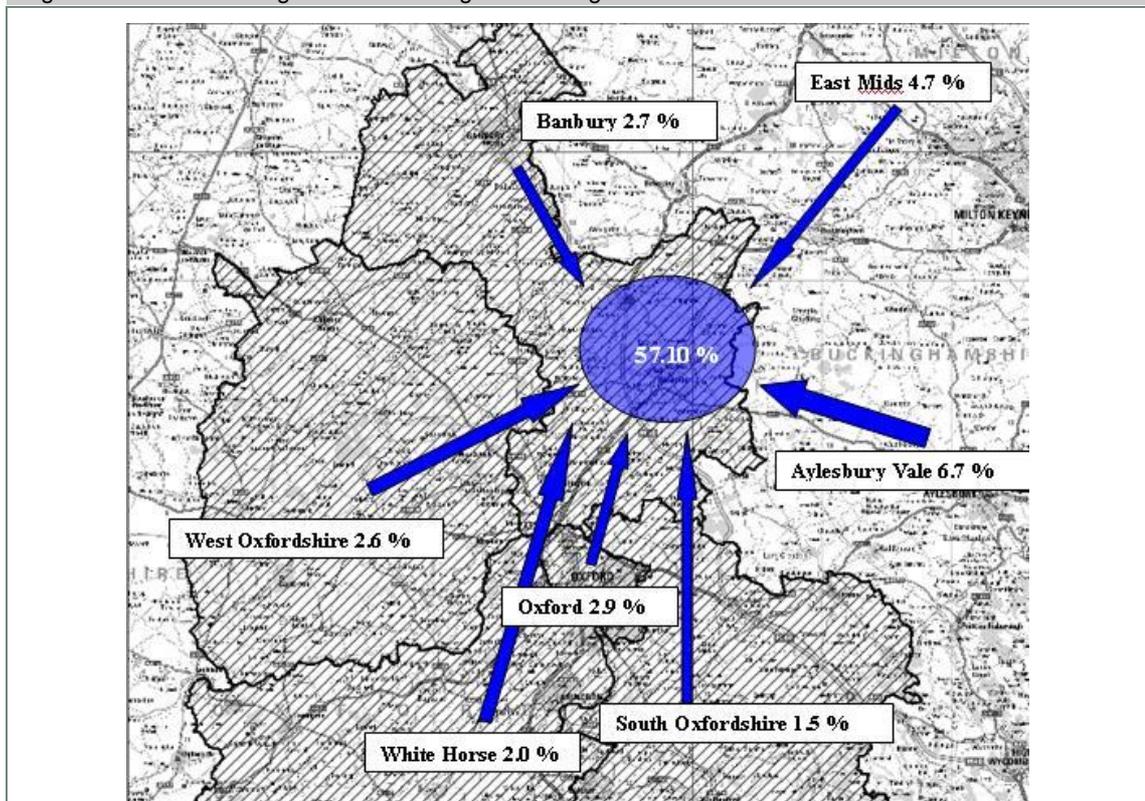
¹¹ Annual Population Survey 2006-9 (averaged).

¹² Annual Population Survey, 2009 (annual average).

¹³ Census 2001.

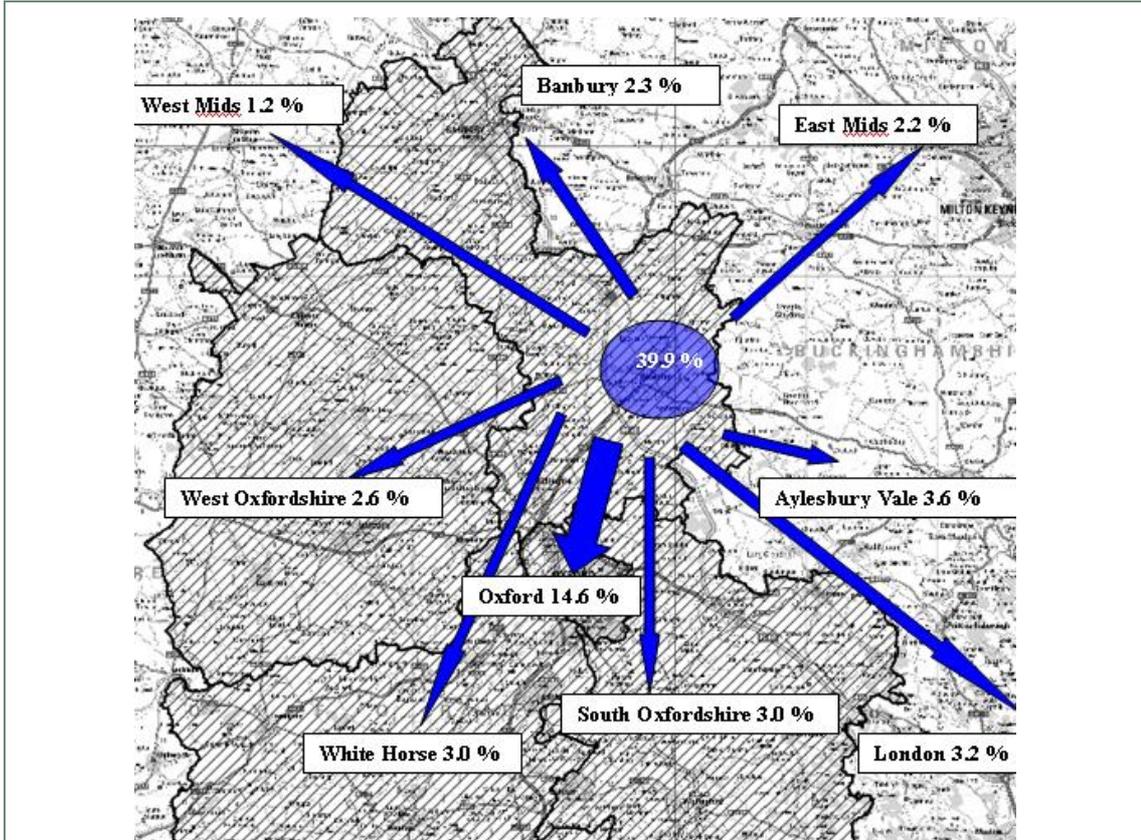
- for out-commuting – Oxford (14.6%), Aylesbury Vale (3.6%), London (3.2%), White Horse (3.0%) and South Oxfordshire (3.0%)
 - for in-commuting - Aylesbury Vale, Oxford and West Oxfordshire.
- 2.13 There are also significant economic linkages between Bicester and other settlements within Cherwell. These include Launton (4.2%), Ambroseden and Chesterton (3.0%), Kidlington (2.5%), Banbury (2.3%) and Caversfield (2.0%).
- 2.14 Maps are included below to illustrate these linkages. Banbury is comprised of five wards and included alongside significant districts and regions given its relative importance. Figures are organised as follows;
- Figure 2-1 illustrates **significant origins of those commuting into Bicester to work** (including regions, districts and Banbury)
 - Figure 2-2 illustrates **significant destinations of those commuting out of Bicester to work**(including regions, districts and Banbury)
 - Figure 2-3 illustrates **significant origins of those commuting into Bicester from other wards within Cherwell** (excluding Banbury)
 - Figure 2-4 illustrates significant destinations of those commuting out of Bicester to work in other wards within Cherwell (excluding Banbury).

Figure 2-1: In-commuting to Bicester – Significant Origins



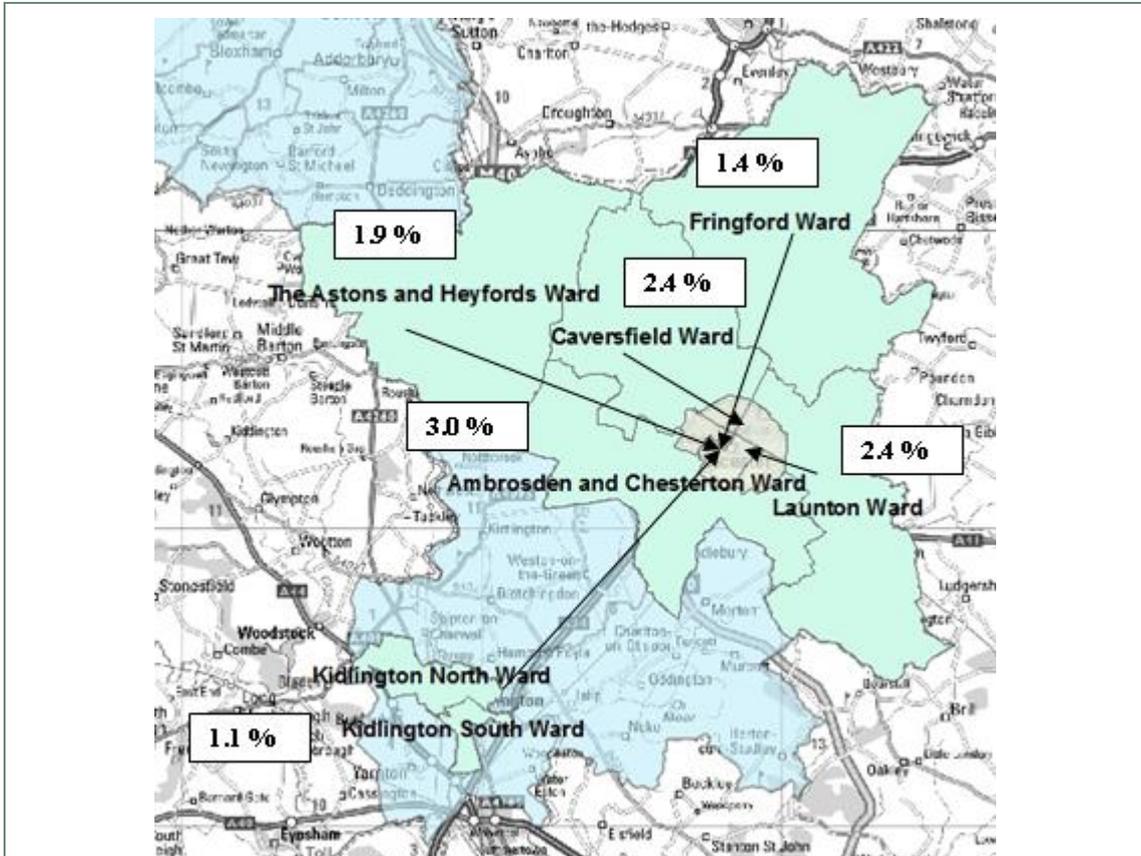
Source: Census 2001. Produced by SQW Consulting 2010; © Ordnance Survey. Crown Copyright. License number 100019086.

Figure 2-2: Out-commuting from Bicester – Significant Destinations



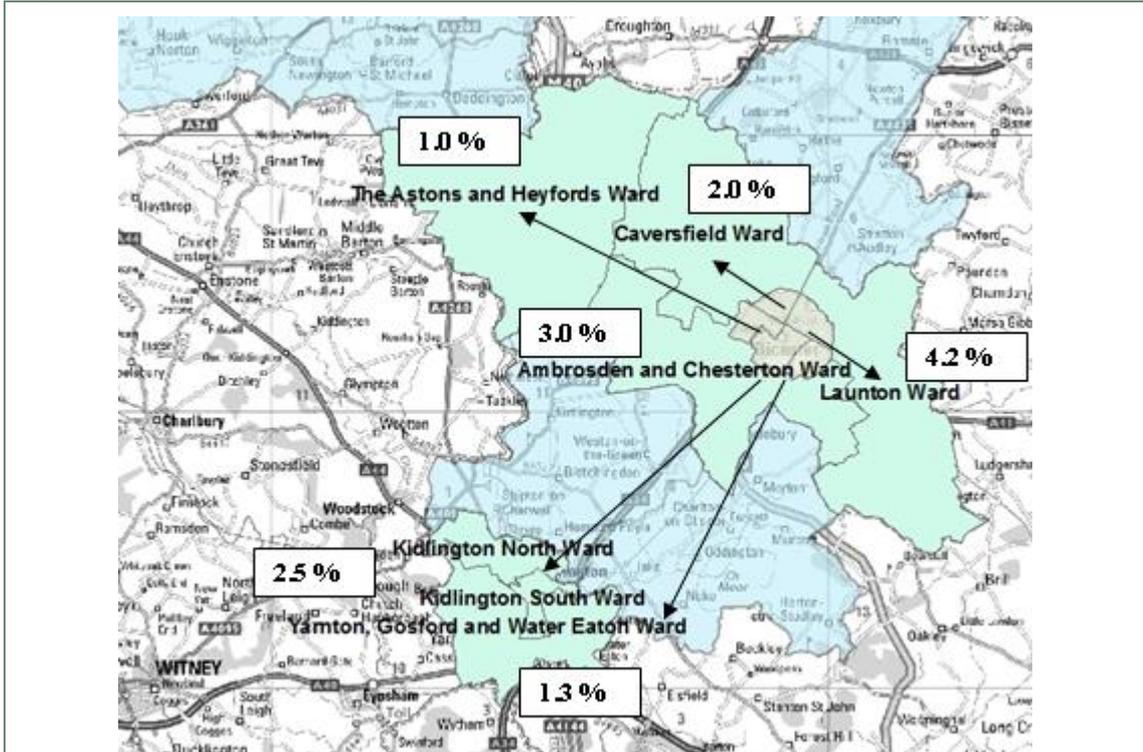
Source: Census 2001. Produced by SQW Consulting 2010; © Ordnance Survey. Crown Copyright. License number 100019086.

Figure 2-3: In-commuting to Bicester – significant Cherwell wards - 2001



Source: Census 2001. Produced by SQW Consulting 2010; © Ordnance Survey. Crown Copyright. License number 100019086.

Figure 2-4: Outwards commuting from Bicester – Significant Cherwell Wards



Source: Census 2001. Produced by SQW Consulting 2010; © Ordnance Survey. Crown Copyright. License number 100019086.

- 2.15 The pattern of commuting is expected to change when the new Chiltern rail line is introduced. The Evergreen3 project is the latest in a series of service improvements which are being implemented as part of Chiltern's 20 year franchise. Previous phases comprised 18 miles of track doubling between Bicester and Aynho, near Banbury, and various measures to improve line speed, reliability and capacity between London and Bicester. Evergreen3 will be achieved by constructing a short connecting line just south of Bicester, where Chiltern Railways' London-Birmingham line crosses over the proposed East-West line which will run between Oxford and Milton Keynes. Bicester Town and Islip stations will also be rebuilt and additional platforms provided at Oxford. The resulting benefits will include
- two London-Bicester trains each hour in each direction, throughout the day. All trains will call at the main Oxford station and the new Parkway station in North Oxford
 - a fast (14 minute) and frequent commuter service between Bicester and Oxford, giving a realistic alternative to the congested A34.
- 2.16 These changes are likely to increase the attractions of Bicester for long distance commuting, but will also make the town more attractive to people who need to be able to access London or Oxford quickly, but who wish to work most or all of their time locally.
- 2.17 In addition, improvements to public transport and walking and cycling routes within Bicester and its immediate surrounds – some of which are already planned as part of the eco development – will encourage more people to work locally, and more to use sustainable means of transport to get to work.

The Oxfordshire sub-region

2.18 The Economic Strategy for Oxfordshire (2006-2016) emphasises the aspects of Oxfordshire's economy which should make it attractive to investors and new firms. These include:

- existing cluster groups such as Oxfordshire Bioscience Network in biotechnology and OxIT in information technology. Other relevant identified clusters include multimedia, IT and software, medical research and healthcare, advanced materials, aerospace, optoelectronics, and nano-technology
- business parks sites such as Milton Park, Oxford Science Park, Begbroke Science Park and Harwell International Business Centre
- world-renowned university and research organisations
- international linkages through the county's research and academic base
- global companies like BMW, Siemens, Magnet Technology and Evotec OAI
- a strong infrastructure to support technology entrepreneurs – investment networks, business support and innovation centres
- business schools and entrepreneurial schemes at Oxford and Oxford Brookes University
- a very strong R&D base – accounting for a fifth of the sector in the south east
- Rutherford Appleton Laboratory, nuclear fusion research projects, Joint European Torus (JET, Oxford Instruments Group, Johnson Matthey, Siemens Magnet Technology, Sharp Laboratories)
- the Oxfordshire Investment Opportunity Network and Oxford Innovation
- a strong healthcare research base
- a forming environmental technologies cluster.

How the North West Bicester eco development relates

2.19 In many respects, the full eco development will enable the potential of the changes initiated by the Exemplar to be fully realised:

- it will further enhance Bicester's attractions as a place to live and work, encouraging existing residents who currently commute out to re-assess their lifestyle choices based on the new opportunities on their doorstep, and new residents to find jobs or set up businesses within the town
- it will provide a continuing flow of job and business opportunities in the eco economy, and enable a critical mass of expertise to develop which will form a new cluster serving a wider area

- it will secure a transformation in Bicester's image and role in the Oxfordshire economy, enabling specialisms such as green technologies and advanced manufacturing to develop. Development of the full potential of the Oxfordshire economy requires greater balance between north and south: the Bicester eco development will support that re-balancing.

How the Exemplar settlement relates

2.20 The Exemplar settlement relates to this wider economic context in three main ways:

- it will provide an attractive and supportive environment for people to live and work locally, whilst benefitting from Bicester's excellent connectivity and the strong economic opportunities in the wider Oxfordshire area
- it will kick start the development of a new eco economy in the town, which will also be capable of serving a much wider area
- it will begin a transformation of the image of Bicester, which in turn will change the town's economic relationships with the wider area. The Exemplar provides an opportunity to support stronger and distinctive growth of 'high tech Oxfordshire' northwards from Oxford, thereby rebalancing the southwards bias influenced by the location of major research institutes and of most of the major business and science parks.

3: Developing a strong local economy

Key points:

- earnings figures and occupations data suggest that high earning Bicester residents tend to commute out to work, whilst jobs in Bicester are taken by lower earning residents and in-commuters
- important sectors in the Bicester economy include certain niche areas of manufacturing (including some advanced manufacturing); distribution, hotels and restaurants. Motorsports is also a key specialist sector within the town
- whilst developing eco industry is clearly a target, Bicester is not already known as a hub for such activity. Nonetheless, it is possible to identify certain firms which could be supported to form the basis of a cluster of businesses developing environmental technologies
- other key resources to draw on in Bicester include Oxford and Cherwell Valley College (OCVC) and Oxford Innovation, which runs the Bicester Innovation Centre. P3Eco has formed strategic partnerships with these organisations. In addition, Oxford Brookes University and the Oxford Institute for Sustainable Development are partnered with P3Eco and Oxford Innovation in the creation of the Eco Bicester Research and Innovation Centre
- construction of the Exemplar (and subsequently the full eco development) will be an important generator of jobs. Further, practical on-site experience supported by relevant training will encourage the creation of an eco-specialism (in Sustainable Construction) in the town. This could be further supported by a strong programme of retrofitting locally for existing houses in the town led by Cherwell District Council
- careful planning, insertion of appropriate clauses into construction contracts, and the local availability of relevant training courses can ensure that significant construction employment and trade apprenticeships will be provided for residents of Bicester
- local supply chains will be supported, e.g. through the development of a web-based resource to log all appropriate local sub-contractors and suppliers. P3Eco and A2Dominion share a commitment to use local supply chains where possible
- other new opportunities include the wider eco economy, advanced manufacturing, and sustainable horticulture.

Introduction

- 3.1 Currently Bicester's economy is built largely on relatively low-skill and low-wage employment opportunities. The Exemplar will be the initial phase in securing a transformation in Bicester's image and role in the Oxfordshire economy, enabling specialisms

such as green technologies and advanced manufacturing to develop, and supporting a re-balancing of the Oxfordshire economy between north and south.

The Bicester economy

- 3.2 In 2008, Bicester provided approximately 12,000 jobs. The following sectors accounted for a significant proportion of this employment:
- retail trade (19.5% of jobs)
 - wholesale trade (14.2%)
 - other business activities (12.0%)
 - education (7.9%)
 - health and social work (7.1%).¹⁴
- 3.3 A relatively high proportion of Cherwell's employed residents work part time (26.7%) compared to regional and national comparators, which are closer to 25%.¹⁵ Rates of self-employment are slightly lower than regional comparators, at 12% of economically active residents in 2001.¹⁶
- 3.4 Cherwell has a relatively low proportion of its residents in the top occupational codes (managerial and professional, etc.). Conversely it has an over-representation in the elementary and process occupations. The same is true of the worker occupations, and there appears to be a good balance at the district level between the resident population and the workforce.¹⁷ Despite this, the occupational level of vacancies being advertised by Jobcentre Plus (JCP) does not match the occupational make up of the district's residents. This might reflect the fact that not all jobs are likely to be advertised through JCP.¹⁸
- 3.5 Average weekly earnings for resident workers in Cherwell were £549.50 (gross) in 2009, above regional and national averages. However, those working in Cherwell typically earn less, at £490 a week (gross).¹⁹ This suggests that high earning Bicester residents tend to commute out to work, and jobs in Bicester are taken by lower earning residents and in-commuters. Model based estimates at ward level suggest that the highest earners in Bicester typically live in the North and South Wards. Earnings in the East, West and particularly the Town ward are lower.²⁰

¹⁴ Annual Business Inquiry 2008.

¹⁵ Annual Population Survey 2006-2009.

¹⁶ Census 2001.

¹⁷ Annual Population Survey 2006-2009

¹⁸ Vacancies notified to Jobcentre Plus, August 2010.

¹⁹ Annual Survey of Hours and Earnings, 2009.

²⁰ Income: Model-Based Estimates at Ward Level, 2001/2

Existing strengths

Existing sectors

- 3.6 Based on analysis of the Annual Business Inquiry, a number of small sectors are significantly over represented in Bicester. These include: the manufacture of fabricated metal products; the manufacture of electrical machinery etc. and other manufacturing including the manufacture of furniture and clothing. These sectoral strengths and the associated occupations of Cherwell's residents would suggest that the district has significant strengths in manufacturing, some of it technical and advanced. Local strategy documents highlight the relatively high proportion of residents employed in distribution, hotels and restaurants, and also manufacturing.
- 3.7 Knowledge-Intensive Businesses²¹ employ 8.6% of Cherwell's workforce.²² Whilst lower than the proportion in England and the South East, this suggests a sizeable sectoral base, and the presence of skilled workers in the district.
- 3.8 There is also evidence to suggest that Cherwell is home to a small, but proportionate (to the South East average), number of employees working in the Environmental Goods and Services (EGS) Sector. Approximately 1.1% of the district's workforce was employed in the sector²³ in 2008.²⁴
- 3.9 Whilst developing the EGS sector is clearly a target, Bicester is not already known as a hub for such activity. Nonetheless, it is possible to identify certain firms which could be supported to form the basis of a cluster of businesses developing environmental technologies (see below). In addition, the eco development will greatly boost demand in this area, which will encourage the formation and in-movement of firms to meet that demand. The global growth of business opportunities based on green technologies, Bicester's excellent strategic location in the heart of southern England, and its position within one of the foremost clusters of science and technology based research and development in Europe, mean that there is huge potential to build rapidly on this small core to create a new cluster of high value eco business activity.

Logistics

- 3.10 Bicester benefits from an excellent strategic location, with good access to the motorway network via junction 9 of the M40 and to the M1 via the A43, and at the crossroads of two rail lines. There is an established logistics and distribution sector in the town; examples of local firms include Bibby Distribution Ltd, 4 Kings Logistics and Exel (UK).

²¹ Knowledge-intensive industries are based on the OECD definition, which includes pharmaceuticals; office machinery and computers; aerospace; precision instruments; electrical engineering; telecommunications; financial intermediation; insurance and pension funding; activities auxiliary to financial intermediation; computer and related activities; R&D; other business activities; motion picture and video; and radio and television activities.

²² Annual Business Inquiry 2008.

²³ The EGS sector definition is based on GLA Economics' SIC code definition which includes agricultural services, forestry, manufacture of electrical distribution and control appliances, recycling of metals and non metals, water purification, waste scrap, sewage and waste treatment and sanitation.

²⁴ Annual Business Inquiry 2008.

- 3.11 Logistics covers the traditional activities of wholesaling, warehousing and transportation, but has been transformed in recent years through the use of management systems that control and optimise these systems to maximise efficiency and market responsiveness. Within the logistics sector there are important specialist sub-sectors with particular needs and requirements, for example the distribution of products where the provenance needs to be assured e.g. specialist engineering products where lot traceability is required, or special foods for particular religions. In addition, there is a related industry supplying equipment and systems including ICT, software for routing, tracking systems, RFID, automated warehousing etc.
- 3.12 While logistics may have traditionally have been seen as ‘trucks and sheds’, there is an increasing element of high level management skills required to optimise picking, routing, tracking operations and to manage the complex data, information and computing requirements. The need for the development of higher level skills is being recognised through training courses, including at Cranfield University, which offers research and Master courses in logistics, and Northampton University, which is developing a Foundation Degree in Logistics.
- 3.13 Bicester’s strategic location, its existing manufacturing and logistics sectors, and the proximity to specialist logistics training and expertise, suggest that there is scope for development of high value logistics activities in the area.

Motorsports and related technologies

- 3.14 A particular hub of activity exists in Bicester around the Motorsports industry, mostly on the Telford Road estate. With Bicester less than 20 miles from Silverstone race track, the town is in the heart of ‘Motorsports Valley’. Examples of motorsports companies in the town include ‘Scuderia Toro Rosso’ (windtunnel facility) and Wirth Engineering (although the latter is set to leave due to lack of suitable premises to move to).
- 3.15 Oxford and Cherwell Valley College (OCVC) runs the Performance Engineering Centre in Bicester, a Centre of Vocational Excellence for Motorsport and Performance Engineering. The College provides a range of vocational courses up to the Foundation Degree in Motorsport & Automotive Engineering (in collaboration with Oxford Brookes University); with teaching staff with significant industry experience in key Motorsport companies. The College’s top specification facilities – including the Composites Centre, and fabrication, machining and other manufacturing technologies used with the industry – are also in demand from local companies. OCVC also has a partnering arrangement with P3Eco for the development of an Eco based centre of excellence and development on the Bicester site, and the College is launching new eco-related courses from January 2011.
- 3.16 Locally therefore, there are significant specialist skills in high-tech engineering and performance engines. Motorsport is already leading the way in energy efficiency and safety, and the skills in the sector can be applied to a wider range of new transport and engineering solutions to the carbon reduction challenge.

- 3.17 A specific opportunity in this regard related to ‘Oxfordshire Blue’, the Oxfordshire Plugged in Places programme, which aims to deliver the foundations that will enable the area to become a centre of electric vehicle usage based on:
- an easily accessible charging infrastructure that allows national interoperability
 - widespread market enthusiasm for the use of different types of electric vehicles ranging from scooters and bikes, to cars through to commercial vehicles and buses
 - the development of an electric vehicle supply chain that extends from scientific discovery that informs the development of new technologies, to social research that informs marketing strategies and product design and on to the manufacture of the vehicles and charging equipment.
- 3.18 A decision is awaited on a proposal submitted for funding to the Office for Low Emission Vehicles (OLEV). The bid has been led by Oxfordshire County Council in partnership with SEEDA, Cherwell DC, Oxford Brookes University (School of Technology with Oxford Institute for Sustainable Development), and other industrial partners.
- 3.19 If successful the project will trail charging points, electric vehicles and other sustainable forms of transport working closely with regional and sub-regional end users and other stakeholders.

A nascent eco-technologies sector

- 3.20 Bicester does not currently exhibit a strong eco-technologies / Environmental Goods and Services (EGS) cluster. However, a range of engineering firms and young ‘eco’ companies exist locally. Some of these already form the basis of a nascent cluster of environmental technologies, as outlined in the case study box below.

Figure 3-1: Case studies of nascent eco-technologies sector

- **Red Engineering** (based in Bucknell, just to the north of Bicester) designs low carbon MEP systems for some of the best buildings of their kind in the world, including super-luxury hotels, ‘green’ supermarkets and data-centres, and AAA class offices
- **Zeta** – is a small firm of engineers, designers, sales and application engineers who design, develop, produce and assemble next generation LED technology. The firm is currently funded by the Technology Strategy Board, and is also engaged in tracking and monitoring technology developments in LED PV, LEDs and other new energy technologies such as Fuel Cells and wind turbines. P3Eco has already engaged with Zeta to improve the profile of the business. Latest estimates are that Zeta will have to increase their workforce by up to eight people in 2011. They have already had a meeting with Sanctuary, as a result of a P3Eco introduction, to discuss retrofits on Sanctuary properties
- **ECO-Fridge UK Ltd** – providing display and catering refrigeration equipment with reduced emissions
- **Aggregate Industries** – which are developing and distributing recycled concrete and recycled glassware.

- 3.21 The engineering expertise in the area provides the basis for growth of high value manufacturing as part of the wider Oxfordshire high tech cluster as well as to support the eco development.

Existing resources

- 3.22 **Oxford and Cherwell Valley College (OCVC)** offers a wide and varied selection of opportunities, including over 125 full-time courses, over 1000 part-time vocational programmes, a wide range of Access courses and Higher Education courses in Art, Design & Furniture and other vocational areas as well as tailored courses for business clients. The College maintains close links with Oxford Brookes University, De Montfort University and the University of Bedfordshire. As noted above, OCVC has a partnering arrangement with P3Eco for the development of an Eco based centre of excellence and is launching new eco-related courses from January 2011 at the Bicester site.
- 3.23 The **Bicester Innovation Centre**, run by Oxford Innovation, provides the only fully serviced office environment in Bicester, providing flexible space for new high-growth businesses across a range of sectors. The centre provides a home for a large range of technology and knowledge-based companies, attracted by its support services, tailored business events and access to meeting facilities. Amongst the 35 current tenants are businesses working in IT software and hardware technology, environmental management systems, business training, manufacture (eg wood panels), retail and consultancy.

New opportunities - sustainable construction

- 3.24 The construction of the Exemplar and, subsequently, the full Masterplan development at North West Bicester will create a workforce with specific skills for low- and zero-carbon building (see next section). These skills do not currently exist in the UK and will to a large extent be transferable to existing buildings (e.g. installation of micro-renewables; insulation; understanding whole-house energy dynamics) and across a wider area where demand is likely to increase through initiatives such as the formation of a business led consortium to promote a commercially successful low energy building market in Oxfordshire. This consortium was launched at a recent seminar held at the Said Business School sponsored by Oxfordshire County Council, Blake Laphorn, Oxford University's Environmental Change Institute and Constructing Excellence.
- 3.25 Construction jobs supported by the Exemplar therefore will include both on-site construction, and retrofit jobs expected to be created as part of the wider drive towards turning Bicester into an Eco-town. These will be backed up with the provision of training and qualifications to develop new skills, supported by practical on-the-ground experience.
- 3.26 In addition, large house building projects can have significant knock-on effects on local employment. A recent report from the Scottish government explains that *'house building generates substantial local economic activity. It creates construction and housing related jobs (such as legal services, real estate, housing management, etc.), and service jobs to supply the new residents (education, health, retail, leisure, transport and local government services).'*²⁵ This is particularly true when it comes to creating an eco-specialism in the town.

²⁵ S.Monk, C.Tang, C.Whitehead, Cambridge Centre for Housing and Planning Research, University of Cambridge: *What does the literature tell us about the social and economic impact of housing? Report to the Scottish Government: Communities Analytical Services.* 2010.

Construction of the Exemplar

- 3.27 The construction of the Exemplar will in itself provide construction jobs. Working on a basis of 0.7 person years per dwelling²⁶ and at an indicative rate of 100 dwellings per year, this equates to 70 FTE jobs. This level of job creation is supported by recent examples from Brighton, London and Hull provided in Figure 3-2 below, and also by recent confirmation from A2Dominion that at its peak activity level the site could have 12 directly employed staff and approx 130-150 subcontractors. The estimate of 70 FTE jobs therefore relates to an average build rate rather than the peak.
- 3.28 These are considered to be long-term jobs, as building out the long-term Masterplan will provide ongoing future (similar) employment opportunities over a period of twenty years or more. It will be important however, following the ethos of the eco development, that as many of these jobs as possible are sourced locally. The skills developed therefore will be retained locally, thereby creating a construction workforce locally with transferable skills for low- and zero-carbon build and retrofit. These skills will undoubtedly be in increasing demand nationally over the course of the next decade and beyond, and Bicester can become a hub to which the country looks for expertise, inspiration and support. In turn this upskilled workforce will attract business from outside Bicester to the town.
- 3.29 **Action:** P3Eco will work with A2Dominion to ensure that local employment clauses and the support of local supply chains are built into procurement contracts based on appropriate selection criteria and that the local construction sector is fully aware of the opportunities, and skill requirements, related to the Exemplar development and the longer term full scale eco development.
- 3.30 A2Dominion currently operate a contractors' framework which includes key performance indicators for contractors to use employment initiatives such as local labour, training and apprenticeship schemes. There will be specific recruitment programmes to support the use of local labour which can be measured through postcode KPIs.

²⁶ The Cambridge Econometrics model used for the North East Regional Housing Strategy states that for every new home built nationally 0.7 of an extra job is created in construction and 0.4 in the wider economy in that year. The employment multiplier suggested in work for the Scottish Government this year (S.Monk, C.Tang, C.Whitehead, Cambridge Centre for Housing and Planning Research, University of Cambridge: *What does the literature tell us about the social and economic impact of housing? Report to the Scottish Government: Communities Analytical Services*. 2010) was similar, estimating 0.93 jobs (both directly and indirectly supported) for every job generated in the construction sector

Figure 3-2: Construction employment examples from Brighton, London and Hull

Some examples of the scale of construction employment that could be provided can be seen from a range of construction schemes recently proposed in Brighton, London and Hull including:

- Preston Barracks (Brighton): 12,000 sq m of office space, 6,870 sq m of retail space, 4,000 sq m Innovation Centre and 400 residential units – 250 FTE construction jobs
- Eastbrook allotments (Brighton): industrial space 9,000 sq m in size – up to 100 FTE
- Circus Street Quarter (Brighton): Redevelopment proposal includes at least 180 residential units (40% affordable), a dance studio for South East Dance and a new library and teaching space for the University of Brighton, 10,000 sq m of office space, 1,000 sq m of retail space – 80 FTE construction jobs
- Hedon Road (Hull): refurbishment of existing industrial buildings, ten new industrial units and parking for 212 cars. Also the installation of solar panels to generate 10% of the park's energy – an estimated 300 FTE jobs
- Park House, Wellington House and Selbourne House (London); new development at three prestigious central London sites by the developer Land Securities. Including 500,000 square feet of new office and retail space, and 120,000 square feet of residential housing. Expected to generate 5,000 construction jobs between 2010 and 2013.

Source: Construction employment impacts of planned major projects in Brighton & Hove, Constructing Futures, 2006. Construction Recruitment Industry News, Randstad 2009/10.

3.32 The examples above suggest that construction employment on major physical development schemes may be more than 1,000 FTE per year. It is important to note that phasing will impact on the provision of such employment, and workers may 'move' from one scheme to another in succession and so caution must be applied if simply adding these job outputs. Nonetheless careful planning, insertion of appropriate clauses into construction contracts awarded, and the local availability of relevant training courses can ensure that the delivery of large-scale regeneration can provide significant construction employment for residents of Bicester.

Developing a strengthened supply chain

3.33 In addition, supporting the development of local supply chains is vitally important. In Tameside, the Borough Council designed a 'Meet the buyer: meet the seller' event to stimulate local procurement. This event, recognised by the Government's Local Innovation Awards (LIA) Scheme which aims to encourage peer learning and knowledge transfer, was filmed and is available online²⁷.

3.34 The experience of Barratt Homes' response to the HCA's 'Carbon Challenge' at Hanham Hall in South Gloucestershire is one example of local stakeholders starting to drive the creation of new partnerships in their supply chain to respond to the particular requirements of the project.

3.35 The diagram below provides an indicative mapping exercise carried out by a potential contractor on the location of supply chain members in the nearby vicinity.

²⁷ See <http://www.localinnovation.idea.gov.uk>

Figure 3-3: Indicative mapping of local supply chain



Source: Hills Partnership

- 3.36 **Action:** A2D are proposing to appoint two partnering contractors as the main contractors for the Exemplar phase. The partnering terms will include a requirement for the provision of trade apprenticeships, use of local labour, sub contractors and suppliers based on appropriate selection criteria. The outputs for this will be finalised as part of the partnering discussions but will take into account HCA requirements and also the need to create local employment for the initial Exemplar phase and long term over the next 15 years.
- 3.37 **Action:** A web site will be set up to enable local sub contractors and suppliers to submit their details for pre tender selection by the main contractor under agreed criteria set out in the partnering contract. A2D and partnering contractors will clearly state local employment opportunities and promote/advertise jobs locally – where feasible this will include advance information about what capabilities will be required.

Retrofitting existing stock

- 3.38 A further area of potential employment generation is retrofitting the existing housing stock across the whole town of Bicester, led by Cherwell District Council.
- 3.39 Domestic emissions account for over one quarter of all UK carbon emissions; these need to be cut by 33% over the next 10 years if the government is going to meet these targets. The retrofit agenda is therefore now becoming increasingly prominent in government housing policy (all new homes are to be ‘zero carbon’ by 2016, and all new-build buildings by 2019), along with the fuel poverty agenda. Increasing the energy efficiency of households therefore has a social and health impact (through making it more affordable to heat homes), as well as an economic and environmental one.

- 3.40 The energy efficiency of housing stock across Cherwell is just below the national average. A priority in Cherwell's Housing Strategy²⁸ therefore is to 'improve housing standards, including condition and energy efficiency', particularly in the private rented sector and in the pre-1944 stock.
- 3.41 The quickest wins at scale will be in social housing, where there is ample latitude for retrofit commitment on a large scale²⁹. However, the social rented sector in Cherwell accounts for a relatively low proportion of stock, and so the private sector (owned and rented) will also be a priority.
- 3.42 The Government estimates that the scale of job creation nationally supported by the measures set out in its 'Warm Homes, Greener Homes' strategy could be in the order of 65,000 additional employees in the installation and manufacture of home energy insulation and micro-generation. Work by SQW for WWF found that a major national programme of retrofit could lead to: direct employment of 68,300 FTE staff per year; indirect employment for 102,500 FTE staff per year and induced employment of 58,100 FTE staff per year.
- 3.43 The figures above show that there are significant employment opportunities in the retrofitting and sustainable construction areas, with several hundred thousand jobs being created nationally. Whilst these will not be located in any one area, there is a potential opportunity for training provision and business support and investment in Bicester to create a cluster of businesses here which could serve wider regional and possibly even national markets.
- 3.44 There is already some retrofitting expertise locally in Bicester. Hill Partnerships, one of the building companies selected for the Technology Strategy Board's (TSB) Retrofit for the Future programme³⁰ (working on two of the 50 sites) is based in Caversfield, adjacent to the Exemplar site. Sanctuary, the preferred RSL for Cherwell District Council, has already been introduced to a local firm in Bicester (Zeta) with a view to contracting for retro eco-fits to their properties. And the Cherwell District Council-led Eco Bicester Delivery Strategy Board is already subsidising loft and cavity wall insulation in partnership with the Energy Saving Trust.
- 3.45 In 2008, there were 12,538 dwellings in Bicester, according to Council Tax bandings data. If a campaign resulted in 10% of these houses being retrofitted, this would amount to 1,250 homes, and if it is assumed that retrofitting a house takes on average 10 person days (this will obviously vary, but some retrofits could be quite extensive involving, for example, PV roof panels, cavity wall and roof insulation, new boiler and thermostats, etc), then this would create approximately 50 person years of employment. With the potential to roll out the expertise developed on the retrofits in Bicester to surrounding areas, it is not unreasonable to assume that this activity could increase the construction workforce in Bicester (currently

²⁸ Cherwell Housing Strategy 2005-2011, Cherwell District Council

²⁹ The Government has announced in its 'Warm Homes, Greener Homes: a strategy for household energy management' (DECC, March 2010) its expectation that social housing will lead the way in stimulating the development of the retrofit industry. A new 'Warm Homes' standard for social housing (covering insulation as well as connection to low carbon district heating or renewable heating schemes where feasible), is to be achieved by 2020 and social tenants will receive priority treatment under the new energy company obligation at least to the end of 2015.

³⁰ During 2009 – 2010, the Technology Strategy Board implemented a £17m programme known as Retrofit for the Future (RfF), to kick-start the retrofitting of the UK's social housing stock

around 400) by at least 10%. There should also be benefits to manufacturers of materials used in the retrofitting, some of which will be based locally, which could generate further jobs.

- 3.46 **Action:** P3Eco will work with Cherwell District Council, as lead organisation for the Bicester retrofit scheme, to support the development of plans to develop and implement a large-scale retrofitting programme in Bicester. This will include an examination of the supply chain and how/where to locally source materials.
- 3.47 It will be important to draw on lessons learnt from the Technology Strategy Board's national Retrofit for the Future programme, as well as other retrofitting programmes such as the London Low Carbon Zones and the houses bought and retrofitted by Huntingdonshire Council to demonstrate to local households how much money can be saved by making a normal house more energy efficient and eco friendly. It will also be important to draw on existing resources such as the Low Energy Building Database³¹.

New opportunities – other

- 3.48 Other new opportunities include the wider eco economy, advanced manufacturing, and sustainable horticulture.
- 3.49 The **eco economy** will generate a wide range of job opportunities over and above sustainable construction and retrofitting of the existing building stock. For example, opportunities will include manufacturing of low energy products and products using sustainable materials, and professional and business services supporting eco manufacturing and the broader eco economy.
- 3.50 **Advanced manufacturing** includes 'businesses which use a high level of scientific skills to design and produce technologically complex products and processes. Because of the specialized requirements involved, these are usually goods and associated services of high value' (BERR definition, 2009). Figure 3-4 illustrates some of the potential sectors which are expected to be important for public sector support in the future.

Figure 3-4: Advanced Manufacturing³²

There are a range of new industrial technologies in manufacturing in which strong UK capabilities should also be a priority for Government attention and support where appropriate.

- the shift from metal to **composite** materials will provide vast commercial opportunities and will have important applications in the automotive, marine, aerospace, wind and wave, construction, oil and gas, and medical equipment sectors
- in the **industrial biotechnology sector** the shift from a chemical industry based on oil to one based on renewable and biological substances will redefine chemical manufacture in the 21st century
- developing **plastic electronics** technology will enable electronic circuits to be printed cheaply onto flexible surfaces, something impossible with conventional silicon semiconductors and with a massive range of potential applications
- in **aerospace**, engine and wing design and manufacture will have to adapt to the low carbon age – and the UK should aim to retain its existing strengths.

Source: *New Industry: New Jobs* Department for Business, Enterprise and Regulatory Reform (BERR) (now the department for Business, Innovation and Skills (BIS)) May 2009

³¹ <http://www.retrofitforthefuture.org/>

³² Useful links: <http://www.berr.gov.uk/files/file52374.pdf> ; <http://www.berr.gov.uk/files/file51023.pdf> ; <http://webarchive.nationalarchives.gov.uk/+/interactive.bis.gov.uk/advancedmanufacturing/>

- 3.51 Oxfordshire's outstanding strengths in scientific research and development provide opportunities for Bicester to build on its existing manufacturing strengths to manufacture products resulting from the commercialisation of R&D undertaken in Oxfordshire. In 2008, there were approximately 1,100 manufacturing jobs in Bicester, accounting for 9.3% of all jobs. This is higher than the percentage of manufacturing employment across the South East as a whole (8.1%) but lower than the district percentage (12.0%).³³
- 3.52 As already discussed, Bicester has a number of manufacturing strengths, evident in the over-representation of some niche manufacturing sectors in the town. Based on SIC codes, these include: the manufacture of fabricated metal products; the manufacture of electrical machinery etc. and other manufacturing including the manufacture of furniture and clothing. However, we also know the motorsport and advanced engineering sectors have a presence in the town, although these are not picked up through standard SIC codes.
- 3.53 **Action:** P3Eco will identify local manufacturing companies with growth aspirations and potential, and explore the opportunities to exploit opportunities in the eco economy, and to develop stronger links to the science and technology base in Oxfordshire, where there are likely to be increasing opportunities to develop from R&D into manufacturing. P3Eco are developing mechanisms to ensure that jobs in these sectors are encouraged and will actively seek to attract businesses to be (re)located in Bicester.
- 3.54 **Sustainable horticulture:** there is growing demand for fruit and vegetables grown sustainably, and there is a commitment both to provide allotments are part of the eco development, and to allocate temporary and brownfield sites for food production. P3Eco is also in discussion with local prisons to grow food sustainably which can then be sold into the local market. Allotments, both private and community, will be provided on the Exemplar.

Government support for 'green' industries

- 3.55 The Coalition Government's statement of policy in May 2010³⁴ included statements on 'Energy and Climate Change' and 'Environment, Food and Rural Affairs'. Specifically, the government set out the following relevant commitments;
- the creation of a presumption in favour of sustainable development in the planning sector
 - the creation of a green investment bank
 - the creation of green financial products to provide individuals with opportunities to invest in the infrastructure needed to support the new green economy.

Comprehensive Spending Review

- 3.56 The Comprehensive Spending Review (October 2010) set out the Government's commitment to invest in a low carbon economy. Specifically, the Government proposed the following:

³³ Annual Business Inquiry Employee Analysis 2008.

³⁴ The Coalition: our programme for government (May 2010)

- a Green Deal, allowing homes to offset the cost of energy efficiency improvements against future savings
- a commercial scale carbon capture and storage scheme for an electricity plant
- £200 million for the development of low carbon technologies
- support for low carbon vehicles, incentivised through £5,000 towards the cost of each new ultra low emission vehicle
- £860 million to support households and business investment in renewable heat measures
- increased expenditure on support for renewable electricity installations
- a UK-wide Green Investment Bank drawing on Departmental Expenditure Limit (DEL) funding and the proceeds of asset sales. The Bank will finance green infrastructure with a mandate to tackle risk which the market cannot currently finance. The bank will catalyse further private sector investment in the sector, and operate independently of political control.

Looking to the future

- 3.57 Some opportunities will materialise over the longer-term from other industries. As Bicester grows in size, its population will tip it over thresholds required for the provision of particular **leisure and retail** services.
- 3.58 As North West Bicester is built out, it is expected that the town will become the focus for a specialised niche of **green tourism**. Skilled visitors and members of the general public will seek to visit Bicester to see the Eco development *in situ*, and a visitor centre with the Eco business centre, explaining the background and some detail behind the construction and supporting industry, is likely to be appropriate. Current projects include:
- a demonstration house showcasing eco-technologies next to The Garth (Town Hall), which it is expected will open in 2011
 - an eco-community centre attached to the Church of the Immaculate Conception.
- 3.59 Both will be actively promoted as places to learn about sustainable construction. P3Eco will examine the options for supporting this tourism opportunity – including a potential site for the visitor centre, how to link to existing tourism resources³⁵ and how to build on opportunities driven by the current level of retail tourism – in the next phase application.

Eco-factory

- 3.60 P3Eco is actively working to identify a site for a factory for producing eco-construction materials.

³⁵ e.g. www.visitnorthoxfordshire.com

- 3.61 The build of the Exemplar and delivery of jobs in pace with the development are not contingent on a factory being built in the Exemplar phase, either in terms of job creation or the ability to construct houses locally.
- 3.62 The details are yet to be confirmed, and will be forthcoming in the next phase application. However, estimates by an established manufacturer of eco houses interested in locating production facilities in Bicester suggest that over 100 direct jobs and 350 indirect jobs could be created by the new facility, but there is a three year lead time once a suitable site is found, and another year to train staff and ramp up production.

4: Business and Enterprise support

Key points:

- supporting the existing and future business networks of Bicester entails providing sufficient skills and learning support to develop a skilled resident workforce. P3Eco is in discussion with OCVC about adaptation of courses to reflect ‘Eco Bicester’ and – longer-term – about the provision of a learning and innovation campus at North West Bicester
- supporting the development of a specialised construction sector is of critical importance. To support the development of appropriate construction skills, P3Eco are currently developing an accredited course structure to cover both new build and retrofits (the first such course in the UK). A2Dominion will work with the partnering contractor(s) to deliver skills development, work experience programmes, a craft-based NVQ course and management training
- the Eco-Bicester Research and Innovation Centre (EBRIC) will be launched, initially as a partnership between P3Eco, Oxford Brookes University and the Oxford Institute of Sustainable Development and Oxford Innovation to provide a ‘home’ for various projects and areas of joint working. The EBRIC partnership combines research expertise, support for innovation and business incubation, and a real live project intended to nurture high tech business spin offs
- the eco development will also support the development of a vibrant cluster of high-tech manufacturing and engineering businesses, and we are committed to building a structure and culture of collaboration between businesses, public sector and networks
- an on-site Eco-business centre as part of the Exemplar development would be an important first stage in demonstrating the importance of providing high quality space to support the attraction of inward investment in target industries.

Introduction

- 4.1 An important part of developing Eco-Bicester in the longer-term will be to ensure that the right kind of business and enterprise support is provided. Not only is this about providing the right conditions to attract new business, but also about nurturing and supporting existing business. It is about developing a culture of collaboration between businesses, public sector and business networks and lifting the overall level of expectation among businesses locally.
- 4.2 This section provides our early thoughts on providing such support, focusing particularly at this stage on the provision of appropriate training opportunities locally to ensure that future jobs are well-provided for with a skilled workforce locally.

Skills and learning

- 4.3 As the data on resident adult qualification levels and school achievements (provided in Chapter 2) illustrates, the skills profile of Cherwell and Bicester residents is lower than might be expected given the area's strong performance on other economic indicators. Looking forward, support for improving education in schools is therefore as important as the provision of training opportunities for specific skills.
- 4.4 In the short-term, it will be important to support the existing industry in which Bicester has its strengths. Looking to the longer-term however it will be important to develop a skilled resident workforce in order to attract higher value sectors and provide high-value jobs locally for residents.
- 4.5 P3Eco has a strategic partnership with Oxford and Cherwell Valley College (OCVC). The development of a learning and innovation campus is under discussion as part of the Masterplan, but in the short term OCVC will adapt courses to reflect 'Eco Bicester' and increase the offer at the existing Bicester campus.

Construction skills

- 4.6 Construction workers in Bicester will be encouraged to acquire skills both to support continuing professional development, at work and privately. From 1 April 2010 the HCA requires its capital investment across all programmes including funding and or the sale or use of HCA land to create employment and skills opportunities. Delivery partners must ensure they create or safeguard apprenticeship places directly or through their supply chain and the HCA will set minimum requirements for these – partners will also be encouraged to deliver a wider range of employment and training outputs.
- 4.7 In order to enable local residents to access employment opportunities in construction, it will be necessary to ensure that they have sufficient training and qualifications. Skills and experience built up by local residents and businesses engaged in the construction industry (especially if they are in cutting-edge sustainable development techniques) could lead to them accessing employment opportunities and contracts outside of NW Bicester in the future, thereby maintaining persistence of benefit beyond the construction period.
- 4.8 P3Eco are currently developing a course structure with Accredited Skills for Industry (ASFI) based at Walsall College as the Accreditation Body, to cover both new build and retro-fits ready for submission to Construction Skills (CSkills). This will be the first such course in the UK and will provide a full range of combinations that satisfy the life-long learning objectives that most building contractors require. There is the possibility of partnering with the Federation of Master Builders (FMB), as part of their drive to ensuring all builders are provided with accredited training for retrofit as part of the proposed national drive for retrofit.
- 4.9 The courses will be offered across three levels of course size (Certificate, Award, Diploma). At present, 16 modules are being developed covering everything from air tight construction, site waste management to energy in buildings. A further 15 modules (all levels 1-8) are planned, and the courses already have the support of over 300 construction firms through the Construction Training Groups.

- 4.10 The courses will provide construction workers with the full range of knowledge and training so that they are able to offer their clients a high level of service regarding ecobuild technologies, as well as ensuring that all workers on site know what they are doing (and why) in terms of developing low carbon building systems, controlling/managing waste and initiating water management initiatives.
- 4.11 Discussions are already underway with OCVC to deliver this specially tailored training. OCVC will be providing new courses from existing curriculum in the interim, from January 2011.
- 4.12 **Action:** The partnering terms with the main contractor(s) will include a requirement for the provision of trade apprenticeships. P3Eco and A2Dominion will work in partnership with Oxford County Council and OCVC regarding sustainable construction training to be registered with CSkills. A2Dominion will also work with the partnering contractor(s) to deliver:
- programmes developing skills to get people into work
 - short-term work experience programmes
 - craft-based NVQ course (the craft-based apprenticeship scheme can lead to full time employment with the main contractor and ultimately the supply chain)
 - management training programmes.

Eco-Bicester Research and Innovation Centre (EBRIC)

- 4.13 An important early stage of this is to launch the Eco-Bicester Research and Innovation Centre (EBRIC), initially as a partnership between P3Eco, Oxford Brookes University (OISD) and Oxford Innovation, to provide a ‘home’ for various projects and areas of joint working. Initially this will be a virtual centre with a web presence, housed in Oxford Brookes, but the centre will be inextricably linked to Bicester and the aim is to eventually move it to physical accommodation in the town.
- 4.14 Oxford Innovation has a strong track record of working with Cherwell District Council (CDC) and European Union funding to establish Innovation Centres locally. This successful model can provide a starting point for engagement with additional partners appropriate to the eco-focus of the EBRIC, and for securing additional resources in the light of the challenging public sector funding climate.
- 4.15 The long term ambition is for a cross-disciplinary research and innovation centre (EBRIC) to be located in Bicester focusing on the eco development and the lessons learnt from its contributions and impacts to be fed into ongoing phases of the development, and also to create a hub for social, economic, technical and scientific research based around low carbon living. The centre could potentially help provide further focus and traction for funded research, innovation and education/training partnerships between OISD/Oxford Brookes, OCVC and other private/public sector partners locally.

- 4.16 As of November 2010, the project proposal for EBRIC has been approved by Oxford Innovation, Oxford Brooks University and P3Eco, and match funding the start up phase has been agreed.

Figure 4-1: EBRIC mission

It is proposed that the Eco Bicester Research and Innovation Centre is set up with a mission to:

- provide a home for the burgeoning eco knowledge economy in Bicester;
- provide an important national and regional contribution to low carbon technology, construction and lifestyle;
- develop long term research programmes to contribute to the measurement of the impact and success of all aspects of NW Bicester Eco Development;
- feed impact assessments into later phases of the development and other projects in Bicester and its wider area;
- provide an academic base for research, innovation and business development;
- work closely with industry and business to apply knowledge in Bicester and its wider area; and
- help support spin-off industries.

Other skills

- 4.17 OCVC's Bicester campus specialises largely in motorsports, with some provision also in sustainable energy and building services. Clearly these are both important specialisms relating to growth sectors which can be developed in future. Training related to Bicester's other employment strengths (eg in retail, wholesale and manufacturing) is not provided at OCVC's Bicester campus, although there is much more extensive provision elsewhere. Across all its campuses, OCVC's provision includes 125 full time courses, 1000 part time vocational programmes, higher education courses in Art, Design & Furniture and other vocational areas, community education courses and summer schools and access courses.

Access to finance

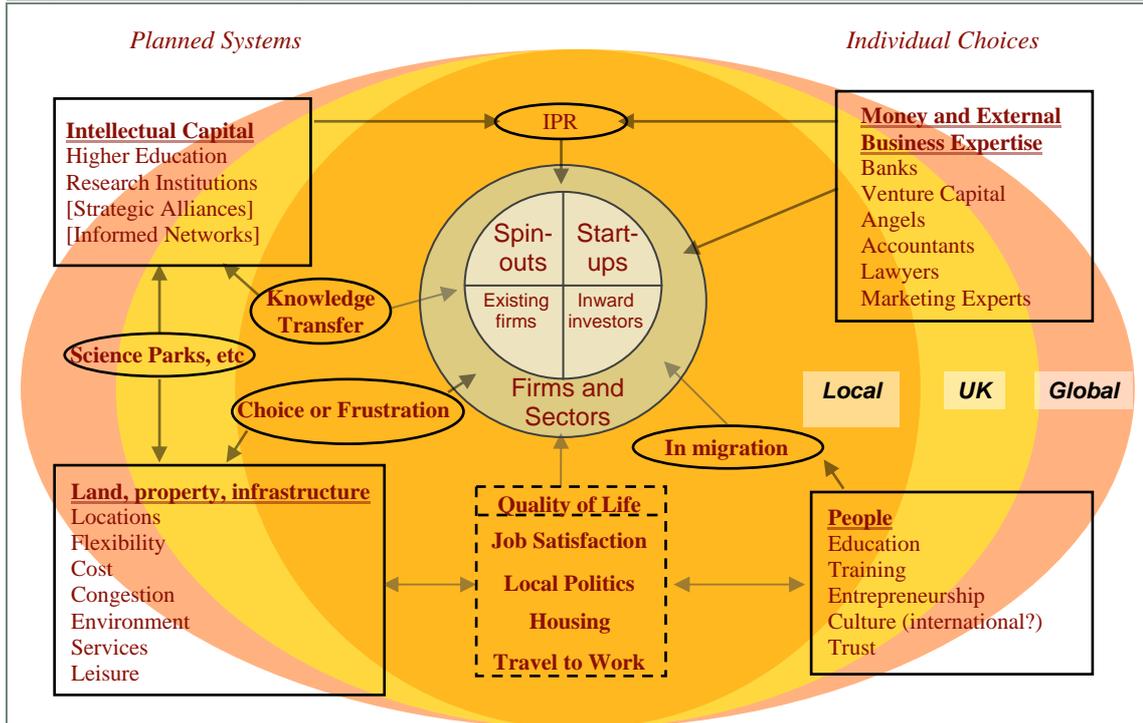
- 4.18 In order to support the growth of new enterprises, particularly in new and innovative areas, it will be important to strengthen routes to finance.
- 4.19 One opportunity identified is the Environmental Investment Network, which supports early stage technology companies secure finance. Since 1st October 2010 Forbury Investment Network (FIN)³⁶ has taken over the management of this network; whilst it continues to provide the same activities, its remit now includes a wider range of sustainable technology and innovation.
- 4.20 In addition, links will be established through Oxford Innovation and the Eco-Bicester Research and Innovation Centre to the business angel investment networks run by OI in the Oxfordshire and Thames Valley areas.
- 4.21 **Action:** P3Eco will examine opportunities (eg working with the Centre for Sustainable Design; CfSD) to draw down funding to support existing businesses migrate to more environmentally sustainable business models.

³⁶ See www.forburyinvest.com. Entrepreneurs are able to securely submit proposals for funding through the website where they will be viewed by registered FIN investors. Entrepreneurs also have the opportunity to present their funding proposals to FIN's network of institutional and private investors at regular investment meetings.

Supporting cluster development - complementarity and competition

- 4.22 In order to support the development of a vibrant cluster of high-tech manufacturing and engineering businesses, it is important to ensure that all the component elements of the cluster are in place. Figure 4-2 shows the main components of a high tech cluster, and is adapted from work by SQW on the Cambridge Phenomenon. The core of the cluster is the firms – whether existing, new starts or inward investors. At different stages in their development, they will need access to various types of support, including:
- financial, business and professional services, some of which may be specialised for the particular requirements of high tech manufacturing
 - intellectual capital in the form of R&D leading to manufacturing of new products and using new processes. Intellectual capital can also be secured through networks and strategic alliances
 - premises, land and infrastructure – retaining land for manufacturing activities will be particularly important as land values increase
 - a labour force of sufficient scale, and with appropriate specialist skills.
- 4.23 These factors all need to be supported by a high quality of life, offering the workforce a good lifestyle, and their children access to good quality schools, healthcare, etc.
- 4.24 Oxfordshire has all components of the cluster, and the eco development will increase Bicester's offer in all areas. For example, the range and quality of business premises available locally will be improved, including though the construction of some dwellings with flexible space for home-working; more professional and business services will move into the town, partly in response to demand from the construction of the Exemplar and full eco development, and partly because of the increased scale of demand from a larger local population. Local firms will also be offered the ability to link into relevant networks, including Oxford Innovation's Innovation Centres network (the 400 or so businesses in the ICs managed by OI include businesses in the environmental sector, advanced manufacturing, etc). This and other initiatives will help build a structure and culture of collaboration between businesses, public sector and networks.

Figure 4-2: The main components of a high-tech cluster



Source: Hills Partnership

- 4.25 **Action:** P3Eco will draw on the resources of the EBRIC to support the early-stages of interest around the development of a cluster. As an initial contribution to the establishment of a knowledge economy in Bicester arising from the eco development, it is proposed that EBRIC hosts a series of talks and discussions in the town, potentially branded as ‘Sustainable Urban Futures’. A proposed format is of a ‘Café Scientifique’ which Oxford Innovation has used in other areas. This is a talk and guided discussion in a town centre space, possibly a coffee shop after hours or a private venue.
- 4.26 **Action:** P3Eco will work with local partners (such as Bicester Vision) to examine how to support the development of the social, institutional and professional infrastructure for business networking.

Inward investment and indigenous growth

- 4.27 It is also important to support indigenous growth and investment by local businesses in the local area. Whilst there has already been some £120m of investment already, business feedback to date confirms that the availability of good quality grow-on space is limited and that a restrictive planning regime has also been an issue. Some of these issues are covered in the next section.

Social enterprise and community economic development

- 4.28 The community sector will have an increasing role to play in the establishment of Eco-Bicester. It is not yet clear what form this will take, but emerging ideas include community-owned enterprises such as garden clubs and a bike repair workshop. P3Eco is actively looking at how to leverage the maximum social benefit from the community spaces such as the community centre and pub. Once a community governance body is established (see

Chapter 7), it could maintain and operate the community centre and seek to generate an income from the resource.

- 4.29 Supporting infrastructure for social enterprises could be located outside the actual development. For example off-site glass-houses or a kitchen garden could provide the resource for a viable community enterprise with produce sold via the village store.
- 4.30 The possibility of setting up a Bicester energy company owned by the community to deal with current power issues and produce revenue through feed-in tariffs will also be explored.

Looking to the future

- 4.31 The Oxfordshire area already has a supporting environment for business and enterprise, with excellent access to high quality business, financial and technology support. In part, therefore, future prospects for the Bicester economy depend upon effective networking to ensure firms in Bicester are linked into these existing services and make the most of the expertise and support available (eg in relation to access to finance and support for innovation).
- 4.32 In addition, however, there are specific initiatives relating to the Exemplar and the longer term full scale eco development, both to develop a new 'infrastructure' for business support and to overcome specific weaknesses in Bicester's current offer.
- 4.33 Foremost among these initiatives are those to develop skills relating both to the eco economy and other growth opportunities. The strategic partnership between P3Eco and the Oxford and Cherwell Valley College is particularly important to improve the local supply of skills training and adapt it to respond to new opportunities. Also important are the links with Oxford Brookes and Oxford Innovation, and the proposed development of the EBRIC.
- 4.34 These initiatives to development training provision need to be complemented by improvements in educational attainment and aspiration. The Exemplar and longer term eco development can support this (eg through ensuring the excellence of schools which form part of the eco development) but essentially this is the responsibility of the County Council as education authority.

5: Employment space

Key points:

- the Exemplar will provide space for a diverse range of employment opportunities on the site itself, including: an eco-business centre (subject to confirmation of financial arrangements with Cherwell District Council), a partnership with the Mid-Shires Co-Operative to provide a food store which could source local food, further retail units and office provision, a 90-place primary school and a 40-place nursery, an eco-pub, an energy centre and a community centre. Together these facilities will provide about 250 jobs (including over 100 in the eco-business centre)
- additional on-site jobs include the provision of a ‘green caretaker’ and a small number of jobs for landscaping and on-site servicing
- the growth in population associated with any such large development will have important endogenous employment effects. Approximately 40 service (e.g. leisure and retail) jobs are expected to be associated with the growth in population resulting from the Exemplar development.

On-site employment

- 5.1 The Exemplar will include space for a diverse range of employment opportunities on the site itself. These are briefly outlined below:

Eco-business centre

- 5.2 One of the flagship developments anticipated on the Exemplar site is the Eco-business centre. The centre will occupy a 900m² footprint (up to 1,800 sq m of space), and provide on-site accommodation for resident businesses and support staff. Of this workspaces will account for approximately 650m². Whilst the exact layout is not yet known, this will provide the equivalent of approximately sixty-five 10m² business units supporting an average of two employees in each, thereby potentially creating accommodation for up to 130 jobs.
- 5.3 The remainder of the centre will include a visitors centre, café and exhibition space, conference facilities, and meeting and mentoring rooms.
- 5.4 The proposed centre is subject to confirmation of financial arrangements from Cherwell District Council. The proposed model of investment, adopted elsewhere, secures funding for the construction of the centre on the back of public sector commitment to under-write the rent on the building.

The Mid-Shires Co-operative

- 5.5 A deal has been signed securing the presence of the Midshires Co-Operative Group on the site of the Exemplar development. This exciting addition to the Exemplar will provide a food

retail convenience store (linking in with local food supply sources); the company is firmly signed up to the ethos of the eco development and will explore innovative ways to develop its important position as a keystone business at the heart of the Exemplar. The total net area is expected to be 550 m², including a post office and a pharmacy.

- 5.6 Other co-operative facilities are being explored to be provided on-site and may include eco-mortgages (through Britannia), the formation of a farmers' co-operative and the provision of an eco-cemetery.

Other local retail

- 5.7 Other local retail (e.g. a hairdressers salon) amounting to 220 m² will be provided on-site. In total therefore, 770 m² of retail floorspace will be provided, including the Co-operative convenience store and other units, which we estimate will provide approximately 32 jobs

Office provision

- 5.8 Up to 1,100 m² of office accommodation is planned, in addition to that included in the Eco-business Centre. Based on standard floorspace densities, this could provide between 50 and 80 jobs.

Primary School and Nursery

- 5.9 Provision of land for 90-place (3 class) primary school is included on a site of up to 1.34 hectares. When fully developed for the Exemplar phase, the school is expected to employ about 10 FTE staff (teaching and admin). Additionally there is potential for the school to expand further in future phases.
- 5.10 A 40-place Nursery will be provided and run on-site by the Midshires Co-operative, with a total net area of 350 m². Again, this will reach capacity over time, and is expected to require 4 FTE staff.

Eco-pub

- 5.11 The application proposes an Eco-pub on the Exemplar site. P3Eco is currently working with a pub consultant to secure an operator to deliver a pub that acts as a community resource.
- 5.12 The pub will provide an additional community meeting space, and consist of a kitchen and bar area. The total planned net area is up to 190 m². There will be on-site accommodation for pub management (a small 1 / 2 bedroom flat to be included either as a first floor option or adjacent), and the pub is expected to provide 6 FTE jobs.

Energy centre

- 5.13 The intention is to provide an independent energy solution for the Exemplar with a gross internal area of 400 m². This will be on the southern boundary of the Exemplar, with the ability for expansion to provide energy solutions for further development locally. It is likely to include both photovoltaic (PV) and gas CHP technologies combined, and may also include

biomass. Other eco-town proposals have also included plans for ‘community energy centres’ based on Combined Heat and Power (CHP) plants (Whitehill Bordon and Rackheath).³⁷

- 5.14 There is also the possibility of setting up a Bicester energy company owned by the community to deal with current power issues and produce revenue through feed-in tariffs.

Multi-faith / community centre

- 5.15 A multi-faith community centre will be constructed above the Nursery, complete with meeting rooms, reception, kitchen and storage and, potentially, a Spiritual garden. With a total gross area of up to 350 m² we have assumed that this will provide accommodation for one or two FTE jobs (e.g. provision of part-time classes; administering the centre; etc).

Table 5-1: On-site jobs – summary

On-site provision	Indicative job numbers	Lower range	Upper range
Eco-business centre	105	80	130
Other Office provision	65	50	80
Convenience store (Co-op)	20	15	24
Post Office	3	2	7
Pharmacy	4	2	6
Hairdresser/other local retail	5	3	7
Temporary outdoor market square	10	0	24
Primary School	10	6	12
Eco-pub	6	4	8
Energy centre building	5	4	6
Visitors centre	6	4	8
Nursery	4	3	6
Multi-faith / community centre	1	0	2
TOTAL	244	173	320

Additional on-site jobs

- 5.16 The Exemplar development will also provide a ‘**green caretaker**’ on-site, to act as a day-to-day ‘face’ of the community and management organisation, carrying out general caretaking duties as well as being the first point of call for residents with regards to the maintenance and general management of communal areas. This is an innovative role combining traditional caretaking duties with a new set of duties in supporting residents in sustainable living, and is likely to be paid for via service charges. The indicative role is described further in Annex B.

³⁷ Whitehill Bordon Eco-town. *Whitehill Bordon: Draft Framework Masterplan*. 2010. and; Barratt Strategic: Manor Farm Rackheath Ltd. *Concept Statement in respect of Rackheath Eco-Community*. February 2009.

- 5.17 Around 5 FTE jobs will also be created across the site such as for **landscaping and servicing**.

Table 5-2: Additional on-site jobs

On-site provision	Indicative job numbers	Lower range	Upper range
Green caretaker	1	1	1
Landscaping and on-site servicing	5	2	10
TOTAL	250	176	282

Additional population derived jobs

- 5.18 The expected population is approximately 1,020 (394 dwellings with an average of 2.6 people per household; consistent with the s106 discussions). The total numbers expected to live within the units on first occupation may differ slightly to the numbers expected over a 20 year period.
- 5.19 The growth in population associated with any such large development will have important endogenous employment effects. The number of service (e.g. leisure and retail) jobs associated with the growth in population is expected to be approximately 40 jobs, based on a homes/jobs multiplier of 0.4, and assuming the Exemplar is built over a period of four to five years³⁸.

Looking to the future

- 5.20 Bicester has an excellent strategic logistical location. Building on its natural assets, it will be important to support businesses in developing specialisms relating to the implementation of the eco development over time. These specialisms can be considered as long-term investment as they may be transferred subsequently to other such schemes across the country.

Nature and type of business space required in Bicester

- 5.21 Discussions with business-representative organisations suggests that the availability of employment land has been an issue for up to 10 years, and that there is limited available high quality space for enterprise and innovation (including 'grow-on' space). This has already led to major (high profile) firms leaving Bicester in preference for elsewhere where such space is available. Further, potential high quality and high-profile sites on the business park have recently been granted planning permission for food retail.
- 5.22 Our understanding is that work on an up-to-date Employment Land Review has been completed. This information has been requested from the District Council, but has not yet been provided.

³⁸ The Cambridge Econometrics model used for the North East Regional Housing Strategy states that for every new home built nationally 0.4 of an extra job is created in the wider economy in that year

6: Infrastructure requirements

Key points:

- the social and community facilities proposed for the Exemplar development will provide important employment opportunities (as outlined in the previous chapter). In addition, improved transport links between the development site and the town centre will enable new residents to utilise existing community facilities in the local area
- more flexible working arrangements, including homeworking, are increasingly common and mean that – in addition to relieving peak time congestion and potentially reducing the environmental impact of commuting – the working age resident population is increasingly likely to consume local services
- the Exemplar development will be designed as an attractive social space as well as an environmentally sustainable and economically dynamic place. In this way it will be an Exemplar for new ways of working as well as living
- the design of the Exemplar to encourage people to work as well as to live there, combined with the proposed provision of super-fast broadband, should lead to a relatively high proportion of home-working on the Exemplar development, estimated at around 105 FTE jobs (after discounting those providing services directly to the local population).

Social and community infrastructure

- 6.1 A separate report, compiled by Hunt Dobson Stringer, accompanies the application to outline the likely requirements for Social Infrastructure provision on the site. The document includes the following range of social infrastructure:
- healthcare (including GPs, dentists, pharmacies, opticians and hospitals)
 - education (including day nurseries, primary schools and secondary schools)³⁹
 - emergency services (including police, fire and rescue, and ambulance)
 - leisure and recreation
 - open space and children’s play space
 - general community facilities (including libraries and community centres).
- 6.2 The facilities proposed for the Exemplar development will provide employment opportunities (as outlined in the previous chapter) as well as support for the local community.

³⁹ We note that the Department for Schools, Education and Families has agreed to ring-fence £2.5m to spend on “greener schools”, and this could be drawn down with regard to the school on the Exemplar

- 6.3 In addition to those facilities proposed for the site, improved transport links between the development and the town centre and Bicester train station will enable new residents on-site to utilise existing community facilities in the local area.

ICT and home-working

- 6.4 There has been a trend over the last decade towards far more flexible working arrangements – both with regard to the timing of work and its location. In part this may be explained in terms of the costs of office space and the savings that may be gained if staff undertake at least part of their work from home thereby allowing ‘hot desks’ to replace dedicated work stations. There is much evidence that arrangements of this type are increasingly common, facilitated significantly by the increased take-up of domestic broadband connections. As well as allowing cost savings for the employer, it can also contribute to staggering the demand for transport and hence relieving peak time congestion. Further, it means that – even in situations where the economic activity rate is very high – adults of working age are increasingly likely to be at home during at least part of the day, using local amenities, consuming local services and functionally being a part of the local community.
- 6.5 Homeworking (sometimes referred to as teleworking, if facilitated by ICT) does not have a single definition. Its characteristics have changed over time, and the proportion of time that an individual must spend working from home to qualify varies between surveys and reviews. In general, those who work from home for at least one day per week qualify (i.e. 20% of working time).
- 6.6 People working from home can be divided into four main groups:
- tele-workers: employees, usually in professional occupations, who carry out their jobs from home with the aid of a computer and telephone. This appears to be the fastest growing category of home workers
 - people who do not have an alternative employment site, and use their home as a professional base but work most of the time outside the home. This group includes occupations such as plumbers and electricians, and may also include some professional occupations such as auditors, who may usually work at client sites rather than in a central office
 - traditional homeworkers (piece-work) – often low paid work, but declining as a group
 - people working from home where work is undertaken for the most part when customers visit the home. This group includes childminders and beauticians.

Figure 6-1: Homeworking – characteristics

Higher professional and managerial staff are most likely to work from home: 'LFS data suggest[s] that 80% of those working from home are in non-manual occupations and over 60% of those working mainly from home are self-employed'⁴⁰ and 'about 25 per cent of teleworkers work in real estate, renting and business activities'⁴¹.

There are also clear gender differences: 'in 2003... 14 per cent of men worked from home compared with 8 per cent of women'⁴². These are largely accounted for by occupational segregation: the 1999 LFS 'found that men made up 69% of teleworkers, although they constitute only 56% of the total workforce... the occupations in which teleworking is most likely to be found are managerial, technical and professional ones, and they are also likely to be male-dominated'⁴³.

Availability of super-fast broadband

- 6.7 Super-fast broadband will enable a range of green lifestyle decisions to be taken. Primarily, it will encourage home-working as described above. In addition it will enable the development and installation of in-home products to support the provision of real-time travel information (including public transport information), feedback and analysis of real-time energy monitoring data for individual houses, and encourage home-shopping (linked to the on-site store or central hub).
- 6.8 Whilst no Service Availability Date has been provided for the Bicester exchange, BT Openreach has confirmed that the exchange has been lined up for the deployment of super-fast broadband using FTTC⁴⁴ technology and is "accepting CP orders now"⁴⁵. It is already possible for some households in Bicester to get superfast Broadband on request, and BT Openreach expects to confirm the provision of next generation Broadband to the Exemplar in time for the start of construction works imminently.

Home working support

- 6.9 The homes on the Exemplar will be designed to include a home working area and some will have a garage with potential to convert to a study. In addition, A2D are looking to build into the design wireless internet for public and social spaces.
- 6.10 **Action:** This aspect of the new dwellings will be marketed in A2Dominion's marketing strategy, which in itself should help to attract and develop a population who wish to work from home.

On-site employment

- 6.11 At the time of the last Census, homeworking accounted for approximately 8% of all employment nationally, with a further 20% of the workforce working from home at least part of the time. The Work Foundation concluded from an examination of Labour Force Survey data in 2003 that "*Over 2m people work at home with telephone and computers for at least a*

⁴⁰ Felstead et al, 2003, 'The Changing Place of Work', Working Paper No 28: ESRC Future of Work Programme, p.20

⁴¹ Hotopp, 2002, 'Teleworking in the UK', National Statistics Feature, pp311-2

⁴² McOrmond, T (2004) 'Changes in working trends over the past decade', Office for National Statistics

⁴³ Huws, U (2000) 'Equality and Telework in Europe', Euro-Telework

⁴⁴ The Fibre to the Curb (FTTC) telecommunications system uses fibre-optic cables running to a platform that serves several customers, each having a connection to this platform.

⁴⁵ http://www.openreach.co.uk/orpg/products/nga/downloads/Microsite_word_exch_list.doc . (Accessed 03 Nov. 10)

day a week – a figure that has grown by an average of 13 percentage points a year since 1997. Growth is highest amongst employees, who now outnumber the self employed”⁴⁶.

- 6.12 With its additional support for homeworking outlined above, it would therefore be a reasonable assumption that the Exemplar development will be the main place of work for the equivalent of one full-time employee (1 FTE) in an average of every three households. Across 394 households that accounts for 131 FTE jobs on-site. However, some of these will be providing services to the local population (accounted for elsewhere), and so a reduction of 20% is recommended to account for this. Therefore the total estimated number of homeworking jobs to be located on the Exemplar development is estimated to be **105 FTE jobs**. These jobs may be new or relocated from elsewhere, but they will all be additional to the existing jobs base in Bicester.

Looking to the future

- 6.13 Chiltern Railways’ Evergreen3 project (see paragraph 2.14) will increase the speed, frequency and reliability of rail services from Bicester to Oxford, London and Birmingham. These changes, combined with the roll out of super-fast broadband and general trends in homeworking, will enable more people to work from home more of the time, whilst remaining very well connected to major business locations (where many of them work now).
- 6.14 However, places will need to be designed for homeworking if it is to really take off, and thereby reduce pressure on transport systems to continually increase capacity at peak hours. Recent research undertaken by SQW on the Cambridge economy demonstrates the crucial importance of ‘social spaces’ in facilitating business networks and providing an environment in which people want to live and work⁴⁷. The Exemplar development will be designed as a attractive social space as well as an environmentally sustainable and economically dynamic place. In this way it will be an Exemplar for new ways of working as well as living.

⁴⁶ The Work Foundation (2003), ‘Time to go home – embracing the home working revolution’

⁴⁷ Cambridge Cluster at 50: the future of the Cambridge economy” SQW for EEDA and the Cambridgeshire local authorities, 2010

7: Delivery mechanisms

Key points:

- the marketing of Bicester as a location for green activity and as a home for a skilled workforce with particular specialisms in sustainable construction and eco-technologies, will be a key part of the development's success. The marketing message will draw on planned infrastructure such as the Eco-business centre, the EBRIC and the visitors centre and demonstration house
- it is anticipated that the management and maintenance work for the Exemplar phase will be provided by A2Dominion. A2Dominion will draw on its wide experience in the management and maintenance of other developments to manage the development for the benefit of all
- a Community Association, comprising of representatives from Councils (3), A2Dominion (2), P3Eco (1), residents (5) and non-residential uses (2), is the main proposed governance structure
- the proposed 'green caretaker' role is key in the day-to-day management of the eco development to support it in its goals.

Management and Governance structures

- 7.1 Management and governance structures need to be appropriate for the planning and construction phases of both the Exemplar and main eco development, and also to be fit for purpose for the longer term operation of the eco development and its integration into Bicester.
- 7.2 In the planning and construction phases, P3Eco and A2Dominion will play the lead role in managing the development and its economic, social and physical links into the wider Bicester and Oxfordshire community. This will include management of the detailed design and development process, and securing agreements with various organisations which will play a role in the success of the Exemplar and, later, the full eco development, both on and off site; examples of agreements already secured include those with the Midshires Cooperative, OCVC and Oxford Brookes.
- 7.3 As part of the planning and construction phase for the Exemplar, P3Eco and A2Dominion will also play a lead role – in collaboration with local partners - in establishing the governance structures and management arrangements for the longer term operation of the eco development. These are addressed in a separate document compiled by Barton Willmore – the Community Governance Strategy – which accompanies the application. It states that:

Community Governance is important as it will demonstrate that ownership of all matters including green space, public areas, the village centre, the village green etc rests with the community as a whole through shared ownership, engagement and responsibility. Consequently, a good governance structure will achieve the cooperation of many participants

who collectively assist in managing those areas. It is assumed that those involved will include residents, local businesses, the developer, the relevant Town / Parish Council, Cherwell District Council (CDC) and Oxfordshire County Council (OCC).

- 7.4 The provision of facilities on site helps to develop social capital⁴⁸ and to create a community which the residents (including those within the existing Bicester) will use and become involved in. This is an essential step to create a desirable place to live and for which residents and those responsible for delivering non residential uses will aspire to enhance and improve the environment thereby creating a self management and policing of the area.
- 7.5 It is anticipated that the management and maintenance work for the Exemplar phase will be provided by A2Dominion through service charges attached to the properties. There will also be funds to CDC and OCC for the management and maintenance of equipment / facilities.
- 7.6 As A2Dominion will be retained on site for the management of the affordable homes it is considered they will have a lot to offer in terms of the community governance structure for the site. Their experience in the management and maintenance of other developments enables them to use best practice to input into the management of the development for the benefit of all. As the affordable housing provider across the entire estate, A2Dominion will have ownership throughout the development, thereby enabling the community governance structure to link the different phases of development.
- 7.7 A Community Association, comprising of representatives from Councils (3), A2Dominion (2), P3Eco (1), residents (5) and non-residential uses (2), is outlined in that document along with a draft constitution including reference to a financial model.
- 7.8 Existing networks are an asset to the Cherwell and Oxfordshire's economies, and add to their resilience. This was recognised by the Oxfordshire Economic Partnership in 2006⁴⁹ and Centre for Local Economic Strategies (CLES) in 2010.⁵⁰ Currently, a new Local Strategic Partnership (LSP) offers an opportunity to create stronger working relationships. The CLES report notes the a strong relationship between chambers and the council as well as the success of Bicester Vision, which is cited as a model of best practice for how private and public sector relationships should work. These existing networks should be utilised to support the economic transformation required to ensure the full potential of the eco-development is realised.
- 7.9 The 'green caretaker' role is key in the day-to-day management of the eco development to support it in its goals (see further detail in Annex B).
- 7.10 **Action:** P3Eco and A2Dominion will explore options with local partners (such as Bicester Vision) for additional specific roles to be created to support the messages associated with the wider Eco Town concept, and will look at ways to actively work with local schools to raise awareness of the eco-message behind North West Bicester.

⁴⁸ Social capital is "the social glue between people, organisations and communities that enable them to work together to pursue shared objectives" (Neighbourhood Renewal Unit, 2003)

⁴⁹ The Oxfordshire Economic Partnership (2006) 'Economic Development Strategy for Oxfordshire. 2006-2016'

⁵⁰ Centre for Local Economic Strategies for Cherwell District Council (2010) 'Understanding the Resilience of Cherwell, North Oxfordshire'.

Marketing and message

- 7.11 The marketing of Bicester as a location for green activity and as a home for a well-skilled workforce with particular specialisms in sustainable construction and eco-technologies, will be a key part of the development's success. It is vital that the profile and image of Bicester is changed progressively through effective PR and marketing of the Exemplar, the full eco development and the related transformation of the town. Bicester should become an attractive location for inward investment and business start up, and for people who want to both live and work in a place which offers all of the attractions and facilities of a genuinely sustainable and dynamic community.
- 7.12 In this regard a number of partners, such as Bicester Town Council, will be able to play critical supporting roles, using the eco development as a fundamental opportunity to market their town. There will also be opportunities to work with other organisations with an interest in the success of Bicester, such as the district and county council, Bicester Village shopping centre, and Chiltern Railways, to promote the eco development and the town.
- 7.13 The Cherwell-M40 Investment Partnership (CHIP)⁵¹ will have an important role in bringing together interested and relevant partners. The Partnership (including Cherwell District Council, commercial property agents, businesses and Oxford Innovation) focuses on the provision of high-quality industrial and commercial premises for companies in North Oxfordshire. The Partnership presents the opportunity to bring together private sector agents and other partners with a focus on marketing and inward investment with a specific Eco Bicester angle.
- 7.14 **Action:** P3Eco and A2Dominion will work with Bicester Town Council and others to support the marketing push behind Eco Bicester. The message will draw on planned infrastructure such as the Eco-business centre, the EBRIC and the visitors centre and demonstration house to bring in specialised business tourism as well as generate interest amongst an informed general public. Opportunities to build on existing marketing messages for Bicester (eg relating to the Bicester Village shopping centre) will be explored.

Performance measurement

- 7.15 The overall performance of the Exemplar should be measured in relation to its objectives and its impact on the baseline conditions, as described in the separate Baseline Report and summarised in Annex C. However, in this economic strategy to focus is on the economic conditions which the Exemplar is seeking to change.
- 7.16 The key baseline conditions which the Exemplar could begin to influence include:
- commuting patterns
 - employment in key sectors, including eco and environment related, knowledge related and technology-related sectors
 - business births and survival rates

⁵¹ <http://www.cherwell-m40.co.uk/>

- skills gaps and skills shortages
- incidence of environmentally sustainable and low-carbon business practice
- ongoing participation in training by the working age population
- nature and levels of various skills/qualifications within the working age population
- training provision
- characteristics of the housing stock.

7.17 However, in reality it is only likely to be possible to attribute changes in most of these indicators to the eco development once the main development phase is underway. It is also important to ensure that the monitoring and evaluation of performance takes into account as far as possible the actual impact of the Exemplar relative to other factors influencing the baseline conditions.

7.18 In addition, progress against the actions identified in this strategy, and summarised in the executive summary, should be monitored as these actions are the most direct ways in which P3Eco, A2Dominion and partners can support the economic success of the Exemplar.

Looking to the future

7.19 Delivery mechanisms - including management and governance structures, marketing and performance measurement - must to be specific to the requirements of the Exemplar, but designed and developed with the construction and long term operation of the main eco development in mind. The mechanisms must also be designed to facilitate the integration of the eco development and the existing town, and ensure that Bicester as a whole develops as a true eco town.

Annex A: Eco Bicester Research and Innovation Centre (EBRIC)

Eco Bicester Research and Innovation Centre (EBRIC): P3Eco, Oxford Brookes University and Oxford Innovation September 2010

Authors: Fiona Brenner (PMC on behalf of P3Eco), Prof Tim Dixon (Oxford Institute for Sustainable Development (OISD)/Oxford Brookes University) and Joanne Willett (Oxford Innovation)

Background

In July 2009, the Government under their Eco Town Policy Planning Statement (PPS) designated a 5000-home extension to the town of Bicester in North Oxfordshire, known as 'NW Bicester'. The Eco Town PPS sets rigorous tests of sustainability in the technical performance of the development to create the UK's first large zero carbon communities. The Eco Town PPS also requires the developments to think wider than urban layout and includes tough standards on biodiversity, transport modal shift, employment creation and community governance.

The designation of NW Bicester was led by Cherwell District Council and supported by P3Eco, an eco development facilitation company, and masterplanner Sir Terry Farrell.

P3Eco is leading the NW Bicester Eco Development with initial work focusing on the creation of a masterplan for the full designated area and an early planning application for the first 400-450 home community known as the 'Exemplar'. The development will be a phased 20-year build creating distinctive 'villages' designed around village greens and village squares, maintaining 40% open space and mixed housing.

The submission to Government which led to the final designation was supported by a range of organisations, underpinned with further dialogue and workshops with key players. For example, OISD at Oxford Brookes University has been involved in continuing dialogue with both P3Eco and Cherwell DC, which has already produced a successful Technology Strategy Board proposal on climate change adaptation strategy for the NW Bicester Eco Development. OISD: Low Carbon Building Group are working with Hyder Consulting and Farrells and the project is funded under the Technology Strategy Board's Design for Future Climate: Adapting Buildings competition.

OISD at Oxford Brookes University which has a multidisciplinary focus, aims to help create a sustainable future by undertaking research on sustainability in the built and natural environments, and is currently carrying out a range of funded research for the research councils, industry and the public sector. The Institute therefore sees the Eco Bicester development as providing a long term focus for developing 'live' research, innovation and education and training opportunities in partnership with the private and public sector. OISD also has close links with both the School of Technology (SoT) and Environment Information Exchange (EiE), both of whom also have a strong background in sustainability related research (for example, SOT: electric mini and 'Plugged in Places' research; and EiE: sustainability training for SMEs).

Oxford Innovation has 20 years experience of providing innovation support and services to growing companies, and to government bodies that promote enterprise. The company operates a network of innovation centres that provide flexible office and laboratory space and business support services to technology, knowledge-based and creative companies throughout the UK.

Oxford Innovation also manages three highly successful Investment Networks that link investors with entrepreneurs seeking funding from £20,000 to £2m. During the last five years, the investment networks have helped over 90 companies raise £19m. Oxford Innovation operates all of the innovation centres in Cherwell District including the Bicester Innovation Centre.

P3Eco and Oxford Innovation formed a strategic partnership in March 2010 to explore further the creation of an eco innovation economy in Bicester, the establishment of an eco innovation network, and innovation incubation and other supported workspaces as part of the NW Bicester Eco Development.

Discussions between P3Eco, Oxford Brookes (OISD) and Oxford Innovation have been ongoing and the three organisations share a mutual ambition to use the NW Bicester Eco Development to provide a new economy for the town of Bicester and the Oxford sub region and to contribute to the emerging national knowledge economy and nascent eco industry in the UK. This has led to the proposed creation of an Eco Bicester Research and Innovation Centre (EBRIC) as a vehicle for joint work.

Long terms aspirations for NW Bicester / Eco Bicester

A central tenet of the proposals for the designation of NW Bicester under the Government's Eco Town PPS is the contribution the development can make to the existing town, which has been subjected to ad hoc residential development and a lack of improvements to the social, economic and logistical infrastructure. Much of the current population out-commutes from Bicester to seek work – there is a skilled workforce travelling to larger economic centres (Oxford, Birmingham, London) meaning it is a 'dormitory town'. This is due to good geographic position and transport connections – London–Birmingham regular train service and trains to Oxford, a new link which will provide faster services (15 minutes to Oxford and creating a new London-Oxford line) and proximity to the M40.

The NW Bicester Eco Development is a catalyst for the economic regeneration and renewed attention to the town that has been hitherto missing in the search for trigger to make Bicester an economic hub in its own right. The vision for the eco development promoted by P3Eco and Sir Terry Farrell to Government is of a 'whole of Bicester approach', intended to fully integrate the new development with the town and to ensure attention is given to the existing population and infrastructure. The 'whole of Bicester approach' has been summarised in the brand 'Eco Bicester'.

Eco Bicester includes:

- The re-positioning of the town as a national leader and contributor to eco innovation and business, with the skills and knowledge economy to support it;
- The potential creation of a new 'learning campus' – providing a lifelong education system from primary through secondary, FE, HE and beyond;
- Active support for innovation through from incubation to manufacture and a business atmosphere conducive to research and industry;

- An eco skills hub which delivers the latest qualifications and recognition of skills within the workforce;
- Provision of facilities on site and in the town, such as the Eco Business Centre in the Exemplar which will allow for innovation and business incubation and central workspaces;
- A UK-wide contribution to the emerging national eco economy.

Eco Bicester Research and Innovation Centre (EBRIC) proposal

The Eco Bicester Research and Innovation Centre is being proposed to cement the partnership between P3Eco, OBU (OISD) and OI. It is intended to provide a 'home' for various projects and areas of joint working. The Centre can then seek to involve partners to create a structure and to begin to develop projects and funding in its own right.

This proposal is for a two stage evolution for EBRIC

1. Initial phase of work to establish EBRIC and create a web presence; and
2. Longer term ambition of cross-disciplinary Centre.

OBU has offered to help P3Eco and Oxford Innovation develop the virtual Centre initially (subject to initial funding), and to link it to existing related projects. The involvement of Oxford Innovation ensures that the Centre retains a focus on creating business and industry opportunities.

An Eco Business Centre involving Oxford Innovation is intended for the Exemplar phase of NW Bicester to respond to the requirement for employment creation and provide a base to support the new eco economy for the town. There is potential for this to be linked to EBRIC, and for accommodation to be provided in the mid term.

The long term ambition is for a cross-disciplinary research and innovation Centre (EBRIC) to be located in Bicester focusing on the eco development and the lessons learnt from its contributions and impacts to be fed into ongoing phases of the development, and also to create a hub for social, economic, technical and scientific research based around low carbon living. The centre could potentially help provide further focus and traction for funded research, innovation and education/training partnerships between OISD/Oxford Brookes and other private/public sector partners locally.

Eco Bicester Research and Innovation Centre mission

We propose that the Eco Bicester Research and Innovation Centre is set up with the following mission. To:

- provide a home for the burgeoning eco knowledge economy in Bicester;
- provide an important national and regional contribution to low carbon technology, construction and lifestyle;
- develop long term research programmes to contribute to the measurement of the impact and success of all aspects of NW Bicester Eco Development;
- feed impact assessments into later phases of the development and other projects in Bicester and its wider area;
- provide an academic base for research, innovation and business development;

- work closely with industry and business to apply knowledge in Bicester and its wider area; and
- help support spin-off industries.

Next steps

It is proposed that there is an initial phase of work over Autumn/Winter 2010/11 for EBRIC consists which consists of the following:

- An inception meeting to establish a potential structure and focus
- Establishing a web presence
- A lecture series in Bicester
- Agreement of partner sponsorship and additional potential sponsorship
- Onward identification of opportunities and projects

Inception meeting

It is proposed that an initial meeting of potential members takes place. Proposed attendees are:

- P3Eco
- OISD
- Oxford Brookes Research and Development Office
- Oxford Innovation
- Oxford and Cherwell Valley College
- Cherwell District Council
- A2Dominion – housing association and private developer
- BioRegional – business-facing environmental charity and eco developer
- Oxfordshire County Council
- Bicester Town Council

The proposed agenda is:

- Tabling of this paper
- EBRIC 'Mission'
- Proposed initial activity
 - Web presence
 - Bicester lecture series
- Sponsorship for start up activity
- Approach to future projects and funding
- Structure and future meetings (proposed quarterly)

Web presence

It is proposed that an initial stand alone website is created which sets out EBRIC's mission and intentions; the projects already underway focused on Eco Bicester; details of the lecture series; opportunities for collaboration and projects. Oxford Brookes would be able to develop this subject to initial funding.

Lecture series /Café Scientifique in Bicester

As an initial contribution to the establishment of a knowledge economy in Bicester arising from the eco development, it is proposed that EBRIC hosts a series of talks and discussions in the town.

A proposed format is of a 'Café Scientifique' which Oxford Innovation has used in other areas. This is a talk and guided discussion in a town centre space, possibly a coffee shop after hours or a private venue.

The focus of the series needs to be defined and fit into both the aims of EBRIC and complement local activities. A suggested branding for the series is 'Sustainable Urban Futures'.

There are already a growing number of events around 'eco' themes in the town, and ongoing consultation around both the Masterplan and the development of 'Eco Bicester'. The proposal, therefore, is for a series to be put together which offers interesting speakers from a range of backgrounds who are linked to the eco development in some way, talking on a general theme from their own discipline. For instance:

- Sir Terry Farrell or one of the Farrells Partnership, as lead Masterplanners for the eco development talking about principles of Masterplanning;
- Tim Fenn of P3Eco talking about the latest developments in sustainable construction;
- Oxford Innovation-nominated speaker on creating markets for new products;
- Prof Tim Dixon of OISD on the Retrofit 2050 project and sustainability in the urban environment.
- Dr Rajat Gupta of OISD on Carbon Counting in the Built Environment
- Prof. John Glasson of OISD on Environmental Impact Assessment.
- Jim Marshall of School of Technology, Oxford Brookes on Electric Vehicles
- Michael Esvelt of EiE on sustainability and SMEs

Agreement of partner sponsorship and additional potential sponsorship

The three partner organisations P3Eco, OBU/OISD and Oxford Innovation will provide matched funding to support the initial phase of work.

Onward funding for posts to support funding and project applications will also be sought.

Annex B: Green Caretaker role - specification

This is an innovative role combining traditional caretaking duties with a new set of duties in supporting residents in sustainable living. The Green Caretaker role would be full time and depending on the number of units could be more than one person and paid for via service charges.

Their role essentially splits into 3 areas: activities, supporting sustainable living and energy.

They would act as day to day 'face' of the community and management organisation, carrying out general caretaking duties as well as being the first point of call for residents with regards to the maintenance and general management of communal areas.

Activities

The Green Caretaker would also engage in more specific and sustainability focused activities such as managing the day to day operation of:

- On site composter
- On site recycling facilities
- Cycle storage and car park
- General management of communal areas

Supporting sustainable living

- Overseeing in partnership with the community/management organisation the ongoing provision of community specific elements such as an events calendar, circulating general notices to residents
- Help and support to encourage residents to recycle
- Assisting residents in using the appliances and mechanisms correctly for maximum efficiency
- Welcoming new residents to the eco development ethos and lifestyle

Energy

- Coordinating the logistics of fuel deliveries to the site (weekly/biweekly basis)
- Ensuring that the fuel storage is adequately maintained and fuel is kept in optimum condition-daily checks
- Carrying out basic maintenance to the boiler

Annex C: Summary of baseline economic conditions

Key findings in relation to the indicators included in the CLG/TCPA guidance on eco-towns

Indicator	Key findings
Population, demographics and labour supply (Chapter 3)	
Characteristics of the local and sub-regional population	Cherwell has a high proportion of the population in the 30-64 and 0-14 age ranges, compared with Oxfordshire as a whole and the England average.
Economic activity rates	Economic activity and employment rates are similar to Oxfordshire as a whole but above the national average.
Migration and existing commuting patterns across the sub-region	More people commute out of Bicester to work – mainly to Oxford – than commute in from elsewhere. Nevertheless, 58% of residents work within the District.
Population and labour supply forecasts	Based on 2008 projections (ie not taking into account the NW Bicester proposals), over the next 20 years the population of Cherwell is expected to increase by 14% - an average of approximately 1,000 per year. In contrast, the working age population is expected to increase by only 2,000 people between 2010 and 2031 – a rate of increase which is well below the SE regional or national averages. Put differently, the total population will include 6.7% less people of working age by 2031 than it does now.
Employment and labour demand (Chapter 4)	
Employment distribution across sectors – identifiable key sectors, including knowledge- and technology-related sectors and environment related sectors	<p>Cherwell has a relatively high proportion of employment in manufacturing, and a relatively low proportion in banking and financial and other services, compared with Oxfordshire and regional averages.</p> <p>In Bicester, one in five employees work in the retail trade, whilst 12% work in “Other business activities” and 8% work in the Health and social work sector. Wholesale trade is also over-represented, with 14% of employees.</p> <p>‘Knowledge-intensive’ businesses in Cherwell employ 8.6% of the workforce, lower than the Oxfordshire, regional and national averages, but a higher proportion than in some comparator districts.</p> <p>The environment-related sectors currently account for 1.1% of the workforce in Cherwell, higher than the Oxfordshire (and national) average, but lower than the regional average and all other comparator districts.</p>
Occupational distribution of employment	Cherwell has a relatively low proportion of its residents in the top occupational codes (managerial and professional, etc.). Conversely it has an over-representation in the elementary and process occupations. The same is true of the worker occupations, and there appears to be a good balance at the district level between the occupations of the resident population and the workforce.
Part-time versus full-time employment	A relatively high proportion of Cherwell’s resident workforce works part-time (26.7%).
Self-employment	Self employment in Cherwell is below the Oxfordshire and national average.
Vacancies across key sectors	Vacancies in Cherwell are relatively concentrated in manufacturing, and also in distribution, hotels and restaurants.
Employment growth forecasts for the region and sub-region	The latest employment projections for Cherwell were produced in 2005, pre recession. They predicts an increase in employment in Cherwell of 15,000 between the years 2006 and 2026. This equates to an increase of 16.3% over the 20 year period, compared to 15.4% for the SE region as a whole. In contrast, regional forecasts produced post recession are much lower, predicting a 2% increase in employment over a 12 year period 2008-20.

Indicator	Key findings
Business performance and competitiveness (Chapter 5)	
Business start-up activity – company births and deaths, VAT registrations across the sub-region	The number of active enterprises in Cherwell relative to the working population is low, compared to neighbouring districts and South Oxfordshire. However, the number of new enterprises per 10,000 popn is high – implying a high rate of start ups but also a relatively high proportion of larger firms.
Business survival rates and business incubation activity	Business survival rates in Cherwell are relatively high after 1 year (93.9%), compared with Oxfordshire, regional and national rates. However, in the longer term – up to 5 years – survival rates for Cherwell remain above the regional and national averages, but below the Oxfordshire average. In Cherwell, just over half of business start ups survive for more than 5 years.
Skills gaps and skills shortages	A high proportion of vacancies in Cherwell are in elementary occupations, compared to comparator districts, and a low proportion are in professional and technical occupations (and very low in “skilled trades”). There is an occupational mismatch between vacancies notified to Job Centre Plus (JCP) and those of residents, although this observation may be affected by the types of jobs that are advertised through JCP.
Availability of business space and premises	Compared with Oxfordshire as a whole, Cherwell has a relatively high proportion of allocated land designated for manufacturing and storage, and a relatively low proportion for offices. Land and buildings for commercial use are relatively expensive in Cherwell compared with similar districts elsewhere. However, the prices in Cherwell are typical of Oxfordshire as a whole. Retail space is particularly expensive, but this may be due to the effect of Bicester Village.
Incidence of environmentally sustainable and low-carbon business practice	Per capita CO ₂ emissions are relatively high (8.5t), although this is mostly industrial and commercial. Much of this may be related to a high average level of commercial and industrial gas consumption. Per capita reduction since 2005 appears to be strong, but it is unclear whether this is due to increasing efficiency or the closure of some high emission businesses.
Education, skills, qualifications and training (Chapter 6)	
Key Stage 2 attainment, GCSE attainment, A Level attainment	GCSE attainment levels, if core subjects (English and Maths) are included, are low compared with Oxfordshire, the region and all comparator districts – though above the national average. Attainment at A level is very low relative to comparators.
Ongoing participation in training by the working age population	Training rates amongst employed population in Cherwell fell between 2006 and 2009 from average to low in relation to comparators.
Nature and levels of various skills/qualifications within the working age population	By Oxfordshire standards, a high proportion of the working age population (9.4%) have no qualifications. However, this proportion is below regional and national averages. Nearly 30% of Cherwell’s working age population have NVQ4+ qualifications, nearly 5% points below Oxfordshire and also below the SE regional average.
Training provision and the absence of specific forms of training provision	OCVC’s Bicester campus specialises largely in motorsports, with some provision also in sustainable energy and building services. Training related to Bicester’s other employment strengths (eg in retail, wholesale and manufacturing) is not provided at OCVC’s Bicester campus, although there is much more extensive provision across other OCVC campuses.
Social inclusion and social infrastructure (Chapter 7)	
Unemployment rates – concentrations and groups	Cherwell unemployment rate is close to the county average but well below the national rate.

Indicator	Key findings
Social exclusion indicators – Index of Multiple Deprivation domains	<p>The rate of benefits claimants is above county but well below the national average. Within Bicester, unemployment and benefit claims are highest in Bicester Town, East and West wards.</p> <p>However, 16 out of 23 of Bicester's 'Lower Super Output Areas' (Census terminology) fall within the least deprived 20% in the country, and none within the most deprived 20%.</p>
Access to services and key forms of social infrastructure	<p>There are a number of GP surgeries within Bicester which are accepting new patients. Dental practices, pharmacies and opticians are largely clustered in the town centre. Bicester Community Hospital provides 12 beds, intermediate care, GP admissions, therapist outreach and an out-of-hours minor injuries unit.</p> <p>Bicester's primary schools have a surplus capacity of 13% (534 places), and the secondary schools have 420 surplus capacity places.</p> <p>Bicester Leisure Centre offers a swimming pool, teaching pool, crèche, sports hall, activity hall, squash courts etc.</p> <p>Bicester has a fire station and a police station. The closest ambulance station is some 12km to the North at Brackley.</p>
Average earnings and the incidence of low incomes	<p>Gross weekly pay per worker in Bicester is much less than per resident, suggesting that Bicester residents commute out to higher paid jobs, and in-commuters to Bicester work in relatively lower paid jobs. Earnings are highest among residents in North and South wards.</p>
Welfare and community (Chapter 8)	
Health-related characteristics of the population	<p>Life expectancy in Bicester is lower than all the comparator areas except the England average for males, but higher than all the comparator areas for females.</p>
Characteristics of the housing stock	<p>By Oxfordshire and SE standards, house prices are relatively low in Cherwell at an average of £247,000 in 2010. Houses in Cherwell are also relatively affordable compared with other districts in Oxfordshire and with the SE region as a whole. However, by national standards, and in comparison with most of the comparator districts, houses in Cherwell are expensive relative to earnings.</p>
Characteristics of recorded crime	<p>The crime rate in Cherwell is below the county and regional average, but above those for the other Oxfordshire districts (except Oxford city).</p>