

NW Bicester Masterplan

Economic Strategy

21 March 2014

NW Bicester Masterplan

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Executive Summary

1. This economic strategy for NW Bicester has been produced by SQW on behalf of A2Dominion. The strategy has been produced to inform the preparation of the masterplan, and is complemented by a separate economic baseline, which summarises the current socio-economic conditions and trends in Bicester and surrounding areas.
2. The 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 Eco Town criteria’). For the purposes of this strategy, we have assumed that the maximum dwelling yield is circa 6,000 new homes.
3. The economic vision for NW Bicester is that it will stimulate transformational change in Bicester’s economy, in three main ways:
 - the creation of as many new jobs as homes – previously, many new residents of Bicester’s housing areas have had to commute out of the town to work
 - the creation and growth of firms which use NW Bicester as a platform to exploit growing local and regional demand for sustainable construction, and environmental goods and services
 - all firms on NW Bicester, and elsewhere in Bicester, will be encouraged and supported to adopt sustainable business practices.
4. NW Bicester will provide a superb and sustainable living and working environment, which is closely integrated with, and complementary to, the existing community and other identified strategic sites in Bicester.
5. The objectives of this strategy are to:
 - support the creation of at least as many jobs as homes, in line with the Eco Towns criteria
 - ensure as many as possible of those jobs are well paid, in growing sectors and firms
 - support the creation of a cluster of firms and skills in Bicester in eco-construction, and low carbon environmental goods and services
 - encourage home working and other sustainable working practices
 - ensure that jobs are provided early in the development of NW Bicester, which match the employment skills available

- work with relevant organisations to promote Bicester and secure new, well paid jobs for the town
 - support skills development to match local employment opportunities.
6. The strategy will support growth of jobs at NW Bicester and more generally in Bicester in a variety of sectors. In doing so, it will address a number of weaknesses in the local economy, including:
 - a high level of out-commuting - many of Bicester's more highly qualified residents commute out to work. There is therefore a need for more well paid jobs to be created locally
 - relatively poor educational qualifications and skills attainment levels historically, compared to national and South East regional averages. The strategy will support recent improvements through better education and training provision
 - a lack of readily available land and modern business premises, which deters inward investment and has resulted in some growing firms leaving Bicester in order to find larger premises.
 7. The strategy will also help realise the opportunities presented by NW Bicester, and by Bicester's other advantages, including an excellent strategic location and connectivity, and the fact that it is within two dynamic business clusters – the UK motorsport cluster, and Oxfordshire high tech cluster.
 8. There is strong policy support for NW Bicester. This is reflected in a variety of documents including the Cherwell Submission Local Plan, the Cherwell Economic Development Strategy, the 'Eco-Bicester – One Shared Vision' document, the growth strategies of both Local Enterprise Partnerships of which Cherwell is part (Oxfordshire and SE Midlands), and most recently in the proposed Oxford and Oxfordshire City Deal submission.
 9. These documents will support the economic strategy in realizing its objectives. For example, the draft Local Plan proposes the allocation of a substantial amount of employment land in Bicester in order to give choice to developers and end users; and the Oxford and Oxfordshire City Deal submission promotes a 'growth axis' which stretches from Bicester in the north through Oxford to Science Vale in the south.
 10. The strategy identifies five broad sectors as the likely future drivers for Bicester's economy. These sectors are: eco construction; environmental goods and services; advanced manufacturing; high value logistics; and business, financial and professional services
 11. For the first two of these, NW Bicester will be the main catalyst for growth. Both eco construction and environmental goods and services are

growing fast nationally, and there are already some firms in Bicester in these sectors. However, the construction of NW Bicester over the next 20-30 years, together with Bicester's location close to other areas where large scale housing growth is planned (e.g. Aylesbury, Milton Keynes, Northampton and Science Vale), provides an opportunity to support the formation and growth of a variety of eco construction and EGS businesses in Bicester.

12. In relation to the other sectors, NW Bicester can provide a supporting role, for example by offering appropriate business space, by participating in the marketing of Bicester to attract inward investment, and by the acquisition of the necessary skills by the residents of NW Bicester and of Bicester more generally.
13. In addition, the population of NW Bicester will stimulate demand for a wide range of goods and services, which in turn will generate new jobs. A recent guidance note issued by the HCA and OffPAT, and research undertaken by GLA, suggest that around 200 new jobs are created for every 1,000 increase in population. When fully developed, the 6,000 home development at NW Bicester is likely to accommodate approximately 14,000 people (average household size is expected to be around 2.3 persons per home once NW Bicester is fully constructed and occupied), and can therefore be expected to create approximately 2,800 jobs, without any additional stimulus other than to seek to ensure as many as possible of those jobs are located in Bicester.
14. Many of the jobs created and supported by NW Bicester can, and should, be located on the site. Provision has been made in the masterplan for space for retail, local service and office jobs in each of three local centres located across the site, and a business park will be developed in the south west corner of the site. Alternative layout plans and elevations have been produced for this business park to demonstrate ways in which the proposed mix and density of jobs can be accommodated while providing sufficient green space, a good set back from Howes Lane, and high quality design.
15. The phasing of development of the employment space will broadly follow the phasing of the whole development. Construction of the business park is likely to be started early, as there is a serious lack of new employment space in Bicester generally and there is evidence of current demand. However, the timescale for progress and completion will depend on market conditions. The local centres will be constructed in sequence, with the timing dependent on when the nearby housing is built.
16. In addition, houses will be designed to encourage home working, and the proposed Eco Business Centre (to be developed as part of the Exemplar phase) will offer support and facilities for home workers as well as space for new and small businesses, with a particular focus on those in the eco construction and environmental goods and services sectors. In any case,

all businesses on NW Bicester will be encouraged to operate in an environmentally sustainable way, whether or not they are providing environmental goods or services.

17. Some jobs which will be stimulated by development of NW Bicester should be located elsewhere in Bicester. For example, many retail, leisure and service jobs should be located in the town centre, which has benefitted from recent investment and for which further improvements are planned; and large scale distribution activities which use rail freight should be located at Graven Hill which has a dedicated rail link into the site.
18. In summary, at least 6,000 new jobs will be supported by the NW Bicester development in the following configuration:
 - Approximately 4,600 jobs on site
 - Over 1,000 local service jobs, created to serve the additional demand of the residents and businesses on NW Bicester, and located elsewhere in Bicester
 - At least 400 jobs in firms in the target sectors, attracted to Bicester by the profile of NW Bicester and the related targeted marketing campaign, but which are better located on other strategic employment sites in the town.
19. If actual achieved on-site employment densities prove to be lower than planned, some of the 4,600 jobs expected to be located on the NW Bicester development will need to be located elsewhere in the town. This should not be problematic as the scale of employment land allocations proposed in the Cherwell Submission Local Plan (a total of 122ha on six sites) is well in excess of forecast demand.
20. A variety of actions to implement the economic strategy are proposed, focused on increasing investment in Bicester from three main sources: new firm formation, expansion of existing local firms, and inward investment. In addition, actions are needed to improve the skills of the local workforce in order to make Bicester a more attractive place for firms to invest. Proposed actions are summarised in Table 1.

Table 0: Actions to support the creation of new jobs in Bicester

Theme	Action
A) Support Eco Bicester	Strengthen Eco Bicester partnership Support initiatives to secure funding for Eco Bicester Eco Bicester Living Lab Map the premises and other needs of existing Bicester businesses
B) Developing people	Expand training provision at Bicester College

Theme	Action
	<p>Develop local employment opportunities, including apprenticeship programme for eco-construction</p> <p>Develop register of businesses and people with skills relevant to NW Bicester</p> <p>Bicester Technology Studio School</p> <p>Develop entrepreneurship and business awareness in schools</p> <p>Promote home working and new business formation among Bicester's out-commuters</p>
C) Developing business	<p>Develop Eco Business Centre</p> <p>Develop a suite of eco services and facilities for businesses and their employees</p> <p>Awareness campaign for Bicester businesses</p> <p>Develop homeworking support service</p> <p>Support for start ups and high growth companies</p> <p>Develop links with local universities</p>
D) Marketing and promotion	<p>Develop marketing materials for NW Bicester</p> <p>Promote environmental quality of NW Bicester business premises to firms</p> <p>Implement promotion campaign for Bicester</p> <p>Promote sustainable business practices</p>
E) Developing place	<p>Allocate land for employment use and support development of appropriate premises</p> <p>Co-locate complementary uses</p> <p>Match phasing of employment and housing development</p> <p>Ensure employment areas are well served by transport links</p>

1. Introduction

Key points:

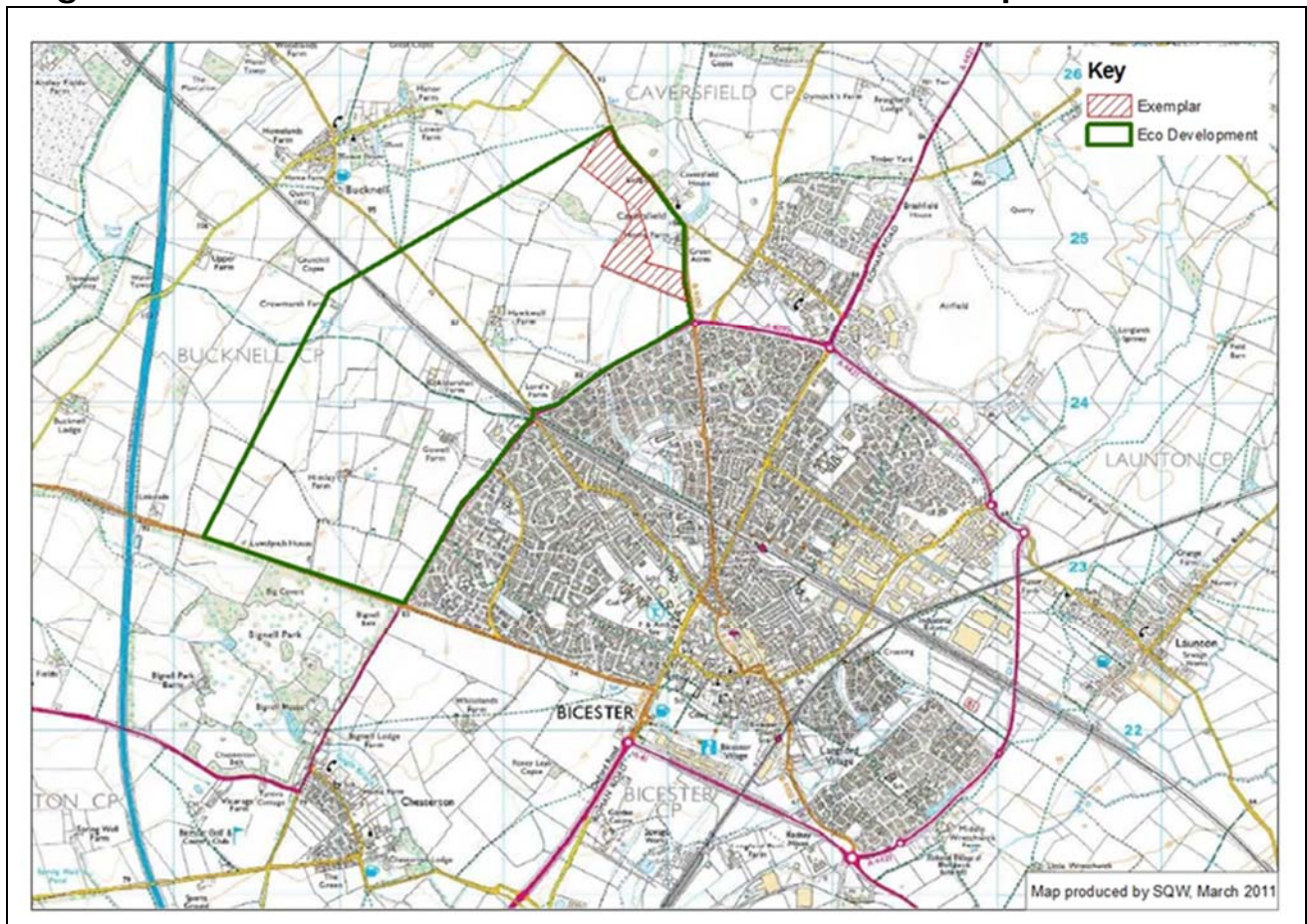
- this economic strategy is for the main masterplan phase of NW Bicester, and has been produced by SQW on behalf of A2Dominion, the promoters of the development
- the strategy responds to the Eco Towns supplement to PPS1, which includes the requirement for an economic strategy to support “access to one employment opportunity per new dwelling that is easily reached by walking, cycling and/or public transport”
- the strategy will support growth of jobs on NW Bicester and more generally in Bicester in a variety of sectors. These relate to the particular opportunities presented by NW Bicester itself, Bicester’s strategic location, and the characteristics of the wider Oxfordshire economy
- The Eco Town Supplement to PPS1 must be read in the context of the more recent statements of national planning policy which are provided in the National Planning Policy Framework (NPPF 2012). The Framework cautions that ‘Local Plans should be aspirational but realistic’ (para 154). Therefore the economic strategy needs to consider the prevailing economic market conditions as well as setting out realistic aspirations for economic development within NW Bicester over the longer term.

- 1.1. This economic strategy is for the masterplan phase of the development at NW Bicester, and has been produced by SQW on behalf of A2Dominion, the promoters of the development. The strategy builds upon previous work produced by SQW in 2011 for the exemplar phase of the development, which now benefits from planning permission.
- 1.2. The strategy is supported by a separate economic baseline report which summarises the current economic and social conditions in Bicester and the wider area and therefore provides a context for the strategy and a starting point from which economic change and employment growth linked to NW Bicester can be measured.

1.3. The NW Bicester development is located on the north west edge of the existing urban area of Bicester, and will form a mixed use urban extension providing new homes, and a variety of business, commercial and social uses which will fully meet the Government's standards for designated eco towns which are set out in the Supplement to Planning Policy Statement 1 (PPS1; published in July 2009). For the purpose of this strategy, we have assumed that the maximum number of new homes to be provided will be 6,000.

1.4. Figure 1-1 shows the location of the NW Bicester development site in relation to the current Bicester urban area.

Figure 1-1: Location of the North West Bicester development site



Source: Produced by SQW. Contains Ordnance Survey data © Crown copyright and database rights (2013). Licence number 100030994

1.5. As NW Bicester forms an urban extension of Bicester rather than a freestanding development, the economic strategy considers how it can

both be successful in its own right, but also how it relates to and complements the wider proposals for Bicester and acts as a transformational catalyst for the future economic role of Bicester as a whole.

1.6. NW Bicester will seek to integrate economic, social and environmental objectives to a far greater extent than in most developments. In addition to ensuring that it supports the creation of at least as many jobs as new homes, it will, for example:

- ensure local residents are aware of local job opportunities on and off site, and are encouraged to obtain the necessary training to take up those opportunities, through mechanisms such as the Bicester Job Club and 'Apprenticeshop'
- provide a variety of market and social house types to appeal to a wide cross section of socio economic groups, related as far as possible to the mix of job opportunities in all phases of NW Bicester
- implement a green travel plan to encourage and facilitate use of sustainable means of transport by the workforce, residents and firms, and to encourage home working and reduced commuting.

1.7. NW Bicester will also contribute to the wider economic context in four ways. 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 and South East Midlands areas
- bring forward, early in the development, employment opportunities to address the shortage of high quality B Use Class accommodation in Bicester and which match existing employment skills

- kick start the development of a new eco economy in the town, capable of serving a wider area
- support a transformation of the image of Bicester, which in turn will change the town's economic relationship with the wider area.

Aims of the strategy

- 1.8. Consistent with the PPS for Eco-Towns, the strategy will demonstrate how NW Bicester will support job creation at a scale of one employment opportunity per new home, and that is easily reached by walking, cycling and/or public transport. For the whole development this implies a total of up to 6,000 jobs.
- 1.9. The strategy works on the principle that many of the 6,000 jobs should be located on the NW Bicester site to maximise opportunities for the new residents to work locally. NW Bicester should provide a full cross-section of job opportunities within Class B. To ensure the development is sustainable it needs not only to provide for new jobs on-site, but also to link closely with the rest of Bicester and to support rather than undermine the existing and planned employment within the town.
- 1.10. At present, Bicester is characterised by high levels of net out-commuting and specifically, high levels of long distance commuting. The planned improvements to the stations and to the rail link to Oxford, London and Birmingham could increase commuting, but will also greatly improve accessibility and hence the attractiveness of the town to firms as well as residents. The strategy therefore aims to demonstrate how NW Bicester will encourage less out-commuting rather than more, and in particular less long distance out-commuting.
- 1.11. The strategy also considers how to support jobs growth in the main opportunity areas related to NW Bicester and to Bicester's location in the

Oxfordshire and South Midlands sub-regions. These opportunity areas include:

- Eco-construction and broader eco-technologies, using construction of NW Bicester to stimulate a broader range of activities concerned with retrofit of the existing stock and new build in surrounding areas, and also business activities which support sustainable living (e.g. recycling, local food production, generation and use of renewable energy and energy efficient processes)
- Auto engineering, including motorsport and electric vehicles
- Opportunities related to the growth of the Oxfordshire high tech cluster, particularly in advanced manufacturing. This should focus on a positive complementary inter-relationship with Oxford and development of a distinctive role for Bicester within the Oxfordshire economy
- Logistics, to exploit the excellent strategic location and connectivity of Bicester
- Regional and local service functions related to population and economic growth in Bicester and the wider area. This should take into account any thresholds that may be crossed by growth within the catchment area: some existing service activities may expand in Bicester as population grows, others may be attracted to Bicester for the first time because the scale of its catchment population
- Other existing and new businesses with growth potential, in whatever sector they operate
- Home based employment, which NW Bicester could do much to stimulate through the design of the homes and work-related facilities within the scheme

- New facilities (e.g. care home, the eco business centre, and grow-on space once firms start to graduate from the eco business centre).

1.12. The strategy aims to identify the scale and nature of the opportunities in each of these areas to support expansion of existing firms, new firm formation and inward investment, and provides an action plan designed to make the most of these opportunities to create jobs and ensure local residents can access them.

Structure of the strategy

1.13. The remainder of this report is structured in the following way:

- Chapter 2 provides the economic, property and policy context for NW Bicester.
- Chapter 3 outlines the visions and objectives of NW Bicester and its relationship to Eco Bicester
- Chapter 4 presents analysis of the main economic drivers of Bicester and opportunity sectors for growth
- Chapter 5 assesses the scale, type and location of jobs related to NW Bicester
- Chapter 6 includes an action plan to support implementation of the strategy

1.14. In addition, a detailed schedule of jobs relating to NW Bicester is included in Appendix A, and a description of the Eco Bicester Living Lab is included in Appendix B.

2. Context

Key points:

- Many of Bicester's more highly qualified residents commute out to work. There is therefore a need for more well paid jobs to be created locally
- There are issues around relatively poor skills attainment levels historically (compared to Oxfordshire and the wider South East). Recent improvements need to be built upon with education and training provision
- There is current demand for employment space in Bicester, and local agents and developers are frustrated by the dearth of opportunities to bring forward development on sites earmarked for employment use
- The Cherwell Submission Local Plan proposes the allocation of much more land than is needed to meet the forecast growth of employment in Bicester, particularly in the early part of the plan period. This is a welcome contrast to recent experience and should give both commercial developers and end users much greater choice of land and premises, which should encourage more development of business space and attract more inward investment
- There is strong policy support for the development at NW Bicester. This is reflected in a variety of documents including the Cherwell Local Plan, the Cherwell Economic Development Strategy, the 'Eco-Bicester – One Shared Vision' document, in the submissions of both Local Enterprise Partnerships of which Cherwell is part (Oxfordshire and SE Midlands), and most recently in the proposed Oxford and Oxfordshire City Deal submission.

Economic context

2.1. The full economic context is provided in the Economic Baseline, which has been produced as a separate document. The main conclusions of the Baseline and their implications for the economic strategy are summarised below:

- Bicester is a successful market town that has grown over the last 10 years in terms of population. The 2011 Census showed there were a total of 30,854 people living in Bicester Town¹, a 7.6% increase since the 2001 Census when the population was 28,665
- Bicester has high percentages of the working age population economically active and employed. Of the 18,225 working age residents economically active in Bicester Town, 17,010 are in employment (82% of the working age population). This proportion is higher than the district, county, sub-regional and national averages. By comparison, in 2001, the rate was 81%, when 16,925 were in employment
- Bicester has a relatively high proportion of employees in employment in manufacturing and retail and a relatively low proportion in financial and insurance activities. In Bicester, approximately one in five employees work in the retail trade, whilst 12% work in manufacturing and 11% work in the health and social work sector. Bicester also has a high proportion of employment in the logistics sector, which constitutes 13% of total employment within Bicester, which is higher than Cherwell (7%) and Oxfordshire (5%)
- In terms of potential growth sectors, the environmental goods and services (EGS) sector and the construction and high value construction sectors are not strongly represented in Bicester. The

¹ Bicester Town includes the wards of Bicester East, Bicester North, Bicester Town, Bicester West and Bicester South

same is also true for auto engineering, high-performance engineering and knowledge intensive manufacturing, but these sectors are strongly represented across Oxfordshire as whole

- Just over a quarter of residents (26.6%) are in the top occupational codes (managerial and professional). This percentage is lower than the district, county, sub regional and national averages
- The rates of business start-up and survival are above national and sub-regional averages but below most neighbouring areas. Self-employment is below the county and regional averages
- Results for 2012 show that GCSE attainment levels, those achieving A to C grades, for Cherwell (81.0%) were higher than the average for Oxfordshire (76.6%), but lower than the South East regional (82.0%) and national average (83.2%). Within Bicester, results varied considerably by ward: in Bicester East 88.7% of pupils achieved 5+ A to C grades, compared with 61.9% in Bicester Town
- Compared with the South East and Oxfordshire, Bicester has a high proportion of its working age population with level 1 and 2 qualifications². In contrast, it has a lower proportion with level 3 and 4 qualifications, and with no qualifications
- The highest proportion of job vacancies advertised in the Bicester area in the first six months of 2012 were for sales and customer service operations, followed by professional and technical occupations.

² GCSEs, NVQs 1 and 2, Foundation and Higher Diplomas, BTEC awards 1 and 2, Functional Skills 1 and 2.

³ AS/A Levels, International Baccalaureate, NVQs 3 and 4, BTEC awards 3 and professional Diplomas, certificates of higher education.

Property context

- 2.2. Bicester benefits from a location which is within three distinct commercial property markets:
- the Oxfordshire high tech cluster, where Bicester is on the northern periphery and potentially attractive to firms seeking more and cheaper space and a labour force with manufacturing skills.
 - the Banbury/Bicester/Brackley area, and east and north towards Milton Keynes and Northampton, which is the location for many of the major motorsport companies and other precision engineering firms.
 - the M40 corridor, from High Wycombe to Banbury and beyond, which is attractive for high value logistics and warehousing and potentially to some regional business and financial services.
- 2.3. Cherwell's 2012 Annual Monitoring Report, published April 2013, states that just over 25ha of employment land is available in Bicester. However, almost all of this is on one site – Bicester Business Park – which has had planning permission for some years but on which no development has started.
- 2.4. In practice, local property agents report a serious lack of land which is readily available for business use, and of modern, flexible business premises. Firms are reported to have left Bicester (First Line moving back to its original base of Banbury being the most quoted example), or to be considering leaving due to lack of expansion space, and potential inward investors are looking elsewhere rather than in Bicester because there is no suitable land or property available. Within the existing industrial areas, some sites have been redeveloped or improved. For example, Bicester Trade Park was recently completed and is fully occupied, providing modern flexible units for a mix of industrial and storage uses.

- 2.5. The draft Local Plan (see below) is attempting to address the lack of land for business use in Bicester, but it is likely to be some time before the plan is approved and allocated sites can be brought forward for development.
- 2.6. This section reviews evidence on the current and likely future demand for business space in Bicester, and how this compares with the scale and nature of supply. The assessment is based on analysis of employment trends, consultations with local property agents, and a review of published documents including the Bicester Masterplan, the draft Cherwell Local Plan and the Outline Business Plan for the Eco Business Centre.

Evidence of current demand

- 2.7. Figure 2-1 provides information from Meeson Williams on current demand for different types of business space in Bicester and covering a wider area which includes but extends beyond Bicester. This indicates a fairly healthy level of demand for all types of property, most of it for units below 10,000 sq ft in size except in the case of warehousing. Meeson Williams review of the Oxfordshire commercial property market for the first quarter 2013 states that “demand has returned to more normal levels, principally due to large enquiries entering the market, although 60% of office and 38% of industrial enquiries are below 185 sqm (2,000 sq ft)”.

Figure 2-1: scale (and number) of commercial property enquiries, Dec 2012-May 2013 (sq ft)

Type/location	Bicester Enquiries <i>scale in sq.ft. (number)</i>	Wider area, including Bicester Enquiries <i>scale in sq.ft. (number)</i>	Total Enquiries <i>scale in sq.ft. (number)</i>
Offices	up to 6,000 (3)	1,700 (2)	6,700 (5)
Industrial	up to 6,000 (2)	9,000 (1)	24,000 (3)
Warehousing	-	154,000 (4)	154,000 (4)
Mixed	-	157,000 (2)	157,000 (2)
Total	20,000 (5)	321,700 (9)	341,700 (14)

Source: Meeson Williams. Note that where a range is specified, the mid point of the range has been used

2.8. Most other property agents confirm this situation⁴, reporting steady demand for workshop space in Bicester, mainly in the range 500-5000 sq ft. In relation to offices, existing space lets steadily, but demand is limited and mainly for small units.

2.9. Most firms prefer flexibility in both the type of space provided and the terms on which it is available. Many want modern business space which can be used for a mix of office, workshop, storage and trade uses, as illustrated by the units at Bicester Trade Park on Telford Road Industrial Estate. However, the nature of demand can be an issue in relation to supply, which in Bicester is mainly dated, with low eaves height, and available on traditional lease terms.

Indications of future demand

2.10. The main indicator used to assess future demand is past trends. According to the Cherwell Economic Analysis Study (August 2012), employment in Bicester grew by approximately 17% between 2003 and

⁴ The exception is CBRE, who provided the property market inputs to the outline business plan for the Eco Business Centre undertaken by Basepoint. They found that "in the prevailing economic climate, demand in the area is focused on the managed workspace and serviced office sector which provides the flexibility sought by start ups and SMEs" and that there is "a lack of demand for traditional commercial space" (section 3.3).

2008 (Table 2.7 of study), compared with 6% in Cherwell as a whole (Table 2.1 of study). The study also includes employment forecasts, undertaken by Cambridge Econometrics on behalf of SEEDA in 2010, which suggest that the number of jobs in Cherwell will grow by 7,253 (10.6%) 2011 to 2031, and by 1,155 (8.6%) in Bicester⁵.

- 2.11. All of the growth in employment in Cherwell is forecast to occur in construction and services, with declines forecast in the primary (ie primarily agriculture) and secondary (ie manufacturing) sectors. The greatest absolute growth is forecast in professional, scientific and technical services and administrative and support services, which together account for 42% of the net jobs growth expected to 2031. Other sectors in which substantial growth is forecast include construction, 'information and communication', and 'other service activities'. Manufacturing is forecast to decline by over 10%, or nearly 800 jobs.
- 2.12. These forecasts take limited account of the specific characteristics of Cherwell, or Bicester, which may be why the Economic Analysis Study suggests that it may be more appropriate to focus employment promotion in Bicester on the manufacturing and logistics sectors than on office uses:

"In terms of offices, London and the Thames Valley to the south, Milton Keynes to the east and Warwick to the north all represent substantial office centres which will continue to promote growth. The office market in Cherwell is concentrated in the south and is particularly notable around Begbroke Science Park. In terms of the industrial market, Cherwell lies between the high volume industrial and logistics activity to the north and the high value activity to the south. This means Cherwell could seek to encourage advanced manufacturing and logistics sectors

⁵ the Bicester estimate reflects the different sectoral mix in Bicester compared with Cherwell, and assumes the sectors grow at the same rate as at District level

rather than competing with areas for office development” (paragraphs 5.11 and 5.12)

- 2.13. It is also important to take into account the fact that new homes lead to increased demand for local services, which in turn generate jobs. The Economic Analysis Study estimates that 200 jobs are generated for every additional 1,000 population:

“The projected growth in population will itself generate significant demand for goods and services. In particular they will create demand for public services such as health, education and local authority services. They will also generate demand for consumer expenditure sectors such as retail and leisure. Research published by the GLA suggested that there are 230 jobs created per 1,000 population. A recent guidance note issued by the HCA and OffPAT has suggested a figure of 150 jobs per 1,000 population. Our own analysis of population related sectors suggest 200 jobs per 1,000 population for Cherwell, the same as the national average. Even taking the most conservative of these estimates, these consumer services will account for a high proportion of the total jobs in Cherwell. The changing demographic profile of the population will also have implications for the type of demand. For example if it is to be an ageing population profile there will be greater demands of the health care sector.” (paragraph 6.16)

- 2.14. A 6,000 home development can therefore be expected to create – without additional stimulus – around 2,800 new consumer service jobs, based on the forecast average home occupancy of 2.3 persons on completion of NW Bicester⁶ (note that this occupancy level is below that expected in the early stages of the development (2.7) and also below the average of 2.53 adults per home found in the 2011 Census for Bicester and immediately surrounding wards).

⁶ NW Bicester Eco Town Demographic Profile Report, Barton Willmore, November 2013

Current supply

- 2.15. Currently there is very limited supply of business premises in Bicester, and most is re-letting existing units. There has been some improvement and redevelopment, which meets many firms' requirements for reasonably priced, functional space. For example, Pankl Racing Systems (motorsport) had a site on Telford Road comprising three buildings totalling 30,000 sq ft, and two yard areas. They wanted improved accommodation and more efficient use of space, but did not want to leave Bicester. They sold part of the site and redeveloped the remainder, and now have 10,000 sq ft. of high quality space which meets their requirements.
- 2.16. However, for growing firms, and particularly those wanting modern business premises, there is very little choice, and as a consequence there have been some well publicised examples over the last few years of firms relocating - or threatening to relocate - from Bicester to surrounding areas in order to expand.
- 2.17. The constraints on supply are related to the availability of land for development, and viability issues. The Local Plan will address land availability issues, but it will be some time before the plan is approved. In relation to viability, typical rents are around £6-6.50 per sq ft for industrial and warehousing space, but local agents advise that a minimum of £8 per sq ft is needed to make development viable. In addition, larger units are better for viability: development of new units below 3,000 sq ft is problematic due to higher unit costs of construction and management. Firms which need modern business space are prepared to pay a modest premium over existing rents to get it. As the economy recovers and rents rise, the viability issue should be overcome. However, at present developers are generally unwilling to embark on any development without a substantial pre-let, therefore it is very difficult to accommodate speculative, short term requirements.

2.18. The situation in the office market is the same. There is very little supply of modern office space in Bicester, and there has been no speculative development. The planning permission for B1 development on Bicester Business Park has not been taken up due to viability issues, and there are no new offices in the town centre. However, the agreement to move the existing Tesco store to the Business Park site should overcome the viability issues there (although it remains to be seen whether offices will be developed on the rest of the site, or whether permission will be sought for other uses), and phase 2 of the town centre redevelopment should also provide some office space as well as a hotel.

Planned supply

- 2.19. The draft Cherwell local plan proposes to allocate 122 hectares for business use in Bicester, most of which is on six strategic employment sites, with a total employment potential of 17,000 jobs – see Figure 2-2. This includes around 11,000 to 12,000 jobs within the plan period to 2031. The draft plan assumes that up to 6,000 jobs will be provided on the NW Bicester site and that of these, only 1,794 will be provided by 2031, along with some of the jobs (amount unspecified) on the East Bicester site.
- 2.20. The provision in Figure 2-2 includes 53.8 ha for B1 use (including 7.5ha for high tech uses), expected to generate 9,543 jobs; and 51.5ha for mixed B uses, and expected to accommodate 7,240 jobs.
- 2.21. In addition, new jobs will be created by the town centre development (both retail and office), the expansion of Bicester Village, and on the old RAF Bicester airfield site (an interview with the new owner suggests there is scope for around 1,000 jobs on the site, using existing buildings). There may also be scope for additional jobs within the existing industrial areas through redevelopment and intensification of use, though this is by no means guaranteed.

Figure 2-2: planned employment land supply

Site	Area for employment (ha)	Possible use	Jobs potential	Source of jobs information in Local Plan
NW Bicester Ecotown	25.5	B1, B2, B8	5,000	Para C.41
Graven Hill	26	B1, B2, B8	2,070	Para C.49
Bicester Business Park	29.5	B1	3,850	Para C.62
Bicester Gateway	15	B1 high tech	990	Para C.96
NE Bicester Business Park	8	B1	1,092	C.98
South East Bicester	18	B1 primarily	2,000	C.101
Total	122		15,002	

Source: Cherwell Submission Local Plan. Note that the jobs figure for NW Bicester is not consistent with that assumed in this strategy due to the different assumptions about the maximum number of homes to be accommodated on the site

2.22. In comparison, the Bicester Masterplan states that “a minimum of 6,500 new jobs should be provided to match the housing growth projected for 2031” (para 401) and the Local Plan (para B.20) states that “according to forecasts the number of jobs expected to be created in Cherwell between 2011 – 2031 is about 7,000”. The Local Plan also states that “the forecasting and scenario exercise in the updated ELR shows a net additional demand for between 52.6 and 87.2 hectares of employment land across Cherwell to 2026, with the medium growth scenario (seen as the most likely to occur) predicting a net additional demand of approximately 70 ha” (para B.25).

2.23. The Local Plan also includes information on the proposed employment trajectory (Table 16, page 195) which suggests that only 2,900 sqm of business space is expected to be completed by 2021 (on NW Bicester Phase 1), another 64,420 sqm by 2026, and another 104,000 sqm by

2031. Hence the delivery of virtually all of the business space is expected to be in the second half of the plan period.

- 2.24. Proposed employment provision at Bicester to 2031 therefore substantially exceeds demand for both land and jobs identified in the key planning documents. However, generous provision has the advantage of offering a range of possibilities to developers and end users, which would be in stark contrast to the current situation in Bicester where choice is extremely limited.

Policy context

Local planning and economic strategies

- 2.25. The ***Cherwell Local Plan***, which inter alia is the mechanism to formally allocate land for development in Bicester, was submitted to the Secretary of State for Communities and Local Government for formal Examination on 31st January 2014.
- 2.26. The Submitted Local Plan recognises the importance of matching supply of employment land in Cherwell to the needs created by planned housing. The strategy identifies Bicester as the main location for employment growth over the plan period (to 2031). Accordingly, it proposes six strategic employment allocations in Bicester, plus one other site which in total amount to 122ha of employment land. The Submitted Local Plan (Policy Bicester 1) states that 37 ha of employment land should be provided on NW Bicester, “unless it is demonstrated through the economic strategy that a different land area will deliver the jobs required” (in Table 1 of the Plan, ‘Strategic Employment Sites’, and as shown in Figure 2-2 above, the employment land area for NW Bicester is stated to be 25.5ha). The Policy also refers to mainly B1 uses, with limited B2 and B8 “where it supports employment in businesses that contribute to the low carbon economy and does not adversely affect neighbouring uses”.

2.27. ***The Cherwell District Economic Development Strategy*** was published September 2011. A key commitment of the strategy is to “maximise the potential of the eco-town development”. Other commitments regarding the development of people, businesses and places, and which are directly relevant to NW Bicester, include:

- provide the ‘eco skills’ needed to develop Bicester eco-town, to attract businesses and to develop a competitive green economy
- increase the number of new businesses forming and support their subsequent survival and growth
- support the growth of established business clusters locally involved with the bio-medical, motorsport and high technology sectors, and develop a new green technology cluster in and around Bicester as part of the eco-town’s low carbon economy
- develop a north Oxfordshire focused inward investment strategy
- develop broadband accessibility and where required improve the supply of utilities
- improve the quality of business premises and access to utilities, including both improving the quality and increasing the density of existing business sites, and providing additional employment land as required.

2.28. ***Eco Bicester – One Shared Vision*** was published in December 2010 by the Eco Bicester Strategic Delivery Board (comprising representatives of Bicester Town Council, Bicester Vision, Cherwell District Council, Environment Agency, Homes & Communities Agency and Oxfordshire County Council). It is a shared vision for the town of Bicester (including NW Bicester) as it continues to grow in the long term, and which seeks

to create a vibrant place where people choose to live, to work and to spend their leisure time in sustainable ways, achieved by:

- effecting a town wide transition to a low carbon community triggered by the new development at NW Bicester
- attracting inward investment to provide environmentally friendly jobs and commerce, especially in green technologies, whilst recognising the very important role of existing employers in the town
- improving transport, health, education and leisure choices while emphasising zero carbon and energy efficiency
- ensuring green infrastructure and historic landscapes, biodiversity, water, flood and waste issues are managed in an environmentally sustainable way.

Local Enterprise Partnerships

2.29. Cherwell District is included in both the Oxfordshire and SE Midlands Local Enterprise Partnership (LEP) areas.

2.30. The ***Oxfordshire Strategic Economic Plan*** (March 2014), produced by the Oxfordshire LEP, refers to the Oxfordshire Knowledge Spine from Bicester through Oxford to Science Vale, and states that in Bicester the plan “will support significant increases in employment growth through infrastructure improvements and land availability”. The plan is based on four themes: innovative enterprise, innovative people, innovative places and innovative connectivity.

2.31. The ***SE Midlands Strategic Economic Plan*** was not in the public domain at the time this strategy was submitted, but the original submission to Government by the LEP in 2010 stated that “The South East Midlands aims to become a National Centre of Excellence for advanced technologies and precision engineering, including environmental and low carbon technology, high performance

engineering, motorsport, aerospace, automotive and sustainable construction". These priority sectors coincide closely with the existing and potential future strengths of the Bicester economy (see Section 3).

- 2.32. The submission was structured by theme rather than geography, although Bicester got specific mention in relation to potential to "use Eco Bicester (a designated national eco town) as a special focus for environmental innovation and technology" (paragraph 4.4.5) and a "focus for testing the transition to low carbon living" (paragraph 7.4.6). In addition, Cherwell's potential for growth and contribution to the SE Midland's place in the "innovation triangle" formed by the university centres of Oxford, Cambridge and London was regarded as valuable.

Oxford and Oxfordshire City Deal

- 2.33. In February 2013, Oxford and Oxfordshire were granted City Deal status by the Government. City Deal status gives greater decision making power to local Government in Oxfordshire and its key partners, to drive economic growth across the county. A full proposal was submitted to the Government and approved in January 2014. It focusses on the delivery of a Knowledge Economy Spine which runs from Bicester in the north through Oxford to Science Vale and the Enterprise Zone (Harwell Oxford and Milton Park) in the south (consistent with the Oxfordshire Strategic Economic Plan). A variety of initiatives are proposed to support knowledge based economic and housing development along this spine, including major transport improvements, investment in skills upgrading, a network of 'escalator hubs' for new and small businesses (including the eco business centre) and establishing the "Science Oxford" brand as a high value proposition to attract inward investment to Oxfordshire.

Summary

2.34. The SWOT in Figure 2-3 provides a summary of the context for the NW Bicester.

Figure 2-3: Bicester economy – distinctive strengths, weaknesses, opportunities and threats

Strengths	Weaknesses
<ul style="list-style-type: none"> • excellent strategic location in central southern England and on key rail and road routes • proximity to Oxford, one of the world's leading centres of R&D and the centre of a fast growing high tech cluster • located in heart of the motorsport cluster, one of the highest value, highest profile clusters in UK • high proportion of working age population are economically active and employed • the rates of business start up (as measured by VAT registrations) and survival are relatively high • Cherwell ranked 61st out of 379 local authorities on the 2010 UK Competitiveness Index, suggesting a relatively competitive local economy • Bicester Village attracts a huge influx of foreign visitors, which has both advantages (jobs, profile) and disadvantages (on occasion, congestion) for the town • There is demand for business space in Bicester from a variety of local firms wishing to expand and from potential inward investors • There is strong local policy support for NW Bicester. • Multi-million pound investment in the Bicester town centre. 	<ul style="list-style-type: none"> • high level of out commuting, particularly among residents with high level skills • a relatively high proportion of the working age population with lower level skills • environmental goods and services are not among the existing strengths in Bicester's economy • there has been no significant promotion of Bicester as a business location. As a result it is almost unknown/anonymous, except in relation to Bicester Village retail outlet • there is an occupational mismatch between local vacancies and residents which could be perpetuated/ accentuated by NW Bicester and the improved commuter links • serious lack of readily available land for employment uses, and of high quality office and manufacturing premises

Opportunities	Threats
<ul style="list-style-type: none"> • NW Bicester could be a catalyst for the growth of economic activities around eco-construction and green technologies • NW Bicester could be a catalyst for regeneration of Bicester’s economy, for example stimulating widespread retrofit of existing buildings • rail improvements will increase attractions of Bicester to businesses and residents • raising Bicester’s profile as a business location would bring its obvious assets/advantages to the attention of many more firms • Bicester has a high proportion of employment, and therefore a strong skills presence, in manufacturing, retail and logistics. • location within two Local Enterprise Partnerships provides an opportunity for support for economic development from two sources • Oxfordshire Plugged in Places programme to support increased use of electric cars throughout Oxfordshire. • Developments from the Oxfordshire Green Construction Network (OGCN). 	<ul style="list-style-type: none"> • The Enterprise Zone in south Oxfordshire may compete with Bicester for inward investment and can offer better incentives and strategic location • Despite more land being allocated for employment uses through the local plan process, the time taken to approve the plan, combined with unfavourable market conditions for speculative development, mean that Bicester may continue to fail to attract and retain firms • competition from other locations seeking to develop a similar range of capabilities and in some cases better equipped to attract inward investment (eg Milton Keynes) • apart from NW Bicester, there is no particular reason for firms in the eco construction and green technologies area to locate in Bicester.

Source: SQW

3. Vision and objectives

Key points:

- NW Bicester will provide a superb and sustainable living and working environment, which is closely integrated with, and complementary to, the rest of Bicester
- It will contribute to achievement of all the objectives for the economic development of the town, as expressed in “Eco Bicester – One Shared Vision, December 2010”.

NW Bicester vision and objectives

Vision

- 3.1. NW Bicester will provide a superb and sustainable community in which to live and work. The outstanding quality of life will result from the economic opportunities, social wellbeing and environmental sustainability that the development offers. As an urban extension it will be fully integrated with Bicester and will contribute to economic and employment growth for the whole town.

Objectives

- To support the creation of at least as many jobs as homes, within a sustainable travel distance, in line with the Eco Towns criteria
- To ensure as many as possible of those jobs are in well paid, growing sectors and firms
- To support the creation of a cluster of firms and skills in Bicester in eco-construction and environmental goods and services
- To encourage home working and other sustainable working practices

- To ensure that jobs are provided early in the development of NW Bicester, and that match the employment skills available
- To work with relevant organisations to promote Bicester and secure new, well paid jobs for the town.

Relationship to Eco Bicester

3.2. In December 2010 the Eco Bicester Strategic Delivery Board (comprising representatives of Bicester Town Council, Bicester Vision, Cherwell District Council, Environment Agency, Homes & Communities Agency and Oxfordshire County Council) published their shared vision for the town of Bicester as a whole as it continues to grow in the long term. The emphasis is on integrating NW Bicester (and other new development) with the existing town, and the focus is on four themes: community, economy, transport and environmental sustainability.

Figure 3-1: Eco Bicester Vision

To create a vibrant Bicester where people choose to live, to work and to spend their leisure time in sustainable ways, achieved by:

- Effecting a town wide transition to a low carbon community triggered by the new development at North West Bicester
- Attracting inward investment to provide environmentally friendly jobs and commerce, especially in green technologies, whilst recognising the very important role of existing employers in the town
- Improving transport, health, education and leisure choices while emphasising zero carbon and energy efficiency
- Ensuring green infrastructure and historic landscapes, biodiversity, water, flood and waste issues are managed in an environmentally sustainable way.

Source: Eco Bicester – One Shared Vision, December 2010

3.3. The elaboration of the vision includes a mix of objectives which include some specifically related to sustainable development (for example, retrofitting for a low carbon economy, exacting eco standards for new development, sustainable travel to work, and sustainable water, waste and energy management), and others more generally concerned with

improving the quality of life for Bicester residents, economic performance, the quality of infrastructure, environmental conditions, etc.

3.4. Specifically in relation to the economy, NW Bicester will contribute to achieving the Eco Bicester objectives as summarised in Figure 3-2.

Figure 3-2: Contribution of NW Bicester to Eco Bicester objectives for the economy

Eco Bicester economy objectives	Contribution of NW Bicester
<i>Employment opportunities</i>	
Provide new employment opportunities to complement the existing economic base to support the creation of a balanced economic base with opportunities requiring a broad spectrum of skills	<p>NW Bicester will generate demand for products and services from eco-construction and green technology businesses, and will contribute to marketing Bicester as an ideal location for such firms</p> <p>The Eco Business Centre will support the formation and growth of new firms in the areas of green technologies, eco construction and environmental goods and services</p> <p>In addition to the Eco Business Centre, NW Bicester will provide a substantial amount of high quality business space which will meet the needs of a range of high value businesses which currently cannot find suitable space in Bicester</p>
Promote Bicester as a significant location in the triangle between Oxford, Cambridge and London, for an increase in science and technology businesses, exploiting innovations and spin outs from academic research growing from existing Oxfordshire base	The Oxford and Oxfordshire City Deal proposal positions Oxfordshire within this context, and Bicester within the main growth axis of Oxfordshire. This economic development strategy focuses on supporting knowledge based economic activities which will contribute to achievement of the City Deal objectives.
Create a centre for innovation capitalising on the location within a world class region	There are existing innovation centres run by Oxford Innovation in Bicester and nearby at Upper Heyford. These will be complemented by the Eco Business Centre which will have a more specialised market focus
Provide support for existing employers in the town to increase their levels of local employment	NW Bicester will provide a substantial amount of high quality business space which will enable local firms wishing to expand within Bicester find suitable – and sustainable - premises. It will also provide

Eco Bicester economy objectives	Contribution of NW Bicester
	other opportunities for local businesses, for example those providing services to the local population and those involved in the eco construction area
<i>Sustainable travel to work</i>	
Seek local jobs to reduce out commuting significantly	NW Bicester will support the creation of around 6,000 new jobs within Bicester, including around 4,600 on-site. These jobs will be in a variety of sectors and require a wide range of skills. The scale and variety of new jobs will enable the majority of the resident population to work locally if they choose. NW Bicester will also promote and facilitate home working (for example, through the design of homes and the provision of broadband with high download and upload speeds), which will reduce out-commuting.
Walking, cycling and public transport will be promoted through working with new and existing businesses to prepare and implement green travel plans	All firms moving to NW Bicester will be encouraged to develop green travel plans and to encourage their employees to use sustainable means of transport. In addition, the design of NW Bicester, with housing clustered around a number of local centres providing local services and employment, and strong pedestrian and cycle links into the existing urban area, will enable a high proportion of residents to work locally and to walk, cycle or use local buses services to travel to work.
<i>Education, skills and training</i>	
Creating a learning town with good quality education opportunities for all ages with access to local quality educational facilities to learn and train	NW Bicester will support the expansion of education and training opportunities in Bicester by increasing demand and the sponsorship of apprenticeships, for example in eco construction
Provide education, skills and training focused on meeting the needs of business and allowing the local community to benefit from the emerging green economy	Banbury and Bicester College plans to expand and broaden local FE provision. This will be facilitated by demand from NW Bicester construction and from employers located on the development. For example, NW Bicester will create a long term (20+year) demand for local skills relating to eco construction

Eco Bicester economy objectives	Contribution of NW Bicester
Seek greater provision of higher education facilities within the town	The expansion of Banbury and Bicester College will enable it to offer HE courses, but this is not directly a role for NW Bicester
<i>Employment space</i>	
Provide employment opportunities for NW Bicester's population	NW Bicester will provide on-site space to accommodate a substantial proportion of the 6,000 jobs in a wide range of activities, so that residents will have easy access to all types of employment. It will only not provide space for these jobs if they are better located elsewhere in the town (e.g. in the town centre) and sites are available there
Provide employment space/office stock suited to modern employment requirements, particularly those of low carbon businesses – BREEAM excellent and designed to reduce energy use	NW Bicester will provide high quality, flexible business space in a high quality environment for a variety of types and sizes of firms. NW Bicester will be an exemplar for the sustainability of all its buildings, including the business space.
Seek employment creation as part of large residential development sites	NW Bicester will support the creation of at least as many jobs as homes. However, it will not be responsible for creating jobs relating to the requirements of other residential development sites in Bicester
Create a centre for service industries within this buoyant part of the country	The population of NW Bicester will create additional demand for services, and the business space will provide accommodation for firms providing local, regional and national services.

Source: Eco Bicester – One Shared Vision, December 2010, and SQW

4. Economic drivers

Key points:

- Five broad sectors have been identified as potential economic drivers for Bicester's economy, where NW Bicester can play a significant support role. These sectors are: innovation in eco construction and the built environment; environmental goods and services (EGS); advanced manufacturing; high value logistics; and business, financial and professional services
- Some of these are already well established in the local area – in particular, some elements of advanced manufacturing, such as motorsport – but there are current constraints on growth which NW Bicester can help overcome
- Others are not well established locally but are in growth markets regionally and nationally, and there are already growing local firms in sectors such as EGS. For many of these firms, NW Bicester will provide a source of demand which, together with measures to develop appropriate skills among local firms and residents, will support employment and business growth.

Introduction

- 4.1. This section focuses on those sectors which have the potential to act as economic drivers in future: that is, they serve growing regional, national and international markets and are capable of contributing significantly to growth of employment and gross value added (GVA) in the Bicester economy. In general, these sectors have been chosen because of a combination of a favourable national economic and policy context, existing local strengths, and the potential for NW Bicester to support sector growth in future. They are:

- eco construction and the built environment
- environmental goods and services
- advanced manufacturing
- high value logistics
- business, financial and professional services.

4.2. It should be emphasised that the focus on particular sectors does not mean ignoring firms in other sectors, particularly those with growth potential. Much of the business support infrastructure described in Section 4 is relevant to all businesses with growth potential, whatever their current size or sector of activity.

4.3. The main focus will be on ensuring a supportive environment is provided for growth of these sectors and businesses. In some cases – such as sustainable construction - NW Bicester will have a direct role to play in stimulating growth. For other sectors, it will be a case of planning for the creation of a supportive environment within NW Bicester and more widely in Bicester.

Innovation in eco construction and the built environment

Rationale

4.4. NW Bicester will generate significant and long term demand for eco construction skills, which should both attract new investment into Bicester and encourage local construction and related firms to adapt and develop their expertise and products to meet this demand.

4.5. There may be additional external benefits as well to NW Bicester given its potential to act as a visitor attraction in its own right. The Eco Bicester Demonstration Building (EBDB) at Garth Park attracted over

3,000 visitors (on average 200 per month), making it one of the leading visitor attractions in the town.⁷

- 4.6. In addition to up to 6,000 homes to be built in NW Bicester, the broader market for construction meeting very high sustainability standards is growing quickly. This includes both new build and retrofitting the existing stock. A combination of environmental, regulatory and technological factors is driving change in the industry: NW Bicester provides an opportunity for Bicester firms to gain a 'first mover' advantage in acquiring expertise which will enable them to take advantage of the new local, regional and national markets created by these changes.
- 4.7. Bicester is close to other areas with high levels of housing growth (for example, Science Vale, Aylesbury, Milton Keynes and Northamptonshire), and to the administrative centre for the new National Skills Academy for Environmental Technologies in Milton Keynes which provides courses all over the country.

The current situation in Bicester

- 4.8. In 2008, there were 12,538 homes in Bicester, according to Council Tax bandings data. The Submission Local Plan makes provision for nearly 7,000 new homes⁸ to be built between 2006 and 2031, including around 1,800 of those planned on NW Bicester (the remainder are expected to be built after 2031, which appears to be a pessimistic assumption about the build out rate for development at NW Bicester).
- 4.9. The energy efficiency of the existing housing stock across Cherwell is just below the national average. A priority in Cherwell's Housing Strategy⁹ is to 'improve housing standards, including condition and energy efficiency', particularly in the private rented sector and in the pre-1944 stock.

⁷ "Demonstration Building Progress Report", Cherwell District Council, 30 May 2013.

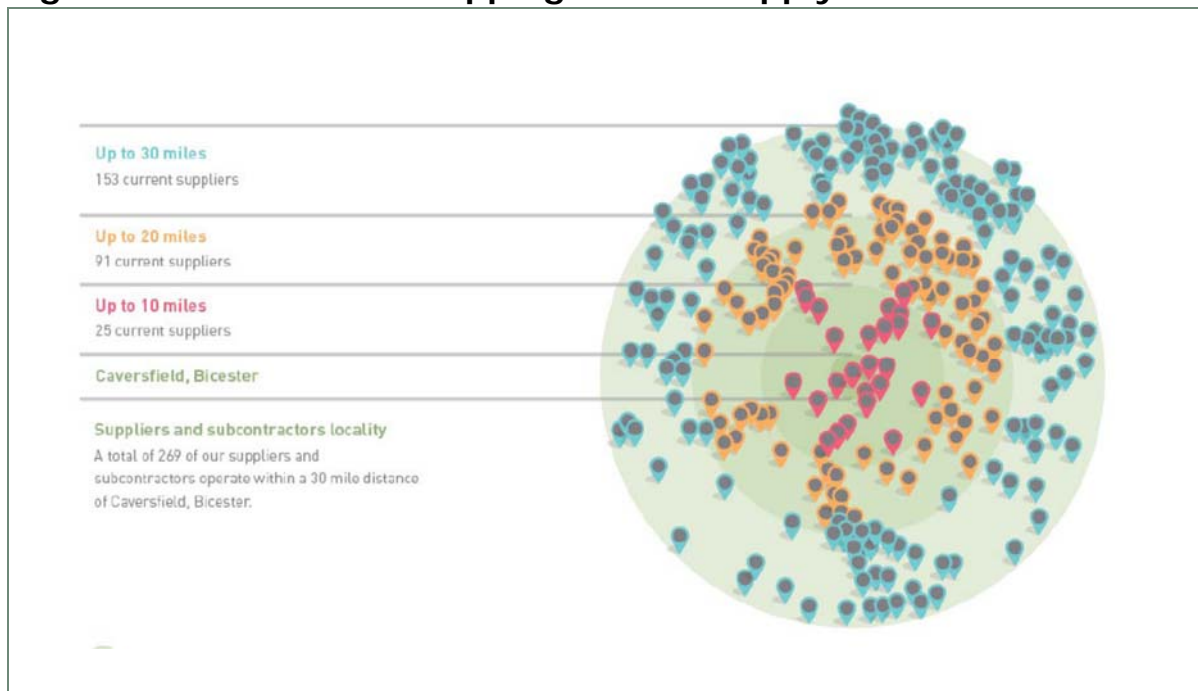
⁸ On strategic sites, this figure does not include smaller sites.

⁹ Cherwell Housing Strategy 2005-2011, Cherwell District Council

- 4.10. There is already some retrofitting expertise locally in Bicester. Hill Partnership, based in Caversfield, was selected for the Technology Strategy Board's (TSB) Retrofit for the Future programme¹⁰ (working on two of the 50 sites). It is also working in partnership with A2Dominion to progress the design of NW Bicester. 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 United Sustainable Energy Agency (further details provided below).
- 4.11. Within Bicester there is an existing labour force of 400 construction jobs. The wider eco market is developing and a range of different organisations have been recorded on a specialist web site for the eco industries - Sustainable Building Matters (www.sbmsearch.com) which includes companies in the Bicester area and from across the UK. Bicester companies listed on the website include Zeta (solar and LED systems), Green Coconut (consulting), Espresso (architecture), Planet Wise and BBK Media.
- 4.12. The diagram below provides an indicative mapping exercise carried out by Hill Partnership on the location of its supply chain members in the area around Bicester.

¹⁰ 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

Figure 4-1: Indicative mapping of local supply chain



Source: Hills Partnership

Growth opportunities

4.13. The construction industry as a whole accounts for 8% of national GDP with a value of some £100bn a year (BIS). Nationally, it is expected to grow at an average annual rate of 1% between 2010 and 2015, but in the South East the rate of growth is expected to be over 2% a year, with new work (2.6%) outperforming the repair and maintenance sector (1.6% per annum)¹¹. Recent government strategies have also placed construction and the development of new housing as central to Coalition policy, with the Minister of Housing having identified public land which would provide space for 102,000 homes.¹² The government has established the national Help to Buy scheme designed to help people buy new homes with a value of up to £600,000

4.14. The sustainability standards of new buildings are being forced upwards by on-going changes to Building Regulations requiring much higher standards of energy efficiency, and the introduction of the 'Code

¹¹ 'Blueprint for UK Construction Skills 2011-2015', published in 2010 by the Construction Skills Network.

¹² "Plan for Growth: Implementation Review (December 2012)", HM Treasury

for Sustainable Homes' in 2007. There were 144,203 post construction stage certificates and 215,891 design stage certificates issued up to 31st December 2013, of which 40% were for private sector homes.

- 4.15. 'Green construction' is also becoming an increasingly important issue in its own right, both within a local and national context. The Government has targeted an 80 per cent reduction in carbon dioxide emissions in the UK by 2050. With 45 per cent of the UK's total carbon emissions coming from buildings, building and running low carbon buildings is becoming a growing strategic priority, which is likely to create opportunities at a local level.¹³

Retrofitting existing stock

- 4.16. The Buildings Research Establishment has estimated that some seven million homes will need to be refurbished by 2020, and the Oxford University Environment Change Unit estimates that retrofitting the existing housing stock to make it green will lead to a market worth between £3.5 and £6.5 billion per annum.
- 4.17. The Government estimated 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 up to 6,000 additional employees in the installation and manufacture of home energy insulation and micro-generation. More recently, the Plan for Growth stated that "the Green Deal will enable households and businesses to invest in energy efficiency measures at no upfront cost, driving expansion of the sector and potentially leading to the creation of up to 100,000 jobs"¹⁴. 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

¹³ "Press Release: Innovative thinking to help deliver low carbon buildings", Technology Strategy Board. 13 November 2012.

¹⁴ "The Plan for Growth", HM Treasury March 2011, page 36

employment for 102,500 FTE staff per year, and induced employment of 58,100 FTE staff per year.

- 4.18. These figures 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.
- 4.19. In July 2010, the Eco Bicester Project board approved a three year scheme to provide loft insulation and/or cavity wall insulation through a retrofitting programme. Under this scheme, fully installed cavity wall and loft insulation was offered to Bicester households at a reduced rate through eco town funds. In addition, priority groups were given free insulation and installation via funding available from energy companies through the Carbon Emissions Reduction Target (CERT). As of January 2013, more than 10 per cent of Bicester's homes had been insulated as a result of the insulation scheme, making up approximately 70 per cent of Cherwell District Council's installations over four years. Cavity wall insulations in wards of Bicester North and Bicester West accounted for 57 per cent of all installations in Bicester.¹⁵ Installations have been carried out by local companies which has provided opportunities for employment, and skills development for local people.

The eco construction supply industry

- 4.20. Nationally, about 300 firms are listed as members of the Green Building Council in the UK, although some of these have tangential interests to the construction sector and a number of other firms are listed as

¹⁵ "Eco Bicester retrofit programme – Bicester Insulation Scheme, Eco Bicester Strategic Delivery Board, 24 January 2013

participants in various research and demonstration schemes e.g. those funded by the Technology Strategy Board.

4.21. Specific skills for low- and zero-carbon building hardly exist currently 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 a variety of initiatives to promote a commercially successful low energy building market in Oxfordshire. Examples include the Oxfordshire Green Construction Network, and the recently announced (March 2014) OxFutures initiative, backed by £1.2m EU funding, and led by Oxford City Council and Oxfordshire County Council, to attract £400m worth of low carbon projects to the county.

4.22. 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. A2Dominion has developed specific guidelines for NW Bicester which will encourage the use of local contractors and labour. Work is also on-going with Banbury and Bicester College to ensure training is in place to enable local suppliers to meet the eco-construction standards which will be demanded at NW Bicester.

4.23. Greater attention is also being paid to ensuring that local individuals and businesses are aware of the opportunities that are available to them. In February 2013 for instance, Oxfordshire County Council in partnership with Cherwell District Council and Sustainable Building Matters held an Oxfordshire Green Construction Showcase in Bicester. This focused particularly on the business opportunities within green construction, new sources of finance available, and strategic approaches to delivering the Green Deal across Oxfordshire. Oxfordshire Green Construction Network (OGCN) is also launching in 2014, and will offer training and consultancy

in the areas of eco-build, sustainable, green and 'one planet' living as a business and daily lifestyle choice for all.

Environmental goods and services

Rationale

- 4.24. Environmental goods and services (EGS) are a growth sector nationally, driven by a combination of Government policies and consumer choice. At a national level, the UK market in the low carbon and environmental goods and services sector (including renewable energy, carbon markets and environmental consultancy) is worth around £122bn¹⁶. It also employs around 940,000 people in the UK, more than motor trades and telecommunications¹⁷. Many of the companies involved are SMEs. With the global market continuing to expand (worth £3.3tn in 2010-11), there will be an opportunity for UK firms not only to capture a domestic market, but also to exploit opportunities for exporting to international markets.¹⁸
- 4.25. According to a report for BIS published July 2013¹⁹, the 'low carbon environmental goods and services (LCEGS) sector is dominated by three sub sectors - alternative fuels, alternative fuel vehicle and building technologies - and two renewable energy sub sectors - wind and geothermal (see Figure 4-2 - employment is shown on the horizontal axis, current year sales growth rate on the vertical axis, and the size of each sub sector bubble represents the value of sales).

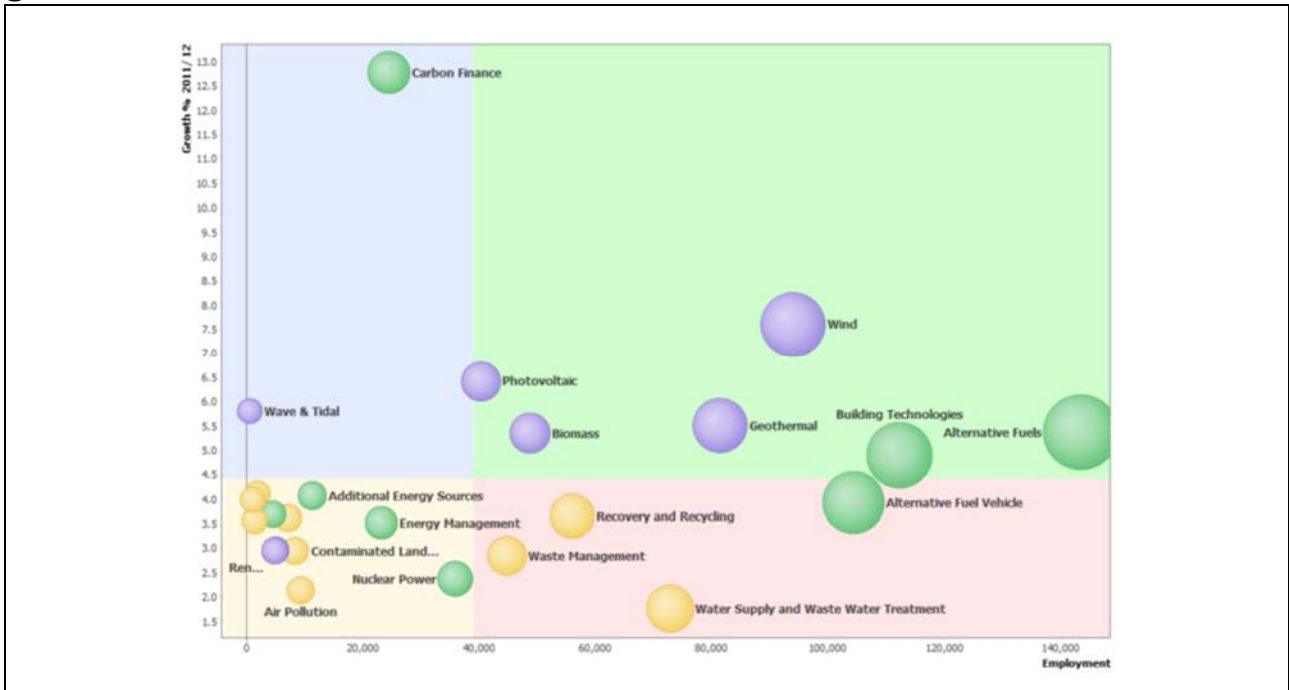
¹⁶ "Plan for Growth: Implementation Review (December 2012)", HM Treasury, p. 11.

¹⁷ "Green Economy – UK Success Story" Green Alliance (August 2012)

¹⁸ "Plan for Growth: Implementation Review (December 2012)", HM Treasury, p. 11.

¹⁹ 'Low carbon and environmental goods and services', Report for 2011/12, Department for Business, Innovation and Skills, July 2013, page 32

Figure 4-2: employment and sales in the low carbon environmental goods and services (LCEGS) sector sub sectors



Source: Department for Business, Innovation and Skills²⁰
 Key: Green = Low Carbon: Blue = Renewables and Yellow = Environmental sectors - Wind and Geothermal

- 4.26. There is a bias in employment towards the south of the country: the BIS report cited above shows that London and the South East account for 283,000 jobs in the LCEGS sector, 30% of national employment. However, this concentration is reducing, from 40% at the time of the previous BIS report on the sector in 2008.
- 4.27. In Bicester, the opportunities in the EGS sector are likely to be driven mainly by NW Bicester and are in part an extension of those in the eco-construction area: for example, relating to the manufacture and supply of heat pumps, solar photovoltaics, solar heating, wind power, water recycling and combined heat and power. This is one of the sub sectors identified by BIS as having the greatest growth prospects.
- 4.28. Bicester may also benefit from the leading expertise in Oxfordshire in alternative fuel technology vehicles, which is another major growth area.

²⁰ As above.

For example, the Oxford Brooke's University and University of Oxford both have leading research expertise in electric vehicles, and there are some prominent local companies undertaking extensive R&D in the area: for example, Williams at Grove and Drayson Racing, based at Kidlington, which set a new land speed record for electric cars in June 2013.

The current situation in Bicester

- 4.29. 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 0.5% of the district's workforce was employed in the sector 21 in 2011. However, there are several growing local companies in the EGS sector (Figure 4-). Cherwell's EGS sector is also supported by the Knowledge Transfer Network (KTN) for Environmental Sustainability, hosted by Oxford University at Begbroke Science Park. The KTN is a cross-cutting network that brings together different actors from across industry and commerce to "accelerate the transition to a low carbon, resource and energy efficient economy in priority areas."²²
- 4.30. Bicester Green, Centre for Sustainability and Skills was officially opened in June 2013. The aim of the Centre is to provide services and products that will enable Bicester residents to live in more environmentally sustainable manner. The Centre has one full time employee and has so far recruited 29 volunteers, many of whom volunteer regularly from anywhere between 2 – 16 hours per week. A total of 2013 hours were volunteered between July and December 2013. The demographic of volunteers is broad and includes men, women and youngsters from 16 all the way up to retirees.

²¹ The EGS sector definition is adapted from our 2011 exemplar baseline (updated for 2007 SIC definitions) and 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.

²² "Cherwell Economic Analysis Study: Draft Report", Cherwell District Council (prepared by Tym and Partners) (August 2012), p. 42

- 4.31. Bicester Green's primary activities have been to engage volunteers in the repair of three main waste streams: bicycles, furniture and portable electrical items. It is through the resale of these items that the Centre generates income. Bicester Green is however much more than just a repair centre. Its ambition is also to be a centre for skills and for sustainability.
- 4.32. To date, 17 separate training sessions have been hosted at Bicester Green, of which the vast majority have been organised and delivered in-house for either the public or for volunteers. Existing and proposed courses include cycle repair, ladies DIY courses, cycle confidence bike tours and training sessions on specific areas of repair to be hosted by local tradesmen. The aim of Bicester Green is to become an inter-generational knowledge bank for practical skills.
- 4.33. The Centre also has several other revenue streams, notably a community meeting space that can be rented and also several community resources such as a bike loan scheme.
- 4.34. Through the primary activities of the Centre, 2.6 tonnes of waste was diverted from landfill in the first 6 months of the Centre's operation.

Figure 4-3: Case studies of environmental 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.

- **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.

Source: SQW

4.35. Additionally, training opportunities are now available in Bicester to help encourage local residents and businesses to develop their own low carbon projects. Run and organised by the Oxfordshire-based social enterprise (ReachAbility), a local community group (GrassRoots Bicester), and the new Bicester re-use and sustainability, the Green Bite training programme is providing sessions to locals. It covers topics including project development, financial management and peer evaluation.²³

Growth opportunities

4.36. The main growth opportunities in Bicester relate to the expansion of existing EGS firms, and demand related to the Exemplar and later phases of NW Bicester. Growth of new and existing EGS firms will be supported by the Eco Business Centre (See Chapter 5), and through initiatives such as the Oxfordshire 'Clean and Green Network'. This also needs to be seen within a broader context. For example:

- the Comprehensive Spending Review (October 2013) commitments to provide up to £7.6 billion in support for low-carbon generation and provide £5.3 billion through the Levy Control Framework, which will include funding for low-carbon energy generation projects.
- as part of the 'Green Deal' introduced by DECC in October 2012, the government is providing loans to help individuals make energy saving improvements (e.g. insulation, double glazing, and

²³ <http://www.cagoxfordshire.org.uk/news-archive/337-green-bite-low-carbon-leadership-training-in-bicester>

renewable energies) without having to pay all the costs up front. Loans are then repaid through energy bills²⁴

- the Green Investment Bank, created by the government in 2012, is a funding institution (with £3 billion of capital) that invests in UK green and commercial projects. Eighty per cent of its capital is being deployed in a series of priority sectors comprising offshore wind, waste recycling and energy from waste, non-domestic energy efficiency, and to support the Green Deal²⁵
- as indicated in the Plan for Growth: Implementation Update of December 2012, the government has started to roll out a smart metering programme and is progressing with new legal text on smart metering. Again, this is likely to open up new opportunities in the future.

4.37. The South Midlands LEP has also pointed to the importance of the green agenda and has implemented a number of strategies to help the EGS sector. These include the introduction of best-practice local environmental standards, local 'green business plans,' and promoting a new low carbon living programme. They also plan to use the NW Bicester to act as a focus for the transition to low carbon living, setting an example that other areas might be able to follow.²⁶

Advanced manufacturing

Rationale

4.38. Key technologies for advanced manufacture include ICT enabled manufacturing, modelling and simulation, digital manufacturing engineering, advanced fabrication including additive manufacture,

²⁴ <https://www.gov.uk/green-deal-energy-saving-measures> (Accessed 11 June 2013)

²⁵ <http://www.greeninvestmentbank.com/what-we-do/> (Accessed 11 June 2013)

²⁶ "Growing the Low Carbon Economy: A Companion Guide to Driving Economic Growth," Local Government Improvement and Development, p. 3

advanced materials / smart materials, industrial biotechnology, micro and nano technology, and other underpinning technologies. There is national government policy support for growth of the UK manufacturing sector: for example, the Government's Plan for Growth stated that "advanced manufacturing will particularly benefit from: changes to capital allowances; the establishment of a High Value Manufacturing Technology and Innovation Centre; the development of a new degree-equivalent Higher Level Apprenticeship; and nine new university based centres for innovative manufacturing.

4.39. Bicester is very well located with respect to some of the main producers and users of advanced manufacturing techniques and products. In particular, it is at the heart of the UK motorsport sector, and close to Oxford, one of the main centres for R&D in the country. Both have very strong international recognition and growth potential.

The current situation in Bicester

4.40. There are various Bicester companies which can be classified as advanced manufacturing. Businesses in this sector showed the fastest recovery from the recession and have the UK government's support for growth. Examples in Bicester are provided in Figure 4-4.

Figure 4-4: Examples of advanced manufacturing businesses in Bicester

Firm	Products
Advanced Energy Industries	Innovative power and control technologies that drive plasma thin film manufacturing processes including semiconductors, flat panel displays, data storage products, solar cells, architectural glass
Overmarsh Engineering	Engineering projects - fast turnaround engineering projects and components
SRD Engineering	Precision engineers
IPL Engineering	Precision engineers
Winman Engineering	Precision engineers

Firm	Products
Supaclean Chemicals	Engineering materials
Modeltech Design	Engineering design, jigs and fixtures, robotic tooling
Hutton Engineering	CNC machining for aerospace
Pankl UK Ltd	Engine systems, drive systems, chassis components for motor racing, high performance and aerospace – innovative materials to withstand extreme mechanical stress
Stack Ltd	Data logging solutions, high quality instrumentation, data acquisition, video logging and motorsport and test
Machine Monitoring	Condition monitoring, thermal imaging, vibration analysis
Analytical Engineering	Instrumentation engineers
Kwikturn Engineering	Precision engineers
Biotronik	Biomedical technology - devices for vascular intervention and electrotherapy of the heart
Cherwell Laboratories	manufacture of prepared microbiological media products for the pharmaceutical and related industries
Datasensor	manufacturer of photoelectric sensors for detection and measurement as well as inductive sensors, safety light curtains, vision sensors and temperature controllers

4.41. As is evident from the firms listed in Figure 4-4, performance engineering is one category of advanced manufacturing which is particularly strong in Bicester. This includes motorsports companies, examples of which in Bicester include 'Scuderia Toro Rosso' (windtunnel facility) and Autosportif. The last few years have seen motorsports companies such as Wirth Engineering relocating parts of the business away from Bicester due to the lack of expansion opportunities locally.

4.42. Banbury and Bicester College 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 within the industry – are also in demand from local companies. The new Principal at the college has plans to broaden the offer to other high value engineering areas, whilst maintaining the distinctive expertise in relation to motorsport.

- 4.43. Locally therefore, there are significant specialist skills in advanced 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. As noted above, there is also very strong expertise in Oxfordshire electric car design and manufacture, including many of the key component parts (notably the electric motor).

Growth opportunities

- 4.44. The potential for Bicester to benefit from the existing strengths in advanced manufacturing is considered below.

Links to the Oxfordshire high tech cluster

- 4.45. Oxfordshire has one of the largest concentrations in Europe of scientific research and development, and related high technology facilities. The major facilities are in the south of the county, at Harwell and Culham, as well as at the various laboratories in Oxford University. Research facilities such as ISIS, JET and Diamond require a continual supply of high tech equipment and consumables. Similarly, companies such as BMW and the F1 teams require advanced manufacture of tooling, automation, measuring, calibration etc. and are major users of new manufacturing technologies.
- 4.46. Using Eurostat's definition (which includes both high tech manufacturing e.g. pharmaceutical preparations, and air and spacecraft and related machinery and high tech knowledge intensive services, such as

telecommunications, and scientific research and development), it is estimated that in 2011, high tech manufacturing accounted for around 4,000 employee jobs in Oxfordshire while high tech knowledge intensive services accounted for a further 16,000. Overall, these high tech sectors provided 6.2% of Oxfordshire's total complement of employee jobs; the comparable figure for England as a whole was around 5.1%.

4.47. In recent work by SQW on the Oxfordshire high tech cluster²⁷, four main technology strengths were identified:

- engineering and electronics;
- bioscience, biomedical and pharmaceuticals;
- telecommunications, computer hardware and software;
- and physics related – cryogenics, instruments and magnets.

4.48. In all of these areas there is huge growth potential, based on the quality and scale of the research undertaken in Oxfordshire and the number of firms.

4.49. The main high tech concentrations in the county are around Oxford and Science Vale, although firms are located throughout Oxfordshire. For example, OBN (formerly the Oxfordshire Bioscience Network) lists 39 members located in Cherwell District. Most are close to Oxford (at Begbroke Science Park and in Kidlington) or at Cherwell Innovation Centre at Upper Heyford, although there are bioscience firms located elsewhere in the district, including in Bicester.

4.50. The Oxfordshire cluster is characterised by a strong focus on R&D, although knowledge intensive manufacturing is relatively well represented compared for example to the Thames Valley, which has a much stronger focus on high tech services. As high tech firms in

²⁷ The Oxfordshire Innovation Engine, SQW on behalf of the University of Oxford, The Oxford Trust and Oxfordshire Local Enterprise Partnership; published October 2013

Oxfordshire grow, a proportion will diversify from R&D into manufacturing, and some will want to undertake that manufacturing in close proximity to the R&D rather than outsourced to low cost locations overseas (and there is increasing evidence of 're-shoring' by UK firms due to rising costs overseas²⁸). The strong existing manufacturing capability in north Oxfordshire, including Bicester, could be a distinctive attraction as high tech firms grow and need to relocate some or all of their activities, whilst remaining within the same specialist labour market.

4.51. A specific opportunity linked to the Oxfordshire cluster is 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.

4.52. A network of 64 electric vehicle charging points in Oxford was launched in May 2012. The opening of the Oxford POLAR scheme makes the city

²⁸ For example, see article in Financial Times 25 November 2013 "One in six UK manufacturers reverse offshoring in growing trend".

the European leader in terms of charging points per capita, according to Chargemaster figures, with 2,391 people per unit²⁹.

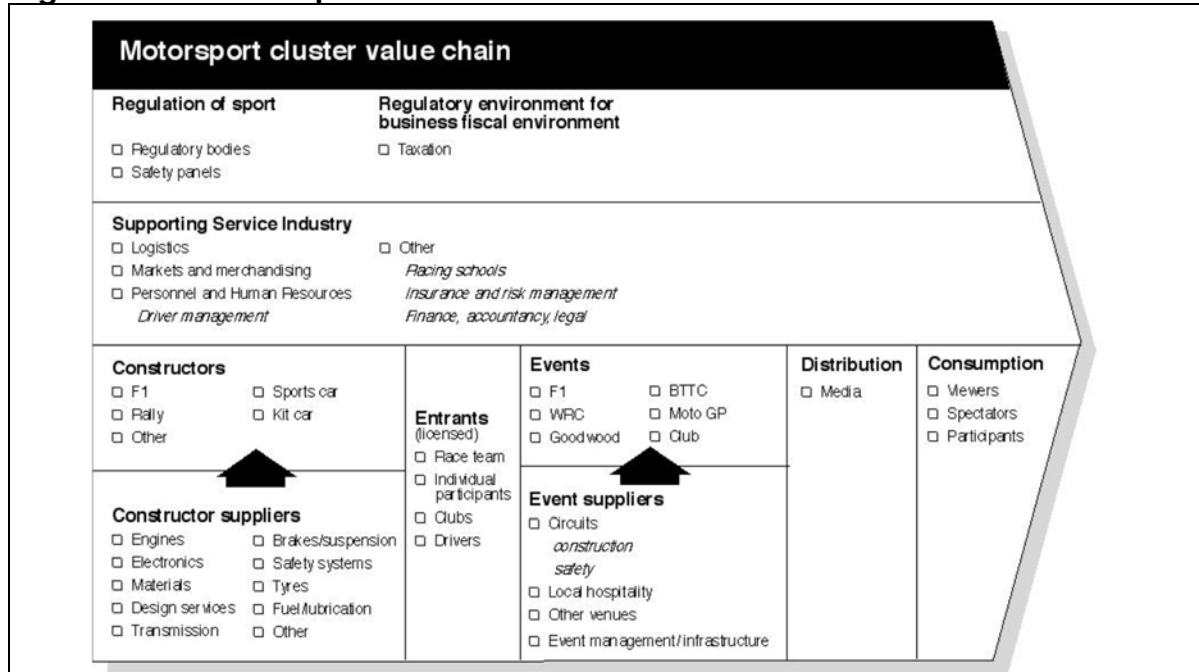
- 4.53. The largest carbon contributor after housing (which will be addressed in NW Bicester through the eco construction) is transport: supporting an initiative which is specifically focused on reducing carbon emissions in daily transport will add to NW Bicester's environmental as well as economic credentials.

Links to the UK motorsport cluster

- 4.54. Bicester is located in the centre of the motor sports industry which is focused in a semi-circle of activities that stretch south westwards from Cambridgeshire through Milton Keynes to Cherwell and then south eastwards to Surrey. Bicester is also close to the headquarters of many major teams and to key facilities such as the Silverstone F1 track and Millbrook Proving Ground. The motor sport industry includes not only major teams, but also a wider infrastructure of specialist suppliers from engineering components to specialist materials, sensors etc.
- 4.55. According to a 2010 study for DTI, "it is one of only a handful of regional clusters in the UK which are embedded, deep, growing and, most importantly, globally dominant in their specific industry"
- 4.56. At the core of the cluster are constructors, who are supplied by a variety of high performance engineering firms producing a wide range of components including engines, braking, suspension, transmission and electronics. A supporting services industry offering marketing and legal support, specialised legal, financial and insurance capabilities, has also built up around this core (5).

²⁹ <http://blueandgreentomorrow.com/2012/05/16/oxford-revealed-as-european-leader-in-electric-vehicles/>

Figure 4-5: Motorsport cluster value chain



Source: Motorsport Research Associates, Study into UK Motorsport and Performance Engineering Cluster for DTI, 2010

4.57. The Motor Sport Industry Association (MIA) estimate that the motorsports industry currently has a turnover of £6bn with 4500 companies with some 30% of turnover spent on R&D. However the MIA point out that there are no definitive current statistics available on the industry with the last full survey being undertaken in 2000 in the National Survey of Motorsport Engineering and Services (MES)³⁰. This study showed:

- annual turnover value to the UK economy was approximately £4.6bn of which £2.9bn was from motorsport engineering and £1.7bn from motorsport services
- the minimum estimated employment in MES activity was 38,500 of which up to 6,000 were engaged in engineering of one sort or another, the rest in services

³⁰ A 2013 survey is currently underway, 'due for completion this summer'

- there were 2,200 companies that achieved more than 50% of their sales from MES.

4.58. The cluster has strong links to the defence, marine and aerospace engineering sectors, for example in relation to use of new materials, aerodynamic design and precision prototyping. According to the MIA, “motorsport provides the laboratory for future technologies” and “for the development of a new generation of road vehicles “ .

4.59. The global success of Formula 1 has expanded the market for motorsport and media coverage in some of the World’s most populous countries and brought new sponsorship money and investment into the sport. This has supported the growth of major racing teams (including but not only F1) and their supply chains, many of which are clustered in the area around Bicester (for example, Mercedes at Brackley, Marussia at Banbury, Williams at Grove, Lotus at Enstone, and Prodrive at Banbury). These firms tend to have very strong infrastructures in their preferred development and manufacturing locations that encourage them to stay in that location. These include:

- the large number of highly specialised and skilled staff that they employ
- the physical assets they utilise including specialist computerised modelling, computer aided design, manufacturing, electronics, telemetry, wind tunnels and test tracks etc.
- the supply infrastructures that they utilise to enable highly specialised components and systems to be made in small quantities at short notice.

4.60. Key issues for the motor racing industry relate to the availability of skills, space to locate businesses, supply infrastructure, and transport and logistics. Skills is foremost among these. The larger F1 teams employ around 500 people each, most of whom are highly trained engineers and

technicians. The motorsport training facility at Banbury and Bicester College in Bicester is an important attraction to firms in the cluster.

- 4.61. Bicester also has a supply infrastructure and specialist logistics (see below), but based on the evidence of recent relocation decisions, it lacks appropriate business space to accommodate expansions. NW Bicester will directly address this problem by providing mixed use business space.

High value logistics

Rationale

- 4.62. 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, and 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.
- 4.63. There is also 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 offers a foundation degree in logistics and trade finance.
- 4.64. The UK logistics sector is worth over £93bn to the UK economy with one in 12 UK workers working in the sector within some 196,000

companies³¹. However, the market came under pressure during the economic downturn with the demand for the movement of goods suffering as a result of declining business and consumer spending, the Eurozone crisis, and a lack of confidence in the UK's current economic situation. Nevertheless, the Freight Trade Association (FTA) expects domestic activity to pick up again following a turbulent 2011-2012. In the fourth quarter of 2012, FTA conducted its Annual Logistics Industry Survey with 39 per cent stating that they expected to see more business activity in 2013 in terms of UK domestic road freight activity.³² Additionally, 35 per cent of respondents believed that UK international road freight activity would also recover in 2013.

The current situation in Bicester

- 4.65. Within Bicester, the logistics sector accounts for 1,700 employees and 13% of the workforce. This is higher than the Cherwell (7%), Oxfordshire (5%) and national (6%) averages. As the economy emerges out of recession and begins to grow once again, there will be greater demand from businesses and consumers for goods thereby stimulating the logistics sector.³³ The performance of the sector as a whole is closely linked to growth in other sectors. Retail and manufacturing, especially motorsports, have high value logistic operations. The demand for logistic facilities was identified in the discussions with local agents (see Chapter 5).
- 4.66. A number of important logistics organisations are located in Bicester. These include Bibby Distribution, 4 Kings Logistics, Exel, Claydon DA Transport, Davies International, Interlink Express and DHL. In addition, Royal Ordnance has one of the largest logistics facilities in the UK at Bicester (Central Ordnance depot), including its own internal rail system,

³¹ <http://www.skillsforlogistics.org/home/about/overview/> (Accessed 12 June 2013)

³² "The Logistics Report 2013," Freight Transport Association (2013), p. 20.

³³ "Cherwell Economic Analysis Study: Draft Report", Cherwell District Council (prepared by Tym and Partners) (August 2012), p. 39

and Fresh Direct, a logistics food supplier in Bicester, trains logistic vehicle drivers there. In September 2012, Unipart Automotive also moved its headquarters from Cowley to Bicester.³⁴

Growth opportunities

- 4.67. Bicester benefits from an excellent strategic location, with good access to the motorway network and to London, Heathrow and Birmingham via the M40, and to the port of Southampton via the A34. Bicester is also on two rail lines which are currently being upgraded, and on the proposed east west rail link from Felixstowe through Cambridge, Milton Keynes and Oxford.
- 4.68. However, based on the location of major inter-modal logistics facilities at Milton Keynes, Northampton and Daventry - all of which are quite close to Bicester – and the view of property agents, the M1 corridor is preferred to the M40 by logistics firms. In addition, the extensive space requirements and heavy traffic generation of many logistics facilities tend to make them less popular with local planning authorities than other forms of employment generating activity.
- 4.69. The MoD also has a strong presence within Bicester's logistics sector: it runs a major logistics operation from Graven Hill to the south east of Bicester town centre, employing roughly 400 people.³⁵ It is planning an expansion of its logistics operations: in April 2013, the MoD was given permission to build a 70,400 sq m warehouse to consolidate existing operations. This is forecast to create around 620 jobs.³⁶ It has also declared part of the site surplus to operational needs and this land is included in the proposal allocations for both housing and 26ha of employment land in the Submission Local Plan. The location of the Graven Hill site on the Bicester ring road, and with a rail link into the

³⁴ <http://www.catmag.co.uk/unipart-automotive-is-moving-to-bicester> (Accessed 17 June 2013)

³⁵ http://www.bicesteradvertiser.net/news/10353445.Controversial_plan_for_MoD_land_gets_go_ahead/ (Accessed 12 June 2013)

³⁶ Ibid.

site, make it particularly well suited to logistics operations that rely on the movement of goods by rail.

- 4.70. Based on its strategic location, excellent rail and road links, and the strengths of the local economy, there is an opportunity in Bicester to focus on high value activities within the logistics sector. There is also evidence of current market interest which indicates that major new investment could be secured quickly provided appropriate land supply is made available.

Business, financial and professional services

Rationale

- 4.71. Even with the recent financial crisis, the UK business, financial and professional services sector has remained a major source of the country's GDP and employment. Currently, over one million people are employed in financial services with over two-thirds of these being based outside London. Additionally, the professional services sector employs nearly one million people. Taken together, the financial and professional services both employ 7 per cent of the UK's working population³⁷. Aside from a strong domestic market, the UK services sector also serves a notable international market. For instance, net exports in the financial services sector accounted for 3.9 per cent UK GDP in 2011, compared to 0.1 per cent in the US, and 0.2 per cent in Germany.³⁸
- 4.72. There is also growing confidence within the UK services sector, again suggesting that it will continue to be an important sector nationally. According to the UK Services Purchasing Managers' Index produced by the economics firm Markit in May 2013, 46 per cent of their survey panel

³⁷ "Key facts about UK financial and professional services," The City UK (January 2012), p. 2

³⁸ Ibid. p. 11.

“signalled positive expectations for activity levels over the coming 12 months, compared to 10% that are forecasting a fall.”³⁹

4.73. Business, finance and professional services include a wide range of activities, many of which have grown considerably over the last 10 years, and growth is expected to continue in future. There are three types of business, finance and professional services which may be expected to be attracted to Bicester:

- firms serving the growing local market – as Bicester expands, so will demand from firms and residents for various business, financial and professional services. In particular, the expansion of housing development in the area is likely to stimulate additional demand across the professional services industry (e.g. accountants and mortgage brokers)
- firms serving a regional market from Bicester – for example, regional offices of banks, insurance companies, etc. To date these have tended to focus mainly on Oxford and Milton Keynes, although this may be partly due to the lack of suitable office space in Bicester
- firms serving a specialist market – for example, the motorsport industry is an important customer for business services including specialist insurance, legal and financial services. Equally, the high value manufacturing sector uses design, marketing and logistics support, and the eco construction sector requires specialist architectural and building services.

The current situation in Bicester

4.74. Bicester is not an established office location, and there is limited interest from major office users in the town. However, there is a healthy demand from local business, financial and professional services firms for small,

³⁹ “Market/CIPS UK Services PMI: Sharper rise in activity as new business grows at fastest pace for over three years,” Chartered Institute of Purchasing & Supply (prepared by Markit Economics), 5th June 2013, p. 4.

modern offices in an attractive environment. Much of the recent demand has been met by converting farm buildings in rural locations which are only accessible by car, although the Avonbury Business Park, adjacent to NW Bicester, demonstrates that there is demand in Bicester given appropriate supply.

Growth opportunities

4.75. Business, financial and professional services are expected to continue to grow in future, and in Bicester's case the expansion of the local population and of businesses will increase demand for such services. Local agents have identified an existing demand which is not met by current supply because of its poor quality. NW Bicester will include high quality small office units suited to the needs to such firms. Some of this demand may be met through the development of Bicester Business Park, which has had planning permission for B1a use for some years. It is hoped that the recent decision to relocate the Tesco supermarket to the site (which in turn will enable Bicester Village retail outlet to expand) will overcome viability constraints which so far have prevented development commencing. According to the Cherwell Submission Local Plan this new business park could create around 3,850 jobs.

Other opportunities

4.76. Some opportunities will materialise over the longer-term from other industries. For example:

- as Bicester grows in size, from the NW Bicester and other developments, its increased population should tip it over thresholds required for the provision of particular leisure and retail services. A joint project between Cherwell District Council and Sainsbury's to transform Bicester town centre is underway, with phase 1 completed in July 2013. This includes a Sainsbury's store, Vue cinema and small retail units. Phase 2 is expected to deliver a new civic building, a

library and a small hotel. The development is expected to create 600 jobs for the town.

- sustainable horticulture - there is growing demand for fruit and vegetables grown sustainably, and there is a commitment both to provide allotments are part of NW Bicester and to allocate temporary and brownfield sites for food production.
- as NW Bicester is built out, it is expected that the development will become the focus for a specialised niche of green tourism. A visitor centre within the Eco business centre is proposed, to explain the concept and practical implementation of NW Bicester and of Eco Bicester.

5. The type, location and scale of jobs related to NW Bicester

Key points:

- NW Bicester will generate new jobs on and off site. On site, the most appropriate type of provision, given the nature and location of the development, would seem to be small scale offices and high quality, well designed business space suitable for a range of Class B uses. This will be located in a business park in the SW corner of the site, and three retail, business and community local centres at different locations within the development, and each with a different mix of uses.
- Some jobs created by NW Bicester are best located elsewhere in the town. In particular, the town centre is the best location for many retail, leisure and service jobs.
- All businesses on NW Bicester will be encouraged to operate in an environmentally sustainable way, whether or not they are providing environmental goods or services.
- In total, provision has been made to accommodate around 4,600 jobs on site in a wide variety of sectors and activities, and including home working. The remainder of the 6,000 jobs are better located elsewhere in Bicester.
- The job densities proposed for the business space on NW Bicester are realistic in relation to the range of uses proposed. However, if in practice these densities are not achieved, a higher proportion of jobs can be located off-site on the generous provision of employment land which is proposed for allocation in the Local Plan.

5.1. Broadly, there are two main types of jobs relating to NW Bicester:

- Those that are a direct result of the development. This includes local services to serve the new population, construction jobs related to building NW Bicester, and jobs which are attracted to Bicester specifically because of NW Bicester
- Those that are accommodated on NW Bicester because it provides the right type and quality of business accommodation in the right location. This includes some of those sectors identified in Chapter 4 as the future drivers of the economy, such as high performance engineering, other advanced manufacturing, high value logistics and financial professional and business services not serving a purely local market.

5.2. There are also two main possibilities for the location of these jobs:

- On NW Bicester, or
- Elsewhere in Bicester.

Jobs resulting directly from NW Bicester

Local services

5.3. New homes lead to increased demand for local services, which in turn generate jobs. The Cherwell Economic Analysis Study (August 2012) estimated that 200 jobs are generated for every additional 1,000 population:

“The projected growth in population will itself generate significant demand for goods and services. In particular they will create demand for public services such as health, education and local authority services. They will also generate demand for consumer expenditure sectors such as retail and leisure. Research published by the GLA suggested that there are 230 jobs created per 1,000 population. A recent guidance note issued by the HCA and OffPAT has suggested a figure of 150 jobs per

1,000 population. Our own analysis of population related sectors suggest 200 jobs per 1,000 population for Cherwell, the same as the national average. Even taking the most conservative of these estimates, these consumer services will account for a high proportion of the total jobs in Cherwell. The changing demographic profile of the population will also have implications for the type of demand. For example if it is to be an ageing population profile there will be greater demands of the health care sector.” (paragraph 6.16)

- 5.4. Demographic modelling for NW Bicester⁴⁰ indicates that when fully developed (i.e. 6,000 homes) the site will accommodate a population of approximately 14,000 people. It can therefore be expected to create – without additional stimulus – around 2,800 new consumer service jobs.
- 5.5. Many of these service jobs should be located on NW Bicester, in order to provide local access to services, and also to the related jobs, for NW Bicester residents. However, some local services will be better located in Bicester town centre, to strengthen town centre functions and support the recent expansion of facilities there.

Construction jobs

- 5.6. The construction of NW Bicester will provide a significant number of construction jobs specialising in niche eco building skills. These jobs will provide continuous employment opportunities for specialist construction workers over a period of at least 20 years. Training programmes, including apprenticeships, will be provided to ensure local residents and firms can acquire the necessary skills for NW Bicester, but these skills will also be in increasing demand elsewhere as construction standards improve and retrofit programmes are rolled out.
- 5.7. HCA guidelines recommend working on a basis of 0.7 person years per home and at an indicative rate of 200 homes per year, this equates to

⁴⁰ The NW Bicester Eco Town Demographic Profile Report: Barton Willmore for A2Dominion, November 2013

around 140 jobs. This matches well with estimates by A2Dominion that construction at the site could require 12 directly employed staff and approximately 130-150 subcontractors.

Environmental goods and services

- 5.8. Environmental goods and services are under-represented in Bicester currently, but are likely to be attracted by, and benefit from, a close association with NW Bicester and in particular the proposed Eco Business Centre. Initiatives are already underway to support growth of this sector, including the retrofitting of existing homes for energy efficiency, and the promotion activities undertaken by 'Sustainable Building Matters' (www.sbmsearch.com).

The Eco Business Centre

- 5.9. The Eco Business Centre is a crucial element in promoting development of a strong environmental services sector in Bicester. The main centre is expected to be developed during the Exemplar phase. This will provide 1,650 sqm of incubation/innovation centre space for new and small businesses, focused on eco/green technologies and markets. In addition, the Centre will provide a business and social hub for new firms and inward investors wanting a virtual presence, and for home workers in and around NW Bicester. It will include small conference and meeting facilities, plug in workspace (hot desks) for visitors to the Centre, and space for social interaction.

Grow on offices

- 5.10. The local centres will include in total around 8,300 sqm of offices of varying size, designed primarily as grow on space for firms graduating from the Eco Business Centre and other business incubation space, as well as for other small firms within Bicester requiring good quality, purpose built office space. Space will also be made available for larger firms on the business park in the SW corner of the development, undertaking a mix of office, manufacturing and logistics (B1, B2 and B8)

activities. However, the primary location for large office users in Bicester is assumed to be the site adjacent to the A41 and Bicester Village which has planning permission for 40,000 sqm of B1 space plus hotel and conference facilities. The office space in NW Bicester is therefore intended to complement rather than compete with other provision in Bicester and to respond to evidence of demand.

Homeworking

5.11. There is no standard definition of homeworking, but on the basis of the questions asked in the Census, the figures for homeworking in these primary data sources are based on a respondents who state that they “work mainly at or from home” (2011 Census). On this basis, homeworkers can be divided into three main groups:

- employees, usually in professional occupations, who carry out their jobs from home with the aid of a computer and telephone
- 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 – often low paid work, where work is undertaken for the most part when customers visit the home. This group includes childminders and beauticians.

National trends

5.12. 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 cost 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 by the increased take-up of domestic broadband connections. As well as allowing cost savings for the employer, it can also stagger the demand for transport and hence help relieve peak time congestion.

- 5.13. There is also evidence that more people are working in a self-employed and freelance capacity, many of them using their home as their main workplace. At the time of the 2011 Census, homeworking accounted for approximately 7% of all employment nationally, and 9% in Cherwell.

Homeworking job estimates

- 5.14. The Cherwell Economic Analysis report (August 2012) gives a figure of 14.2% for the average percentage of workers who worked from home in Cherwell District over the last 10 years, based on ONS data. The Cherwell average working adults per household is 1.26. On this basis, we have calculated that from 6,000 homes, 6,310 working adults will be accommodated, of which nearly 1,100 will work from home. This number is a conservative estimate, as the proportion working from home in NW Bicester should be above average, as the homes will be designed to encourage homeworking and the eco business centre will provide common facilities to support home workers.
- 5.15. The vast majority of homeworking jobs on NW Bicester will be new to Bicester (people working at firms in premises in Bicester now are unlikely to move to NW Bicester and do the same job from home). Some of the homeworking jobs may result from people who currently commute choosing to rebase existing jobs to their home location, but whether this involves people who are already Bicester residents or (more likely) not, the home based jobs will be new to the Bicester economy, because previously these jobs would have been based elsewhere. The fact that they are now undertaken in Bicester means there is less commuting,

more jobs based in Bicester, and more local spend (e.g. on local meeting facilities, refreshments, etc).

Specific initiatives to support home working

- 5.16. Homeworking will be strongly encouraged through the design of housing and infrastructure across NW Bicester. In particular, next generation broadband will be accessible for all homes and free wifi available in public areas. Facilities and services provided by the Eco Business Centre will provide virtual office facilities for home workers and a marketing campaign will feature the attractions of, and facilities for, home working.

Other jobs accommodated on NW Bicester

- 5.17. Taking into account the particular characteristics of the NW Bicester site, and the growth potential in key sectors (see section 4), NW Bicester appears to be best suited to accommodate the following types of activities:

- auto engineering and other high performance engineering – Bicester is at the heart of the motorsport cluster, which according to a 2010 study for DTI, “is one of only a handful of regional clusters in the UK which are embedded, deep, growing and, most importantly, globally dominant in their specific industry”⁴¹. There are already various auto engineering firms located in the town, and Banbury and Bicester College offers courses for the auto engineering sectors
- other knowledge intensive, high value manufacturing and logistics – there is potential to attract additional high value activities, including at an early stage in the development since there is evidence of current market demand. There are particular opportunities linked to the Oxfordshire high tech cluster. The comparative advantage of the northern part of the county, including Bicester, is likely to be a fast

⁴¹ A Study into the UK Motorsport and Performance Engineering Cluster, prepared for the Department of Trade and Industry by Motorsport Research Associates, 2010.

growing workforce, established manufacturing skills, and relatively low cost business premises. As the cluster matures, manufacturing and related activities are likely to grow in areas such as satellite communications, biomedical, and cryogenics

- business, financial and professional services requiring relatively small scale office accommodation – the growth of population in Bicester, combined with its location on the M40 and main rail links to Oxford, London and Birmingham, means it is likely to be an attractive location for some services serving local and regional markets. The poor past performance in jobs growth in these sectors may be due more to the lack of modern office accommodation and Bicester’s low profile for inward investment.

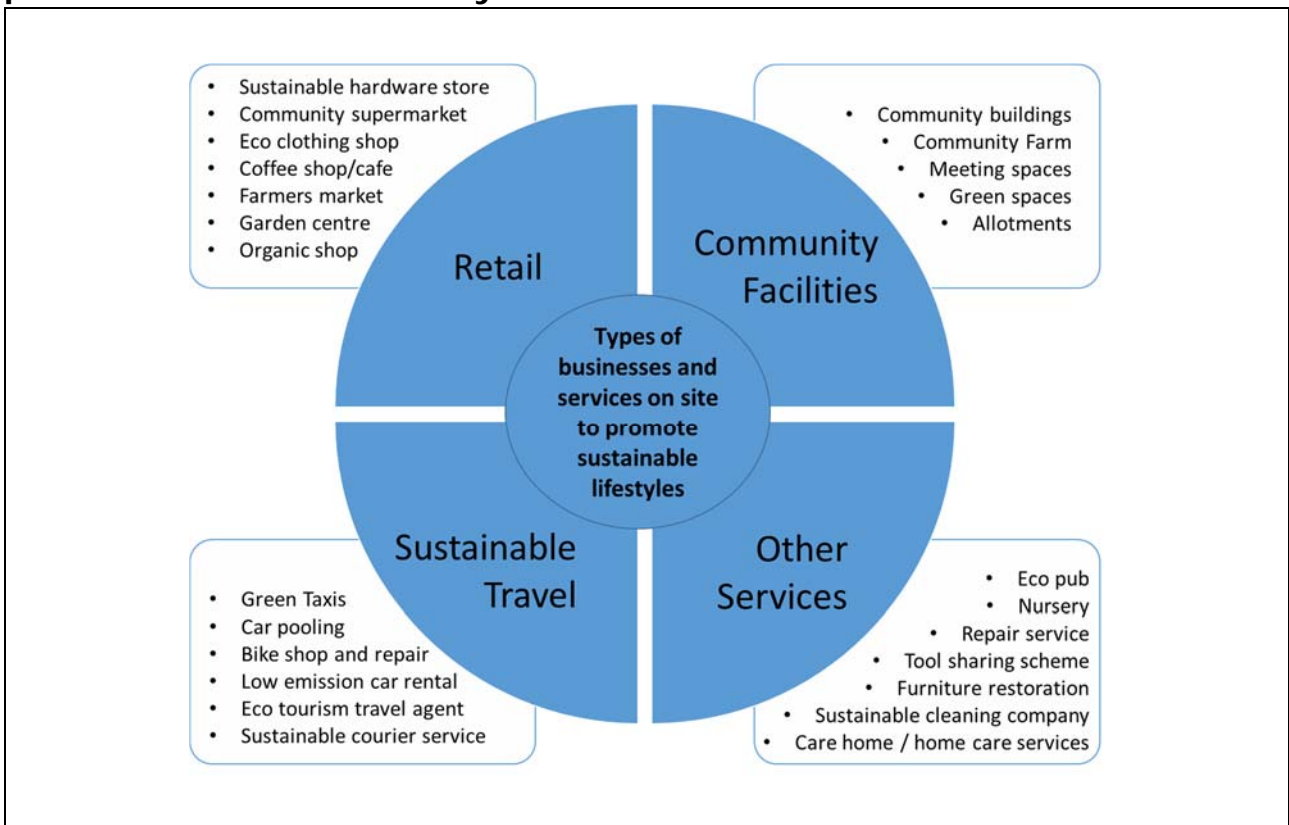
5.18. It is important to ensure that onerous constraints are not imposed upon new businesses which would otherwise provide high quality jobs, but are deterred from investment on account of planning restrictions which do little to support the principles of NW Bicester. Companies will not be forced into locations which do not meet their operational requirements, and they are increasingly footloose. Companies have been lost to Bicester in recent years because the planning process has not been able to deliver suitable sites. The fact that land at NW Bicester may soon be available for development will not necessarily lead to new investment if the use of the land is unduly restricted.

Supporting environmentally sustainable businesses

5.19. NW Bicester provides an opportunity to support the growth of businesses in sectors concerned with environmental goods and services, and sustainable construction. However, there is also a case for ensuring that all businesses located on, or related to, NW Bicester, are as environmentally sustainable as possible; and also that the development encourages sustainable living.

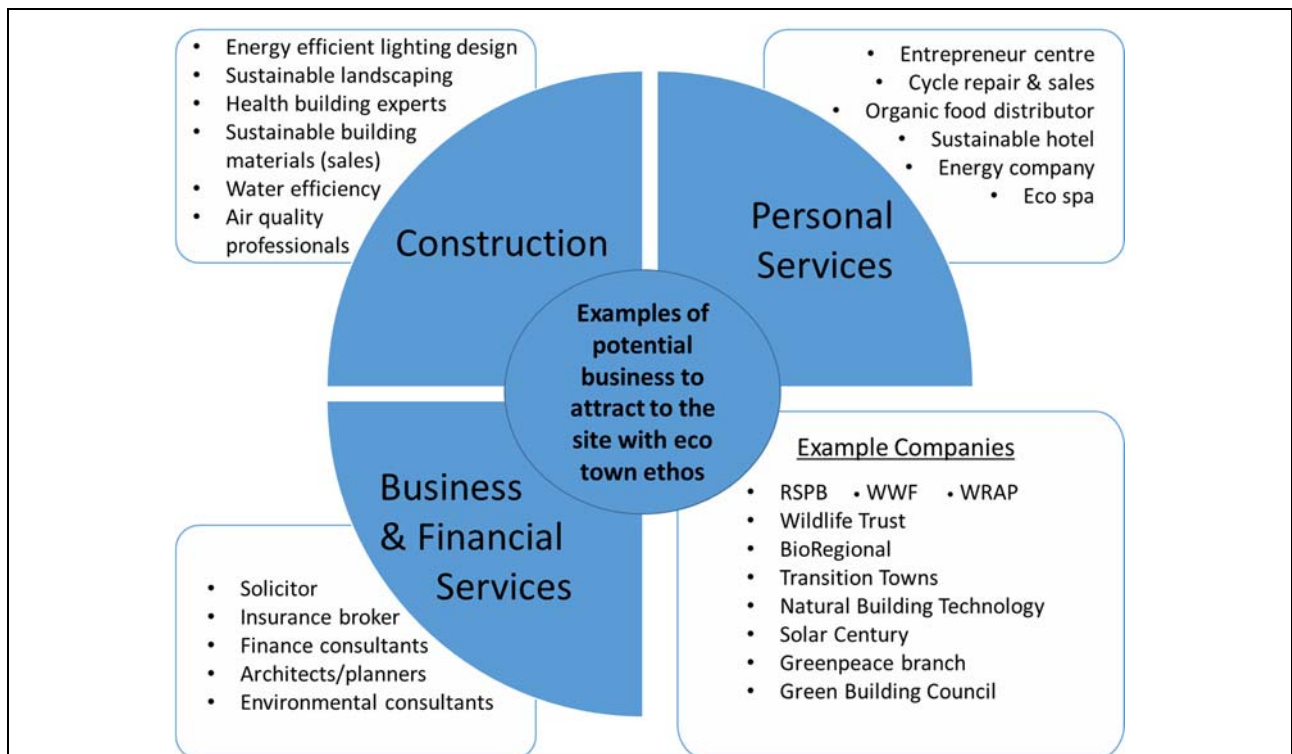
5.20. This can be done in part by promoting good practice among firms such as green travel plans and energy efficiency, but in part also by seeking to attract specific types of businesses to NW Bicester. Figures 5-1 and 5.2 illustrate the wide range of activities and businesses that could be targeted in promoting business space at NW Bicester, including both those local retail, leisure and personal services that will reduce the need of residents to travel elsewhere, and other activities which are explicitly sustainable in their business model.

Figure 5-1: Types of activities that could be targeted on site to promote sustainable lifestyles



Source: SQW and BioRegional

Figure 5-2: Types of businesses that could be attracted to the eco town ethos



Source: SQW and BioRegional

The balance between on-and off-site jobs

5.21. In relation to the scale of employment, the NW Bicester site is capable of accommodating a substantial number of jobs on site, but it is not sensible to plan for all of the 6,000 jobs associated with the development to be located on-site, for three main reasons:

- the NW Bicester site is one of a number of sites identified to provide for employment uses. These all have individual characteristics and the market will decide as to the suitability of each site for the specific user or demand
- as stated in the draft Local Plan, many retail, leisure and cultural activities, and other local services (e.g. healthcare) should be located in the town centre, not on the periphery of the urban area
- large office users are better located at Bicester Business Park, which already has planning permission for development, and has a better strategic location than NW Bicester.

5.22. On-site provision for employment should include:

- Office, retail, leisure and other provision in the local centres to accommodate local services for the resident population. In addition, the Eco Business Centre will be located in one of the local centres
- High quality accommodation suitable for a flexible mix of office, manufacturing and logistics uses, on a business park to be located in the SW corner of the site
- Houses which are readily adapted for home working, by provision of high capacity broadband, readily convertible roof spaces, etc.

5.23. Annex A provides a detailed breakdown of the on-site job calculations. It shows that sufficient space for job generating uses will be provided to accommodate around 4,600 jobs on site although in practice this depends on the detailed mix of activities actually achieved on each site. The total for on-site jobs includes:

- Around 2,000 jobs on a business park in the south west corner of the site, providing a mix of offices, high quality manufacturing and logistics space (B1/B2/B8) totalling 51,000 sqm (549,000 sq ft).
- Around 1,100 jobs in the local centres within the development, including around 100 in the Eco Business Centre. Other jobs will be in a wide variety of retail and local service activities. A care home and hotel are also proposed to be located in different parts of NW Bicester. The job creation potential of each has been conservatively estimated: it could be much greater, depending on the nature of the care home and hotel (e.g. the job density for 4* hotels is far higher than for 2*)
- 200 jobs in the schools within the development
- Nearly 1,100 jobs undertaken wholly or primarily from home

- Over 100 jobs in the existing farm buildings within the curtilage of the development area
- 140 long term construction jobs, with specialist skills in eco building.

5.24. In addition, there will be off-site jobs directly related to NW Bicester.

Paragraphs 5.3 to 5.5 refer to research which indicates that around 2,800 jobs will be created as a result of the demand for local services by the eventual population of NW Bicester. Annex A suggests that about 1,300 of these will be located within the village centres and schools within the development, or created by the construction activity.

Assuming, in addition, half of the home based jobs will be providing local services, that leaves approximately 1,000 local service jobs which will be created elsewhere in Bicester as a result of the demand from NW Bicester residents. Many of these additional jobs are likely to be located in the town centre, though some may be elsewhere. However, all will fall within the Eco Towns definition of a related job, because they are providing local services.

5.25. In summary, therefore, at least 6,000 new jobs will be supported by the NW Bicester development in the following configuration:

- Around 4,600 jobs on site
- Approximately 1,000 local service jobs, created to serve the additional demand of the residents and businesses at NW Bicester, and located elsewhere in Bicester
- At least 400 jobs in firms in the target sectors, attracted to Bicester by the profile of NW Bicester and the related targeted marketing campaign, but which are better located elsewhere in the town (for example, at Graven Hill for activities which require rail access for freight movements, or at Bicester Business Park for large offices users).

Relationship to the masterplan

- 5.26. The great majority of on-site jobs are to be located in the business park in the SW corner of the site and in the three local retail and service centres which will be developed in parallel with related housing. The masterplan and economic strategy are completely consistent in terms of the amount and type of business space proposed, and the number of jobs that will be accommodated in that business space.
- 5.27. The business park site was chosen as the most accessible location and will incorporate buffers which enable it to fit well with surrounding uses. A key issue for the masterplan is the mix of uses and the design of the business units – and in particular, the appearance facing onto Howes Lane and the junction with Middleton Stoney Road. As part of the masterplanning work, several layout options for the business park have been produced for illustrative purposes demonstrating how the amount and mix of business space proposed in this strategy could be accommodated, whilst also meeting other requirements such as set back from Howes Lane and green infrastructure.
- 5.28. The three local centres are located across the whole NW Bicester site, so as to best serve the housing development and to cluster together retail, office and various local and community services. The scale and mix of provision in the local centres has been checked with local property agents as broadly consistent with expected demand on the site, and in Bicester more generally, for retail, office and workshop space, including owner occupied and leased premises.
- 5.29. The three local centres will vary in character and mix of activities. Specifically:
- The Exemplar local centre will include the 1,650 sqm (gross) Eco Business Centre, 2,300 sqm (gross) of office and retail space (including A1-5 and B1 Use Classes), a nursery, community hall and

energy centre. The retail space is expected to include a small supermarket and a pub. The role of the Eco Business Centre is crucial in three main respects: to attract and stimulate the formation of businesses specifically focused on the opportunities created by NW Bicester's status and characteristics; to provide a business centre for homeworkers, enabling them to benefit from the facilities and activities of the Centre (eg hot desks, meeting rooms, reception, networking events, business support); and to provide a focal point for business networking, promoting the eco town principles, and for training provision linked to jobs on the NW Bicester development

- The East Gateway (north of the railway line) will include 5,250 sqm of office space, 1,250 sqm of retail space, a nursery, community hall and community rooms, plus an energy centre. This office development in this local centre will have the character of a small business park, possibly with small office units for sale to end users (similar to the well-established Avonbury Business Park on the opposite side of the railway line). The retail element of this local centre may be linked to sheltered accommodation and a care home for the elderly.
- the third local centre, south of the railway line, includes 1,950 sqm of office space, and various community facilities (eg nursery, community hall and rooms) but no retail.

5.30. All of the local centres will be close to a primary or secondary school, to increase footfall for the retail and community elements.

Phasing

5.31. Phasing of the development of employment space will broadly follow the phasing of the whole development:

- Construction of the Business park is likely to be started early in the construction of the NW Bicester site as a whole, as there is a serious

lack of new employment space in Bicester generally and there is evidence of current demand. However, the timescale for progress and completion will depend on market conditions.

- The local centres will be constructed in sequence in relation to residential development. The Exemplar local centre will be the first to be implemented, including the Eco Business Centre. This will be a very important 'statement of intent' regarding the support infrastructure for job creation on site. The timing of development of the remaining local centres will depend on when the nearby housing is built.

Risk assessment regarding jobs

- 5.32. The masterplan provides for 4,600 jobs on site, in the configuration described above and summarised in Annex A. In addition, the Action Plan (see Chapter 6) identifies initiatives to ensure this scale and mix of jobs is created on the NW Bicester site, and to enable as many of the working age residents of the new homes as possible to obtain jobs locally if they choose to do so.
- 5.33. However, neither the masterplan nor the action plan can guarantee that the planned scale and mix of jobs growth will occur on site. Both the development and occupation of business space is subject to market forces that are outside the control of the promoters of NW Bicester and the planning authority.
- 5.34. To ensure that the proposals are realistic we have taken into account current market conditions and trends. However, the masterplan is likely to be implemented over a period of 20 to 30 years, during which time market conditions may change substantially. Long term economic and technology trends and national and local policy influences (e.g. support for particular areas of research and its commercialisation within Oxfordshire), should have a significant impact over this period, and will influence both the demand for and supply of business space in Bicester.

In addition, NW Bicester itself will influence the nature of demand – for example, by encouraging the growth of firms and supporting the development of skills in areas of environmental technologies, eco construction, etc. In the light of these factors, we believe we have identified the sectors with the greatest growth potential and the actions needed to support their growth.

- 5.35. In our view the main risk is to the scale of jobs on- and off-site. We have assumed a certain mix of business activities and job densities. The density assumptions follow national guidelines, but the actual mix achieved will affect the average density, and therefore the total number of jobs. And although the masterplan and planning decisions can to some extent constrain the mix of activities, imposing too onerous constraints risks preventing any commercial development from proceeding. Ultimately, the market will determine the detailed mix of activities and the resulting employment densities.
- 5.36. If higher densities are achieved on-site, this is unlikely to be problematic, as it will improve the balance between on-site jobs and homes and increase the potential for containment. However, if lower densities are achieved on-site, this means more of the 6,000 jobs will need to be accommodated elsewhere in Bicester for the requirement of the Eco Towns supplement to PPS1 to be met – i.e. to support “access to one employment opportunity per new dwelling that is easily reached by walking, cycling and/or public transport”
- 5.37. The draft Cherwell Local Plan (2006-2031), which was submitted to the Secretary of State for Communities and Local Government for formal Examination on 31 January 2014, allocates a total of 122ha of employment land for business uses falling under the B1/B2/B8 range on seven sites around the town, including NW Bicester. This scale of allocation is intended to provide a choice of sites for developers and end users, and is well in excess of expected demand. Therefore there should

not be any problem in accommodating more jobs off-site, elsewhere in the town, should development densities on the NW Bicester employment sites prove to be below the planned level. Jobs located on any of these sites would fulfil the Eco Towns criteria regarding accessibility.

6. Action plan

Key points:

- Actions should be focused on increasing investment in Bicester from three main sources: new firm formation, expansion of existing local firms, and inward investment
- The skills of the local workforce need to be improved to make Bicester a more attractive place for firms to invest
- A range of actions are proposed to support the creation of new jobs, particularly relating to the particular opportunities provided by NW Bicester. These themes include: supporting Eco Bicester; developing people; developing business; marketing and promotion; and developing place.

6.1. The action plan identifies the main actions proposed to stimulate jobs growth at NW Bicester and more generally in Bicester. It also provides some indication of the relative priorities and the organisations that potentially could take lead responsibility for the different actions. New employment will result from three sources: inward investment, new firm formation and growth of existing Bicester firms. It will also depend on the skills and aptitudes of Bicester residents. The following paragraphs summarise the distinct approaches needed for each of these, following which there is a summary of proposed actions.

Inward investment

6.2. In recent years Bicester has not attracted much inward investment, largely because there has been very little land or modern premises available for occupation by firms moving into the area, and whose employment profile would have matched locally available skills. This has made it almost invisible: property agents and others who deal with potential inward investors have not featured Bicester as a destination,

instead offering locations such as Banbury, which as a consequence have attracted new businesses (in some cases from Bicester). Yet Bicester's strategic location, relatively low property costs (at least compared with locations closer to London) and growing labour force should make it an attractive inward investment destination. NW Bicester and the Eco Bicester initiative also provides the town with a distinctive brand which could be exploited to target certain sectors and firms.

- 6.3. For Bicester to become a destination for inward investment it therefore needs land and premises to be readily available, and to be marketed more actively. Marketing should be focused on opportunities related to NW Bicester (eco construction, environmental goods and services) and to existing strengths such as precision engineering. The rapid growth of Bicester's population should also prove attractive to firms providing personal services and retail and leisure facilities.
- 6.4. The Eco Business Centre is an important element of Bicester's offer to firms in eco construction and environmental services, but more generally it and the existing Bicester Innovation Centre can offer flexible accommodation to firms when they first arrive in the town, before they settle into more permanent premises. As NW Bicester is developed, and the Oxfordshire economy grows, marketing can be based on the changing image and reality of Bicester as a place to live and work (e.g. professional and business services serving a sub-regional/regional market), and changing demands (e.g. 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.).

New firm formation

- 6.5. Currently Bicester, and Cherwell district, have low rates of business start up and self employment relative to county, regional and national

averages. Therefore a variety of initiatives will be needed to stimulate jobs growth through new business formation.

- 6.6. Some of those initiatives should relate to the particular opportunities provided by NW Bicester, and the ways in which the opportunities are exploited – for example, by encouraging local sourcing of goods and services relating to the construction of NW Bicester, and by providing appropriate local training courses to encourage residents to take job opportunities which may entail self-employment or starting a new business. At least some of the new residents will be attracted to live in NW Bicester 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.
- 6.7. More generally, local schools should be encouraged to develop entrepreneurial skills among students, and local residents who currently commute out of Bicester to work in London or Oxford should be encouraged to work more of their time at home and use local facilities, with the possibility eventually of setting up their own business locally. This means providing:
- the right working environment in NW Bicester, including: homes with areas which can easily be used for home working; the Eco-Business Centre, which will provide a business hub for home workers to meet and use the centre's facilities such as hot desks, 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 will play an advisory and signposting role for prospective entrepreneurs.

Support for existing firms

- 6.8. Much of the employment growth initially is likely to be created by existing businesses. However, in the recent past Bicester has not had sufficient land or premises available for the expansion of local firms and as a result some have relocated elsewhere. This constraint needs to be overcome, and local firms also need to be encouraged to secure contracts relating to the construction of NW Bicester, or to the demand generated by new residents of NW Bicester and other housing schemes in and around the town.
- 6.9. The strategy therefore should support:
- provision of high quality business space suited to the expansion requirements of existing Bicester firms
 - measures which will help local firms to adapt their products and services to meet demand from NW Bicester – for eco construction materials, services, etc. – and to secure related contracts (initially by developing a ‘Register your Business’ website)
 - local firms and residents to acquire the skills needed in existing and emerging business areas, including through apprenticeships, and the provision of training courses related to the needs of local firms and accessible to local residents. Bicester schools and colleges will have a supporting role in linking to the skills pipeline.

Skills and aptitudes

- 6.10. The skills and aptitudes of the local workforce will be a significant factor in persuading firms to invest in Bicester, and also in whether local residents can make the most of local job opportunities. Currently, a high proportion of the resident workforce has lower level skills, and many Bicester residents with high level skills commute out to jobs elsewhere.
- 6.11. The objective, therefore, must be to improve the general skills level of Bicester residents, with a particular focus on meeting the needs of

existing firms in the town, and of those sectors which will be targeted for investment in Bicester, including in NW Bicester. As education and skills improve, Bicester will be able to target and attract more firms offering highly skilled jobs, which should also enable more out-commuters to work locally (since on average out-commuters have higher skill levels and earn more than people who work locally in Bicester).

Implementing the Action Plan

- 6.12. Table 6-1 identifies organisations who would be well placed to take lead and supporting roles in implementing specific actions. However, there also needs to be one organisation which takes custodianship of the action plan as a whole, monitors and reports progress, and chases other organisations if they are not taking forward actions they have agreed to support. The most appropriate existing organisation for this role is Bicester Vision, given its central role in promoting and marketing Bicester and in acting as a catalyst of information and support for existing and new enterprises in the Bicester.

Summary of actions

- 6.13. The action plan is summarised in Table 6-1, which includes an indication of the actions proposed under different themes, the possible outcomes, relative priorities and possible lead and supporting responsibilities. The themes are (consistent with the Cherwell Economic Development Strategy): supporting Eco Bicester; developing people; developing business; marketing and promotion; and developing place.

Table 6-1: Economic Development Action Plan

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
<i>A) Supporting Eco Bicester</i>				
Strengthen Eco Bicester partnership and One Shared Vision	Continue to support the vision and objectives of Eco Bicester by applying the eco town principles to the design and development of NW Bicester and to the promotion of employment related to the development	Progress in achieving Eco Bicester objectives	High, on-going throughout design and development of NW Bicester	A2D in collaboration with other Eco Bicester partners
Support initiatives to secure funding for Eco Bicester	Identify opportunities to secure external funding to support achievement of the Eco Bicester objectives, for example through City Deals, EU Structural Funds, TSB, etc.	Increased funding to implement Eco Bicester objectives	High, on-going throughout design and development of NW Bicester	Oxfordshire LEP, SEMLEP, CDC, with support from A2D and other partners as appropriate
Eco Bicester Living Lab	Progress proposals for the Living Lab, a collaborative initiative between BioRegional and Oxford Brookes University Institute for Sustainable Development (OISD), designed to support research and innovation into sustainable	Improved sustainability in Bicester (e.g. increased energy efficiency in existing and new buildings);	Medium. Launch planned for 2014, progress dependent on seed funding	BioRegional, with support from OISD, CDC, Bicester Town Council, Bicester Vision, OCC, A2D,

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
	buildings and communities, using Bicester as a demonstrator and for the application and testing of sustainability solutions(see Appendix B)	raised profile for Bicester as a demonstrator for sustainable living		Green Building Council, TSB, Good Homes Alliance
Map existing businesses and sectors	Conduct a mapping exercise to understand the premises and other requirements of existing Bicester businesses and whether NW Bicester could meet their future property or other needs.		High, undertake early in the development to influence design of employment areas	Bicester Vision, Bicester Chamber (subject to agreement)
<i>B) Developing people</i>				
Expand training provision at Bicester College	Maintain existing focus on motorsport but broaden to encompass wider engineering capability and eco construction. Respond to other demands, for example in relation to environmental goods and services, as they become apparent. Involve Bicester secondary schools to understand aspirations of students before getting to college	New training courses at Bicester College. Increase in number of students at Bicester College undertaking sustainability related qualifications	High, review of possibilities to be undertaken immediately but diversification dependent on resources	Banbury & Bicester College with OCVC, and OCC
Develop local employment	Constructors appointed by A2D will be required to promote local	% of contracts let to local firms	High – develop for construction of	OCC, CDC and A2D in

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
opportunities, including apprenticeship programme for eco-construction	<p>employment in the use of contractors and sub contractors, and to utilise local materials where possible.</p> <p>Employment opportunities relating to the construction of NW Bicester will be advertised locally, including through a bespoke website</p> <p>OCC and CDC will develop a Bicester wide apprenticeship strategy for all the development in Bicester, of which NW Bicester is a part.</p> <p>Apprenticeship schemes will be agreed with constructors, Activate Learning, Banbury & Bicester College and other suitable local training providers to develop a group of craftsmen skilled in eco construction who will be able to work on the development long term and/or apply their skills elsewhere in Bicester</p>	<p>% of materials sourced from within Cherwell District, and from within Oxfordshire and SEMLEP areas</p> <p>No of apprentices trained per year</p> <p>No of apprentices retained in long term employment on NW Bicester</p>	Exemplar and maintain thereafter	collaboration with Activate Learning, Banbury & Bicester College and other suitable local training providers
Develop register of businesses and people with	Hold employer and supplier events to promote local sourcing of people, goods and services	Up to date register of relevant businesses, and	High – develop for construction of	Bicester Vision in collaboration with A2D and Oxford Green

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
skills relevant to NW Bicester	Provide opportunity for potential suppliers to register interest and capabilities on NW Bicester website Provide an on-line business portal to advertise tenders to encourage local supply of goods and services through the construction phase and beyond.	its use to source goods and services locally. Operational business portal	Exemplar and maintain thereafter	Construction Network (OGCN)
Bicester Technology Studio School	Deliver a new technology college with a strong focus on developing skills needed by Bicester businesses.	Successful establishment of the school	Approved January 2014, a start date for the school is being discussed and will either be September 2015 or September 2016.	Activate Learning, OCC, CDC, Banbury & Bicester College, Bicester Vision, Oxfordshire LEP
Develop entrepreneurship and business awareness in schools	Support entrepreneurship and improved school-business links more generally in Bicester, including supporting existing initiatives.	More entrepreneurial school leavers; firms reporting improvements in work readiness of Bicester school leavers	Medium – on-going	Local schools, OCC, Bicester Vision
Promote home working and new business	Undertake awareness and information campaigns designed to encourage Bicester residents who	Higher rates of new business formation, lower	Medium – the promotion of more local working to be	Bicester Vision, Bicester Town Council, CDC,

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
formation among Bicester's out-commuters	currently commute out to work to work from home more often, and to set up their own businesses locally	out-commuting ratios	undertaken intermittently over an extended time period	Eco Business Centre (when operational)
<i>C) Developing business</i>				
Develop Eco Business Centre	Finalise business plan, secure investor and manager, develop the building and commence operations. Ensure that the Centre is designed and developed as an eco innovation centre, and that the management contract requires a focus on the target market, and provision of business support to eco centre firms, home workers on NW Bicester, and other eco businesses in the area	Appropriate specification of investment and management requirements Securing an appropriate investor Completion of the Centre Securing an appropriate manager	High, start construction in 2014	CDC, P3Eco
Develop suite of eco services and facilities for businesses and their employees across the masterplan	Look to ensure all businesses have access to: <ul style="list-style-type: none"> • Net zero carbon energy supplies • Site wide segregated commercial waste collection 	Evidence that eco services and facilities have been provided to firms Provision of NW Bicester	To be implemented in parallel with physical development of business space	CDC, A2D, Bicester Vision, Bicester Town Council

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
	<ul style="list-style-type: none"> • Green travel planning support and a suite of non car, low carbon travel options • Employee opportunities for lunch time activities: conservation work, food growing, governance roles, sport, eco skills courses, volunteering • Catering services with local/sustainable food and drink • Eco cleaning and maintenance services • Views of green space/trees from most work stations • Interpreted monitoring results that communicate how well NW Bicester is doing as a whole 	<p>welcome packs and induction days for businesses.</p> <p>Periodic performance cross-checks of energy and water consumption, recycling and travel.</p>		
Awareness campaign for Bicester businesses	Promote opportunities to Bicester firms for them to use Government schemes such as Growth Accelerator (for business coaching, support for innovation and to help gain access to finance), UKTI	Greater take up of Government schemes by Bicester businesses	High – these opportunities are available now	Bicester Vision, Bicester Chamber (subject to agreement)

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
	support for exporting and support for apprenticeships.			
Develop homeworking support service	Ensure that support for homeworkers is built into the design and management contract for the Eco Business Centre. This should include hot desk space, access to meeting rooms and other facilities, use of reception facilities, invitations to events, etc	No of homeworkers using Eco Business Centre Satisfaction rating from regular surveys of homeworkers Fast fibre-optic internet connections throughout NW Bicester.	Medium - depends on when Eco Centre is completed	CDC initially, then Eco Centre management
Support for start ups and high growth companies	Ensure the Eco Business Centre provides in-house and outreach services to start ups and existing small companies with growth aspirations and potential.	No of firms receiving support from Centre, outcome of support	Medium - depends on when Eco Centre is completed	CDC initially, then Eco Centre management. Also role for Oxfordshire Business Enterprise (OBE)

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
Develop links with local universities	Establish links between the Eco Business Centre, the Living Lab, Bicester College and local universities including Oxford, Oxford Brookes, Buckingham, Cranfield and Northampton.	Formal and informal networks linking local universities to Bicester	Medium, timing dependent on when Eco Business Centre and Living Lab are established	Banbury & Bicester College initially, then management of Eco Centre and Living Lab
<i>D) Marketing and promotion</i>				
Develop marketing materials for NW Bicester	<p>Bicester's profile needs to be raised, to attract potential inward investors and enable intermediaries such as property agents to market the town. Within this context, NW Bicester needs to be promoted as a unique development for residents and businesses.</p> <p>The first step to doing this is to produce some high quality marketing materials which promote NW Bicester and Bicester as a whole. The two sets of marketing materials should be complementary, hence their production should be closely coordinated.</p>	<p>Availability and distribution of high quality materials</p> <p>Increased investor awareness of Bicester and of NW Bicester</p>	High, but timing should be related to the availability of land for development, otherwise potential investors will be frustrated	Bicester Vision and CDC, involving partners including A2D, CHIP, OCC, Bicester Town Council, UKTI, Oxon and SEM LEPs

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
Ensure attractiveness of NW Bicester premises to greener minded businesses	<p>Through good design, design code and planning control, ensure:</p> <ul style="list-style-type: none"> • buildings that are zero carbon and either BREEAM Excellent or similar, • high quality workspaces that are healthy, provide good daylight, ventilation and temperature control, • aspirational buildings that inspire employees, customers and clients • employment premises are visibly connected with NW Bicester facilities and amenities • landscape that is attractive and visible from most work stations • easy access to multi-functional, biodiverse landscape for exercise, relaxation, food growing and recreation. 	<p>Masterplan design, Design Code and Development Briefs for each plot reflect these aspirations</p> <p>Eco identity of NW Bicester speaks for itself and attracts prospective businesses</p>	<p>To be implemented in parallel with physical development of business space</p>	<p>CDC, A2D, Bicester Vision, Bicester Town Council</p>
Implement promotion	<p>A promotion campaign should follow production of the materials, to raise</p>	<p>More profile for Bicester and NW</p>	<p>High, but dependent on availability of</p>	<p>Bicester Vision and CDC,</p>

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
campaign for Bicester	Bicester's profile through UK and internationally as a centre for eco construction excellence, as part of the Oxfordshire high tech cluster, and in an excellent strategic location to serve UK markets	Bicester, for example in the form of press coverage, business enquiries. Ultimately, scale and quality of inward investment attracted to Bicester.	marketing materials and of land for development	involving partners including A2D, CHIP, OCC, UKTI, Oxon and SEM LEPs
Promote sustainable business practices	Develop and implement a promotion campaign to support sustainable business practices by both households and businesses at NW Bicester. Target businesses which operate sustainably in promoting the employment space on NW Bicester	Evidence of sustainable living such as high levels of self containment and recycling, low carbon footprints, etc	On going through development process	BioRegional, A2D
<i>E) Developing place</i>				
Allocate land for employment use and support development of	Confirm land allocations in Local Plan.	Amount, quality and mix of sites which are genuinely	High	CDC, with support from A2D, Bicester

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
appropriate premises	Confirm parameters for business park in NW Bicester masterplan, secure commercial developers to develop and market the site for suitable uses	available for development, and take up by end users		Vision, Town Council
Co-locate complementary uses	Provide space for appropriate facilities close to employment uses where there is a synergistic benefit such as printers, cafes, car club ports, bicycle racks, green space, leisure walking routes and so forth	Design and practical implementation of the local centres and business park	On-going, as development proceeds	Farrells, CDC, A2D in collaboration with commercial developers
Match phasing of employment and housing development	<p>Provision for employment should be made broadly in parallel with housebuilding to maximise the opportunities for new residents to secure jobs at NW Bicester.</p> <p>Much of the employment will be provided within the local centres, which will be developed in phases as the housing is developed.</p> <p>The timing for development of the business park is likely to relate mainly to market demand.</p> <p>Currently there is a shortage of land for employment uses in Bicester, therefore early development of the</p>	Relationship between housing and commercial development, and population and jobs growth, on NW Bicester	On going throughout the development	A2D in collaboration with commercial developer(s)

Theme and aim	Main actions	Outcome/measure	Priority and timescale	Lead responsibility and partners
	business park could be desirable for the economy of Bicester, but may not maximise links NW Bicester residents and local jobs.			
Ensure employment areas are well served by transport links	Ensure employment areas on NW Bicester and elsewhere in the town are well linked to NW Bicester housing by footpaths, cycle routes and public transport	Good transport links and ultimately high levels of self containment	High – good links need to be planned in, and public transport routes secured	A2D, with OCC, CDC, Town Council, public transport providers

Source: SQW

Appendix A

Summary of on-site jobs

On-site and off-site jobs relating to a 6,000 home development – summary

On-site provision	Indicative job numbers	Comments
Business park - B1 office	1008	Based on an assumption of 1 job per 12 sqm NIA (using HCA/OffPat guidelines) for 15,120 sqm of office space (12,096 sqm net). Assume 4 to 8 multi-occupied office buildings, sub-divided into a total of 30 units ranging in size from 250-1000 sqm
Business Park – B2/B8 commercial	1007	Based on an assumption of 1 job per 36 sqm GIA (using HCA/OffPat guidelines) for up to 36,250 sqm of business space. Assume approx. 30 units (some freestanding, some terraced) ranging in size from 500-1500 sqm. However design should be flexible to allow for larger occupiers if appropriate.
Eco-business centre	100	Based on Basepoint report, assume 1664 sqm GIA (1,107 sqm net lettable), including 739 sqm offices, 147 sqm studios, 221 sqm light industrial. HCA guidelines on employment densities for managed business centres are 10 sqm GIA per employee. This job density assumption is consistent with the experience of Oxford Innovation in their 21 innovation centres throughout the country, However, the light industrial space is likely to be lower density – (20 sqm per employee). Therefore assume 886 sqm at 10 sqm per employee, and 221sqm at 20 sqm per employee.

	1,000	<p>Includes:</p> <p>Offices - 1 job per 12 sqm NIA (using HCA/OffPat guidelines) for 6,643 sqm NIA of office space in local centres. Assume approx. 40 units ranging in size from 50-250 sqm = 554 jobs</p> <p>Retail/leisure – 1 job per 18 sqm NIA (using HCA/OffPat guidelines) for 2,960 sqm NIA of retail in local centres = 164 jobs</p> <p>Health centre – doctor, dentist - 924 sqm NIA at 35 sqm per job = 26</p> <p>Community halls, etc - Assumed to require 2,475 sqm, one job per 50 sqm = 50 jobs</p> <p>Nurseries, care and extra care homes, hotel - Assumed to generate 205 jobs in total at varying densities</p>
Employment in local centres		
Energy centre building	9	Assumed to require 1,900 sqm, one job per 200 sqm
Secondary school	68	Assumes 6,750 sqm, 1,500 pupils,
Primary school	133	Assumes 13,320 sqm, 8 classes per year
Mixed use in existing farms	129	Assumes 4,134 sqm commercial, plus units in housing, one job per 36 sqm. Farm buildings are included within the site boundary, some are already used for non-farm employment, others may be in future.
Homeworking	1074	<p>The Cherwell Economic Analysis report (August 2012) gives a figure of 14.2% for the average percentage of workers who worked from home in Cherwell District over the last 10 years, based on ONS data.</p> <p>The Cherwell average working adults per household is 1.26. On this basis, 6,000 homes will</p>

accommodate 7,560 working adults, of which 1,074 will work from home.

140 Working on a basis of 0.7 person years per home (HCA guidelines) and at an indicative rate of 200 homes per year, this equates to 140 jobs. This level of job creation is supported by experience on major construction projects elsewhere. A2Dominion consider that the construction programme could have 12 directly employed staff and approx 130-150 subcontractors. The 140 jobs have the potential to be long-term, as building out the long-term Masterplan will provide ongoing future (similar) employment opportunities over a period of twenty years or more (a permanent job is defined as one which is expected to last at least 10 years). The proportion of construction jobs that are long term will be increased by apprenticeship and other training programmes.

Construction jobs

TOTAL **4,668**

Appendix B

Eco Bicester Living Lab – current proposals

September 2013

Eco Bicester Living Lab: a collaborative initiative by Bioregional and OISD

- Policy-relevant, practice-oriented and academically rigorous research and innovation
- Capturing the learning for continuous feedback and improvement
- Telling the stories to experts, professionals and the wider public

Mission Statements

- To bring world-leading research and innovation into sustainable buildings and communities in Bicester to enable the creation of a truly sustainable town for the 21st century.
- To build a framework of learning and improvement for the various sustainability initiatives and programmes in the town and NW Bicester.
- To capture the learning from this and spread it across the UK and around the world
- To provide a focus for advances in solutions to sustainability, as applied and tested in Eco Bicester
- To promote the Living Lab in Bicester as a centre for research and innovation

Background to Eco Bicester

Eco Bicester is the first UK eco town with a growing portfolio of demonstration projects across the town and a 6,000 home state of the art new community in development where the environmental standards are some of the highest in the world. Eco Bicester partners are already working with universities and BioRegional's One Planet Communities network to bring together the best and most appropriate solutions to sustainability.

Eco Bicester provides a test bed for a wide range of sustainability measures. With a 20 year programme of construction, retrofit and resident engagement, there is a tremendous opportunity to learn about what works, trial different solutions, learn iteratively, capture the learning and then tell the story.

Living Lab provides independent review, leading expertise and academic integrity.

Key Partners

BioRegional Development Group and Oxford Institute for Sustainable Development, Oxford Brookes University

Key Stakeholders

A2Dominion, Cherwell District Council

Other stakeholders (to be invited to take part in the Living Lab):

Bicester Town Council, Oxfordshire County Council, Bicester Vision, Oxford & Cherwell Valley College, Bicester schools, Good Homes Alliance, Green Building Council, Technology Strategy Board, Ben Jackson (Oxfordshire Green Construction Network, Eco Bicester SDB, Sustainable Building Matters), Bicester Vision, Bicester Chamber of Commerce.

Structure

- Advisory Board of some 6 members
- Lead people: Nicole Lazarus (Sustainability Integrator, NW Bicester), Prof. Rajat Gupta (Director, OISD)
- Getting things done: a permanent part time employee to maintain the website and organise events
- Project based funding for specific workstreams

Main activities:

- Annual event to disseminate learning from Bicester - on cross-cutting themes
- Gather and assess monitoring from NW Bicester
- Host Knowledge Transfer Partnerships, courses, knowledge sharing
- Host key study days of relevance to partners working in Bicester eg. How to make MVHR's work etc
- Web presence showcasing publications, results from monitoring and learning
- Launch pad for new research and innovation projects
- Offer student research projects at PhD level
- Facilitating cross fertilisation between business, researchers, social enterprises and community action

Plan of Work

- Meet with key partners
- Secure seed funding
- Identify cross-cutting themes of interest to policymakers and practitioners
- Develop name, branding, web presence
- Identify and secure board members
- Gather and present all learning to date in a single online platform

- Write a three year programme of work
- Launch event 2014
- Exhibition or seminar/talk at EcoBuild 2014

About Eco Bicester

The Bicester Eco Town partners have been progressing many new areas of innovation and technological development through project delivery and through successful funding bids to the Technology Strategy Board and DECC. A summary of these is given below.

Projects to date

TSB funded projects

- Design for future climate
- Building Performance Evaluation of Bryan house
- Rethinking the Build Process
- Invest in Innovative Refurbishment Phases 1 and 2
- TSB High Density PV Smart Power & Smart Community Energy

DECC funded projects

- LEAF (Local Energy Assessment Fund) / [Bicester GLEE Project](#)
- Bicester Green Deal Pioneer Places

Details on each project are given at the end of this document

About Bioregional

BioRegional is an entrepreneurial charity which establishes sustainable businesses and works with partners around the world to demonstrate that a sustainable future can be easy, attractive and affordable. We call our approach One Planet Living. Bioregional was instrumental in the creation of the Government's Planning Policy Statement on ecotowns and has played an important role in securing a broad range of exemplary environmental and sustainability features for the NW Bicester eco-town, which has since been endorsed as a One Planet Community. Bioregional currently work with Cherwell District Council and lead developers of NW Bicester, A2Dominion as Sustainability Integrators.

About Oxford Institute for Sustainable Development (OISD)

The Oxford Institute for Sustainable Development (OISD), founded in 2004, is one of the UK's largest research institutes dedicated to sustainable development research in the built and natural environments. OISD, which consists of eight distinct research groups, addresses the multiple dimensions of sustainable development and the synergies and processes that link them, through a multi- and inter-disciplinary approach. OISD is contributing to major Research Council programmes such as Living with Environmental Change, Energy research, Sustainable Urban Environments and Lifelong Health and Wellbeing, through various research grants. These include 'Evaluating Low Carbon Communities' (EVALOC), 'Suburban neighbourhood adaptation for changing climate' (SNACC), 'Retrofit 2050', 'Understanding Walking and Cycling' and 'Promoting Independent Cycling for Enhancing Later Life Experience (PrICELESS Design)'.

OISD comprises of the following eight research groups:

- Impact Assessment
- Spatial Planning
- Urban Design

- Place, Culture and Identity
- Low Carbon Building
- Architectural Engineering
- Construction and Project Management
- Real Estate and Land Policy

TSB-funded projects:

Design for future climate

This project analysed the implications of future weather predictions as a result of climate change and identified overheating of the super-insulated homes planned for the eco-town as the biggest risk.

Consequently, homes in the NW Bicester Exemplar (the first, 393-unit phase of NW Bicester eco-town) have been modelled for thermal performance with the more extreme peak summer heat waves that are likely to arise.

A precedent setting planning condition requires the design team to demonstrate that Exemplar homes will not overheat.

The design team have developed a plan covering the period until 2050 to ensure none of the homes overheat. This involves optimisation of window designs, window orientation and ventilation in designs from the start. It also involves the introduction of shutters for shading when required, so homes have been “future proofed” to allow for this.

Building Performance Evaluation of Bryan house

Funding for this research was awarded to social housing provider Sanctuary and Oxford Brookes University through the Technology Strategy Board’s (TSB) Building Performance Evaluation (BPE) Programme to carry out a study on the performance of the energy efficient features on two properties at the Bryan House development on Chapel Street, Bicester.

The properties, a three and a four-bedroom house, are built to Level 4 of the Code for Sustainable Homes and incorporate features including solar photovoltaic panels, air source heat pumps, triple glazing and high levels of insulation.

Sanctuary is working in partnership with the Low Carbon Building Group of the Oxford Institute for Sustainable Development (OISD) at Oxford Brookes

University to monitor the energy and environmental performance of the buildings. Residents will play a key role in the programme, providing feedback on the use of the features and the living conditions they create.

Rethinking the Build Process

A four year project provides the Exemplar team with the resources to map, explore, evaluate and refine the build process continually throughout the construction period, shrinking the gap between design intent and actual building performance, learning and improving iteratively from phase to phase.

The project will map the critical paths for delivering these environmental performance standards across hundreds of homes:

- Code 5+
- true zero carbon (unregulated emissions and no allowable solutions)
- full climate change adaptation with overheating analyses to 2050
- targeted reductions in embodied carbon

Invest in Innovative Refurbishment Phases 1 and 2

An energy efficient refurbishment of the Garth, home of Bicester Town Council which could reduce gas bills by 40%. The fund comes in two stages: Design and Implementation.

The project has developed new and innovative approaches to internal insulation and secondary glazing for this “hard to treat” building in a conservation area. This has been augmented with integrated ventilation to reduce the risk of summer overheating following the insulation.

The project is using the innovative WHISCERS™ laser survey technique to mark out each internal wall of each room of the building. These details go to a cutting machine, which cuts and labels the insulation wall boards. This technique reduces installation time, it involves less trades and so reduces the disruption to occupants.

The WHISCERS™ technology has been tried and tested in the domestic market, but has not been used in a non domestic building before and this project could help to make the refurbishment of thousands of heritage buildings viable across the country.

TSB High Density PV Smart Power & Smart Community Energy

The NW Bicester Exemplar plans to fit every house with a 4 kilowatt peak output photovoltaic (PV) system or above.

In the middle of a hot summer's day, the great majority of this power will be exported from homes to the electricity grid. For large developments like NW Bicester with high densities of PV, additional copper cable, sub-stations and local grid infrastructure reinforcement is needed to accommodate the expected electricity output. This is a costly investment and therefore acts as disincentive to extensive use of PV.

The High Density PV Smart Power project explores new approaches to make maximum use of the PV generated power in the home where it is generated.

DECC funded projects

LEAF (Local Energy Assessment Fund) / [Bicester GLEE Project](#)

Community action group, Grassroots Bicester worked with Cherwell District Council, Oxford Brookes University and BioRegional to deliver Grassroots Leads Energy Efficiency in Bicester's Highfield neighbourhood. £58,000 was raised to help residents reduce their energy usage and save money on their bills. Six workshops were run in the community and in local schools. Oxford Brookes University used DECoRuM carbon mapping software to show where and how properties could make the biggest savings.

Bicester Green Deal Pioneer Places

Cherwell District Council's successful bid to the 'Pioneer Places Fund' was developed in partnership with BioRegional and will enable the establishment of a Green Deal network of local assessors and installers in Bicester. 100 local homeowners and seven businesses received free specialist advice on how they can save money and enjoy greater comfort in their home or workplace, each receiving a Green Deal Energy Assessment Report. 14 homes and 4 businesses have since undergone Green Deal-type retrofits for free, saving the residents money by greatly reducing their energy consumption and installing a range of renewable energy solutions.

