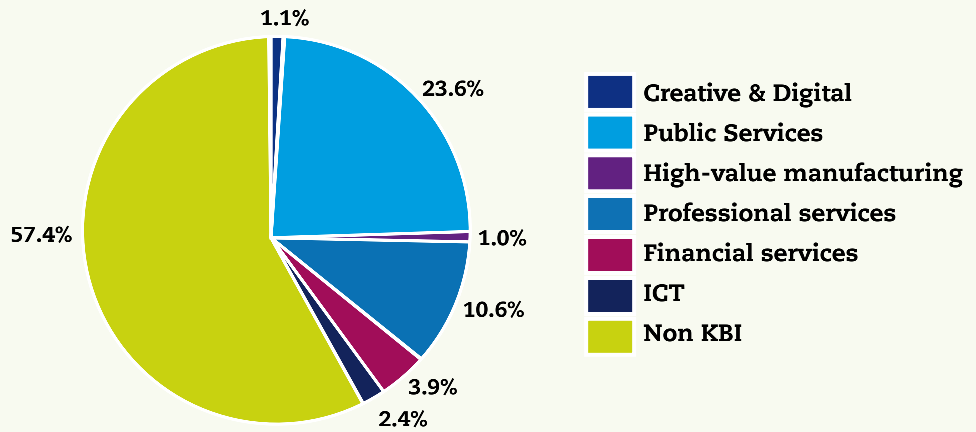
University Challenge: Growing the Knowledge Economy in Birmingham

An independent report by Centre for Cities for Birmingham City Council

December 2009 - Tom Aldred

Birmingham is part of the Centre for Cities' Partner City Research programme. The programme works closely with a small group of cities to inform economic development strategies and improve economic performance. This report focuses on the future growth prospects for Birmingham. It considers three questions:

- How has the recession affected **drivers of growth** in Birmingham?
- Which **knowledge-based industries** could drive future growth, with a particular focus on environmental industries and business services?
- What **policy levers** are available to support these industries in Birmingham and the city region?



Employment in Knowledge-Based Industries in Birmingham MAA area (2007)

Source: Annual Business Inquiry

Recommendations

- The Birmingham MAA area should focus on **growing the private sector economy**, particularly in high value sectors, where there are opportunities to strengthen the contribution of the excellent local universities
- Birmingham and its neighbouring authorities should develop **scenario plans** for sub-regional arrangements under a new government, for example identifying which local authorities would constitute a **Local Enterprise Partnership**
- The City Council should **overhaul the current marketing effort**, establishing more coherent leadership and developing a clearer and more compelling message, building on the city's assets
- The City Council should continue providing a **leadership role in reducing carbon emissions**, but should not expect tough targets to lead to a thriving local low carbon sector

Executive Summary

The centre of Birmingham has been transformed in the last two decades, but recent employment growth has been modest and over-reliant on the public sector. This could hamper recovery from a recession that has hit Birmingham hard. The priority must now be a renewed focus on private sector growth, seeking ways to promote firm formation and expansion.

The priority must now be a renewed focus on private sector growth, seeking ways to promote firm formation and expansion

Knowledge-intensive employment will be an important source of growth for the UK economy. Birmingham has a large and high-quality university sector, with more research students, higher levels of funding and more outstanding research departments than most Core Cities. It has been relatively successful in spinning-out companies from university research, but performs less well in terms of knowledge-intensive skills, jobs and sectors. Deepening the connections between the research base and the local economy will be vital for long-term, high-value growth.

A new government committed to changing sub-national structures could offer opportunities to move key economic levers down from the regional level and to ask for greater flexibilities from central government. Birmingham should be preparing plans for effective city regional co-operation, based on a realistic assessment of the city's real economic footprint.

The city's external image has been acting as a brake on attracting inward investment and the execution of marketing and brand strategies requires a step-change to match the transformation of the city centre. The recent decision to co-locate *Marketing Birmingham* and *Locate in Birmingham* is good news that should progress to a full merger. A new single marketing body should also take steps to clarify the city's branding activity and to deepen the engagement of business and scientific leaders in the city's economic future.

Birmingham has ambitious plans for curbing carbon emissions, but there is no guarantee that this will cause local low carbon industries to grow, especially in the face of intense competition for attracting this sector. The city should consider ways of shortening the feedback loop between delivering low carbon policy, research activity in local universities and the development of commercial solutions.

Introduction

As the UK edges towards the end of recession, government, cities and commentators are speculating where future jobs will come from.[1] While there is a need to look to the future, there are risks in this approach – in the past, cities and regions have been quick to jump on the latest bandwagon in the hunt for future sources of growth, promoting 'fashionable' sectors such as creative or biotechnology industries regardless of their comparative advantages.

This report explores Birmingham's prospects for growth in high-value knowledge-intensive industries and more specifically in business services and environmental industries. After a brief overview of the city's economy, the sectors are examined in more detail and recommendations set out to help Birmingham make the most of the available opportunities.

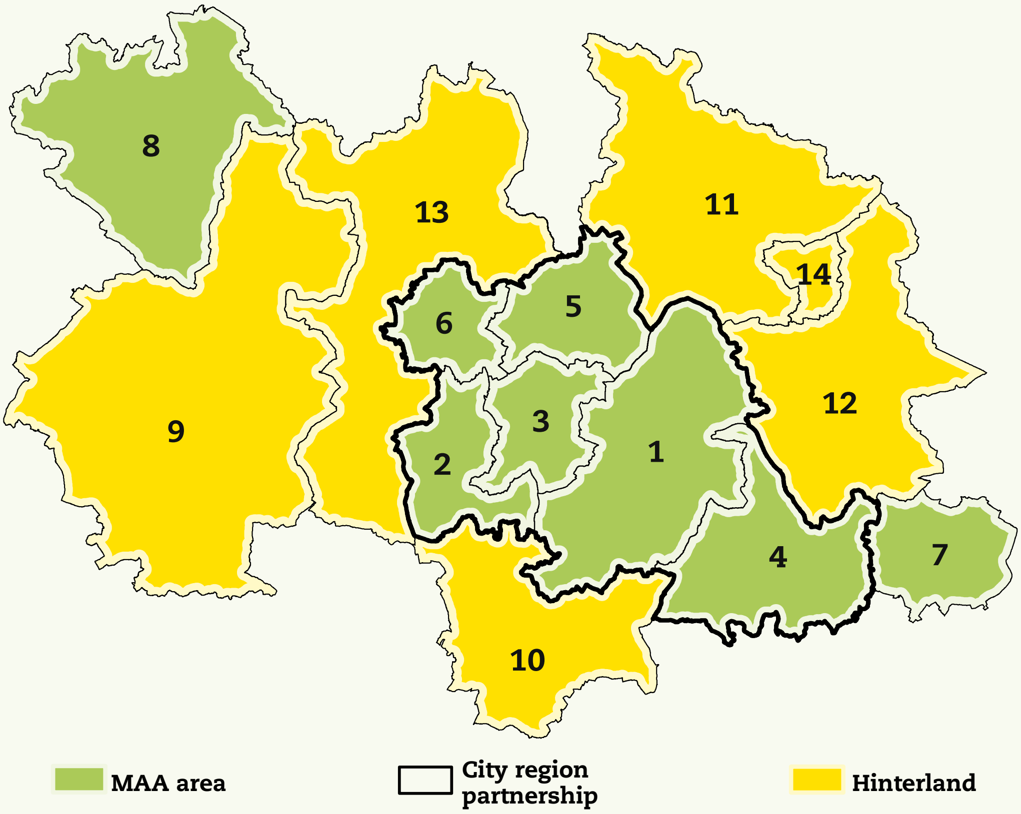
1. See for example Clifton J, Dolphin T & Reeves R (2009) *Building a Better Balanced UK economy: Where will jobs be created in the next economic cycle?* London: Institute for Public Policy Research
2. Population estimate for 2008 from ONS, employment data for 2007, from Annual Business Inquiry.
3. www.cityregion.org. Accessed on 26 November 2009

Defining Birmingham

The area covered by Birmingham City Council has 1.02 million residents and 480,000 employees.[2] However, its economic footprint stretches beyond its own borders, with over a third of city workers commuting from other local authorities. This is why city regions can provide a better scale for policies relating to housing, transport and skills, which impact across a wider area.

In 2006, Birmingham helped to establish the City Region of Birmingham, Coventry and the Black Country, a voluntary partnership of seven local authorities working collaboratively to provide a more integrated policy approach on areas of mutual interest. An application for city region pilot status in 2008 was unsuccessful and in late November 2009, as this report was being finalised, Coventry announced that they were leaving the partnership.[3]

However, in September 2009, all members including Coventry signed a multi-area agreement (MAA) on employment and skills. The MAA was also signed by Telford & Wrekin, which is not a member of the city region partnership.



1	Birmingham	8	Telford & Wrekin
2	Dudley	9	Bridgnorth
3	Sandwell	10	Bromsgrove
4	Solihull	11	Lichfield
5	Walsall	12	North Warwickshire
6	Wolverhampton	13	South Staffordshire
7	Coventry	14	Tamworth

Figure 1: The geography of Birmingham

The current situation (Figure 1) is confusing and it is not clear which cross-boundary partnerships will be most important in the future. In the event of a Conservative victory in the next election, Local Enterprise Partnerships (LEP) would take on some of the functions of Regional Development Agencies. Birmingham needs to decide which local authorities would form the LEP.

The following geographies are used in this report:

- '**MAA area**' refers to the eight local authorities who signed up to the MAA;
- '**City core**' refers to the Birmingham City Council area;
- '**City region partnership**' refers to the six local authorities remaining in the city region of Birmingham and the Black Country;
- Comparisons with other Core Cities are in relation to MAA areas.[4]

4. To date, Nottingham has not signed an MAA, but discussions have taken place about doing so. For this report, Nottingham covers the local authorities of Broxtowe, Erewash, Gedling, Nottingham and Rushcliffe.

Birmingham today

Birmingham is one of the UK's most economically important cities, with a proud history of radical social and political reform. It was transformed by the industrial revolution from a small Midlands town into the workshop of the world (Figure 2), a manufacturing powerhouse connected to natural resources and the rest of the country by a network of canals and railways.

Birmingham entered an era of relative decline in the second half of the twentieth century. The city's manufacturing base declined rapidly in the face of increasing international competition, its share of total employment falling from 50 percent in 1971 to just 11 percent in 2007.[5] The total population began to stabilise in the 1980s while its composition has become ever more diverse. It has been predicted that Birmingham may become a 'majority-minority' city by 2024, with the white population forming under half of the total (though remaining twice the size of any other ethnic group).[6]

5. Data for Birmingham City Council area: Census (1971) and Annual Business Inquiry (2007)
6. Simpson L & Finney N (2007) *White Minority Cities?* Paper for the Annual Conference of the British Society of Population Studies

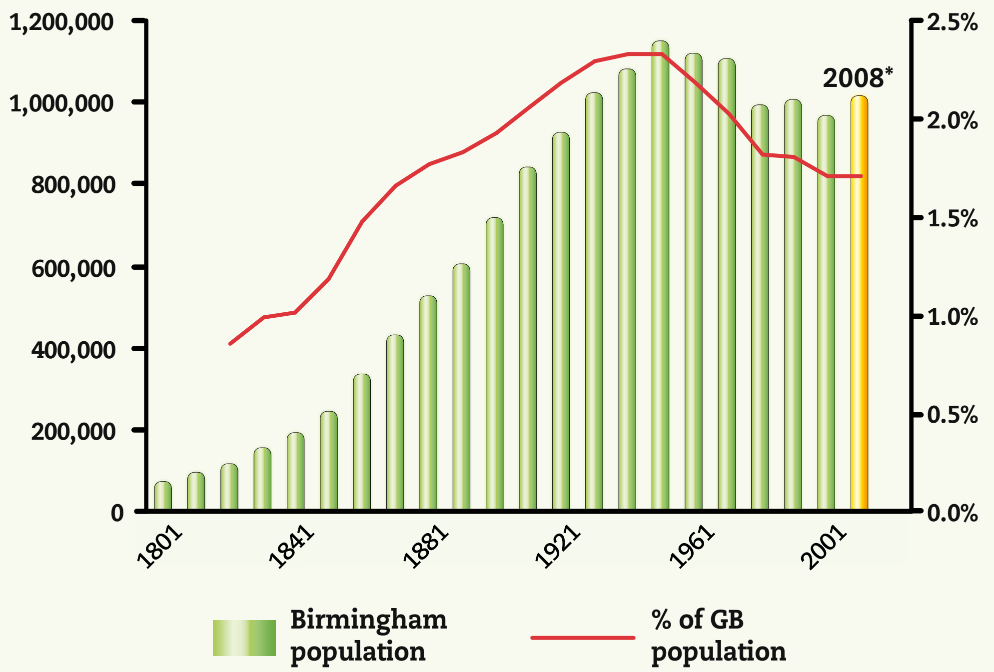


Figure 2: Birmingham's population (city core) 1801-2008

*2008 figure is a mid-year estimate
Source: ONS; Vision for Britain

The physical fabric has been transformed but economic growth has been weak

There has been a huge improvement in the physical fabric of the city centre over the last decade, although this renaissance has not spread to all of the surrounding suburbs. The city is scheduled to benefit from major new physical investments including the £600m regeneration of New Street station and the new £200m Library of Birmingham.

In the decade of national growth prior to the current recession, Birmingham saw a net fall in private sector employment (Figure 3).

The most important factor was the ongoing decline in manufacturing, which hit Birmingham harder than any other Core City and went far beyond the closure of MG Rover and its associated impact on the supply chain. The MAA area had 138,000 fewer manufacturing jobs in 2007 compared to 1998. This effect outweighed expansion in other parts of the private sector, including in business services, hotels and construction. A net increase in employment, modest compared to other Core Cities, was only achieved thanks to new jobs in education, health and, particularly in the city core, in public administration.[7] With public spending set to be squeezed, the city urgently needs to stimulate private sector growth.

7. Annual Business Inquiry, ONS

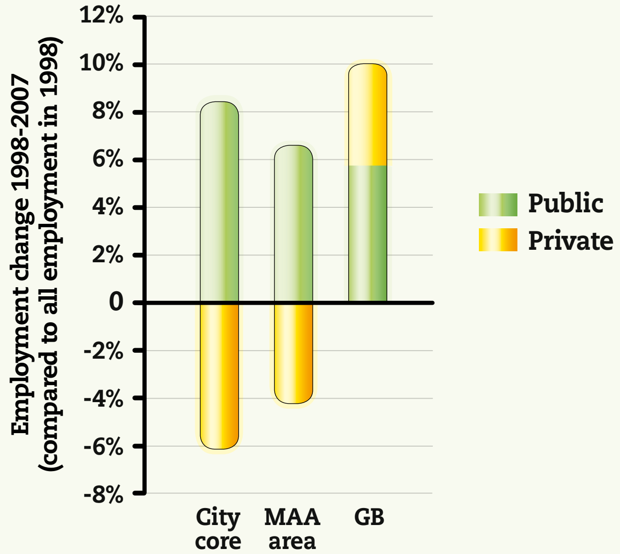


Figure 3: Employment change, 1998-2007

Source: Nomis, Annual Business Inquiry 2008

The recession has exposed some structural weaknesses

Birmingham has been affected more than most by the recession, with claimant count rates in the MAA area rising faster and to higher levels than in any other Core City. The broader ILO measure of unemployment shows a similar picture, with only Sheffield MAA area faring worse.

Table 1: Unemployment in Core Cities (MAA areas)

	JSA – Claimant Count			ILO – Broader measure		
	Feb-08	Oct-09	Change (%pt)	Apr 07-Mar 08	Apr 08-Mar 09	Change (%pt)
Birmingham city core	**4.4**	**7.4**	**+3.0**	**8.7**	**11.1**	**+2.4**
Birmingham MAA area	**4.1**	**7.1**	**+3.0**	**8.3**	**10.3**	**+2.0**
Sheffield	2.6	5.2	+2.6	5.6	9.1	+3.5
Manchester	2.7	5.1	+2.4	6.8	7.8	+1.0
Liverpool	4.0	6.2	+2.2	7.2	8.2	+1.0
Newcastle	3.4	5.5	+2.1	6.8	8.8	+2.0
Nottingham	2.5	4.6	+2.1	6.6	7.9	+1.2
Leeds	2.4	4.5	+2.1	5.3	6.9	+1.3
Bristol	1.4	3.0	+1.6	3.6	3.8	+0.2
Great Britain	2.2	4.1	+1.9	5.3	6.4	+1.1
Core City average	3.0	5.3	+2.3	6.5	8.1	+1.5

Source: Nomis, Claimant Count; Nomis, Annual Population Survey, 2009. Annual ILO measure is from April - March

A structural weakness in skills and a relatively high dependence on manufacturing have contributed to this poor performance. Centre for Cities research shows that cities with lower proportions of high-level skills have experienced larger increases in claimant count (Figure 4).

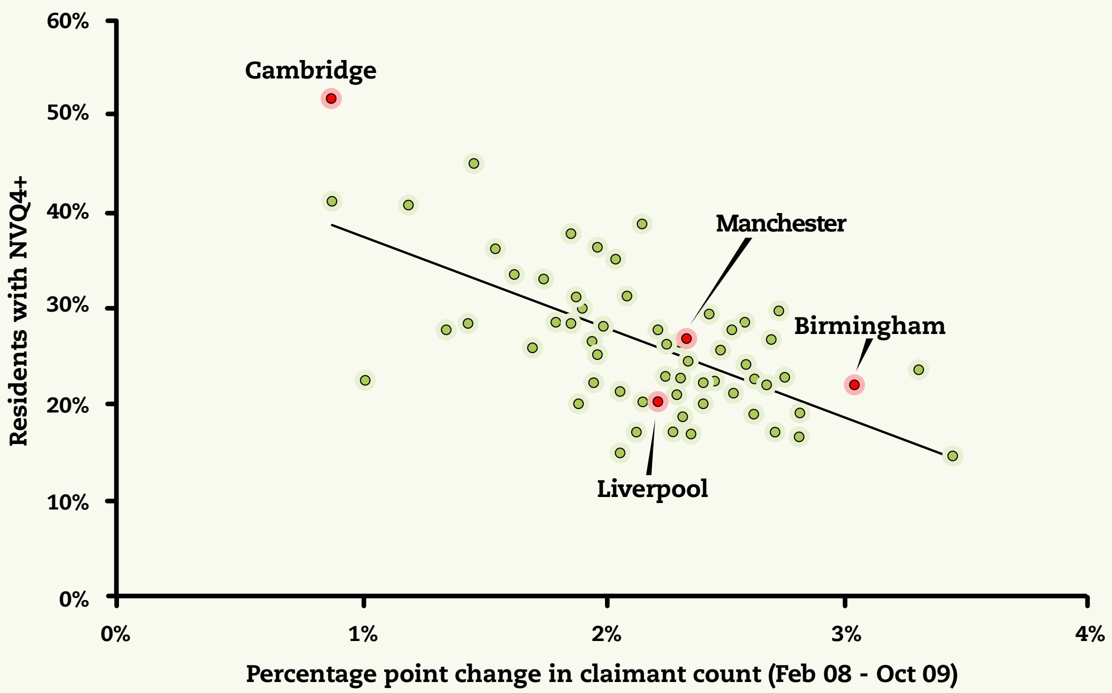


Figure 4: Skills and claimant count in British cities

Source: Nomis, Claimant Count. Data points represent 63 GB cities measured at Primary Urban Areas.

The jobs recovery will be sluggish

The short-term outlook for the UK remains highly uncertain.[8] Most economists expect a partial recovery in 2010, strengthening in 2011, but there is no consensus about how robust the return to growth will be. The Pre-Budget Report forecast growth of 3.5 percent in 2011, substantially higher than other independent analysts (Table 2). Recessions tend to be deeper and recoveries slower when they are associated with financial crises or international in nature[9] and the UK could yet suffer a protracted period of slow growth.

Recoveries in GDP typically run ahead of improvements in the labour market and there is a high likelihood of a jobless recovery, compounded in Birmingham's case by problems of worklessness and low skills. Current forecasts suggest it could be over a decade until Birmingham returns to the employment levels seen before the recession.[10]

8. Bank of England (2009) *Inflation Report* November 2009
9. IMF (2009) *World Economic Outlook. Crisis and Recovery*
10. Oxford Economics

	2009	2010	2011	2012
Pre-Budget Report	-4.75%	1-1.5%	3.5%	3.5%
Oxford Economics	-4.6%	0.8%	2.2%	3.1%

Table 2: GDP growth forecasts for the UK

Source: HM Treasury (2009) Pre-Budget Report: Securing the recovery: growth and opportunity

In the long-term there must be a shift towards private sector employment

A long period of sustained and generous public expenditure growth is coming to an end. Treasury ambitions to balance the current budget by 2017-18 will require a sharp and sustained squeeze of expenditure.[11] Birmingham's public sector is concentrated in areas less vulnerable to cuts,[12] but nevertheless it will not be a source of net new employment in the medium-term. Growth in the private sector is central to Birmingham's prosperity.

This has been recognised by the City Council's Chief Executive, Stephen Hughes, who recently said:

> *"Building buildings is important but equally we need to grow the city's economy by providing better support to business, attracting investment and stimulating innovation."*[13]

11. IFS (2009) *Britain's Fiscal Squeeze: the choices ahead* IFS Briefing Note BN87
12. Larkin K (2009) *Public Sector Cities* London: Centre for Cities
13. 'Birmingham needs another Clive Dutton' *Birmingham Post*, 6 November 2009

Lessons

- **The physical fabric of the city has been transformed**, but economic performance has lagged behind other core cities.
- **Employment growth in the last decade was concentrated in public sector services.** Future growth must come from the private sector.
- **The recession has hit Birmingham harder than other Core Cities.** Current forecasts suggest that it could be over a decade before employment returns to 2008 levels.

Growing a knowledge economy

The city is not at the forefront of the knowledge economy

The use of knowledge is becoming ever more important to the economic prosperity of individuals, cities and nations. As global incomes rise, expenditure is shifting towards higher value added goods and services, and investment towards the creation and exploitation of knowledge.[14] There will be other sources of growth, for example in personal service occupations, but those cities with stronger knowledge assets are better placed to perform well in the years ahead. While the growth of knowledge-intensive industries is by definition biased towards high skill employment, it will also create jobs for those with intermediate and lower-level skills.

Table 3 compares performance across three dimensions of the knowledge economy:

- **Knowledge Industries**. All economic activity is to some extent dependent on knowledge inputs like technology and human capital, but some use them more intensively than others. This specific measure records the proportion of the workforce employed in the sectors classified as knowledge-intensive by Eurostat.
- **Knowledge Workers**. This measures the proportion of residents with high-level skills, defined as NVQ4 qualifications or higher;
- **Knowledge Occupations**. This measures the proportion of the workforce in the most knowledge-intensive occupations (SOC codes 1-3);
- A **Knowledge Index** is calculated as an unweighted average across the three measures.

14. Brinkley I (2008) *The Knowledge Economy: How Knowledge is Reshaping the Economic Life of Nations* London: The Work Foundation

	Knowledge Industries (2007)	Knowledge Workers (2008)	Knowledge Occupations (2008-09)	Knowledge Index (GB=1)
London	51.8%	37.6%	55.4%	1.24
Bristol	48.6%	31.9%	48.0%	1.10
Nottingham	48.2%	28.3%	41.7%	1.02
Manchester	43.1%	25.1%	42.5%	0.95
Liverpool	46.3%	23.4%	40.8%	0.95
Leeds	42.9%	26.1%	40.3%	0.94
Tyne & Wear	44.5%	24.1%	38.3%	0.92
Birmingham	**42.6%**	**22.3%**	**41.9%**	**0.92**
Sheffield	41.9%	24.6%	38.3%	0.90
Great Britain	*43.8%*	*29.0%*	*43.5%*	*1.00*

Table 3: The Knowledge economy in England's Core Cities (MAA areas)

Source: Nomis, Annual Business Inquiry; Nomis, Annual Population Survey. Data for London is at regional level.

The importance of small differences in percentages should not be exaggerated. However, it is clear that Birmingham city region is someway behind London, Bristol, Nottingham and the GB average, and in a similar position to the other five Core Cities.

The city core outperforms the MAA area on all three metrics, more significantly in terms of industries (48.4 percent) and occupations (45.5 percent) – which refer to those employed in the area – than in terms of skills (23.5 percent) – which relates to residents. This pattern is found in all Core Cities in relation to their city regions and results from the productivity benefits that knowledge-intensive industries and occupations tend to gain from locating in city centres.

Birmingham MAA area has the lowest proportion of high-level skills in its working age population of all Core Cities. It has also seen the smallest increase in this share since 1995. A lesson from our recent work with Liverpool is that high skilled workers are highly mobile and that employment demand is the most important factor in where they locate. At the moment, it is more important for Birmingham to focus on boosting demand for high skill workers than on graduate retention.

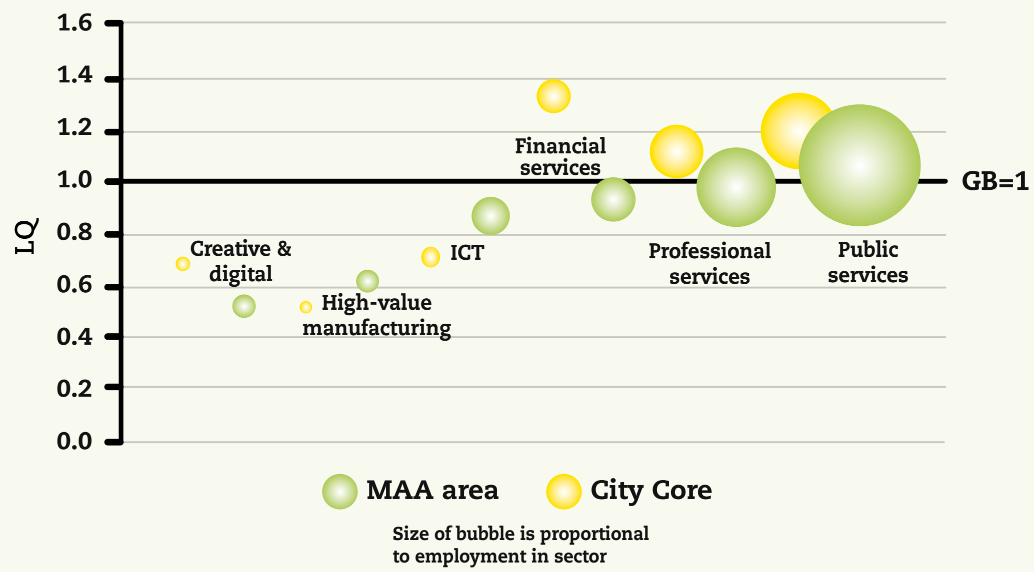


Figure 5: Birmingham's position in knowledge-intensive industries

Source: Nomis, Annual Business Inquiry, using OECD/Eurostat definition of knowledge-intensive industries.

Figure 5 displays the size and relative strength of six knowledge-intensive sectors in Birmingham city core and in the MAA area. The number of people working in each sector is illustrated by the size of each bubble, while relative strength is shown by the bubble's position on the vertical axis. Relative strength is measured by a location quotient (LQ), which compares the sector's share of local employment to its share of national employment. For example, Birmingham city core has an LQ of 0.71 in knowledge-intensive parts of the ICT sector: this means that the sector's share of local employment is 71 percent of its share in national employment.

15. Webber C & Larkin K. (2009) *Growing by Degrees? High skilled workers in Liverpool* London: Centre for Cities

A number of messages emerge from the data:

- Knowledge-intensive parts of the public sector predominate, accounting for 55 percent of the city core's employment in knowledge industries and 56 percent in the MAA area. This proportion is lower than in three Core Cities – Tyne & Wear, Liverpool and Sheffield – but five percentage points above the national average. This reinforces the imperative for Birmingham to generate growth in the private sector.

- Parts of the financial services, particularly retail banking and insurance, are well represented in the city core, as are professional services such as legal services, technical consultancy and recruitment.

- High-value manufacturing is relatively weak, a striking finding given Birmingham's historical legacy. Some caution must be exercised in interpreting this as the 'high-value' classification is based on narrow SIC codes representing less than two percent of Britain's (and one percent of Birmingham's) manufacturing employment.

- The creative and digital industries are small in both relative and absolute terms. The sector employs fewer than 7,000 people in the city core, less than two percent of all employment and fewer than are currently employed in the automotive sector.

Birmingham's universities are major assets

The universities in the Birmingham MAA area are important economic assets and a source of comparative strength (Table 4). Birmingham has more research students than any other Core City and receives more research funding than all bar Manchester.[16] The results of the most recent Research Assessment Exercise show that only Nottingham has more departments where 75 percent or more of activity was rated as three or four star. 'STEM' subjects – science, technology, engineering and maths – are seen as particularly important for high-value economic activity and six departments in the Birmingham MAA area achieve three or four stars. In addition, the University of Birmingham has been selected to host the national higher education STEM programme.

In light of Coventry's recent decision to leave the city region partnership, it is worth emphasising the importance of the University of Warwick. It alone accounts for 36 percent of university research funding in the MAA and seven of the thirteen outstanding departments.

A strong connection between the science base and the city economy is an important driver of local economic development. Operating on a regional level, this agenda is pursued by Birmingham Science City, designated in 2005 as one of six Science Cities in the UK.

16. Birmingham MAA area encompasses the Universities of Aston, Birmingham, Birmingham City, Wolverhampton, Coventry and Warwick, plus University College Birmingham and Newman University College.

In 2008, Centre for Cities reported that Science City was having positive catalytic effects in Birmingham, particularly around partnership working, though there was room for improving the City Council's engagement and simplifying business support initiatives.[17] Our interviews suggested that the City Council has begun to play a more important role, but that there are still opportunities to align it more fully to other initiatives, for example with the city marketing strategy.

Birmingham Science City has five priority sectors: Advanced Materials; Digital Media; Energy; Transport Technologies; and Medical Technology and Healthcare, the latter of which is an area of particular strength. In light of the evidence on knowledge-industries, Science City should consider whether large investments in digital media are justified or whether resources could be more productively reprioritised to areas of greater importance to the city and regional economy.

17. Webber C (2008) *Innovation, science and the city* London: Centre for Cities
18. Centre for Urban and Regional Studies (2009) *Capturing the Potential of the Knowledge-Based Economy for Birmingham.* A report for Birmingham City Council

Table 4: University strengths in the Core Cities (MAA areas)

	Research Students	Research Funding (£m)	Departments with 75% of activity at 3* and 4*: All	Departments with 75% of activity at 3* and 4*: Stem Subjects
Birmingham	**32,690**	**90.0**	**13**	**6**
Leeds	24,090	86.6	11	5
Manchester	21,045	97.4	3	2
Bristol	17,595	75.3	12	8
Sheffield	14,340	50.3	4	2
Tyne & Wear	14,080	41.6	10	6
Nottingham	12,720	55.2	14	8
Liverpool	8,895	44.0	5	3

Source: HESA Students in Higher Education Institutions (2007/08); HEFCE Recurrent grants for 2008-09; Research Assessment Exercise 2008; The Times Good University Guide 2010.

Science City's agenda is important for Birmingham. Methods to deepen the links between universities and the city economy should not be solely considered at the institutional level. There are factors at the individual level too – academics need encouragement, help and incentives to develop the commercial potential of their work.

Moreover high skilled workers tend to be more mobile and will only remain in the city if there is a good quality of life offer around housing, education, health, transport, crime and security, as well as sufficient financial rewards.[18] Importantly, higher wages mean a willingness to commute further distances and an increased demand for larger houses and high quality neighbourhoods. Delivering a good quality of life offer for high skill workers therefore has policy implications for the whole city region, not least to ensure that the type and location of housing is responsive to demand.

The city needs new sources of private sector growth

In the current environment, Birmingham is only likely to increase growth and employment by generating additional private sector business activity. Policies to achieve this objective can act through increasing the rate of new business formation, helping existing firms to grow or by attracting inward investment.

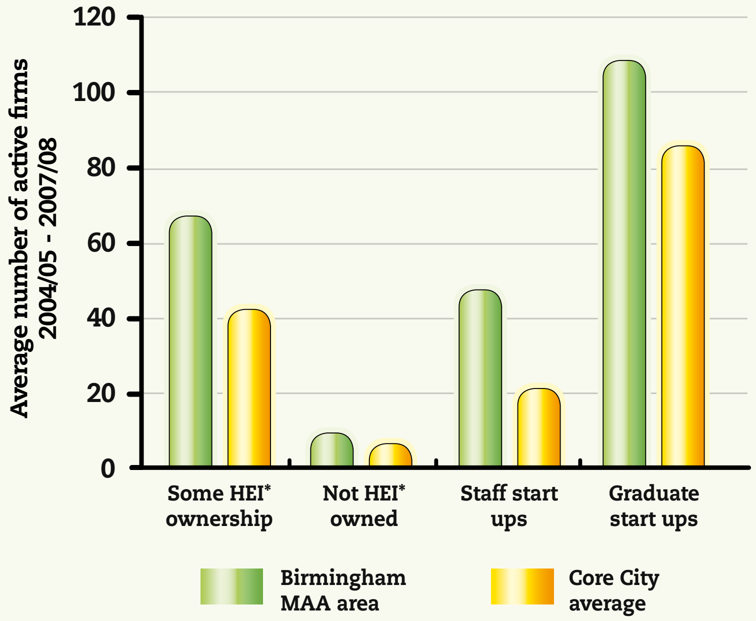


Figure 6:
University spin outs in Birmingham MAA area

*HEI refers to Higher Education Institutions
Source: Higher education-business and community interaction survey 2007-08

These are long-term endeavours, in which the city is already active. The current fiscal environment makes it even more important that new policies, some of which are discussed below, demonstrate added value.

Focussing entrepreneurship policy on high-value sectors and high skilled workers

Universities are a natural focus for encouraging start-ups based on new knowledge. Our research (Figure 6) shows that universities in the Birmingham MAA area have been more successful than the Core City average in spinning-out new firms from research.

Drilling further into the data shows different strengths across universities. Warwick and Birmingham generate two-thirds of spin-outs which retain university ownership, while Wolverhampton and Birmingham City account for 80 percent of graduate start-ups. The city should explore, through Science City, whether there are any transferable lessons to improve performance across the board.

They could also consider approaches used in other cities (Figure 7), which include focusing on ways of fostering knowledge exchange and linkages in a more dispersed way.

Approaches to knowledge-transfer

Professors of Practice at the University of Newcastle
Newcastle's Science City initiative has used staff to improve its knowledge transfer capabilities. They have implemented a policy of 'Professors of Practice', hiring academics with business experience. While these individuals undertake research activities, part of their time is also dedicated to looking at the research across the department and picking out ideas that could produce a successful spinout.

Derby's knowledge transfer consultants
The University of Derby has introduced consultants to its knowledge transfer team. Individuals' remuneration is based on their success in going out to the city and generating business. Birmingham could look at how its incentive structures could increase the success of its knowledge transfer activities.

Civic Universities
Universities can play a wider 'civic' role, operating as a unique space for the exchange of ideas that bring together different parts of the innovation process through public meetings, seminars, conferences and networking.[19] The value of this role has been emphasised by recent research around innovation networks.[20] These roles are not exclusive to universities. The revival of Birmingham's Lunar Society is an excellent example of a forum for the discussion of new ideas.

Chairs of public understanding
Chairs of public understanding can provide an important route for communicating the implications of science and new research. For example Richard Dawkins is a high profile chair of public understanding of science at Oxford University. This kind of appointment might be particularly relevant for the transition to a low carbon economy, which has implications for all parts of the economy.

Figure 7:
Approaches to knowledge-transfer

Enterprise policy has often focused on encouraging start-ups among low-income neighbourhoods or unemployed and low skill groups. While recognising that such a policy often has social, as well as economic goals, these policies have not been very effective in generating start-ups, with new firms tending to be in low value sectors where there is a higher probability of displacing existing businesses.[21]

Promoting firm formation in high value sectors requires a stronger emphasis on the existing knowledge workforce. However, in general this group faces fewer barriers in setting up a new enterprise, and there is a greater risk of deadweight in public expenditure. The City Council's Business, Enterprise, Innovation and Investment committee should work with a group such as Birmingham Future to identify whether there are any barriers that hold back this kind of entrepreneurship in Birmingham and what action can help to overcome them. An examination of how cities can foster enterprise will form part of Centre for Cities' Agenda for Growth research programme in 2010.

19. Goddard J (2009) *Re-inventing the civic university* Nesta Provocation 12
20. Aston Business School (2009) *Innovation, Trade and Connectivity* Report for the Manchester Independent Economic Review
21. Greene F, Mole K & Storey D (2004) 'Does More Mean Less? Three decades of Enterprise Policy in the Tees Valley' *Urban Studies* 41 (7): 1207-1228

Growing existing firms through delivering on business needs

Existing firms can be an important source of future growth. Notwithstanding the availability of finance, over which cities have little influence, the most direct lever to facilitate the expansion of successful local firms is ensuring that the land use planning system is responsive to the demand for suitable premises.

In current economic conditions, the supply of commercial space is unlikely to be a problem, but in the longer term, this may become a more important issue, with difficult trade-offs across the city region partnership. Market-led growth will not naturally result in an even spread of knowledge-intensive sectors, since firms tend to naturally cluster in those areas providing the best conditions for growth.

For some knowledge-intensive firms, these conditions will be served by the Central Technology Belt, which provides high-quality sites and incubator space, as well as assistance on intellectual property protection and funding issues. Other firms may benefit more from city centre locations – ultimately, market signals such as land prices and rents are the best indicator of which locations are most productive.

The city region partnership's ambitions for 'balanced growth' implies giving less weight to market signals, which risks constraining the ability of firms to locate or expand in high-demand areas and inducing them to locate elsewhere.[22] This reinforces the need for effective governance that provides a means of prioritising resources rather than 'jam-spreading'.

Innovation is fundamental to both firm productivity and to growth in modern economies, but it is not something that can be easily imposed from above. Most of the powers and resources for directly influencing innovation currently lie with Advantage West Midlands and the fragmentation of existing services has been noted in a previous Centre for Cities report,[23] so it does not make sense to introduce additional layers of activity at the moment.

22. City Region of Birmingham, Coventry and the Black Country (2008) *Multi Area Agreement for Employment and Skills.*
23. Webber C (2008) *Innovation, science and the city* London: Centre for Cities

However, within the next six months there may be a new government committed to the abolition of Regional Spatial Strategies, major reform of RDAs and the introduction of local enterprise partnerships and elected mayors. The city should prepare for the possible implications, together with its city regional and regional partners. All successful businesses develop clear scenario plans and Birmingham should too. Plans should identify which business and innovation support policies should be retained, and at which level.

Several key regional functions could be appropriately implemented at a city region level, where they would align better with real economic geographies. Commuting data – and a look at the map – suggests that the current MAA area is not the ideal city region configuration. Birmingham's strongest links are with, in order, Solihull, Sandwell, Walsall and Dudley, all of which are within the MAA area. However, three local authorities outside the MAA – Bromsgrove, Lichfield and Tamworth – send more commuters to Birmingham than either Coventry or Wolverhampton, and a further nine LAs have stronger links to the city core than do Telford & Wrekin.[24] A better understanding of commuting and trade linkages should be an explicit part of Birmingham's local economic assessment.

Effective cross-boundary co-operation is about politics too, as illustrated by Coventry's recent decision to leave the city region partnership and also by the protracted negotiations over the partnership's official title. A lack of progress in establishing a common purpose may have been one factor contributing to the failure to win city region pilot status alongside Manchester and Leeds.

Manchester, and to a lesser extent Leeds, have shown that working more closely across boundaries brings political as well as economic benefits. As one of the UK's biggest economic centres outside of London, Birmingham and its city regional partners should be able to wield greater influence with central government. In return for demonstrating effective city regional plans, they should identify the additional powers, resources or freedoms that they want from the next Government.

24. Based on 2001 Census data.

Better execution of the inward investment strategy

The factors affecting investment decisions can vary from firm to firm, though those most commonly cited include access to markets, availability of high-quality staff, the quality of ICT infrastructure and transport links[25] – in fact the very same factors that promote productivity and investment amongst indigenous firms.

There is one further issue that appears to act as a real constraint on new inward investment in Birmingham, namely the effectiveness of marketing and brand management. This is a long standing problem that was referred to time and again in our interviews.[26] Recent survey evidence reinforces this perception, indicating that just 25 percent of European business people were familiar with the city as a place to do business.[27] Although marketing is only one element of making a city attractive for business, getting it right could both unlock private investment and help the city punch its weight in national debates and in negotiations with Whitehall.

Birmingham's marketing lacks coherence, both in message and in delivery. Successful city brands must be built on real assets but should also be attractive and resonant. The oft-repeated fact that Birmingham City Council is the largest local authority in Europe is true, but not a compelling reason to locate there. The city has many assets it can build a powerful message around, including its science base, diverse population, central location, cultural offer and environmental ambitions. The city's leadership must find a way to marry these together in a coherent narrative.

25. Cushman & Wakefield (2009) *European Cities Monitor*, 2009
26. 'Birmingham failing to market itself well, says former regeneration chief', *Birmingham Post*, 29 September 2009
27. Cushman & Wakefield (2009) *European Cities Monitor*, 2009

Business Ambassadors

The idea behind business ambassadors is to make use of the energy and enthusiasm of the private sector. Such schemes can work in different ways:

UKTI recently announced it would work with selected business and university leaders to promote the UK's excellence internationally and highlight trade and investment opportunities on specific trade 'missions'.

Alternative versions operating in Greater Philidelphia and Catalonia invite all business people working in the city to promote it amongst their networks on an ongoing basis. The economic development agencies provide information on business developments but also, as a reward, opportunities linked to major cultural and sporting events. A scheme run by the New South Wales government is focused at Sydneysiders who now live overseas. Birmingham could consider a similar system for Birmingham people who now live in London.

While less targeted on the attraction of specific major investments, these schemes can promote a greater sense of ownership of the city's economic development amongst the workforce.

In recent years, Birmingham has retained two marketing bodies: *Marketing Birmingham*, which is private sector led but largely publicly funded and focused on the visitor economy; and *Locate in Birmingham*, whose remit is inward investment and is part of the City Council structure. An imminent shake-up will move the two bodies into the same offices, a move that is very much to be welcomed.

Progress towards a full merger should be accelerated, as a single structure can provide leadership, deliver greater coherence and offer opportunities to better align resources to the shape of the whole economy. At present *Marketing Birmingham*, whose remit covers approximately 10 percent of the city economy, has a budget of approximately £8m, while *Locate in Birmingham* covers the rest with around £1m.

The new body should also make greater efforts to leverage the resources of all the different parties with an interest in selling Birmingham – including business organisations and universities. A good start has been made in creating a cadre of 'business ambassadors' to help sell Birmingham to new business investors, but their energy and enthusiasm could be used more systematically. Given the importance of science and knowledge in economic growth, the city could also consider extending the concept to key university professors, inviting them to act as science ambassadors to promote the city's knowledge and research strengths. In addition to promoting inward investment, these arrangements can help to engage them in the city's economic development and build important long-term partnerships between universities, business and local leaders.

The university base is one of Birmingham's strongest assets

Lessons

- **Birmingham's knowledge-intensive industries, in common with the wider economy, have been over-reliant on public sector employment.** Growing the private sector is the most pressing economic objective.
- **The university base is one of Birmingham's strongest assets.** Further efforts should be made to deepen its links with the local economy.
- **A new government may make important changes to sub-national structures.** The city should start to prepare scenario plans including, for example, which local authorities would constitute a Local Enterprise Partnership.
- **Birmingham's marketing message has lacked clarity.** The city should merge its marketing organisations and deepen its involvement with business and university leaders.

Comparative advantage in a low carbon economy

The transition to a low carbon economy will accelerate structural change in Birmingham and throughout the UK – creating new markets, driving innovation across many sectors and threatening the survival of carbon-intensive firms and industries. Although there will be many opportunities for high-technology companies, it is important to recognise that not all of the new jobs created will be knowledge-intensive.

Reducing local emissions won't guarantee growth in low carbon industries

Birmingham City Council's recent 'Declaration on Climate Change' underscores its radical ambitions, setting out actions to make progress towards their target of a 60 percent cut in carbon emissions by 2026.[28] Achieving the 2026 target will require reducing emissions by 4.1 percent every year; this is significantly more stretching than the UK-wide target, which requires annual reductions of 2.5 percent.[29]

In theory, dramatic action to curb local emissions could enable the city's firms to build up expertise and provide them with competitive advantage in other markets. The role of regulation in securing this kind of 'first mover advantage' has been cited as encouraging the development of a low carbon vehicle industry in California and a strong offshore wind industry in Germany.[30]

This argument should not be used as a reason of itself for Birmingham to pursue a radical carbon reduction strategy. A large number of cities and regions around the world are seeking to develop low carbon clusters based on first-mover advantage, but only a limited number can be successful. Past experience suggests that for every example of specific clusters being successfully fostered by public policy, there are numerous counter-examples.[31]

This does not mean that Birmingham should not prioritise tackling climate change or that it cannot benefit from low carbon growth, but rather that expectations about its potential to spark a radical transformation in economic fortunes should be realistic.

28. Accessed from www.birminghamnewsroom.com

29. UK trajectory based on Committee on Climate Change interim budgets to 2022

23. Global Climate Network (2009) *Creating Opportunity. Low carbon jobs in an interconnected world*

31. Overman H, Gibbons S & Tucci A (2009) *The case for agglomeration economies* Report for the Manchester Independent Economic Review

Making the most of building a low carbon city

The city's climate change strategy sets out a range of actions, including the adaptation of the housing stock and commercial buildings, which account for 33 and 46 percent of the city's carbon emissions respectively.[32] In the longer-term, a key urban challenge will be developing new infrastructure for low carbon transport.[33]

The Conservative Party has proposed that homeowners will be able to access up to £6,500 to undertake energy efficiency improvements. Whether new investment ultimately comes from the private or public sector, it will create employment at a time when the economy is likely to still be in need of jobs.

Based on similar estimates made for London, retrofitting residential buildings might create six hundred jobs in the Birmingham City Council area. In the main, these will not be knowledge-intensive jobs, but the city should establish exactly what specific skills are necessary to carry out this work and then work with local colleges so that local residents are able to benefit from these opportunities. The City Council should also consider whether it can take any direct action after it assumes responsibility for 14-19 skills provision in 2010.

The city's understanding of the necessary skill requirements will improve as retrofitting is rolled out and may change as new technologies and processes are adopted. Skills provision should be updated and adapted as the city learns from its pilot projects.

Pilot projects in Birmingham to build a low carbon city

Birmingham City Council is in the process of planning or rolling out pilot projects in different low carbon infrastructure strands, including:

- District Energy Networks – the City Council has been at the forefront of developing gas-fired combined heat and power (CHP) projects that provide electricity and heat to local neighbourhoods;
- The CABLED low carbon vehicle demonstration, in conjunction with Coventry City Council;
- Retrofitting of residential housing, which poses particular challenges due to the prevalence of solid wall insulation;
- Replacement of the city's street lighting, using low-energy lighting;
- Small-scale biomass plants to enable extraction of energy from the city's waste.

The city has a large procurement budget that can help promote innovative solutions to technological challenges, for example in the provision of low-energy street lighting and solid wall insulation, or the development of smart grids. There is no guarantee that these solutions will be developed by local firms or universities and the city should not be tempted to go down a 'buy local' route in order to promote their growth.

32. Be Birmingham (2008) *Cutting C02 Strategic Framework*
33. Committee on Climate Change (2009) *Meeting carbon budgets – the need for a step change* TSO
34. Ernst and Young (2009) *Prospectus for London, the Low carbon Capital* Report for the LDA and GLA. Estimates for Birmingham based on population ratios.

There is a high level of uncertainty about the future path of low carbon technology and about how effectively it can be implemented in cities. There could be real benefits from shortening the feedback loop between the city council's delivery of low carbon policies, research activity in local universities and the development of commercial solutions. Strengthening the connection between innovation and implementation will benefit public policy, but could also help direct research towards solutions with commercial application. Existing partnership arrangements within the local strategic partnership and Science City provide the mechanisms to take this forward, and the City Council should consider the best way to give the process sufficient momentum. One option would be to include it within the brief of the city's next Director of Regeneration.

The city region has some strengths in low carbon industries

Using a wide definition, the market value for low carbon and environmental goods and services is estimated at over £100 billion in the UK and some £3 trillion globally.[35] Estimates available at regional level show the West Midlands with particular strengths in alternative fuels for vehicles, in photovoltaic cells and in energy management (Figure 8), and above average shares of the UK market in wind and biomass.

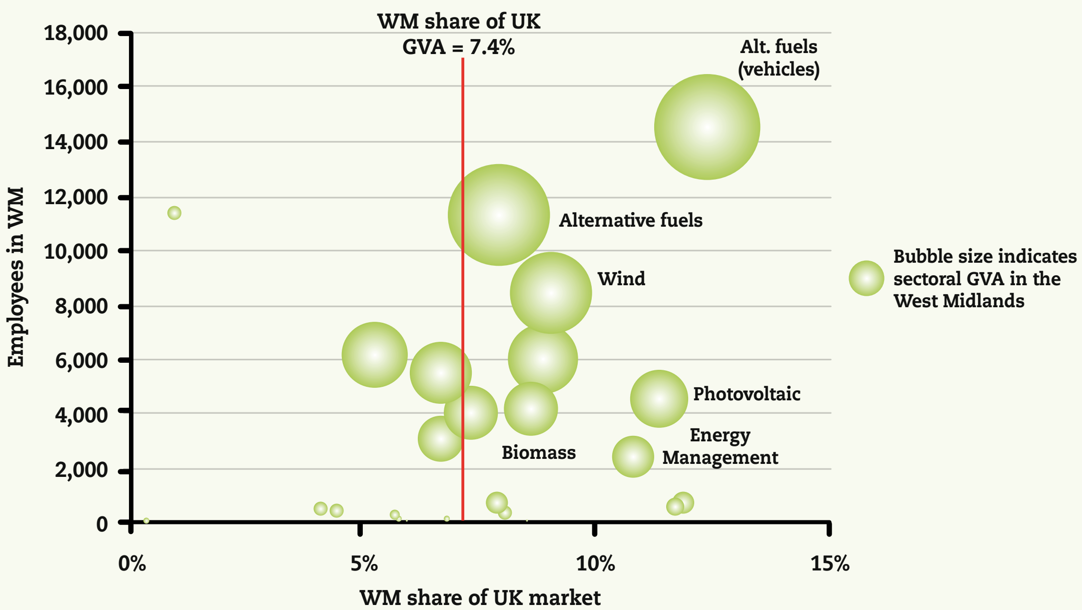


Figure 8: Low Carbon and Environmental Industries in the West Midlands

Source: Innovas (2009)

Birmingham's universities have relevant research expertise, including in: nuclear technology and hydrogen fuel cells (University of Birmingham); bio-energy (Aston University), energy generation and energy efficiency (University of Warwick).[36]

Growth in the future is most likely where Birmingham already has some commercial or academic expertise, but it cannot be taken for granted. It will also depend upon the same building blocks of success that support other high-value technology sectors. Simplifying access to the research base, providing quality transport infrastructure and appropriate premises will provide a good environment for these firms and for others across the whole economy.

35. Innovas (2009) *Low carbon and Environmental Goods and Services: an industry analysis* BERR
36. Centre for Urban and Regional Studies (2009) *Capturing the potential of the knowledge-based economy for Birmingham* Report for Birmingham City Council

The auto industry may be vulnerable to further job losses

The transition to a low carbon economy presents serious challenges to the more carbon-intensive sectors. One of the most important for Birmingham is the automotive industry. An industry which provided over 50,000 jobs in 1951 employs less than 9,000 today (20,000 in the MAA area).[37] However, the share of auto employment in the city core remains three times the national average, and stronger still in Solihull and Coventry.

Profound change is occurring in the sector as a whole, with electric and plug-in hybrid cars expected to form up to 16 percent of all new cars sold within 10 years.[38] It is by no means certain that the dominant firms today will be the leading manufacturers of electric cars in the future. The changes to design and manufacture will extend throughout the supply chain, as recently noted by The Economist: *"once the engine block and gearbox are gone, the game of car design changes"*.[39] Nascent centres of low carbon vehicle activity are emerging, particularly around Coventry. These include Lichfield's Zytek, who have installed drive trains for electric vehicles; Coventry-based Modec, who produce low emission commercial vehicles; Tata Motors' R&D centre in Warwick; and the new Manufacturing Technology Centre in Coventry.

Automotive firms will need to adapt to survive and some will fail. The whole automotive sector remains vulnerable to job losses, with significant over-capacity remaining in the European car market. There are opportunities to learn from the Advantage West Midlands' role in co-ordinating the response to the decline of MG Rover, in partnership with Birmingham City Council. This may be relevant for helping firms and employees to adapt in other carbon-intensive industries.

As part of their scenario planning, Birmingham should consider how to ensure that changes to sub-national responsibilities do not jeopardise the strong relationships established with the automotive industry and the lessons learnt.

37. StephensW B (1964) 'Economic and Social History: Industry and Trade, 1880-1960' *A History of the County of Warwick: Volume 7: The City of Birmingham* pp. 140-208

38. Committee on Climate Change (2009) *Meeting carbon budgets – the need for a step change* TSO

39. 'The electric-fuel-trade acid test' *The Economist*, 3 September 2009

Lessons

- **Reducing carbon emissions in Birmingham will not necessarily promote the growth of a low carbon technology sector.** Low carbon technology firms require the same building blocks for growth as other high-value firms.

- **Retrofitting residential housing will provide employment opportunities.** The City Council should establish exactly what skills are required and commission appropriate skills provision.

- **The university base should be harnessed in the city's low carbon transformation.** Developing a stronger connection between research and implementation would improve the city's strategy and might deliver commercial products and expertise.

- **The auto industry is entering a period of further radical change as it shifts towards low carbon technology.** As part of their scenario planning, the City Council should consider how to ensure the lessons learnt from MG Rover are retained.

The future of business services

Business services are an important part of the city's economy

Business services have been a success story for the British economy. Employment and productivity have increased in tandem, earnings are above average and a considerable trade surplus has been sustained.[40]

This diverse sector is an important part of Birmingham's economy, accounting for 15 percent of all employment in the city core, around the same as the national average (Table 5). This is an underestimate if the sector is considered more broadly as "services that are provided by business for business",[41] since it largely excludes the city's major presence in business conference facilities. Table 5 shows the sub-sectors that support the most jobs in Birmingham, and records the location quotient (LQ), a measure of relative strength.

40. Earnings data from Annual Survey of Hours and Earnings, based on SIC (2007) L, M and N. Trade data from ONS Pink Book, 2009. Business services account for 26 percent of UK exports, with a trade surplus of £20.3 bn.
41. The statistical definition is activities falling in SIC (2003) divisions 72, 73 and 74

	City core		MAA area	
Sub-sector	**Jobs**	**LQ**	**Jobs**	**LQ**
Labour recruitment	17,900	1.2	49,200	1.3
Legal activities	9,300	1.7	13,400	0.9
Technical consultancy	7,500	1.1	14,600	1.1
Accounting & auditing	6,600	1.6	10,600	1.0
Industrial cleaning	6,000	0.7	20,000	0.9
Other software consultancy	5,000	0.8	16,400	1.0
Business consultancy	4,400	0.8	8,600	0.6
Security activities	2,700	0.9	8,200	1.0
Advertising	1,500	1.0	2,600	0.6
Other	11,600	-	38,300	-
All business services	72,300	1.0	181,900	0.9

Table 5: Business service sub-sectors in Birmingham, by size (2007)

Source: Nomis, Annual Business Inquiry. Data rounded to nearest hundred.

The legal industry is heavily concentrated in the city core, where it employs a larger workforce than either the automotive or creative industry sectors. Some further details about the industry are presented in Figure 9.

Birmingham's legal industry

Figure 9: Birmingham's legal industry

Birmingham is the home of a strong legal industry, hosting offices of most of the UK's largest legal firms. Excluding London, the city core is the country's 2nd largest legal centre, while measured at MAA level, employment is roughly on a par with Leeds, and behind only London and Manchester.

The sector is highly diverse in nature, both in size and in the geographical location of clients that it serves. Birmingham is perceived as a regional centre for operations throughout the West and East Midlands, but the sector also serves clients based in London and overseas. Firms with national and international connections tend to be located in the central legal district in and around Brindley Place and Colmore Row, with smaller locally-focussed legal firms dispersed throughout the city and city region.

Impacts of the recession

There have been three main effects of the recession on the legal sector in Birmingham:

- Almost every firm has had to reduce staff, with some firms onto a third round of redundancies.
- Most firms have evolved flexible working arrangements in an attempt to hold onto skilled staff. This has included mini-sabbaticals and moving to a four-day week. Because many firms are operating below capacity, it is likely that increase in employment will lag behind any pick up in business.
- Re-skilling and switching of employees between work areas. The impact has been much more severe in some areas of business, such as property-related work, than in others, such as public sector or insolvency work. Some larger firms have been able to move employee resources between areas of business.

Source: Based on interviews undertaken by Centre for Cities in August-October 2009.

The sector's evolution will continue to be driven by improvements in ICT

The recent evolution and growth of the business service sector is largely a result of the rapid fall in the cost of communications and a subsequent rise in the capacity to co-ordinate interactions between firms.[42] This has enabled firms to restructure their supply chains by outsourcing corporate functions such as HR or legal services to specialist firms and then buying them in, rather than producing them in-house.[43] One consequence has been to exaggerate the shift of employment away from manufacturing, as jobs are outsourced to firms falling within the service sector.

This trend is likely to continue as communication technologies improve and are more widely adopted. As supply chains are broken up, the location of jobs will be increasingly specialised according to the competitive and comparative advantage of nations and cities.

42. McKinsey (1997) 'A Revolution in Interaction' *McKinsey Quarterly* February 1997
43. Sako M (2006) 'Outsourcing and Offshoring: Implications for Productivity of Business Services' *Oxford Review of Economic Policy* 22 (4)

Although future developments are uncertain, this process seems most likely to present international opportunities for the UK and Birmingham in their established strengths in the non-production elements of the supply chain, including business services. A squeeze on costs induced by the recession may tempt firms that are drawn to the UK to locate outside London, offering real opportunities for Birmingham. These same pressures may also lead to a partial relocation of civil service staff out of London.

The prospects for inward investment will be enhanced by a clearer strategy for marketing the city. Professional and business services are already earmarked as a priority sector by *Locate in Birmingham* and should remain a focus in the city's new marketing arrangements. They will also be an important source of business ambassadors.

At the moment, it seems difficult to justify any further policy interventions to specifically support the business service sector, which instead will be best served by a broad economic development strategy that upgrades the city's human and physical assets.

Innovation is important in business services

Although often overlooked, innovation is an important way for business service firms to build competitive advantage, either from moving into higher-value added segments that require expert advice or by generating efficiencies through better use of ICT to standardise services.[44]

The low carbon transition presents new opportunities for business services, perhaps through developing new sources of expertise in environmental regulation or design. Fostering a stronger link between professional services and the low carbon technology sector could also stimulate growth in the latter, where pioneering firms at the cutting edge need professional advice to help develop, commercialise and protect their research.

Many young professionals are passionate about Birmingham and about tackling climate change – Birmingham Future could explore with its members whether there are opportunities for arranging network events with the city's low carbon technology firms.

Lessons

- **Business services are an important part of the Birmingham economy, particularly in the city core.** The sector will benefit from economy-wide improvements to housing, planning and skills.

- **The city is right to identify the sector as an opportunity to attract inward investment.** With an improved marketing message, there are opportunities for attracting investment.

44. Sako M (2006) 'Outsourcing and Offshoring: Implications for Productivity of Business Services' *Oxford Review of Economic Policy* 22 (4)

Recommendations

The creation of new high-value private sector jobs is essential for Birmingham's future prosperity

- **Focus on private sector growth in high value sectors**
  After a decade in which employment growth was driven by the public sector, the creation of new high-value private sector jobs is essential for Birmingham's future prosperity.

  The research strength of local universities is a major asset that can play a bigger role in creating new high-value enterprises and growing existing businesses. Although the universities already perform well in terms of spin-outs, there remains room for improving knowledge exchange by exploring transferable lessons from across the MAA area and beyond.

- **Scenario planning for a new government**
  Birmingham should develop clear scenario plans for economic policy in the event of a change of government. This should include: clarifying who would be part of a future Local Enterprise Partnership; prioritising AWM policies relating to Birmingham; planning for protecting policy expertise and knowledge; and identification of policy asks for a new government. A better understanding of the city's economic footprint should be an explicit part of the local economic assessment.

- **Overhaul the city's marketing effort**
  Co-locating Birmingham's two marketing bodies is a major step forward and should be followed in due course by a full merger, to provide clearer leadership, and greater coherence across the brand management strategy. This will be important in attracting new business service jobs to Birmingham. The new body should also make greater efforts to leverage the skills and resources of the different groups who share an interest in promoting Birmingham's prosperity.

- **Maximise the economic benefits of building a low carbon city**
  Radical action to tackle climate change will not transform Birmingham's economic performance by itself, but the city can take some practical steps to maximise the economic benefits.

  Birmingham City Council should take steps to join up the practical process of building a low carbon city with cutting edge research into low carbon technologies. They should also establish the skills required for retrofitting residential buildings and ensure that the right training is provided for local residents.

  Many young professionals are passionate about Birmingham and about tackling climate change and there could be opportunities for increasing the exposure between low carbon technology firms and the city's professional service sector.

Birmingham MAA profile

Total population (2008)	2,781,600	
Population growth (1998-2008)	42,100	
Working age population (2008)	1,708,200	
Total jobs (2007)	1,257,500	
Jobs Growth (1998-2007)	30,800	
Employment rate (March 2009)	65.7%	
Economically active (March 2009)	73.3%	
Inactive seeking a job (March 2009)	5.4%	
Inactive not seeking a job (March 2009)	21.3%	
JSA claimant count (October 2009)	7.1%	
Total key benefit claimants (May 2009)	363,300	
Gross average weekly wage (residence) 2008	£446	
Gross average weekly wage (workplace) 2008	£472	

Index of Multiple Deprivation Ranking (PUA 1=least deprived)	**2004**	**2007**
Birmingham	48 (out of 56)	53 (out of 56)
(Birmingham, Dudley, Sandwell, Solihull, Walsall, Wolverhampton)		
Coventry (Coventry)	33 (out of 56)	35 (out of 56)
Telford (Telford)	22 (out of 56)	25 (out of 56)

Skills profile (2008) (% of working age population)	**Birmingham City Region**	**GB**
NVQ4 & above	22.3%	29.0%
NVQ3	15.2%	15.9%
NVQ2	17.2%	16.0%
NVQ1	14.9%	13.7%
Other qualifications	8.8%	8.7%
No qualifications	18.6%	12.4%

Sources: NOMIS (2009): Annual Population Survey, Annual Business Inquiry, Annual Survey of Hours and Earnings, Claimant Count, DWP Benefits Claimants.

Acknowledgements

The Centre is grateful to Birmingham City Council for the financial support which made this report possible. The Centre would also like to acknowledge the considerable time that Council officers, university personnel, RDA staff and a wide range of public and private stakeholders were prepared to devote to discussions with the research team.

centreforcities

December 2009

Enterprise House
59 - 65 Upper Ground
London SE1 9PQ

www.centreforcities.org