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Heritage in the 2020 Knowledge Economy

A report for the Heritage Lottery Fund

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1.	Executive Summary	3
2.	Introduction	9
3.	Section 1: The knowledge economy in 2020	14
4.	Section 2: Heritage and the 2020 Knowledge Economy	29
5.	Section 3: Response from the Heritage Sector	57
6.	Section 4: Implications for the Heritage Lottery Fund	63
7.	Annex	66

Executive Summary

About this report

In going about its business as a funder of heritage the Heritage Lottery Fund needs to think carefully about the role that heritage should play in a modern, progressive society – and to engage with others in that debate. To do that, especially at this point in time, means thinking about the inter-relationship between the heritage sector and the wider economy. And to better understand the issues, drivers and challenges facing heritage to 2020, we need to think about how the economy as a whole is likely to develop over the next decade.

This report seeks to enable that debate and to assist in HLF's own strategic planning for the next decade. It does so by determining the likely shape and nature of the post-recession economy and by presenting a vision of the role that the heritage sector can and should play within that economy. It builds on the ideas we have developed at the Work Foundation around the concept of the 2020 'Knowledge Economy'. Using this starting point, we are better able to consider the key economic challenges which will face the heritage sector, as well as to identify the areas where the industry has the greatest potential to develop.

Supplementing this macro-scale analysis, we have looked at the existing and potential scales of interaction between heritage and the economy in two particular localities – the city of Newcastle and the Peak District. These case studies demonstrate practical examples of the issues and opportunities facing the heritage sector now and in the future.

Heritage and the knowledge economy

Over the next ten years the heritage sector must not only respond to the immediate challenges around funding and revenue created by the recession but also adapt and respond to new economic structures and the changing needs of consumers and businesses – or the rise of the 'knowledge economy'.

Across all nations "the generation and exploitation of knowledge has come to play a predominant part of wealth creation". In 2009 at least half of our economic activity and employment is in the knowledge intensive sectors of the economy. The primary driver of the growth of the knowledge economy is rising demand for high value added services and goods from wealthier, more sophisticated, diverse, and demanding consumers. The great enablers are powerful and cheap computers and "general purpose" information and communication technologies coupled with mass higher education. The accelerator on both the demand and supply side has been globalisation, creating markets of scale and also diversity and facilitating the flow of ideas, concepts, technologies, capital and people.

The pace of change will accelerate and intensify over the next thirty years, with the current economic crisis having only sharpened these trends, perhaps bringing forward by several years changes that would have otherwise have taken place over a much longer period. The heritage sector is being propelled by the same set of long-term drivers, around knowledge economy and sustainability, as the overall economy.

Heritage is a fundamental cornerstone of everyday experience, culture and sense of place, encompassing the physical (historic buildings, landscapes, museums, galleries and archives) as well as the intangible attributes (memory, recollection, stories and ways of life) that are embedded within society, economy and politics. It is urban and rural, built and natural, tangible and intangible. In the 2020 knowledge economy, there will be great opportunities for growth in those parts of the economy that have a lower environmental footprint. This includes much that can be characterised as being rooted in our wider definition of heritage, whether land management for biodiversity and recreation, local cultural and tourism activities, building maintenance and repair, local food production or repair/ refurbishment business. Companies looking to develop knowledge intensive business services will want to tap into the expertise of our museums, archives and conservation specialists. Rising incomes and consumer demand for cultural tourism and, more generally, cultural consumption will provide new markets for managers of heritage.

The 2020 Knowledge Economy

By 2020 the UK must create a balanced and sustainable knowledge economy. There is no other option. Britain has relied on financial services, property and construction to power it's economic and employment growth, with the remaining jobs largely supplied by a public sector whose tax revenues were buoyed up the bubble economy. In 2010, as we emerge from one of the most severe economic crises of the last century, it is clear that the balance of the economy must change. Britain is going to have to self-consciously create a national innovation ecosystem to drive new growth sectors and companies. Successful companies and organisations will be those which innovate products and processes, so creating new markets, reputations, and purposes for themselves.

Several trends are likely to determine growth and structures over the next ten years:

- Rising investment in knowledge based intangible assets – in 1970 business investment in the UK alone in knowledge based intangibles such as software, design, brand equity, R&D, human and organisational capital was worth 40% of investment in physical infrastructure such as

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buildings, machines and equipment, and vehicles. In 2004 it was worth nearly 120%, or nearly £130 billion[1];

- Rise of an educated and qualified workforce – in 1970 the vast majority of people in work had no qualifications and degrees were for a tiny elite. Within a generation we have moved to a workforce where absence of qualifications is unusual and up to a third has a degree or equivalent[2]. By 2020 around half of all jobs will be in the top three occupational categories of managerial, professional, and associate professional and technical[3];
- Faster introduction of "general purpose technologies" - innovation stands on the shoulders of the stock of scientific and technological knowledge and that stock is expanding very rapidly across the globe – so rapidly that simply keeping pace with what is genuinely new in the world is a major challenge. Some definitions identify between 8 and 10 general purpose technologies in the 20th century compared with up to five in the preceding 150 years. We can expect many more in the 21st century[4];
- Cities will remain key drivers of the knowledge economy across the UK - nearly 90% of knowledge intensive jobs remain within urban areas and nearly 50% in the biggest cities.

The recession has forced this restructuring and bought forward change in three ways. Firstly, the recession has knocked away the props for growth – financial services, consumer debt, and a property boom. New activities and jobs will be required to take there place. Secondly, long run changes that would have taken place anyway have been brought forward. Over 80% of the jobs lost have been in manual, administrative, and unskilled occupations and these jobs will not come back in the recovery. Thirdly, the recession has forced a reassessment of the role of the financial services sector and the relationship between that sector and the rest of the economy.

The growth in public based education and health services will be significantly weaker than in previous recoveries. Other sectors such as retailing are also less likely to grow strongly in job terms, reflecting slower growth in consumer spending, a shift towards less labour intensive on-line shopping, and even greater use of labour saving new technologies.

Overall the 2020 economy will see a rising share of economic activity, innovation, exports and jobs across four broad areas:

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[1] HM Treasury. (2007) *Intangible Investment and Britain's Productivity: Treasury Economic Working Paper No. 1*
[2] EU KLEMS database and ONS. The EU measure gives a smaller share than national definitions and latest year available is 2005.
[3] Brinkley, I. (2009) *Recession and Recovery*. The Work Foundation: London.
TWF estimate based on *Working Futures* (2009) UKCES.
[4] Lipsey, R. Carlaw, K. and Bekar, C. (2005) *Economic Transformations: General Purpose Technologies and Long Term Economic Growth.* Oxford University Press

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- the “manu-services” sector which integrates technologically advanced manufacturing with high value services;
- low carbon goods and services, including the implementation of existing technologies, the expansion of advanced manufacturing processes, and the development of new and existing services;
- the creative and cultural sector bound together through “expressive value” or copyright-able activity
- High tech and high value added networked and intermediary services.

Heritage and the 2020 Knowledge economy

Applying the concept of the knowledge economy to the heritage sector and exploring the ways in which the wider trends are likely to impact on the sector both helps to identify the key challenges for the industry and where it has the greatest potential to develop.

- **Heritage and the high demand society** – Heritage is part of the knowledge economy’s “high demand society” for cultural and creative services and experiences driven by the most demanding, best educated, and discerning consumer base. Heritage services are well placed to provide the experience that distinguishes consumption in knowledge based economy. Challenges associated with this include monetising the benefits created by heritage assets, which is a particular obstacle when taking a demand orientated approach, achieving self-sustainability and expanding the diversity of the visitor base;
- **Heritage and the innovation system** – Effectively supporting scientific heritage will be central to the continuing development of the UK’s innovation system. Scientific heritage straddles both science and art. Whilst this should be seen as a strength, in 2006 the House of Lords argued that the fragmented and under-valued nature of scientific heritage meant the UK’s world class status was slipping away. Another associated challenge is the skills profile of the sector and its ability to attract high skilled individuals due to the limited nature of financial reward;
- **Heritage and the creative and cultural economy** – Heritage is central to many of the aspects of culture which underpin and support the development of the UK’s creative and cultural economy. Heritage organisations and institutions must renew and expand their mutually beneficial links with creative practitioners and cultural and creative businesses (large and small) if the cultural and creative sector is to become a more significant contributor to export growth and a major domestic generator of jobs over the next decade. An important first step is to map and understand the current linkages.
- **Heritage and the low carbon, sustainable economy** – There is a clear opportunity for the sector to relate closely to the sustainability agenda, and potentially derive value from

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taking a lead. There is potential, for example, for the sector to take a lead in demonstrating the benefits of building reuse. Many of the initiatives promoted or practiced by heritage institutions are sustainable and aim to preserve natural and built heritage in harmony with the environment. If the sector is to lead on this agenda it will need to successfully respond to the specific constraints which climate change and sustainability is placing on its activities;

- **Making the most of the public sector** – All public sector organisations have an important role to play in supporting the continued development of the knowledge economy, heritage institutions included. The challenge for the sector will be to achieve this level of support within a strongly constrained public funding regime. This will require a transformation from a predominately public sector based funding model to one that makes more use of the private sector, including private sector investment trusts and foundations seeking social and environmental returns;
- **The 2020 knowledge economy and urban development** – There is opportunity for the sector to support cities across the UK to thrive in the 2020 knowledge economy through the attraction of highly skilled workers, knowledge based businesses and high demand consumers, as well as through capitalising upon heritage institutions that may impact upon the attractiveness to investment. There are a number of place-specific challenges that heritage institutions face, including a lack of collective local identity in many areas and knowledge transfer across heritage institutions and localities.

Response from the Heritage Sector

If the heritage sector is to continue to provide the same vital services, employment and wider benefits as it does at present, whilst also expanding its offer to respond to the challenges set out, then it must set out to look different from 2010.

Key recommendations for the sector include:

- **Develop the same sense of shared values and linkages and build recognition of the 'heritage sector'** – The heritage sector represents a diverse grouping of activities, unified by the fact that they derive value from tangible and intangible heritage assets. The creative industries, for example, were virtually unrecognised fifteen years ago as a sector. It is now recognised as key growth sector in the economy, which would not have happened without the recognition that a sectoral identity had to be developed from a range of activities that on the surface appeared so diverse.
- **The sector should consider how the constituent parts and the dynamics within the innovation ecosystem might inform thinking about the future direction of heritage** -

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For example, do the flows set out in the innovation ecosystem diagram (see P.57) capture how innovation and development take place within the heritage sector? If a diagram had to be developed to capture innovation across the heritage sector, would it have the same relationships and would we be identifying similar strengths and weaknesses?

- **The sector should also reflect on its social impacts and values** – This study has focused on the economic role of heritage, although the social aspects are also significant. One of the strengths of the creative and cultural industries is that they are able to demonstrate clearly the way in which they contribute to the social fabric and embody some of the key features of any civilised society. Heritage should be capable of making the same case. Of particular relevance at this moment in time is the social and cultural role that heritage can play at a time of great economic upheaval and technological change; it can provide people with a sense of perspective, history and connection that is vital in maintaining social capital and resilience in the face of so much change.

Drawing together the findings from all strands of research, the study has identified a number of critical points of challenge for the sector:

- How can the sector develop a stronger sectoral identify and profile?
- Could such a shared sectoral identity support learning, experimentation and innovation?
- How can the sector adapt to meet developing consumer demand?
- How can the sector best contribute to and derive value from a world class scientific heritage base?
- How can the sector develop its position at the core of the creative industries?
- How can the sector best embrace the sustainability agenda, and position its offer to derive value here?
- How can public sector heritage organisations best dispose of their resources in ways which fully embrace and support the development of the wider knowledge economy?
- Can the sector develop new and creative ways of working with private sector businesses and third sector organisations?
- How can the sector develop strong partnerships amongst heritage institutions and city leaders to support ‘knowledge cities’ across the UK to be world leading?

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Introduction

Heritage has, by definition, long been a key component not only of everyday experience but of the UK economy. Defined broadly, it encompasses a wide range of tangible and intangible assets that celebrate the past and look forward to the future. Heritage shapes the character and nature of places, attracting thousands of visitors to the UK and generating employment across multiple sectors that seek to create, preserve and capitalise upon heritage in all its forms.

Yet, as with all sectors, it faces significant challenges over the decade ahead. The year 2009 was a truly exceptional year in economic terms. It saw the greatest annual contraction in UK economic output since the Great Depression of the 1930s and, whilst it seems likely that the UK economy has now emerged from recession, economic challenges persist and businesses and organisations across all sectors face years of stringency[5]. Private sector demand is likely to be held back as consumers re-build their savings and businesses their balance sheets. Banks remain highly risk averse, and all major political parties have committed to cutting public spending and focussing on deficit reduction over the next political cycle.

These constraints place significant pressure on organisations and workers at the same time as they must respond to fundamental longer-term changes within the UK economy. Economic activity is rapidly becoming more knowledge intensive, whilst progress towards a low carbon economy is changing consumer behaviours and business priorities. This means that over the next ten years the heritage sector must not only respond to the immediate challenges around funding and revenue created by the recession but also adapt and respond to new economic structures and the changing needs of consumers and businesses.

When thinking about the future of heritage and the role of the heritage sector in the 2020 economy it is vitally important to think about how the economy as a whole is likely to change over the next decade – and to do this requires understanding much more about the 'knowledge economy'.

Defining the knowledge economy

The knowledge economy is a term widely used around the world, but hardly ever defined. Based on world media stories (from the English speaking press), virtually every nation either thinks it is already a knowledge economy or aspires to become one. Some, such as Korea, have established a Ministry for the Knowledge Economy. Others, such as Ireland, have developed an explicit knowledge economy strategy.

[5] Hutton, W. (2009) *The Landscape of Tough Times*. The Work Foundation: London

The 1988 Competitiveness White Paper was one of the first official attempts in the UK to define most of the essential elements, describing the knowledge economy as: *"… one in which the generation and exploitation of knowledge has come to play the predominant part of the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity".* This definition was updated by the Economic and Social Research Council (ESRC) in 2005: *"economic success is increasingly based on the effective utilisation of intangible assets such as knowledge, skills, and innovative potential as the key resource for competitive advantage. The term knowledge economy is used to describe this emerging economic structure."*

These definitions capture two important features of the knowledge economy. Firstly, the shift towards a knowledge based economy affects all sectors – low and high tech, knowledge intensive, and less knowledge intensive, large and small, public and private. Secondly, the knowledge economy is a transition; what some have described as a "soft discontinuity". We did not suddenly wake up in a knowledge economy – it is part of a long term process going on for decades, if not centuries. Over the past thirty years, however, we have reached a point where the scale and pace of change have picked up, driven by changes in markets and technologies. In 2009 at least half of our economic activity and employment is in the knowledge intensive sectors of the economy. That pace of change will accelerate and intensify over the next thirty years, with the current economic crisis having only sharpened these trends, perhaps bringing forward by several years changes that would otherwise have taken place over a much longer period.

Heritage and the knowledge economy

This report is, as far as we know, the first attempt to place heritage in this wider context. Heritage itself shares a similar definitional difficulty to the knowledge economy - the term is widely used, but its full extent is often not defined. The recognition of the sector as a coherent set of activities with a common linking theme is comparatively recent. Even more recent is the recognition of the impact on the economy and society of the heritage sector in its own right.

Yet some will not see heritage as a natural component of a knowledge based economy. The very notion of heritage – focused on preserving the past – means thinking about heritage as also being able to drive future looking innovation can seem alien.

Applying the knowledge economy concept to heritage challenges these conventional views. Firstly, heritage is part of the knowledge driven "high demand" society that shifts consumption towards cultural and related "experiential" services. Secondly heritage includes world class scientific

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expertise using cutting edge technologies - a group of activities called “scientific heritage” that draws on both science and arts disciplines. Thirdly, heritage relates strongly to two of the four knowledge-intensive sectors predicted to be the fastest-growing parts of the knowledge economy – the creative and cultural economy and the low carbon economy. Fourthly, common to all public sector organisations, public heritage bodies have an important role to play in supporting the continued development of many aspects of the knowledge economy. Finally, many heritage related institutions are “anchor institutions” around which local economic regeneration can be built. We explore each of these areas in more detail in the rest of this report.

The current economic crisis makes the knowledge economy even more central to our economic and social future. As we show below, the recession has brought forward changes that would otherwise have taken four or five years to occur. It has also produced a sharp structural break from the past, where the future role of institutions and the balance of the economy will have to change. The events of the past two decades have been exceptional and there is no return to business as usual in this recovery. As we argue below, a knowledge based innovation eco-system must be constructed so that by 2020 we are moving towards a rebalanced and sustainable economy.

Heritage must be part of both these wider changes and the innovation eco-system. Many of the values that for many years have underpinned the way the heritage sector works – stewardship, conservation, durability, taking a long-term perspective and making prudent use of resources – are those that will be relevant and appropriate to a resource constrained economy. The social and environmental problems we face will be solved by looking at the past as much as at future. Our collective scientific and cultural heritage will be vital in understanding the choices and solutions available to us in the knowledge economy.

The heritage sector is being propelled by the same set of long-term drivers, around knowledge economy and sustainability, as the overall economy. In the 2020 knowledge economy, there will be great opportunities for growth in those parts of the economy that have a lower environmental footprint. This includes much that can be characterised as being rooted in our wider definition of heritage, whether land management for biodiversity and recreation, local cultural and tourism activities, building maintenance and repair, local food production or repair/ refurbishment business. Companies looking to develop knowledge intensive business services will want to tap into the expertise of our museums, archives and conservation specialists. Rising incomes and consumer demand for cultural tourism and, more generally, cultural consumption will provide new markets for managers of heritage.

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A broad concept of Heritage

With such a holistic understanding of heritage, it is clear that the concept of a 'heritage sector' must encompass a similarly broad range of activities and occupations. The very idea of a 'sector', though, is difficult to define – some might even dispute that such a disparate collection of activities constitutes a sector at all, rather a more abstract 'movement' or 'philosophy'. But the collective profile of organisations involved in managing heritage – built and natural – has grown over recent years, and there is enough of a common interest across them to conceive of a broad sector. For the purposes of this report, we regard the sector as having a 'core' and a 'periphery'.

The core is made up of organisations engaged in the management of tangible heritage assets – including the management of people's engagement with those assets, as well as with actual physical maintenance. This incorporates all the areas identified above: museum, gallery and library collections; historic buildings, wider townscapes and public spaces including parks; natural heritage assets from nature reserves to broad landscapes and waterways; industrial, transport and maritime heritage.

The broader periphery includes a host of organisations that make use of heritage – tangible and intangible – for the purposes and objectives of their own work. This includes organisations in education, community development and regeneration with explicitly social objectives, plus any number of private companies that exploit scientific and cultural heritage – past ways of doing things – as the foundation for the production of valued goods and services. Stretching this further would encompass organisations using the 'brand value' of heritage in marketing and corporate communications.

Defining Heritage

Defined by the Department for Culture, Media and Sport (DCMS) as 'properties and artefacts of cultural importance handed down from the past', heritage is in fact much more than this. Heritage is a fundamental cornerstone of everyday experience, culture and sense of place, encompassing the physical (historic buildings, landscapes, museums, galleries and archives) as well as the intangible attributes (memory, recollection, stories and ways of life) that are embedded within society, economy and politics. It is urban and rural, built and natural, tangible and intangible. Heritage celebrates the past but looks forwards, in order to conserve in a sustainable way the physical and intangible attributes that contribute to quality of life. In the multicultural society of today, the heritage of non-indigenous communities in the UK sits within this framework. Ultimately,

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heritage engages with the diversity of all those factors derived from our histories and cultures that shape the present[6].

Components of heritage include:

- Industrial heritage
- Scientific heritage
- Conservation, preservation and archaeology
- Natural heritage
- Built heritage
- Intangible heritage
- Cultural heritage
- Sporting heritage

Economic areas of activity

The main areas of economic activity with which the heritage sector is usually associated are the maintenance, management and re-development of property (frequently linked to physical regeneration) and tourism and leisure. But the definition above makes clear this is not its entirety. 'Leisure' now means not just holidays and day trips, but the increasingly widespread activity of cultural consumption, encompassing everything from attending talks, tours and other events to growing private sector provision of what has formally been public-sector provided adult education. It also stretches to people's use of their own leisure time to engage in community projects, frequently with the intention of improving the quality of local life and/ or the environment. Based on the periphery description above, we should also incorporate businesses operating in consumer markets – such as re-use or repair businesses, or in the production of traditional food and drink – that have a strong association with heritage. Much of the actual activity of managing physical heritage assets – the museums, buildings, parks, landscapes and waterways – remains funded by the public sector, if not always carried out by public sector organisations.

The report remainder of this report is set out as follows:

- Section 1 presents a vision of the knowledge economy in 2020;
- Section 2 considers the role of heritage within this 2020 vision;
- Section 3 focuses on the implications of this analysis for the heritage sector;
- Section 4 considers the potential implications for the Heritage Lottery Fund.

[6] European Journal of Archaeology definition, to include "not only the built environment, but remnants of the past embedded in the ground or underwater along with a people's history and culture, all of which contribute to a collective memory which guides the present, impacts the future, and connects the past with the present."

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Section 1: The knowledge economy in 2020

By 2020 the UK must create a balanced and sustainable knowledge economy. There is no other option. Britain has relied on financial services, property and construction to power it's economic and employment growth, with the remaining jobs largely supplied by a public sector whose tax revenues were buoyed up the bubble economy. In 2010, as we emerge from one of the most severe economic crises of the last century, it is clear that the balance of the economy must change. Britain is going to have to self-consciously create a national innovation ecosystem to drive new growth sectors and companies. Successful companies and organisations will be those which innovate products and processes, so creating new markets, reputations, and purposes for themselves.

New ways of intervention will have to be found. Britain's challenge is to rebuild its economic model around investment and innovation with little direct public money. Solutions must be low cost. New public spending commitments or tax concessions – the traditional ways of achieving public policy goals - are going to be extremely constrained by the necessity to reduce Britain's budgetary deficit. The heritage sector must also find ways of developing with less public support and must do so through innovation.

The knowledge economy

The shift towards a more knowledge based economy is a universal process across the OECD, affecting all sectors, all sizes of firm, and both the public and the private sectors. All the economies, for which comparable statistical information exists, have seen three big structural changes in the past thirty years:

- The rise of knowledge and technology intensive jobs and economic activity
- Investment in knowledge based assets or "intangibles"
- Increasingly well qualified and educated workforces

The primary driver of the growth of the knowledge economy is rising demand for high value added services and goods from wealthier, more sophisticated, diverse, and demanding consumers. The great enablers are powerful and cheap computers and "general purpose" information and communication technologies coupled with mass higher education. The accelerator on both the demand and supply side has been globalisation, creating markets of scale and also diversity and facilitating the flow of ideas, concepts, technologies, capital and people.

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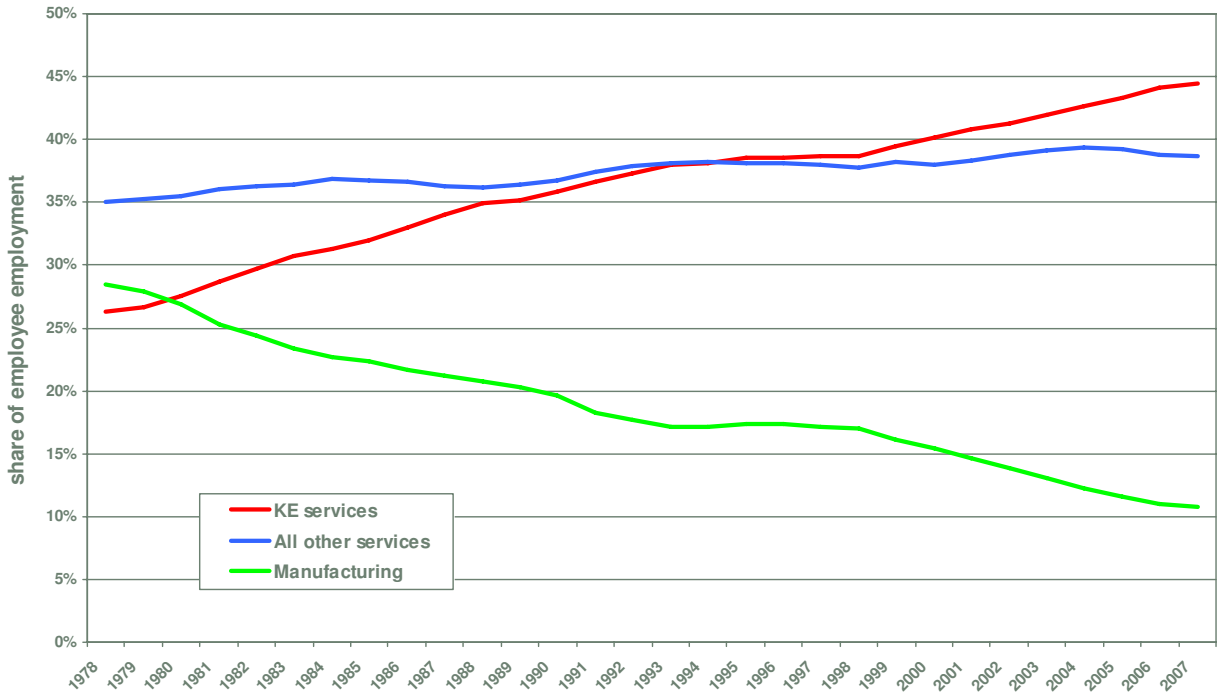
Across the OECD, the number of people working in knowledge intensive and technologically advanced industries grew from 50 million to 150 million between 1970 and 2005[7]. In the UK the share of people working in knowledge intensive services alone stands at 45% compared with 24% in 1970. These industries have been the big drivers behind jobs and value added.

Figure 1.1: Economic restructuring towards the knowledge based services, 1978-2007



Source: ONS, 2008

Across all sectors, organisations have invested massively in knowledge based intangibles. In 1970 business investment in the UK alone in knowledge based intangibles such as software, design, brand equity, R&D, human and organisational capital was worth 40% of investment in physical infrastructure such as buildings, machines and equipment, and vehicles. In 2004 it was worth nearly 120%, or nearly £130 billion[8]. These figures are for the business sector – they would be even higher including the public and other non-market sectors. The UK public sector may invest another £29 billion in intangible assets, for example[9]. We see a similar story across the OECD: in the US, Finland, France, Germany and Japan. This is shown in the chart below. Overall, the UK is a world leader in investment in intangibles.

[7] OECD definitions. The technologically advanced and knowledge based industries include high and medium tech manufacturing, business, high tech, and financial services, and education and health care. The EU definition also includes international transport and recreational and cultural services.
[8] HM Treasury. (2007) *Intangible Investment and Britain's Productivity: Treasury Economic Working Paper No. 1*
[9] The Work Foundation provisional estimate, forthcoming report for the Knowledge Economy 2 programme.

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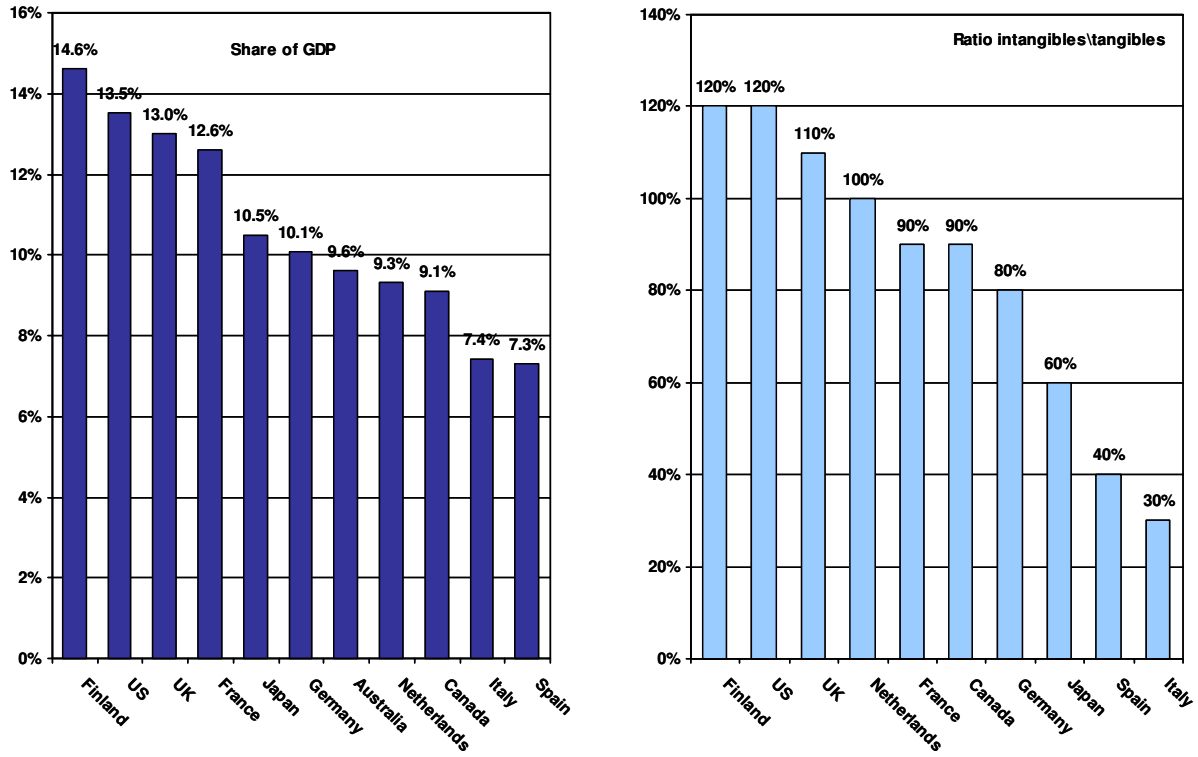
Figure 1.2: Business investment in intangible knowledge based assets across the OECD



Source: Australian Productivity Council, 2009

Although it is hard to imagine today, in 1970 the vast majority of people in work had no qualifications and degrees were for a tiny elite. Within a generation we have moved to a workforce where absence of qualifications is unusual and up to a third has a degree or equivalent[10]. By 2020 around half of all jobs will be in the top three occupational categories of managerial, professional, and associate professional and technical.[11]

[10] EU KLEMS database and ONS. The EU measure gives a smaller share than national definitions and latest year available is 2005.
[11] Brinkley, I. (2009) *Recession and Recovery*. The Work Foundation: London.
TWF estimate based on *Working Futures* (2009), UKCES.

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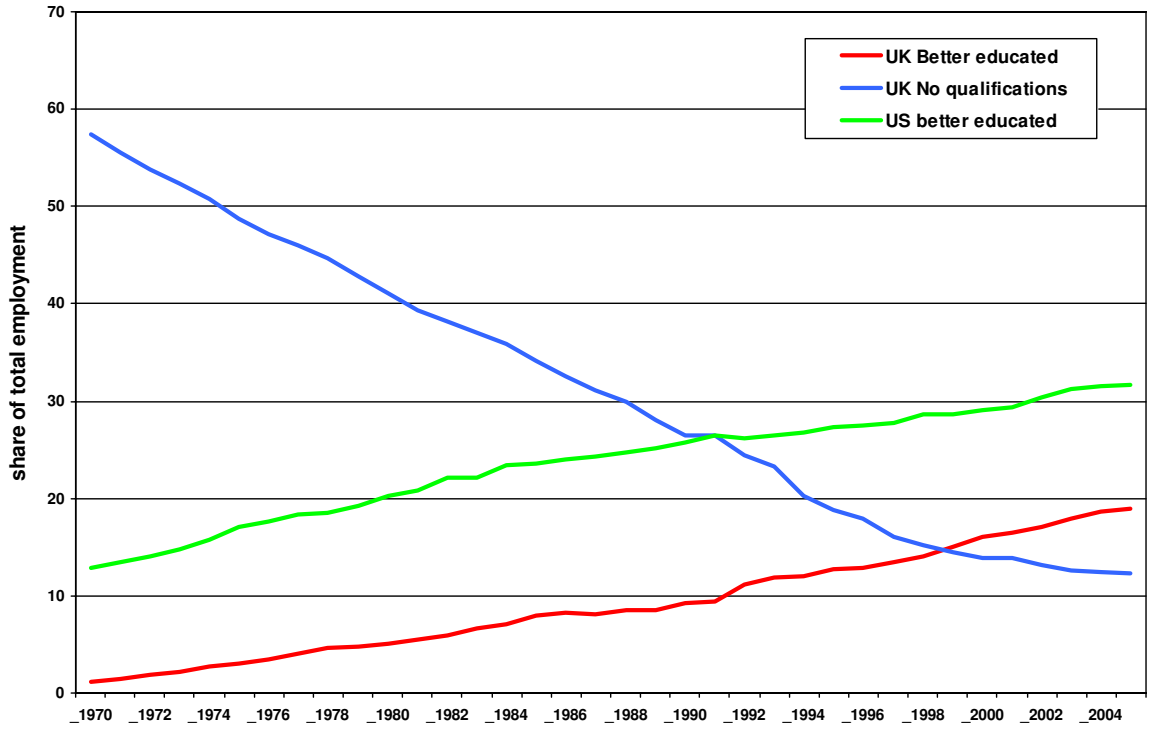
Figure 1.3: Rise of the educated and qualified workforce, 1970- 2005



Source: EU KLEMS

The geography of the knowledge economy

Many urban local authorities and regional regeneration agencies around the world have explicitly built their economic growth strategies around developing their knowledge based economies. The implicit assumption behind many of these strategies that the knowledge economy is tied to big urban areas, will remain so, and might even become even more attached to cities. But suppose the very changes we briefly summarised above around markets, technologies, and globalisation are progressively severing and weakening these traditional linkages so that place is becoming less important?

In 2005 Thomas L Freidman published his seminal thesis entitled *The World is Flat: A Brief History of the Twenty-First Century*. Building on Cairncross' (1997) notion of the 'death of distance'[12], Freidman proclaimed that the world had arrived at a period of 'Globalization 3.0' in which technologies such as the internet and high speed broadband have eroded the importance of place or location. By reducing or eliminating the need for face-to-face contact[13], Friedman contended that new technologies have allowed businesses to locate anywhere and made place irrelevant.

[12] Cairncross, F. (1997) *The Death of Distance: How the Communications Revolution Will Change Our Lives*. Harvard Business School
[13] Friedmann, T. (2005) *The World is Flat: A Brief History of the Twentieth Century*. Penguin: London

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But if the world is now flat, the critics argue, why is it that economic activity remains so unevenly distributed across space? A review of Freidman's book by Professor Ed Learner published in the Journal of Economic Literature in 2007[14] challenges the central thesis: "*Of course, standardisation, mechanisation, and computerisation all work to increase the number of footloose tasks, but innovation and education work in the opposite direction, creating relationship based activities."* Instead of a 'flat' world, academics suggest that in an era of highly mobile capital, place has become more rather than less important because location can act as a source of comparative advantage for businesses. Michael Storper, for example, has argued that while the communication technologies of the internet age have allowed the distribution of some routine activities, it has also supported the development of more complex and more time-dependant production activities. These still depend heavily on face-to-face contact, and benefit greatly from agglomeration.[15]

Our analysis of change over the past decade in the UK shows that big cities still account for a disproportionate share of employment in market based knowledge services. In 2007 nearly half of all private sector knowledge based jobs were in the big cities and London[16]. However, the share fell slightly compared with 1997, primarily because of slower growth in London[17]. At the other end of the scale, the most rural areas saw an increase in knowledge intensive activities. This is shown in the chart below. We are not sure why – it may be a more attractive environment for start-up knowledge intensive businesses. Nor do we know to what extent such businesses are servicing the local economy or serving wider markets from a rural base. But it suggests a new dynamic in the knowledge economy that may favour more growth in more rural areas over the next decade. It would seem that rural areas, as well as providing high quality of life environments for knowledge workers commuting to work in nearby cities, are becoming attractive to knowledge-intensive businesses.

However, while the increase in knowledge intensive employment in rural areas is impressive in percentage terms – up by 18% between 1997 and 2007 compared with an 11% rise in urban areas - such employment still accounts for a small share of the total. Moreover, the share of private sector knowledge services employment in rural areas edged up very slightly over this period from 10.5% to 11.1%. Nearly 90% of knowledge intensive jobs remain within urban areas and nearly

[14] Learner, E. (2007) *A Flat World, A Level Playing Field, a Small World After All, or None of the Above?* Journal of Economic Literature

[15] Leamer, E. and Storper, M. (2001) The Economic Geography of the Internet Age, Journal of International Business studies, 32, 4

[16] There is no official standard definition, but we have included the English "Core Cities" group (Nottingham, Liverpool, Bristol, Leeds, Manchester, Newcastle, Birmingham, Sheffield) with London, Cardiff, Glasgow and Edinburgh.

[17] This may be a "catch-up" effect. London and Edinburgh are the most knowledge intensive cities in the UK and both had below average growth in this period. In contrast, some of the less knowledge intensive cities such as Nottingham, Cardiff, and Liverpool showed above average growth.

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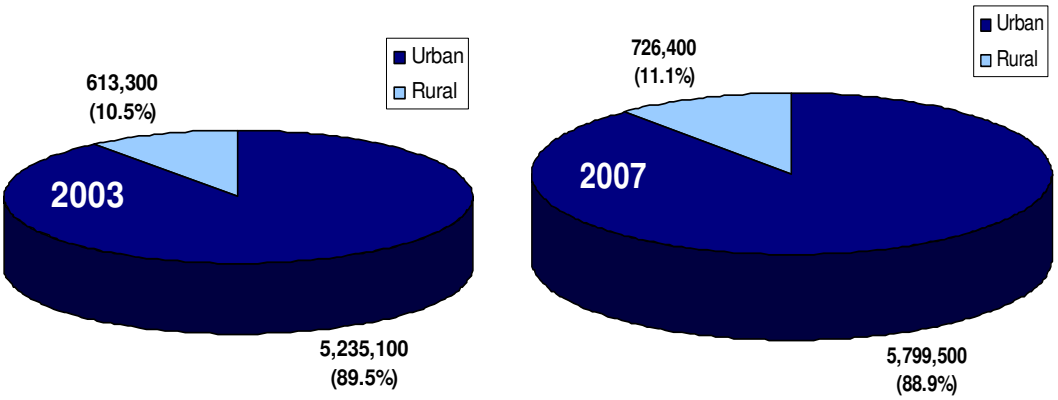
50% in the biggest cities. If the geographical distribution of the UK's knowledge economy is changing, it is changing at a very slow pace indeed.

Figure 1.4: The Changing Location of Private Knowledge Service Employment?



Source: Annual Business Inquiry – Workplace Analysis

Much of what is going to happen to the knowledge economy by 2020 is therefore going to happen in cities, and the role of what some call "anchor institutions" is likely to be a key factor. "Anchor institutions' is a term developed in the United States to refer to civic, cultural and intellectual institutions which contribute to the cultural, social and economic vitality of cities, supporting them to thrive and making them resilient to change. The institutions themselves include universities, FE colleges, museums, libraries, hospitals, parks, arts centres (including theatre and other performing arts), and sports centres and large employers: in other words, a combination of publically and privately funded institutions. What unites these institutions are their size and the size of their impact upon the economy, society and quality of life in their areas. In addition, most of these institutions are "sticky capital": they cannot easily move away from the settlements in which they are located and therefore represent long term assets and attractors of wealth and talent. Though frequently associated with urban areas they are not uniquely urban features – National Parks would be one example of an anchor institution in rural areas. The Peak District National Park reviewed as part of this research for example could be thought of as an anchor institution using principles of sustainability in managing the land area bounded by the Manchester-Sheffield-Derby triangle.

Recession forces restructuring and brings forward change

The development of the economy over the next decade will be shaped not only by the longer-term structural drivers of change but also by its response to the current recession. The recession has forced change in three areas. Firstly, as set out at the start of this report, it knocked away the props for growth – financial services, consumer debt, and a property boom. New activities and jobs will

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be required to take there place and these are discussed later in this report. Secondly, long run changes that would have taken place anyway have been brought forward. Between the end of 2007 and the end of 2009 net job loss was almost entirely concentrated in manual and unskilled occupations and these jobs will not come back in the recovery. In contrast, employment in knowledge intensive occupations (managers, professionals, and associate professionals) went up. The trend towards more knowledge intensive work shown earlier has been intensified so that by 2020 over half the workforce will be in managerial, professional and technical and associated jobs. Thirdly, the recession has forced a reassessment of the role of the financial services sector and the relationship between that sector and the rest of the economy.

Our vision is that by 2020 Britain's financial services industry should be a world leader in providing diverse, competitive and sophisticated services supporting socially useful production, innovation, and entrepreneurship at minimal risk to the rest of the economy. UK financial innovation and expertise in serving the productive economy and new areas of activity associated with the low carbon economy will have driven a revival of financial services exports and ensured the City remains a key international centre. Competitive markets for both short and long term finance for industry and consumers would have been restored with the entry of new players with trusted brands from outside banking. This is likely to have been complemented by a revival of mutual organisations and new public based institutions providing vehicles for long term private investment in the physical and electronic infrastructure, as well as an expansion of regional and local institutions backed by municipalities focusing on local investment. The 2010 Budget made some first steps in this direction by creating a "Green Infrastructure Bank" and this is a clear priority for the new government as set out in the "Coalition: our programme for government" paper.

This vision can only be realised through a series of radical structural and institutional reforms. The ratio of bank assets to GDP should have been reduced significantly by 2020 and the ability of the banks to protect those assets from risk should have significantly increased. The incentives for banks and other financial institutions to indulge in excessively risky investment on large scale would be removed. The "casino" and "utility" banking functions would be separated[18]. Mervyn King's objective of making sure that no one institution is too big to fail would have been achieved.

The 2009 Bischoff report argued the sector was not excessively large because it had fluctuated between 5 and 8% of GDP over the past decade. A sector that was close to 5% of GDP by 2020 would be within this band. But shares of GDP are also an irrelevant measure. The danger of the excessive size of financial services comes from the explosive growth of increasingly riskier bank assets to 500% of GDP in 2007 coupled with a fall in the ability of banks to protect against risk

[18] Kay, J. (2009) *Narrow Banking: The Reform of Banking Regulation.* NESTA

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without recourse to the State. It is this ratio and these exposures to risk that must be reduced. We are in what the authors of a recent Bank of England paper[19] call a "doom loop" where, rather than the banks acting as lender of last resort to the State, the State has become lender of last resort to the banks, with the credibility of saying never again virtually eliminated. As the paper notes, past liquidity crises *"are foothills by comparison with recent Himalayan heights".* States cannot afford to intervene again on such a scale. We must escape the doom loop over the next decade.

The financial services sector will decline as a share of GDP in the first half of the coming decade as demand from business and consumers weakens and financial institutions adopt more cautious lending policies[20] [21]. It can expand again in the second half on the back of the structural innovations we have suggested above. Financial services employment grew in the 1980s recovery, but has added few jobs since and will not do so over the next decade. The sector's contribution to job generation will come from the success with which it supports growth and innovation in other sectors of the economy.

The March 2010 Budget forecasts suggest a strong recovery from 2011 onwards. Private forecasters are more pessimistic. Given the high levels of uncertainty in the current economic situation, we have developed two illustrative scenarios of possible futures, one 'best case' and one 'worst case', rather than attempting to predict the exact shape of the recovery. As set out in the summary below[22], the first scenario is characterised by a rapid return to the growth seen before the recession, whilst the second reflects fears of persistent economic stagnation. Developing these two extreme scenarios makes it possible to consider the implications for the heritage sector of the most likely economic future.

Scenario 1: From Recession to Recovery

Drawing heavily on the Pre-Budget Report of December 2009, this scenario presents an economy characterised by a steady recovery from recession and economic growth. Under this scenario, consumer and business demand will expand rapidly to pre-recession rates, public sector spending cuts of approximately 7-15% by 2014 will be implemented largely through efficiency savings, the UK's trade balance will improve, and unemployment will return to pre-recession levels

[19] Alessandri, P. and Haldane, A. (2009) *Banking on the State*, Bank of England.
[20] Brinkley, I. (2009) *Knowledge Economy and the Recession* The Work Foundation: London.
Knowledge Economy programme: consumer spending on financial services showed an explosive growth between 1995 and 2007. We expect spending to revert to its long run historical average.
[21] CBI (2009) *The Shape of Business: the next 10 years.*
The CBI notes that *"the attractiveness of bank lending has collapsed" (p9)..*
[22] The full scenarios are set out in the Annex

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- **A return to economic growth**: Aided by the ongoing impact of fiscal and monetary stimulus, an ease in credit conditions and the boost in demand for exports associated with the depreciation of the pound, GDP growth resumes in 2010, returns to the pre-recession level of around 3% p.a. and maintains this level through the decade;
- **Expansion of consumer and business demand**: Private consumption develops strongly with growing confidence in the economy; the Bank of England's quantitative easing programme supports higher rates of lending to businesses and households; and business demand picks up as firms look to respond to new opportunities in the post recession period. A virtuous cycle develops, with low interest rates helping to keep savings rates low and maintain consumer spending;
- **Public spending cuts**: Cuts of 7-15% implemented between 2011 and 2014 are timed to coincide with strengthening private demand. Front line services are protected and spending increases in health and education lead to cuts of around 6% per year in other departmental budgets. These are primarily delivered via efficiency savings
- **Net trade growth**: Growth in world trade accompanies the global recovery from the recession, with trade growing most rapidly with the emerging economies that were first to recover from recession. The diversification of UK exports away from financial services is supported by the depreciation of the pound, improving UK's trade balance and contributing to economic growth
- **Falling unemployment**: Contrary to patterns from previous recessions, redundancies are not associated with an increase in long term structural unemployment. Greater workforce flexibility and investments in employment support before and during the recession mean that recovery is accompanied by steady falls in unemployment.

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Scenario 2: A Lost Decade of Economic Growth

Drawing heavily on the experience of Japan since the early 1990s and fears that such a situation could be repeated in the UK, this scenario presents a UK economy where domestic consumer and business demand have failed to expand and where export performance has stalled. Under this scenario there are disastrous implications for public finances and a need for much sharper spending cuts.

- **Economic stagnation**: GDP growth does not return to pre-recession rates of growth. With GDP growth averaging just 1.1% p.a.[23] it takes until the end of the decade before the losses of the recession are regained;
- **Consumer and business retrenchment**: Fiscal and monetary stimuli fail to boost demand. Hit by falling asset prices, consumers and business cut spending in order to rebuild savings and balance sheets. Constraints on credit availability continue and together with low demand limit the scope for business investment;
- **Long-term deflation**: The Bank of England extends its quantitative easing programme repeatedly to try and offset sustained falls in prices. In the face of low aggregate demand and consumer retrenchment, inflation stays below the Bank of England's 2% target;
- **Unsustainable public finances**: The 'go for growth' strategy pursued in the first six months of 2010 fails, putting the plan for long-term public deficit reduction in jeopardy. Ratings agencies respond by downgrading government bonds, dramatically increasing the cost of servicing the national debt. There is a tension between high calls on the public purse, the need to stimulate the economy and the need to deal with increasing public debt[24]. As GDP growth halts, public sector borrowing continues to increase and is around 6.5 % of GDP in 2020-2021[25]. National debt continues to rise and is around 80% of national income. It decreases only very slowly; debt to income ratio will halve only by 2032[26], forcing further and more dramatic cuts in spending.
- **Continued high unemployment**: Claimant count unemployment increases until 2011 and unemployment rates remain much higher than in the pre-recession period due to slow labour market recovery. With a persistently high savings ratio and public spending cuts,

[23] This reflects the rate of growth seen in the Japanese economy over the past two decades: Wolf, M. (2010) 'What can we learn from Japan's decades of troubles', *The Financial Times,* 12 January (http://www.ft.com/cms/s/0/3c5b388e-ffb2-11de-921f-00144feabdc0.html?nclick_check=1)
[24] MENAFN News (2009). "Japan unveils 10-year strategy to overcome deflation". 30th December 2009
[25] Institute of Directors (2009). *An Economic Recovery Plan for the UK*. Institute of Directors Budget 2009 Representations
[26] The Guardian (2009). *Labour's boost to public services spending since 2001 'will be wiped out by cuts' says IFS*. 10th December 2009

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unemployment increases steadily from 2014 and reaches 2.25 million in 2021[27]. Rates of long-term unemployment increase as new employment opportunities fail to materialise

- **Slowdown in globalisation/world trade**: World trade is characterised by growing isolationism as all countries attempt to ensure fiscal stimulus packages support only home firms. Trade volumes deteriorate as non-OECD economies fail to sustain export-based economic growth strategies. Protectionist policies mean that a depreciated pound does not boost demand for UK exports.

Whilst the differences between the scenarios are significant, two themes relevant to the heritage sector can be assumed to be relevant to both. In both scenarios growth will be driven by knowledge based services. The recoveries of the 1980s and 1990s were driven by increased employment in knowledge based services and the creation of other knowledge intensive jobs[28]. The recovery of employment in the 1990s is shown in the chart below.

However, the focus of jobs growth will be on a narrower range of market based knowledge service sectors. The 1980s and 1990s recoveries saw some growth in employment in education and health services, including increasing employment in private and other non-public providers of these services. Over the next decade we expect non-public employment to increase in both these areas. There may also be some expansion in public sector employment areas such as care, driven by demographic pressures, and parts of higher education, with higher individual contributions to the cost of education. But overall, the growth in public based education and health services will be significantly weaker than in previous recoveries. Other sectors such as retailing are also less likely to grow strongly in job terms, reflecting slower growth in consumer spending, a shift towards less labour intensive on-line shopping, and even greater use of labour saving new technologies.

[27] Oxford Economics forecast 2009
[28] Ibid

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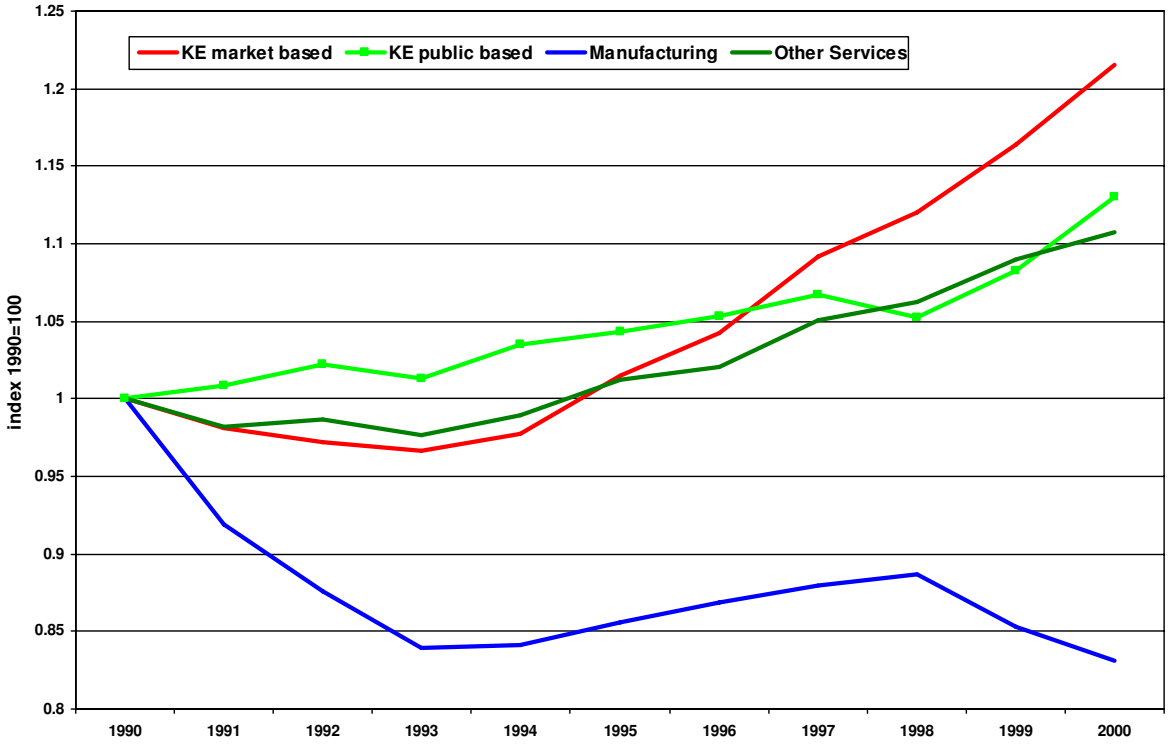
Figure 1.5: Knowledge economy and 1990s recession and recovery



Source: EU KLEMS

The way in which the economy develops will influence the importance of these trends. In scenario one, we would expect a more rapid shift towards knowledge based services and for sustainability to be more important. In the more pessimistic scenario, although we would still expect to still see some change in the composition of employment towards more knowledge intensive activities, a prolonged period of depressed growth could act to slow this transition[29]. Low levels of business and consumer demand would depress demand for knowledge intensive services, potentially reducing or stifling innovation: evidence suggests that low levels of consumer and business demand hurt the productivity of Japan's research and development sector in the 1990s[30]. In turn this would slow the development of new products and services (including new sustainable products and services) and the creation of markets around them.

New industries, new activities, new jobs

Knowledge economies do not respect conventional industrial boundaries. We need to think less about specific industries and more about groups of activities with a single unifying theme that cut across conventional industrial boundaries. Heritage is just such a group. Within each group particular activities will become more or less important – as they always have done in a dynamic

[29] See Annex for evidence from the Japanese experience in the 1990s
[30] Branstetter, L. and Nakamura, Y. (2003) *Is Japan's Innovative Capacity in Decline?* NEBR working paper No. w9438: http://www.nber.org/papers/w9438

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economy. But overall the 2020 economy will see a rising share of economic activity, innovation, exports and jobs across four broad areas:

- the "manu-services" sector which integrates technologically advanced manufacturing with high value services;
- low carbon goods and services, including the implementation of existing technologies, the expansion of advanced manufacturing processes, and the development of new and existing services;
- the creative and cultural sector bound together through "expressive value" or copyright-able activity;
- High tech and high value added networked and intermediary services.

Towards a 2020 innovation system

We stated earlier that by 2020 the UK will have developed a comprehensive innovation system building on the solid foundations of today, including the evidence base created through the work of BIS[31] and bodies such as the National Endowment for Science, Technology, and the Arts (NESTA). It will be built into the priorities for every Whitehall Department and public agency and cover all sectors of the economy. It will be as firmly anchored in the creative and cultural sectors as it is in the science and technology base.

The innovation system will put as much emphasis on setting the right frameworks and use regulation, planning, and other non-fiscal mechanisms. The quest is on for policy levers that can deliver behavioural change as effectively but more cheaply. Here "behavioural economics "which delves into the social, psychological and non-materialistic motivations for human behaviour", has some rich insights.

The 2020 innovation system will reflect the faster introduction of "general purpose technologies" or GPTs. These all have their roots in technology, but can be technologically advanced products, processes (such as lean production) or services. Like electricity, the internal combustion engine, or the internet, general purpose technologies have the power to change the organisation and structure of whole economies and not just particular industries. Some definitions identify between 8 and 10 general purpose technologies in the 20th century compared with up to five in the preceding 150 years. We can expect many more in the 21st century[32]. One reason for the speeding up is that innovation stands on the shoulders of the stock of scientific and technological knowledge and that

[31] Business Innovation and Skills Department and predecessor Departments dealing with innovation policy.
[32] Lipsey, R. Carlaw, K. and Bekar, C. (2005) *Economic Transformations: General Purpose Technologies and Long Term Economic Growth.* Oxford University Press

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stock is expanding very rapidly across the globe – so rapidly that simply keeping pace with what is genuinely new in the world is a major challenge. Inventions in particular areas can happen very quickly after an initial breakthrough – including rediscoveries of processes that could not be developed further at the time because they depended on other discoveries.

The innovation system will help the 2020 economy rise to a series of major engineering challenges, from the practical application of nano-technology and fusion power, carbon sequestration, health informatics and customised medicines, to cyberspace security and enhanced virtual reality to personalised learning[33]. Some organisations refer to "enabling technologies" that cut across conventional research boundaries through combined innovations in, say, optical, chemical and biological applications in areas such as healthcare[34]. In the UK, the Technology Strategy Board is pioneering centres of excellence – Innovation and Knowledge Centres – in universities to help business develop and exploit emerging technologies[35].

The OECD identifies five new science and technology growth areas for the future – heath, electronic communications, environment, bio-tech and nano-technology[36]. The UK's positioning is mixed – strong in some areas such as health related science and telecommunications and in other areas showing old weaknesses that have not been fully addressed. For example, in environmental science the UK is at the forefront of scientific citations, but lags in terms of patents for environmental technologies.

TECHNOLOGICAL CHALLENGES AND GROWTH AREAS IN THE 2020 KNOWLEDGE ECONOMY

20th/ 21st Century General Purpose Technologies	21st Century Great Challenges	21st New Growth Areas
20th century Internal combustion engine; Electricity; Motor vehicle; Airplane; Mass production; Computer; Lean production; internet; Biotechnology 21st century Nanotechnology	Nanotechnologies Energy from fusion Advanced materials Carbon sequestration Managing the nitrogen cycle Water Health informatics Durable customised infrastructure Customised medicine The brain Cyberspace security Enhanced virtual reality Personalised Learning	Health Environment Electronic Communications Bio-technology Nano-technology
Lipsey, Cardwell, and Bekar (2005) Economic Transformations	US Academy of Engineering (2008) Grand Challenges for Engineering	OECD Science and Technology Indicators 2009

[33] US National Academy of Engineering. (2008) *Grand Challenges for Engineering*:
[34] Technology Advisory Group. (2009) *Towards a Brighter Future,* Scottish Enterprise.
[35] Technology Strategy Board (2009):
http://www.innovateuk.org/
The Technology Strategy Board's 2020 ambition is to see the UK poised to lead the world in a major new growth sector comparable with mobile phones, digital cameras or internet searching.
[36] OECD STI Scoreboard 2009.

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The innovation system must also be as capable of responding to innovation in services and the changes in consumer tastes and preferences that provide one of the key underlying drivers towards a knowledge economy. Many are familiar with the growth of personalised goods and services, but some have identified a trend to "experiential" services where part of the package is the "experience" felt by the individual[37]. Just as the industrial boundaries become porous in a knowledge based economy, it will become less relevant to think of service innovation, product innovation, and technological innovation taking place in different boxes. Increasingly, they will take place simultaneously and be driven as much by users as much as by producers.

[37] Voss, C. and Zomerdijk, L. (2007) *Innovation in Experiential Services*, DTI OP No. 9. London,

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Section 2: Heritage and the 2020 Knowledge Economy

Heritage activities stand outside the current definition of knowledge based sectors by the OECD and the sector is not directly included within the DCMS definition of creative and cultural industries – two key knowledge intensive industries[38]. Despite the highly intangible nature of the concept of heritage and the fact that educational benefits are central to the sector's mission and output, a significant proportion of employment in the heritage sector is not particularly knowledge intensive[39]. Whilst research activities are likely to be highly knowledge intensive these represent a small proportion of overall heritage employment. Work at libraries, museums, and historical sites contain a mix of highly knowledge intensive roles and routine jobs, but employment in industries such as construction and tourism are dominated by low skill and manual employment. This relatively low knowledge intensity does not however diminish the impact of the knowledge economy on the heritage sector.

One might expect that the scope for the heritage sector to respond to these knowledge economy drivers would be limited by the nature of the core assets of heritage. As noted above, in other industries the shift towards the knowledge economy has been characterised by the development of new intangible assets which support knowledge intensive work. Value is increasingly derived from assets such as design, human and organisational capacity, software, research and development and brand equity rather than the traditional notion of tangible assets such as machines and premises. Reflecting this shift, as noted above, investment spending from businesses increasingly focuses on these areas.

In contrast, what we understand to be the core assets of the heritage sector – buildings, attractive environments, historical records and past experiences – are by definition inherited and unchangeable. However, development will occur with respect to how these assets can be packaged and linked to demands for heritage goods and services from the public and private sectors. This may include activities such as new educational services, new marketing approaches and ways of implementing new technologies to improve awareness of heritage offers, to aid accessibility, or to develop the offer of the attractions themselves. This will offer the sector the opportunity to respond to these changes.

This section explores the potential for the heritage sector to develop this response, focusing on the opportunities arising and the challenges associated with six key areas of development:

[38] Some heritage activities are however included within the Eurostat definition
[39] See Data Annex

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- **Heritage and the high demand society** – Exploiting the expanding and increasingly sophisticated consumer demand associated with the development of the knowledge economy;
- **Heritage and the innovation system** – Effectively supporting scientific heritage will be central to the continuing development of the UK's innovation system;
- **Heritage and the creative and cultural economy** – Heritage is central to many of the aspects of culture which underpin and support the development of the UK's creative and cultural economy – a key sector for the wider 2020 knowledge economy;
- **Heritage and the low carbon, sustainable economy** – The heritage sector will play a special role within the development of low carbon and sustainable economic activities. These activities will also form an important part of the 2020 knowledge economy;
- **Making the most of the public sector** – All public sector organisations have an important role to play in supporting the continued development of the knowledge economy. Public heritage organisations must take the opportunity to dispose of their resources in ways which support this agenda; and
- **The 2020 knowledge economy and urban development** – Opportunity for the sector to support cities across the UK to thrive in the 2020 knowledge economy through the attraction of highly skilled workers, knowledge based businesses and high demand consumers, as well as through capitalising upon heritage institutions that may impact upon attractiveness to investment.

Heritage and the high demand society

Heritage is part of the knowledge economy's "high demand society" for cultural and creative services and experiences driven by the most demanding, best educated, and discerning consumer base. The way heritage is communicated, accessed, and used to educate and enlighten is constantly changing using the latest in design, marketing and branding, and communication technologies. The past may stay the same, but its interpretation and communication to the present does not. Consumers are increasingly demanding not just personalised services but also the "experiential". Heritage services are well placed to provide the experience that distinguishes consumption in knowledge based economy.

"*Experiential services are services where the focus is on the experience of the customer when interacting with the organisation, rather than just the functional benefits following from the products and services delivered….every touch point that the customer has with the organisations is an experience, no matter how mundane the product or service that is being delivered. These experiences can be positive or negative, and to a greater or lesser extent memorable*" (Valencia, Westberg, and Voss, 2007, Innovation in Experiential Services, AIM.

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In a 2007 review[40] of long term opportunities and challenges for the UK, the Treasury noted how consumer consumption patterns change as societies become richer, so that demand switches to higher value added goods and services. Within what they termed a "high demand society" the review identified health and education services, cultural and leisure services, and environmental related services as future growth areas. The review makes the important point that it is not just that societies grow richer threat drives these changes: it is also that better educated consumers have become more demanding.

The review went on to conclude: *"Many baby-boomers will have spent their working life in much better health and education than any preceding generation and none will have experienced the great depression and the war years. They have grown up in a consumer society. Some may be used to diversity, choice and have experience of international benchmarks of customer service. As a consequence, the baby boomers are likely to be more demanding consumers even in older age, including of public services, than previous cohorts" (para 3.58, p 41).*

The practical upshot is that richer societies and the baby boomer generation in particular are likely to place more value on a clean environment and therefore are likely to be prepared to spend more on services and goods that are associated with less damage to the environment and are seen to contribute towards the physical and natural environment. They will also consume more leisure related goods such as culture.

Although there is limited historical data on spending on culture, we do know that the growth of the knowledge economy has been associated with increased consumer spending on a range of knowledge services, including recreation and culture[41]. Household expenditure on recreation and culture grew from 6.3% in 1988 to 8.3% in 1998 and 13.2% in 2008[42]. The continuation of this trend would see an additional £50bn spent in the UK each year on recreation and culture, simply from changing spending patterns. While it is not possible to accurately calculate what share of this spend currently relates to the heritage sector, it is possible that the sector could capture some of this increase.

The most obvious contribution made by heritage to the local economy relates to the role that the diverse array of heritage sites and organisations play in attracting tourists and visitors and

[40] HM Treasury (2007) *Long term Opportunities and Challenges for the UK: analysis for the 2007 CSR.*
[41] Brinkley, I. (2009) *Recession and the Knowledge Economy*, The Work Foundation: London
[42] ONS (2009) Household Final Consumption Expenditure

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motivating the behaviour of consumers and visitors'[43]. The Peak District, for example, is the oldest and most visited of the English and Welsh National Parks, attracting more than 22 million visitors each year, whilst Newcastle has been awarded the title of 'England's favourite city break' multiple times[44]. Figures 1 and 2 show that heritage is a significant driver of tourism in the North East region and the Peak District, as many of the activity categories would fall within the broad definition of heritage used in this report.

Table 1: Responses of visitors to the North East (Regional Visitor Survey Final Report – Tourism UK Limited – May 2007)[45]

Activities	Day Visitors	Overnight Visitors
Eating out	40%	49%
Shopping	38%	40%
Pubs / nightclubs	13%	29%
General sightseeing	20%	42%
Visiting museums, art galleries, heritage centres etc	26%	33%
Visiting 'heritage' sites – castles, monuments, churches etc	12%	29%
Visiting parks and gardens	19%	19%

Table 2: The main activities of visitors to the Peak District National Park[46]

	Day Visitors %	Overnight Visitors
Stroll / short walk	33	33
Hiking (2 hours or more)	59	86
Sightseeing (in car)	52	70
Sightseeing (on foot)	61	74
Picnic / buying food	81	100
Relax / sitting around	22	20
Shopping	25	41
Visit information centre	19	42
Visit historic attraction	20	44
Nature study / bird watching	21	31
Sports / hobbies	19	29

Visitors spent £1.2 billion in Newcastle Gateshead in 2007, directly supporting 17,700 jobs[47] and research by ARUP suggests that 'in terms of jobs created, visitor related impacts account for over 70% of total economic impacts of heritage in the North East'.[48] Tourism is also a major source of employment for residents in the Peak District, providing an estimated 500 fulltime jobs or 24% of all employment[49].

[43] Tribal. (2008) *Maximising the Contribution of Heritage to the North East Regional Economy Strategy and North East Tourism Strategy*, One North East
[44] The Guardian/Observer Travel Awards 2002-2005. See link
[45] ibid
[46] Peak District National Park Education Website: www.peakdistrict-education.gov.uk
[47] 1 NG website: http://www.1ng.org.uk/
[48] ARUP (2005) *Economic Social and Cultural Impact Assessment of Heritage in the North East*, North East Historic Environment Forum
[49] Peak District National Park Authority Website (2009). *A Place Called Home:* http://www.peakdistrict.gov.uk/index/living-in.htm

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Within the tourism sector, the UK has proved to be highly successful in exporting heritage services. Based on International Passenger Survey data, Oxford Economics[50] estimate that international travellers made 9.8 million heritage day visits in the UK in 2007, generating estimated expenditure of £5 billion. Globalisation, and the stronger engagement of non-OECD nations in global trade, has been associated with the growth of a global middle class. This has been driven by increasing affluence in many non-OECD nations. If the UK can replicate past success in attracting such groups, then their expansion has the potential to boost UK tourism exports, and possibly to provide new income for the heritage sector. Over the next decade there may also be increased scope to export some of the expertise and knowledge – both managerial and technical – of the people employed within the UK heritage sector for both short and longer term projects. As part of efforts to rebalance the economy away from financial services the heritage sector can play a key role in driving forward this agenda.

As heritage represents a celebration of past experiences the stock of heritage assets is therefore by definition continuously expanding. Perhaps the best example of this is Anthony Gormley's *Angel of the North* sculpture: by successfully embodying the area's wider industrial heritage, the Angel of the North is already considered to be part of the heritage of the Newcastle-Gateshead area. Identifying new heritage assets whilst meeting current demands and avoiding the undue influence of temporary fashions, will form part of the wider efforts to rebalance the economy. This necessitates foresight about what will be valued in the future as well as the ability to act. It represents a key challenge and opportunity for the heritage sector over the next decade.

But, though the most obvious, tourism is not the only way in which consumers will increasingly demand a heritage 'experience'. The desire to learn about heritage could create demand for heritage services well beyond the notion of tourist holidays and day trips, creating opportunities for growth in businesses that enable people to participate in cultural life through a range of different levels of intensity, from attendance at events and talks to the more engaged commitment of learning and education. People will increasingly be prepared to pay not only for the experience of visiting heritage sites, but also to learn about heritage, to be taught heritage skills, and even to be involved in carrying out conservation work.

A 2020 Challenge for the Heritage Sector

A number of issues faced by the sector will make exploiting the opportunity of the high demand society a particular challenge:

[50] Oxford Economics (2009) *Economic impact of the UK heritage tourism economy.* Heritage Lottery Fund

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- **Adapting to lifestyle and consumption changes**: The recession appears to have had a mixed effect on individual patterns of consumption, with some heritage sites reporting increased visitors and revenue with the rise of the 'staycation' and others indicating that the squeeze on household spending has had significant impacts on revenues. Over the longer-term the continued rise of shopping as a leisure activity was identified as a challenge by a number of heritage organisations in Newcastle and the Peak District, which saw it as a major source of competition for the time and money of visitors;

- **Monetising the benefits created by heritage assets**: A persistent challenge faced by many visitor attractions is that they fail to capture the benefits which are associated with their activities. For example revenues from a coach tour through a string of picturesque Cotswold villages will not necessarily provide an income stream to maintain those villages. This market failure is a particular issue for smaller visitor attractions which are limited in their revenue raising options, but are fundamental to the collective heritage offer of a place. This is a particular obstacle when taking a demand oriented approach to the heritage sector;

- **Financial sustainability and the 'never-ending capital question'**: The difficulties associated with achieving self-sustainability are widely acknowledged to be a key challenge for the heritage sector, particularly in a time of public sector cutbacks and reduced discretionary spend by the private sector. Heritage buildings are by definition older and more expensive to maintain and existing revenue streams tend to cover no more than the upkeep of the attraction and the wages of staff, leaving little time or space for heritage organisations to think creatively about how to maximise their assets and increase their revenue; and

- **Expanding the diversity of the visitor and volunteer base**: the heritage sector has historically performed poorly in attracting a diverse range of visitors, and evidence on the range of volunteers involved with heritage also shows a lack of diversity[51]. Recent analysis of responses to the national *Taking Part: the National Survey of Cultural, Leisure and Sport* survey found that attendance at heritage sites is strongly influenced by income, gender, age, ethnicity, qualifications, socio-economic group and car ownership[52]. Whilst being of particular interest to older individuals might be considered a strength in the context of an ageing

[51] See Burns Owen Partnership for HLF (2009). *Assessment of the social impact of volunteering in HLF-funded projects*. Available at: http://www.hlf.org.uk/aboutus/howwework/Pages/socialimpactreport.aspx and Ipsos Mori for HLF (2009) HLF Heritage Grants and Your Heritage programmes: 2004-2007 Aggregated completions report. http://www.hlf.org.uk/aboutus/howwework/Pages/Fromvisitstovolunteers.aspx

[52] Centre for Economics and Business Research (2007) *Main Technical Report: Attending Heritage Sites*, English Heritage,
suggests that a 60 year old, white female, qualified to degree level, with access to a vehicle, earning £60,000 is almost one and a half times more likely to visit a heritage site than a 25 year old black male, with GCSE level qualifications, earning only £20,000.

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population,[53] it cannot be assumed that the next generation will necessarily be interested in the same aspects of heritage. Changing values and attitudes will require the sector to undertake renewed outreach and engagement at all levels if it is to maintain current levels of interest and sources of revenue.

Success here will depend on positioning the sector so that it can respond to meet this developing consumer demand.

Heritage and the innovation system

The importance of the heritage sector goes beyond meeting the demands of an increasingly affluent society. The activities of the sector are of important relevance for the continued development of the knowledge economy. In particular, the treatment of scientific heritage is of great significance for the UK's innovation system.

In our 2020 vision for the knowledge economy we argued that future strategy should be equally based on the scientific and the creative sectors, that the UK must confirm world class scientific status in priority areas, and that this should be used to increase knowledge exports. Heritage science straddles both the scientific and creative sectors; it includes world class scientific expertise, based on world renowned public institutions, such as the British Museum and the Natural History Museum, and has potential for exporting that knowledge world-wide. Across the non-OECD, public and private bodies are investing in their heritage base – reflecting rising interest in and consumption by domestic populations as well as the opportunities for higher value added tourism.

In 2006 the House of Lords argued that the fragmented and under-valued nature of scientific heritage meant Britain's world class status was slipping away. One reason was that research in this area was perceived as neither a science nor an art. In a knowledge based economy, the ability to straddle both should be seen as an asset, not a weakness. In 2008 the first national scientific heritage strategy was launched, followed in 2009 by a five year science and heritage programme jointly funded by the Arts and Humanities Research Council and the EPSRC. By 2020 these first steps must be consolidated with clear and firm leadership from government, heritage and scientific institutions and non-government and commercial partners. In our 2020 vision we argued that the UK must get more higher education institutions into the world top 50, not the top 500. The same concentration on centres of excellence with global reach must be a key objective of a reinvigorated heritage science strategy.

[53] ONS predict that the proportion of people aged 65 and over is projected to increase from 16% in 2008 to 23% by 2033 - http://www.statistics.gov.uk/cci/nugget.asp?id=1352

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> "Society is underpinned by its understanding of history and the quality of society is enhanced by its appreciation of the endeavours of human creativity such as objects held within museum, gallery, library and archive collections, historic buildings, archaeological sites and cultural landscapes. This appreciation, often expressed as values, is in turn profoundly influenced by the survival of the physical artefacts that embody much of cultural heritage. In order for heritage to survive, it needs to be protected but it will only be protected if it is understood and valued. Science and Heritage brings together the values, meaning, materials, and conversation of cultural heritage"
>
> Science and Heritage Programme *(2009)Research Programme Specification March 2009: How do we Define Science and Heritage?*

A Challenge for the 2020 Heritage Sector

Achieving a world class scientific heritage sector will be dependent on having access to highly skilled individuals in a range of fields.

- **Low sector knowledge intensity**: In the context of growing demand for highly skilled individuals, labour demand in the sector that is dominated by low skills and manual employment creates significant challenges. The often limited nature of financial reward in the heritage sector also presents challenges in attracting high skilled individuals to work in the sector and for individuals to invest in heritage-related education and training.

We have found evidence of a growing trend towards professionalisation within the heritage sector (identified in case studies) with increasingly qualified individuals entering the sector and increasing demand amongst existing sector employees to codify their knowledge and acquire new skills, for example at the College of the Peak in the Peak District. This apparent trend towards upskilling and professionalisation within the heritage sector is particularly significant in light of the fact that heritage occupations have traditionally been low in terms of knowledge intensity. It raises the possibility of greater innovation within, and new directions for, the sector.

Heritage and the creative and cultural economy

By 2020 the UK's creative and cultural economy will have outgrown financial services as a share of GDP and consolidated the UK's role as a world leader. It will be a significant contributor to export growth and a major domestic generator of jobs and innovation – not just in its own right but through strong linkages with other key wealth producing sectors from advanced manufacturing to high tech services. In 2008 the sector employed nearly 2 million people, having grown by 26% since 1997. It accounted for just over 6% of GDP (2007) and generated £17 billion in direct measured exports[54]. The current demand for creativity is on an unprecedented and under-reported scale, often because it is not recognised as such.

[54] Department for Culture Media and Sport estimates.

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Yet heritage fits uneasily within the sector despite the identification of "cultural heritage" as a separate set of activities. It is, for example, not recognised explicitly within the current DCMS definition of the cultural and creative industries. In the 2007 TWF report *Staying Ahead* we developed a "bulls-eye" with "expressive value" at the core: "Ideas of expressive value' can range from the humblest pleasing song or appealing advert to the latest interpretation of Shakespeare or new design for a car. They create new insights, delights and experience; they add to our knowledge, stimulate our emotions and enrich our lives". Heritage we would suggest both contributes to, and forms part of, the supporting infrastructure for that core – providing inspiration and ideas for artists, designers, architects, marketing and brand equity professionals, and both the conventional and electronic publishing and media sectors.

Yet the underlying drivers of why cultural industries in the UK appear to be an international success story are still unclear – on the face of it, other OECD economies are just as well educated (and some significantly better) and affluent, have access to the same technologies, and enjoy as rich a cultural and architectural heritage. Some contributors are the accident of history, such as the English language; others such as cultural diversity are harder to pin down and are hardly unique to the UK. But it must also reflect the historic public and heritage infrastructure that supports the creative sector – libraries, museums, art galleries, art and design schools and centres; and powerful public service based institutions such the British Museum and other centres of excellence.

Some will say that if the sector is doing well, then leave it alone – the current arrangements are delivering even if we are not sure why. But even before the current crisis, some sectors were showing signs of stress in response to the cyclical downturn. The sector is facing structural challenges in ways that will be strongly influenced by the public policy agenda – for example, the collapse of business models based on conventional advertising channels in electronic media, likely cuts in public support for the arts and related higher education institutions, and the fall-out from the decline in financial services. And other OECD economies are recognising the value of expanding their cultural and creative sectors threatening the world leader position of the UK. Heritage faces similar challenges.

The Work Foundation's *Staying Ahead* report and the DCMS strategic response were framed in very different circumstances. A strategic re-evaluation of the sector's future and the policy actions and frameworks is now required for the next ten years; it must be cross-Departmental; and it needs to map out how the infrastructure supports and nurtures expressive value within the creative and cultural industries. Heritage infrastructure – both tangible and intangible - must be included as part of this strategic mapping exercise.

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The heritage sector is well placed to support growth across the wider cultural and creative industries. There is an historic public infrastructure in the UK – libraries, museums, art galleries, historic buildings, art and design schools, powerful public service based institutions such as the BBC and other media service providers - that supports and drives the growth of the creative sector. Heritage organisations and institutions must renew and expand their mutually beneficial links with creative practitioners and cultural and creative businesses (large and small) if the cultural and creative sector is to become a more significant contributor to export growth and a major domestic generator of jobs over the next decade.

A 2020 Challenge for the Heritage Sector

- **Identifying and understanding links between heritage and the wider cultural and creative economy**: While the relevance of the heritage sector for the creative and cultural economy is immediately apparent, we know relatively little about how the two areas of activity relate to each other. The links and mutually beneficial spillovers between the two are poorly understood. In supporting the development of these links, the first challenge is to identify these links, and to better understand how they operate.

Heritage and the low carbon, sustainable economy

By 2020 our vision is that the UK will have secured a world leading role in developing markets for low carbon goods and services, expertise in successfully implementing low carbon strategies, and using this to become a major exporter of goods, technologies, and knowledge services associated with the low carbon economy. Our desire to cut carbon dioxide emissions has been associated with the creation of three broad areas of activity:

- Using fossil fuels more efficiently (such as hybrid vehicle technology);
- Preventing the release of emissions into the atmosphere, or removing carbon dioxide from the environment (such as carbon capture and storage facilities);
- Supporting the transition to less carbon intensive operations (such as carbon finance and carbon trading activities).

Precisely defining and identifying the current scale of activities which derive their demand from desires to cut emissions remains a challenge. Their cross-sectoral nature results in a poor match with standard industrial and occupational classifications. The concept is also often confused with wider notions of green jobs, the Green Economy, Green Collar Jobs, the Environmental Economy and Eco-Industries.

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Our research on the low carbon economy has identified a number of fundamental challenges facing attempts to predict the future growth of these activities. The diversity in the range of sectors which comprise the low carbon economy prevents the reliable collective prediction of their future growth. The task of forecasting individual low carbon economic activities is no less daunting. Uncertainties pervade the estimation of likely future demand, the development of supply, as well as the supply of relevant skills. In predicting these activities, forecasters are forced to make assumptions about each of these. The outputs from such exercises are therefore dominated by these decisions, rather than the fundamental drivers of the low carbon economy.

The concept of low carbon activities has proved elusive – ranging from industries and activities that directly benefit the environment to "clean-tech" businesses and activities. The strongest analytical definition has been that of market groupings of low carbon environmental goods and services that embodies less carbon dioxide than existing alternatives. We think the low carbon economy will develop along three inter-related scenarios:

- Implementation of existing technologies (e.g. switch to electric cars, energy efficiency through retro-fitting the building stock);
- Advanced manu-services, placing firms at the cutting edge of environmental technologies;
- New services –design, consultancy, brand equity, carbon trading.

Heritage has the clearest links to the first and third scenarios. The first scenario will include decisions about: how we re-use existing buildings and re-configure our urban centres so that they can provide the living and working spaces for the incipient knowledge economy; how our building stock is to be refurbished for greater energy efficiency and the use of renewable technology. But it is also at the forefront in driving forward new scientific advances and innovative ways that help mitigate and manage the pressures on the natural heritage. The third scenario is where building on creative industry strengths such as design in low carbon products and architecture, software and computer services, advertising (encouraging and informing consumer acceptance and demand for low carbon products, services, and practices) is of increasing importance. These areas are of less direct relevance for heritage, but could impact through the links to creative industries detailed above.

In addition to an increased focus on knowledge intensive activities, the next decade will see a continued transition towards a low carbon economy[55]. As noted above, greater awareness of the risks of climate change, growing public and consumer support for sustainable goods and services

[55] Levy, C. (2010) *A 2020 Low Carbon Economy.* The Work Foundation: London

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and fears over the costs and security of future oil and gas supplies[56] are likely to maintain this as a key issue for the coming decade.

It is therefore highly likely that an increased carbon price of some form will become increasingly relevant for economic activity. Overall this is likely to present a challenge for many resource intensive activities. It will, however, support the growth of activities with small ecological footprints and the development of a balanced and sustainable economy. Specifically, the economic implications of this shift can be expected to operate through three mechanisms:

- As a carbon price makes resource intensive activities more expensive, industries unable to adapt to new low-carbon ways of working may be at risk. For example, workers engaged in existing energy production may lose out to those employed in the generation of energy from renewable sources;

- Rising transport costs will impact on existing production. It may no longer be cost effective to maintain some non-essential global production networks – such as certain foodstuffs. As well as provoking a change in consumer behaviour, this may support the development of more local production networks; and

- The desire to maintain our current way of life and existing consumption patterns, while also reducing carbon emissions, has been associated with the creation of a range of entirely new economic activities. Attempts to capture carbon dioxide as it is released from power stations or directly from the atmosphere is an example of such activities.

There is a clear opportunity for the sector to relate closely to this agenda, and potentially to derive value from taking a lead. Many heritage organisations – including those we spoke to in Newcastle and the Peak District – identify the sustainability agenda as a key opportunity for the heritage sector. There is a clear role for natural heritage assets such as the Peak District National Park which plays a key role in carbon sequestration. Many heritage organisations are already investigating and developing micro renewable energy technologies that are sensitive to the landscape. The Peak District National Park Authority is exploring opportunities for green energy production and supply and the Moors for the Future Partnership will use a grant of €7 million from the European Life+ Fund to restore more than 2,000 acres of high carbon storage moorland in the Peak District and South Pennines[57].

[56] HM Government. (2009) *UK Renewable Energy Strategy*
[57] Peak District National Park Authority website (2009) *A win-win approach to climate change?* 14th December 2009: http://www.peakdistrict.gov.uk/news-display-page.htm?id=20882

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One project that is being pursued backed by support from the Peak District National Park Authority and the Park's Sustainable Development Fund is the development of an anaerobic digestion plant(s) that will capture power from methane. Anaerobic digestion is a natural biological process carried out by bacteria that breaks down organic material into fertiliser products and biogas. A number of small community projects have also emerged in recent years that respond to this new agenda. Last year a riverside mill site (on the river Lathkill) which dates back to the time of the Domesday Book became the first mini-hydro power station in the Peak District. The Alport Mill's (near the Haddon estate) turbine provides power for 70% of the homes in the village of Alport. The power station will save more than 100 tonnes of CO2 emissions every year and will not damage the local wildlife.

There is also potential for the sector to take a lead in demonstrating the merits of building reuse. As noted above, all industries are likely to come under increasing pressure to cut the carbon-dioxide emissions associated with their activities and buildings. Domestic and non-domestic properties are responsible for 47% of UK carbon dioxide emissions[58]. Despite the challenges around the retrofitting of heritage buildings outline above, it remains true that constructing new alternative premises is a highly resource intensive process. There are opportunities for the heritage sector to lead the way in advocating the re-use of existing buildings over new build and in installing and using new energy efficient systems and technologies that reduce energy use in a way which is sympathetic to the characteristics of their assets. It should also be noted that success in reducing energy emissions would also dramatically cut the operating costs of such buildings.

Beyond this narrow focus on the low carbon economy, there appears to be increasing interest in wider sustainability issues. This is something the heritage sector is expected to be well placed to respond to. Many initiatives promoted or practiced by the heritage institutions are sustainable and aim to preserve natural and built heritage in harmony with the environment. The re-use of existing buildings such as the former mill - now the BALTIC centre - and the historic buildings of Grainger Town in Newcastle is a much more environmentally sustainable form of development than demolition and new build. The piloting of a cycle scheme that encourages people to cycle over disused railway tracks in the Peak District also shows that it is possible to promote healthy, environmentally friendly activity whilst also contributing to the local economy, for instance via cycle hire.

The Peak District National Park Authority is currently promoting a climate change and wider sustainability agenda, playing an anchor institution role in respect to the relationship it is developing with local communities and businesses. Although contributions may be limited in

[58] GVA Grimley. (2007) *Sustainability - Towards Sustainable Offices*. GVA Grimley.

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financial terms, the authority is keen to look at the role it can play in offering advice and expertise (and coordinating) to a number of small projects and community organisations. The authority's advisory activities range from giving guidance to farmers when applying for agricultural subsidies to helping local land managers conserve and protect the park.

Last year the Park Authority launched a three year programme (2009-2012) helping people take care of the environment by living and working in sustainable ways. The 'Live and Work Rural in the Peak District' programme brings together a range of partners including business link, the university of Derby and Natural England to help people with business ideas (networking, advice, the recognition of efforts to conserve the environment etc) and to help communities (encouraging people to use their skills for community action, and helping to find funding to achieve local projects). The Programme is in response to a 2008 report by SQW ('Contribution of the Peak District National Park to the Economy of the East Midlands') in which it was discovered that the natural environment was a key factor in attracting businesses and income to the area.

In addition, the sector engages with a very broad range of resource-use issues such as land management, habitat creation and preservation, biodiversity support and water management. Initiatives such as Natural England's Payments for Ecosystems Services work suggest that in the future there may be increasing opportunities to monetise the benefits associated with these activities and derive an income stream from the provision of services such as water management and bio-diversity services.

A 2020 Challenge for the Heritage Sector

However, if the sector is to lead on this agenda, then it will need to successfully respond to the specific constraints which the sustainability agenda is placing on its activities:

- **Adapting to the impacts of climate change**: The fixed location of heritage assets poses a particular challenge for heritage assets in terms of adapting to severe weather events. Relocation is often neither possible not appropriate in the case of heritage assets. Instead we anticipate changes such as these to place major financial burdens on many heritage assets as they lose revenue through enforced closure (for instance following summer flooding in Peak and Speedwell Caverns) and are forced to consider costly engineering solutions. The Department for Culture, Media and Sport are currently researching the financial implications of adapting to climate change for their assets. We expect this study to have far reaching implications for the heritage sector.

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- **The energy efficiency agenda**: This is of direct relevance for the heritage sector since modern new buildings must conform to building regulations which are considerably more efficient than the existing stock.[59] Increasing energy costs associated with heightened sustainability concerns could make older, heritage buildings more expensive and less attractive places for people to live, as well as less viable places for business to operate.

- **The financial and carbon costs of transport**: Many heritage assets earn income and create benefits from customers physically travelling to visit them and private transport often represents the only way of accessing heritage assets, particularly those in isolated rural areas. If transport costs increase significantly there may well be detrimental impacts on visitor numbers. There may also be a push for heritage assets to include the carbon costs of private visits within their carbon footprint assessments.

It is essential that the heritage sector continues to act quickly to spread best practice to support the low carbon economy agenda.

Making the most of the public sector

The state of the public finances means that the direct contribution of the public sector to job growth must be limited. But even within constrained spending totals, the public based knowledge industries will continue to make an immense contribution, both in their own right and in partnership with private sector organisations and institutions. Public service innovation is not only a necessity, but can be a big driver of organisational and technological change to improve quality, provided the right incentives and structures can be put in place. Too often the balance between reward and censure mitigates against risk and innovation[60]. A recent Kings Fund report sets out how technologies – which they define as any product, process, or service with an IT component – could transform the way NHS health services are delivered over the next decade[61].

Some of the ways in which the public sector will help drive forward the knowledge based economy over the next decade include:

- Public procurement to encourage innovation and acceptance of the new;
- Development of the medical and healthcare science and technology base;

[59] Boardman, B. Darby, S. Killip, G. Hinnells, M. Jardine, C. Palmer, J. and Sinden, G. (2005) *40% House* Environmental Change Institute, University of Oxford: http://www.eci.ox.ac.uk/research/energy/downloads/40house/40house.pdf

[60] Leki, R. (2008) *Public Service Innovation and the Knowledge Economy*. The Work Foundation: London

[61] Liddell, A. Adshead, S. and Burgess, E. (2009) *Technology in the NHS: Transforming the Patients Experience of Care*. Kings Fund.

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- The exploitation of the intangible asset base – such as design - to deliver better services at lower cost
- The role of educational and creative and cultural institutions such as museums, art galleries, libraries, and design and art schools, and the BBC;
- The pioneering of low cost initiatives through users and communities aimed at changing public and private behaviours and outcomes– from making places safer to better health outcomes to supporting the development of the low carbon economy;
- Meeting the regeneration challenge through developing the knowledge based economy at city and city region level;
- Extending global reach as part of the drive to increase knowledge service exports and increase the UK's world standing and reputation as a leading knowledge economy.

Common to all public sector bodies, public heritage organisations must take the opportunity to dispose of their financial resources and to use their networks and influence in ways which consistently support this agenda. For the heritage sector, using creative public procurement to support innovation within the wider economy will be of particular relevance.

In the past, the sector and public heritage organisations within it have been highly successful in deriving tourism revenues from the export of heritage services. Moving forwards, there will be a need to consider how this support can be offered in ways which promote the development of the innovative knowledge economy.

A 2020 Challenge for the Heritage Sector

The challenge for the sector will be to achieve this level of support within a strongly constrained public funding regime. The tightness of this constraint will depend on how the UK's economy recovers from recession. Public spending is likely to be heavily constrained through the next decade. The scenario analysis (presented in section one of this report) suggests that the spending regime will be tightest if we do not rapidly return to strong and sustained growth. This is the case presented within pessimistic scenario 2 above.

- **Public sector cutbacks**: As set out in both of the scenarios outlined in Section 1 (particularly Scenario 2), public funds are likely to remain under continual pressure over the next decade. The state of public finances and anticipated cutbacks in public spending are a key concern for the heritage sector as many heritage sites and organisations are heavily dependent on public funding for both capital investment and day-to-day activities. The need to reduce public spending whilst maintaining front line services is likely to result in cuts in public funding for heritage institutions and bodies. In addition, as has been seen recently with the Olympics, the

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government could intervene to divert lottery funds to meet other priorities. The majority of institutions that were interviewed during the case studies revealed that self-sustainability was a key challenge. Public sector cutbacks exacerbate the 'never ending capital question' which is a constraint upon capacity building. Revenue streams tend to finance the upkeep of the attraction and the wages of the staff rather than developing and expanding the offer.

- **Asset transfer**: As the impact of public spending cuts takes hold, particularly in Scenario 2, local authorities may in the longer term look to dispose of assets which are costly to maintain, such as historic buildings or even museums. It is worth noting that, if the transfer of these assets is managed skilfully, it may present a way to better develop the offer from under-utilised facilities. There are examples of collaborative working within the case study evidence whereby institutions come together to rebrand and repackage the heritage offer in a place. The Newcastle Heritage Partnership is developing networks in the local heritage sector. However in the recent past, developing such offers has proved to be a costly exercise, often relying on grant funding to cover investment costs. Pursuing this in the absence of such a source of capital will represent a major challenge.

- **Indirect impacts of private sector cutbacks**: Public sector cutbacks are also likely to have significant indirect impacts on the heritage sector. Widespread adoption of the 'Easy Council Model' pioneered by the London Borough of Barnet could risk cutting the heritage sector off from crucial support networks; for example the Peak District National Park Authority offers support where it cannot afford to invest, as is the case in its support of the Calver Wier Project. All heritage organisations currently benefit from access to free local authority planning support or advice on grant applications. This pro-bono work draws on local authority expertise and is delivered by councils as a part of wider community activities. Cutting back on 'non-essential' services within local government could force heritage organisations to hire more costly consultancy support.

- **Higher costs of education**: In the face of increasing demand for tertiary education and a government which expects financial savings in this area,[62] it seems highly likely that universities will look to individuals and business to bridge this gap. This could potentially deter highly qualified individuals from entering a profession which is often poorly remunerated. Research by the Institute for Archaeologists[63] found that the average full-time archaeologist salary is

[62] The Guardian (2010) *Universities Will Benefit From Tighter Budgets In The Long Term*, 19th January 2010: http://www.guardian.co.uk/education/2010/jan/19/university-cuts-peter-mandelson
The Secretary of State for Business Innovation and Skills recently confirmed budget cuts of approximately 5% for higher education over the next three years .
[63] Aitchison, K. and Edwards, R. (2008) *Archaeology Labour Market Intelligence: Profiling the Profession 2007-08,* Institute for Archaeologists

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£23,300, more than 20% below the average for all UK full-time workers despite the preponderance of graduate and post-graduate qualifications amongst archaeologists. However the interviews revealed that individuals working in the sector are becoming more professionalised. The crafts and skills needed to preserve our ageing assets need to be maintained to continue their preservation in a sustainable manner. The College of the Peak offers training and education for young people and adults in the Peak District where further education opportunities are limited.

- **Changing investment priorities**: in Newcastle it was suggested that the era of high levels of cultural and heritage investment may be coming to an end regardless of public spending cutbacks. This was seen to be the result of the new focus within central, regional and local government on science and technology-based innovation and a consequent change in investment priorities. This implies that the sector will need to continue to clearly demonstrate the value of continued investment.

Though the pace is to be seen, the course of change is set. The recession and the associated spending cuts will force the sector to explore opportunities for developing new relationships with the private sector. Cutbacks in public spending can be seen as an opportunity for the heritage sector to develop creative and innovative ways of working with the private sector that move beyond the traditional models of grant funding and sponsorship. We should expect the sector to use new and innovative forms of partnership with the private and third sectors to help fill any funding gaps. The sector will have an increasingly diverse and sophisticated ecology, for example, one option would be to develop ‘cultural enterprises’ outside of the public sector, managing assets and infrastructures such as green space, parks, libraries, museums. This ‘management’ will not only comprise the physical maintenance of the assets, but the activities that involve people and allow them to experience heritage.

The key challenge for the sector will be to engineer a transformation from a predominantly public-sector based funding model to one that makes more use of the private sector, including private sector investment trusts and foundations seeking social and environmental returns. This will mean reviewing the future financial model for the heritage sector; a key priority by 2020, although not the primary focus of this report.

Given the likely increasing focus on the private sector as a source of funds, the impact of the financial downturn on the private sector is a key concern across the heritage sector. In the longer-term, the availability of private sector funds for the heritage sector will depend on which of the scenarios for recovery from recession outlined above proves more accurate. In the short-term it is

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clear that recession has significantly reduced the discretionary spend of private businesses with knock-on effects for the heritage sector. Heritage organisations in Newcastle noted that opportunities to obtain grants or funding from the private sector – always somewhat limited by the low number of 'indigenous' large businesses and distance from the London headquarters of many other large firms - had reduced considerably with the scaling back and refocusing of the Northern Rock Foundation. Under Scenario 2 this challenge would be even more severe.

The 2020 Knowledge Economy and urban development

Across all sectors – manufacturing and services, high tech and low tech, domestic and internationally traded, public and private, large corporation and small enterprise – organisations have prospered by allowing highly skilled individuals the freedoms and flexibilities to deploy new technologies to rapidly create tailored products for increasingly sophisticated customers. And cities are the places that offer organisations the most opportunities for these individuals to interact, as reflected by the increasing concentration of knowledge intensive businesses in larger cities.

Historically cities have thrived because they offer firms the opportunity to operate on a larger scale, as well as enabling access to skilled workers, affluent consumers, and knowledge and ideas. Individuals also gain from living in and near cities through access to employment, ideas and a thriving cultural offer. These 'agglomeration benefits' have become more significant over the past decade as the UK economy has become more service-based and more highly skilled,[64] and as the ability to produce, use, share and analyse knowledge is becoming increasingly important as a source of economic growth and wealth creation in all sectors.[65]

The increasing reliance on knowledge to generate productivity and growth has meant that face-to-face interaction – and cities – has become more rather than less important for high-value goods and services. Urban scale and centrality are identified as increasingly important sources of economic growth. McCann states that land in major urban areas will be increasingly dominated by high value goods and services, with smaller areas functioning more as locations for producing low-value goods and services: "Low distance costs now no longer provide any possibility for 'protection' from major urban centres and the maintenance of limited local monopoly power".[66]

The 2020 knowledge economy will remain centred on large cities. The future of competitiveness of the UK economy and the success of innovation systems will partly be determined by the success

[64] Overman, H. and Rice, P. (2008) 'Resurgent Cities and Regional Economic Performance', SERC Policy Paper 1. The authors also identify the importance of more dual earner households, use of technology and the shift from rail to road use
[65] Brinkley, I. (2006) *Defining the Knowledge Economy*: The Work Foundation: London
[66] McCann, P. (2008) *Globalization and economic geography: the world is curved, not flat*, Cambridge Journal of Regions, Economy and Society,

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of cities in delivering the strong skills base, addressing the infrastructure needs of business, and making the best use of innovation assets such as research based universities. Whilst the macro economic changes discussed in earlier sections of this report will play out differently on the ground, all cities face some common challenges in the decade ahead. In order to drive economic growth and increase prosperity across the UK all cities will need to: adapt to long term structural change, address low levels of skills, make substantial investments in infrastructure and the built environment to adapt to climate change, and manage public sector spending constraints. The heritage sector has a vital role to play in supporting cities to respond to these challenges. As Rypkema articulates "historic preservation has moved from being an end in itself (save old buildings in order to save old buildings) to being a vehicle of broader ends – city centre revitalisation, job creation, small business incubation, housing, tourism and others".[67]

In considering the opportunities for the heritage sector to support cities to respond to the challenges presented by the recession as well as longer term structural changes in the recovery the diverse nature of heritage attributes and impacts need to be taken into account. In this respect the notion of 'anchor institutions' – a concept from the United States which refers to the locally rooted 'civic, cultural and intellectual institutions which contribute to the cultural, social and economic vitality of cities'[68] – is useful.

Many definitions of heritage distinguish between "moveable" and non-moveable" heritage. By definition the non-moveable elements – such as the built and natural heritage - are tied to a particular place. But so too are many of the elements that are technically moveable but are still tied to particular regions or even cities and towns because of their historical associations such as industrial heritage. So too are many of the more "intangible" components of heritage such as cultural and sporting heritage. As we set out at the start of this report, heritage is in many ways the clearest example of "sticky" capital and heritage assets and institutions are classic "anchor" institutions.

Whilst many have national and international remits and reach, anchor institutions such as universities, hospitals, museums, galleries and large private sector businesses[69] are key actors in the social, cultural and economic life of any place and are tied to that place by their histories, missions, physical assets and local relationships.[70] Many heritage organisations, trusts and bodies

[67] Rypkema, D. (1999) *Culture, Historic Preservation and Economic Development in the 21st Century*
[68] Maurrasse, D. (2007) *City Anchors: Leveraging Anchor Institutions for Urban Success*, CEOs for Cities: Chicago, IL
[69] See Annex for full list
[70] Webber,H. and Karlstrom, M. (2009) *Why Community Investment is Good for Non-Profit Anchor Institutions: Understanding Costs, Benefits and the Range of Strategic Options*. ChapinHall: University of Chicago

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lack the scale that characteristically defines anchor institutions[71] but nonetheless still represent locally rooted 'sticky capital' that contributes to the intangible but hugely valuable 'sense' of a place. As such the anchor institutions framework developed by The Work Foundation[72] and set out in Table 1 below provides a useful way of thinking about the direct and indirect impacts of heritage institutions and the value of the heritage they promote and preserve in a place. The application of this framework through detailed case study analysis has helped to illuminate the opportunities and challenges for the heritage sector with regard to local knowledge economies over the next decade.

Heritage anchor institutions promote local economic vitality not just by attracting tourists to the local area, as discussed earlier in this section, but also by attracting knowledge businesses and highly skilled workers. The idea that local heritage acts as a 'hook'[73] that directly or indirectly attracts prospective knowledge workers and knowledge industries to an area as well as the consumers who make up high demand societies is widely understood. There is a link between Newcastle's heritage assets and strong heritage offer and its high liveability and quality of place rankings in an August 2007 Gallup poll commissioned by the European Commission. The quality of life a city has to offer is increasingly important as knowledge workers[74] are becoming more mobile. High skilled individuals have a much greater propensity to move between locations and are better able to exploit their skills and knowledge in cities which offer more employment opportunities. This is reflected in urban changes: "cities are increasing being dominated by high human capital individuals as increasingly mobile workers respond to the increasing wage premia associated with high-value knowledge work in cities".[75] Not all knowledge workers will chose to live in cities, instead they may chose to live within the city's hinterland accessing the quality of life they desire whilst accessing the high value jobs the city has to offer. The scenery and historic landscape plays a large part in the way people experience the Peak District, and has attracted knowledge workers who commute to work in Sheffield.

Heritage is also, by definition, distinctive and there are opportunities for cities and regions to work with the heritage anchor institutions to build on heritage as a source of local distinctiveness. In Newcastle and the Peak District it is widely recognised that the 'fantastic plethora'[76] of heritage contributes to the sense of distinctiveness and quality of place that differentiates Newcastle from the cities of Leeds and Manchester (distinctive in their own rights), and the Peak District from other

[71] See Annex for a full list of the defining characteristics of anchor institutions
[72] The Work Foundation (2010) *Regeneration Momentum Research Paper 2. Anchoring Growth: Anchor Institutions and the regeneration of UK Cities*. The Northern Way.
[73] Interviewee
[74] 'Knowledge worker' refers to the top 3 occupational codes – managers and senior officials, professionals and associate professionals.
[75] McCann, P. (2008) *Globalization and economic geography: the world is curved, not flat*, Cambridge Journal of Regions, Economy and Society
[76] Interviewee

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National Parks. Ivan Turok[77] emphasises the value of distinctiveness to local economies: "by developing unique strengths, original knowledge and creative capabilities that are difficult for other places to replicate, [places] can build on the basis of 'non-price' or quality based advantages, rather than cost or availability of local resources".

One of the most important reasons for preserving and conserving is because it stands out from the common and ordinary. Towns, cities and regions are increasingly recognising that they have to demonstrate why they are distinctive from each other as part of their wider strategic development objectives. More prosaically, distinctiveness is a way of making sure a place or group of places is "put on the map". The Angel of the North and the proposed White Horse of Kent and the Red Dragon of Wales are modern versions of a long tradition of calling attention to a particular place by drawing attention to a memorable and distinctive artefact. Other cities have exploited more intangible associations, for example, as Cities of Culture or drawing on their musical and artistic heritage.

[77] Turok, I. (2006) *The Distinctive City: 'Quality' as a source of competitive advantage.* Environment and Planning A

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Table 1: Potential Impacts of Individual Anchor Institutions
Adapted from the work of Örjan Sölvell (2008) [78] for the Northern Way[79]

Type of Capital	Characteristics of Anchor Institutions	Potential Direct Benefits	Potential Indirect Benefits	Potential Challenges
Financial Capital (Money)	• Substantial budgets • Significant purchasing power	• Purchase goods and services • Provide grants for community projects	• Create demand further down the supply chain, generating spillovers, jobs and employment • Attract new businesses • Generate innovation	• May dominate local supply chains • May not spend money locally
Human Capital (People)	• Major local employers • Provide employment opportunities at all levels	• Develop the skills of employees • Develop the skills of the future workforce	• Attract highly skilled individuals • Increase demand for local housing and services • Increase local tax take	• May dominate local labour market, making it difficult for other institutions to afford labour • 'Cream off' highly skilled members of the workforce
Physical Capital (Things)	• Substantial land holdings • Historic and architecturally significant buildings • 'Sticky' capital	• Major physical development projects • Adds to physical distinctiveness of place • Renovate and retrofit existing buildings • Attracts tourists	• Impact on land values • Impact on the quality of the public realm • Provide public spaces • Attracts people to live and businesses to locate there	• May distort land values • May not make use of local land for benefit of wider community
Intellectual Capital (Know-How)	• Highly skilled employees • Highly visible leaders • Well connected trustees • Hub of local history, knowledge and education	• Develop the skills of employees • Stage lectures and events that contribute to public knowledge • Generate new ideas and stimulate innovation	• Enhance the local knowledge base • Enhance public discourse and public life	• May focus mainly on national and international links, with little local intellectual capital • Leaders may not be engaged
Market Capital (Global Reputation)	• Strong identities • Regional, national and international reach	• Stage major events / festivals • Joint work or projects with regional, national and international institutions	• Contribute to the vibe, reputation or brand of a place • 'Global windows on the world'	• May not be widely known or recognised • May not have a positive reputation
Social Capital (Networks)	• Inclusive and have large stake in the community • Links to regional, national and international institutions	• Undertake community engagement projects and outreach work • Attract regional, national & international visitors	• Foster community relationships and connections • Raise local aspirations	• May be disconnected from local networks
Cultural Capital (Culture)	• Centres of culture • Centres of learning and dissemination	• Celebrate and promote local culture • Bring different aspects of different cultures to a place • Attracts tourists	• Preserve the heritage of a place • Create or contribute to the wider reputation of a places	• May not have a good reputation

[78] Sölvell, Ö (2008) *Clusters: Balancing Evolutionary and Constructive Forces*, Ivory Tower Publishing: Stockholm
[79] The Work Foundation (2010) *Regeneration Momentum Research Paper 2. Anchoring Growth: Anchor Institutions and the regeneration of UK Cities*. The Northern Way.

Alongside these activities there is the opportunity for heritage anchor institutions to build on the contribution made to their identity through the preservation and promotion of local heritage and histories (through both intellectual and cultural capital). Tyne and Wear Archives and Museums are considered an example of best practice in terms of outreach, access and education, 'holding outstanding collections in art, science and social history'. It is a primary purpose of other heritage anchor institutions to engage with local people and visitors around local history and culture. Newcastle Gateshead has a rich history, and interviewees highlighted the significance of a sense of pride, belonging and identity when referring to the role of heritage.

Export oriented manufacturing businesses will draw on the traditional industrial heritage of cities. Evidence from recent city regenerations indicates the successful development of knowledge economies in cities and urban centres will not be divorced from the industrial and economic history of these places: "private companies seeking opportunities for expansion within recovering cities have frequently created new-style service industries and high-tech innovation enterprises that link back to the cities' historic functions and build on earlier industrial expertise".[80]

Linking back to traditional expertise in Sheffield in steel manufacturing, knife making and metal processing technologies, the city has attracted investment in advanced engineering and manufacturing including the Boeing research centre and advanced medical technology manufacturers. In Belfast the reclamation of the port has led to the development of the Titanic Quarter and investment from knowledge based companies. Here perhaps the most striking example is the use of the giant cranes of the Harland & Wolff shipyard that built the Titanic to assemble the world's biggest tidal electricity generating system. Smaller, agile businesses will innovate to find new ideas and alternatives for energy-saving, energy generation, retro-fitting, waste recycling, re-use and repair – often based on traditional materials and suppliers and using past practices of production, distribution and service.

Successful regeneration of cities across Europe have consistently used heritage and cultural assets – restoring old civic buildings, re-using warehouses, mills, canals, factories and department stores, and creating popular public spaces, according to authors of a recent three year study. "The value of cities as centres of trade, services, culture and knowledge and innovation building on their industrial past has proved to be a critical foundation stone of recovery, underlying the intrinsic worth of cities and the links between the past and the present".[81] The Baltic Centre in Gateshead is an example of a restored historic building (a flour mill) now used as a cultural asset. Using heritage to regenerate local areas offers ways of both preserving heritage and regenerating towns and cities

[80] Power, A. Plöger, J. and Winkler, A. (2010) *Phoenix Cities: The fall and rise of great industrial cities.* The Policy Press: Bristol
[81] Ibid

in a more environmentally friendly and locally sensitive manner than demolition and new build. As the US heritage economist Donovan Rypkema has noted, heritage buildings are well suited to provide the niche spaces that are needed for a diverse city economy 'ecology'. A good supply of old buildings frequently offers more flexible spaces and cheaper rents – attributes required by the small and start-up businesses that a local economy needs if it is to efficiently adapt to change and avoid stagnation.[82]

Grainger Town, Newcastle

The renaissance of the historic Grainger Town area of Newcastle was achieved against the prevailing mood of the time when heritage tended to be regarded as a liability and property developers favoured demolition and re-building. The Grainger Town Partnership was set up in 1997 to reverse the trend of decline that had set in with the transfer of retail activity to other parts of Newcastle. Around 1 million square feet of floor space was unoccupied and many of the listed buildings had slipped into a spiral of seemingly terminal decline.

By working in partnership with the private sector, the Grainger Town Partnership succeeded in leveraging £160 million of private sector investment on top of the £40 million invested by the public sector by 2003.[83] The result was one of the country's first truly mixed-use regeneration schemes, one that was widely acknowledged to have successfully retained the character of the area by reusing buildings that had effectively been written off[84]. The success of the project has helped to alter the attitudes of commercial property developers towards heritage buildings.

In a climate of constrained public expenditure and limited potential for private sector investment, heritage-led regeneration offers a cost effective solution to development needs whilst strengthening a local area's distinctive identity. Investment requirements for the redevelopment of existing city centre infrastructure and buildings have been found to be far lower than replacement costs. For example, the cost of repairing a typical Victorian terraced house was between 40% and 60% cheaper than replacing it with a new home.[85] The attractiveness of this type of development is evidenced by the perceived value of historic properties: "research suggests pre-1919 houses are worth on average 20% more than an equivalent more recent house".[86]

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[82] Rypkema, D. (1999) *Culture, Historic Preservation and Economic Development in the 21st Century*
[83] Grainger Town Project Website:
http://www.newcastle.gov.uk/grainger.nsf
[84] BBC Radio 4 Website, *Streets of Shame*:
http://www.bbc.co.uk/radio4/today/reports/archive/features/sos1.shtml
[85] English Heritage (2005) *Regeneration and the Historic Environment: Heritage as a catalyst for better social and economic regeneration*
[86] ibid

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By 2020 UK cities must be amongst the most sustainable in the world if the UK's ambitions on climate change are to be met. Overall, the per capita carbon footprint in the Core Cities is currently 20% less than the UK average; their relatively higher densities enable more efficient use of infrastructure and resources.[87] The transport infrastructure in UK cities will have sufficiently reduced the reliance on the car to reduce carbon emissions. A new, more efficient utilities infrastructure will enable UK cities to make their maximum contribution to managing the conservation of global natural resources. Many of these heritage organisations, strongly 'anchored' in their cities and urban centres are repositories of historic scientific innovation that will be relevant to the development of new solutions to environmental and social problems of the coming decade.

A 2020 Challenge for the Heritage Sector:

Local heritage institutions will of course have to contend with the challenges discussed in earlier sections of this paper, including the longer term structural adjustment of the economy, skills deficits, changing demand from consumers and businesses, and within the current economic climate the increased financial instability and public sector spending constraints. There are also a number of place-specific challenges that heritage institutions will need to seek to overcome if they are to support cities to thrive in the 2020 knowledge economy.

- **Lack of collective local identity**: One of the strongest themes emerging from interviews in Newcastle and the Peak District was the idea that the myriad heritage institutions in each place lacked collective identity as heritage assets and often perceived other heritage institutions as competitors rather than potential partners. In addition, the diversity of activities within the heritage sector is such that some heritage institutions in Newcastle and the Peak District did not see themselves as part of the sector. By developing a common or collective understanding of the heritage offer of a place and developing stronger links between heritage organisations (as the Newcastle Heritage Partnership is attempting in Newcastle), it should be possible to reposition heritage assets and attract new audiences and visitors to all of the assets. The Cairngorms National Park has pioneered a branding exercise of individual institutions within the park. Greater coordination and higher standards of quality and environmental sustainability have been facilitated by doing this, whilst the Newcastle Heritage Partnership is considering a similar branding project.

- **Knowledge transfer across heritage institutions and localities**: The interviews revealed that individual heritage institutions were relatively disparate and that traditionally there were no

[87] Core Cities (2007) A Prosperous and Sustainable Future. Available at http://www.corecities.com/dev07/Publications/Climate%20change%20declaration.pdf

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formal structures in place for knowledge transfer and lesson learning between organisations and people in the sector. However there was evidence that informal networks were strong, especially in the Peak District where individuals would contact each other for advice and to share specialist knowledge.

The framework setting out the potential impact of anchor institutions provides a powerful tool for heritage anchor institutions to use in order to think differently about their role and impact. It also provides a tool for a more structured conversation about the ways in which anchor institutions and local areas can benefit one another. It is important not to develop a strong heritage sector without a clear understanding of the importance of heritage. Heritage institutions in the Peak District had a comprehensive knowledge of the holistic nature of heritage (tangible and intangible) leading to heritage being high on the agenda of the Park Authority and a significant contributor to the economy of the Peak District. Having a strong and connected understanding of the heritage offer of a place is fundamental to maximising the benefits of heritage assets.

Strong partnership working between institutions and the surrounding community of people and businesses is fundamental to exploiting the collective heritage offer within a local area and maximising the contribution that the sector makes to local economic vitality. Informal networks amongst individuals within the heritage sector facilitate partnerships amongst institutions (as highlighted in both the Newcastle and Peak District case studies). Heritage anchor institutions should seek to use these informal networks to identify opportunities for collaboration where this would make more efficient use of funds and increase their impact on the local area through mutually beneficial activities.

It is vital that the heritage sector continues to receive investment and funding to maintain the upkeep of heritage sites but also develop their offer. The case studies have shown that it has been difficult to leverage private sector investment. Tyne and Wear Archives and Museums have successfully developed an initiative known as ‘Connecting to Culture’ whereby business links have been developed through connecting organisations to cultural projects. It provides a funding source for the institution and is an opportunity to develop networks with local businesses. In return the companies receive access to venue space and team challenge opportunities. The Grainger Town project is also widely recognised as an exemplary public-private partnership regeneration scheme.

Realising the benefits from these opportunities will represent a major challenge. The analysis has identified a number of specific obstacles for each of these areas of opportunity. The next section presents a vision for the heritage sector in the 2020 knowledge economy and how the Heritage

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Lottery Fund can support the sector to overcome these challenges and achieve this ambitious vision.

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Section 3: Response from the Heritage Sector

Our brief was to set out our vision of how a sustainable knowledge economy will evolve to 2020 and how the heritage sector fits into that wider vision. The first two sections of this report have outlined the huge changes taking place in our economy and society – changes that have been accelerating over time and which the recession will further intensify. We set out how the heritage sector relates to the evolving knowledge economy and how it shares some of the key characteristics, and faces similar challenges and opportunities as other sectors. This section sets out some options for the sector to explore in working through how it should respond and a set of questions that would help it develop a vision for the future.

The analysis identifies an opportunity for the sector to draw on, and to support the continued development of the knowledge economy. Through this the heritage sector could make a major contribution to the recovery of the UK economy from recession:

- By continuing to create value by serving a developing high demand society;
- Through the contributions of scientific heritage to the innovation system;
- Through the close links between the heritage sector and key areas of the knowledge economy – the creative and cultural economy, and the low carbon, sustainable economy;
- Through the disposal of public heritage resources in ways which are most supportive of the developing knowledge economy; and
- By supporting the sustainable economic growth across the UK's cities through the attraction of highly skilled workers, knowledge based businesses and high demand consumers.

However, the analysis presented above paints a picture of a sector that faces a challenging and exciting decade. The most pressing of these will be:

- To adapt to lifestyle and consumption changes in ways which better monetise the benefits created by heritage assets;
- To attract high skill individuals to work within the heritage sector, and to invest in heritage-related education and training;
- To identify and understand the links between heritage and the wider cultural and creative economy;
- To respond to the potential financial implications of the low carbon and sustainability agenda;
- To respond to the direct and indirect implications of public spending cuts; and

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- To develop a coherent and consistent local identity between diverse heritage organisations which together form a local heritage offer.

If the heritage sector is to continue to provide the same vital services, employment and wider benefits as it does at present, whilst also expanding its offer to respond to the challenges set out within this paper, then it must set out to look different from 2010.

Heritage as a sector

In writing this section we make two vital underlying assumptions. Firstly, that heritage recognises the need to think of itself as a sector with a common set of unifying features and characteristics. Secondly, that the heritage definition is a broad definition that embraces the scientific, the intangible, and the artistic and cultural aspects of heritage as much as the tangible and built. The reason we have made these assumptions is because they are essential if we are to put heritage in a knowledge economy context.

The central connecting feature of a knowledge based economy that distinguishes it from previous economic eras is the ubiquitous nature of intangible knowledge based assets alongside the tangible of general purpose technologies. The heritage sector represents a diverse grouping of activities, unified by the fact that they derive value from tangible and intangible heritage assets. Two examples are:

- The direct management of tangible heritage assets (including the management of people's engagement with those assets) such as museums, gallery and library collections; historic buildings, wider townscapes and public spaces including parks; natural heritage assets from nature reserves to broad landscapes and waterways; industrial, transport and maritime heritage; and
- Organisations which make use of tangible as well as intangible heritage assets for the purposes and objectives of their own work, such as in education, community development and regeneration as well as tourism and leisure.

When we talk about a heritage "sector" it is important not to think in the narrow conventional terms of industrial boundaries defined, say, by the standard industrialised classification used in official statistics. In knowledge based economies we need to think much more about groups of activities with unifying features that straddle conventional industrial boundaries.

The evolution of the cultural and creative industries as a recognised "sector" is a good example. Fifteen years ago this sector was virtually unrecognised. Ten years ago interest was growing but was unfocused. Five years ago the first solid definitions backed by officially sanctioned statistics

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appeared and the first attempts to define a strategy to drive the future development of the sector appeared. Today, we have identified it as a key sector on which to drive the recovery in jobs and growth. None of this would have happened without the recognition that a sectoral identity had to be developed from a range of activities that on the surface appeared so diverse.

One challenge for the heritage sector is to take the wide definition used by HLF and others and develop the same sense of shared values and linkages that is now second nature to many in the creative and cultural industries. This is not an easy task. Even today, some question whether the boundaries of the current cultural and creative industries are drawn too tightly or are so inclusive they are incoherent; and also whether the unifying themes and concepts set out in reports such as "Staying Ahead" are the right ones. However, the very fact that a debate about sectoral boundaries and unifying concepts is seen as worth having is in itself significant.

Heritage is not alone in grappling with these issues. Far greater conceptual and definitional issues surround making sense of the "low carbon economy" – a term used to mean so many things that at times it has bordered on the meaningless. It is only recently that a set of workable concepts and practical definitions have started to emerge and then only after a significant investment of time and effort by key Government Departments such as DECC and BIS responding to the imperative of climate change. By comparison, the task facing heritage to develop a sectoral based strategic vision looks on the face of it much less daunting.

As set out within section 2 above, the heritage sector is of particular relevance for the knowledge economy and the innovation system. We put considerable emphasis on the development of the "Innovation eco-system" because we think this is going to be one of the defining features of the next stage in the development of the knowledge economy over the next decade. In response to the crisis, many OECD economies devoted significant sums for investment in the innovation and higher education system to underpin their long run recoveries. The UK's response in comparison was weak. The new coalition government faces many challenges but a key one will be developing the UK's innovation eco-system.

In the report we represented the innovation eco-system with a diagram developed by the National Endowment for Science and Arts (NESTA). This is repeated below. The heritage sector should consider whether this is helpful in thinking about the future direction of the sector. For example, do the flows set out here capture how innovation and development take place within the heritage sector? If a diagram had to be developed to capture innovation across the heritage sector, would it have the same relationships and would we be identifying similar strengths and weaknesses?

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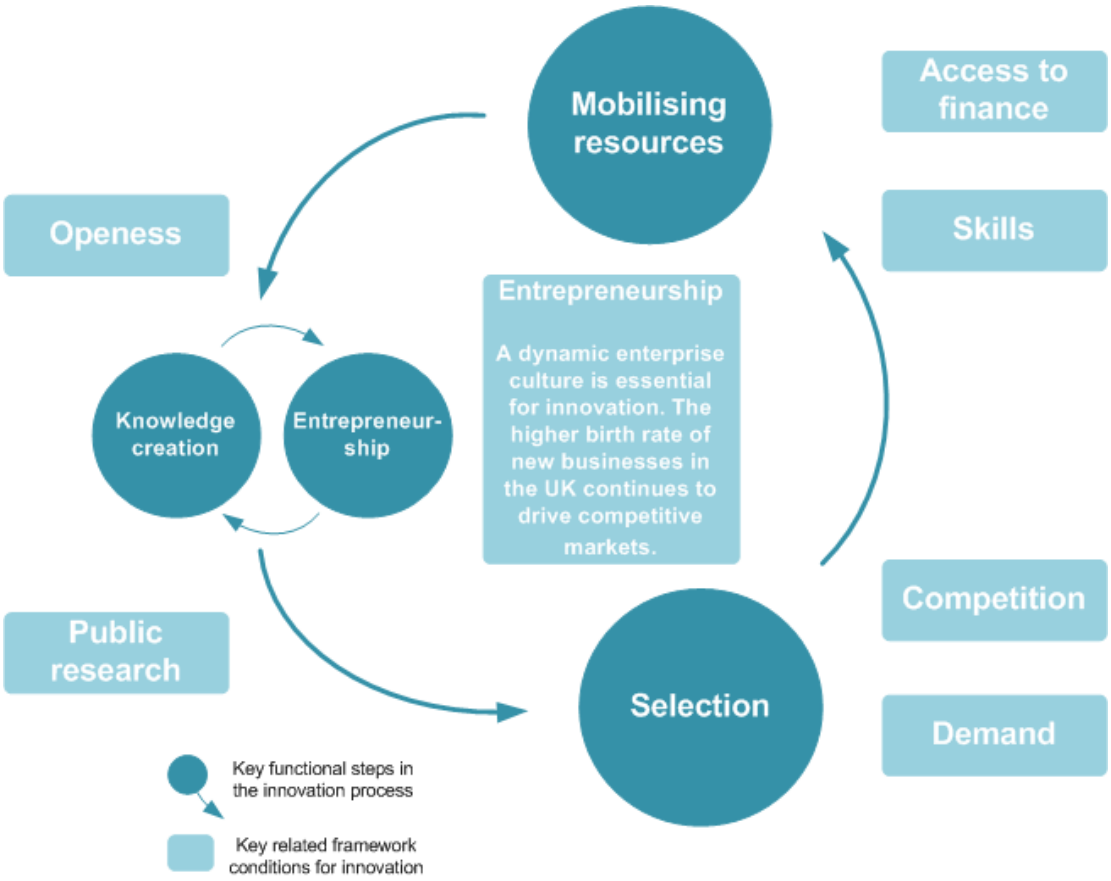
Figure 3.1: Innovation Ecosystem



Source: Adapted from NESTA, 2010

This paper has strongly focused on the economic role of heritage – it is after all an examination of how heritage fits within the knowledge economy. But in developing a response, the heritage sector will also want to continue to reflect on its social impacts and values. These are important - one of the strengths of the creative and cultural industries is that they are able to demonstrate clearly they contribute to the social fabric and embody some of the key features of any civilised society. Heritage should be capable of making the same case. Indeed, by giving people a sense of history and perspective – so contributing towards social capital and resilience – heritage may have a particularly important social role to play at a time, such as the present, when nothing seems certain.

Towards a vision for Heritage

Drawing together the findings from all strands of research, The Work Foundation has identified a number of critical points of challenge for the sector:

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Towards a 2020 Vision for the Heritage Sector – Areas for Action

- **How can the sector develop a strong sectoral identify and profile?** Could this be achieved by building on an agreed definition of heritage and a common inter-institutional understanding of its roles and impacts? How can the development of strong links between organisations be best supported? Can these be created in ways which complement the strengths of existing representative bodies and link local sub-sectors of heritage in organic, bottom-up ways?

- **Could such a shared sectoral identity support learning, experimentation and innovation?** Such additional organisational capacity will be vital to the development of appropriate responses to the challenges set out above, and the continued development of their offer. Could success here be built on recent examples of innovative joint-working initiatives such as joint staff development programmes and the creation of 'heritage graduate' schemes, learning lessons from new initiatives such as the Manchester Masters within the creative industries sector?

- **How can the sector adapt to meet developing consumer demand?** How can the development of new and novel services which exploit existing heritage assets in ways which meet growing demands for sophisticated, personalised recreation and culture related goods and services be best promoted? How can the needs of domestic and international consumers be met in ways which also support the continued maintenance of the heritage assets?

- **How can the sector best contribute to and derive value from a world class scientific heritage base?** How can the support for world leading institutions be maintained and world class skills developed?

- **How can the sector develop its position at the core of the creative industries?** How can it maximise its role as a provider of the infrastructure for the sector, as a contributor of ideas and by creating the context for the creation of expressive value?

- **How can the sector best embrace the sustainability agenda, and position its offer to derive value here?** How can products and services which meet demands for increasing interest in this area be best developed? Is there potential in domains such as the more intensive re-use of existing buildings, the provision of eco-tourism related to heritage, the better use of existing woodlands to produce fuel and the continued development of the case for payments for the ecosystem services provided by natural heritage assets and other ways to derive income from the environmentally beneficial nature of many heritage related activities?

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- **How can public sector heritage organisations best dispose of their resources in ways which fully embrace and support the development of the wider knowledge economy?**

- **Can the sector develop new and creative ways of working with private sector businesses and third sector organisations?** Is it possible to find solutions that extend beyond the traditional model of grant funding and sponsorship? Can lessons be learnt from the innovative partnerships that already exist such as the Tyne and Wear Museums and Archives 'Connecting through Culture' business partnership scheme?

- **How can the sector develop strong partnerships amongst heritage institutions and city leaders to support 'knowledge cities' across the UK to be world leading?** How can we build successful partnerships between heritage institutions and local stakeholders which support cities to regenerate local areas and to build on their distinctive assets and attributes in sustainable ways which attract highly skilled workers and knowledge businesses?

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Section 4: Implications for the Heritage Lottery Fund

In section 3 we set out some of the issues and questions we think the heritage sector will need to engage with in forming a sector wide vision and identifying the priorities and actions that need to be in place to make it a reality. That response will help HLF develop what its strategic role and future priorities should be. But we suggest HLF itself will want to consider options for the future.

As we showed in this report, the knowledge economy is characterised by "intermediaries" – institutions that mobilise and facilitate the transfer of resources, capital, expertise, information, and knowledge. Intermediaries however come in all shapes and sizes and range from those providing a basic service to those which help shape the strategic direction of a sector or group of activities. They can be individual firms and organisations or part of a wider network. Networks can be loose associations, semi-formalised, or tightly and explicitly organised. The heritage sector – in common with other sectors – will include all of these forms of networks.

HLF is a classic knowledge economy "intermediary". It is also de facto a knowledge economy strategic intermediary because of the expertise, experience, and knowledge accumulated at the centre and the ability to mobilise and transfer capital and knowledge based resources across the heritage sector. The strategic role any public based knowledge economy institution can play is determined in part by the remit and public service obligations placed upon it; its relations with other strategic institutions in the sector; and the nature and diversity of the sector in which it operates. Examples of non-heritage strategic "lead" institutions of some relevance to the HLF are the Design Council and the Technology Strategy Board. In many ways these are quite different institutions with different remits and constituencies, but they share the common characteristic of providing strategic vision and leadership for their sectors.

There are a number of different strands of thinking around the future of knowledge economy institutions. Firstly, there is a growing consensus that the innovation eco-system lacks the right sort of institutions – hence the interest in creating new knowledge transfer institutions based on the German Franhofer institutes set out in the pre-Election Hauser Review; the creation of a "Green Bank"; the creation of new local financial institutions such as the Bank of Essex; and continued interest in a National Infrastructure Bank and a National Knowledge or Innovation Bank. The second is that we have too many institutions either not fit for purpose or duplicating effort elsewhere whose main impact is to spread the limited resources available so thinly that those institutions doing valuable work are underfunded. This was also a theme of the Hauser Review, but we would also argue that recent work on the impact of "high growth firms" shows that many of the business support networks for SMEs are poorly focused on quantity so that large numbers of organisations get a small amount of indifferent advice and support. The third is that sectors require

a limited number of strategic institutions to provide leadership across their sectors. This thinking is still evolving – not least within the new government – and we hope will be at the centre of TWF's next stage in our broader work on the knowledge economy and what a UK innovation eco-system would look like by 2020.

The creative and cultural sector for example has several such institutions but a major common concern across the sector is the lack of a unifying strategic view and no effective mechanism for achieving one. This is one reason why there is a perception by some that the welcome strategy statement published by DCMS in 2008 has remained a dead letter. The lack of effective leadership can also be an issue in particular areas, not just across the sector as a whole. As we showed earlier, the House of Lords was extremely critical that the UK's world class scientific heritage was at a risk because of the leadership vacuum.

It is not part of our remit to make recommendations to HLF on how it should position itself within the heritage sector, and it would in any case be presumptuous of us to do so. For one thing we are not experts on the heritage sector. But our analysis of the knowledge economy and the institutions within it suggest HLF should think about the role HLF could play in the 2020 knowledge economy. We therefore pose some broad questions:

- HLF as a strategic leader: would it be appropriate for HLF to take an even more explicit strategic leadership role, perhaps seeking some change in the official remit?

- HLF as sector co-ordinator: how far would HLF wish to develop a role as active strategic co-ordinator for the heritage sector as a whole, in co-operation with others, given its ability to straddle both tangible and intangible heritage?;

- HLF as a strategic funder: having developed a strategic knowledge economy based vision, how far can HLF then align its future funding priorities with that vision – given the inevitable need to meet other objectives as part of the organisation's central purpose and remit?

- HLF as an agent of change: how far can HLF build the conclusions and insights from the above analysis into how it acts as a knowledge economy intermediary in its more day to day dealings with the heritage sector and with other sectors of the economy? Some of the specific examples are set out in the box below

The vision of change we are asking the heritage sector and HLF to respond to is ambitious and for the sector as a whole will require a significant degree of shared commitment to the central

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objectives. This is challenging at the best of times and in a prolonged period of public spending austerity the challenge is even more demanding. But it also provides a unique opportunity for promoting a vision that places the heritage sector firmly within the UK's knowledge economy.

Options for HLF

- Continue to promote the sector as a British success story, as a creator of value within the UK economy, and an important driver of distinctiveness within local communities;
- Support the development of networks of heritage organisations and related institutions, with an emphasis on supporting innovation, shared learning and experimentation within the sector – both in terms of developing heritage activities, and engagement with the wider knowledge economy;
- Encourage heritage organisations to develop financially sustainable service offers – which are based on meeting strong and developing consumer demand;
- Invest / continue to invest in the scientific heritage base – in particular in the skills that will be necessary to make the UK a world leader.
- A particular emphasis on supporting the development of activities which help to link strengthen links between the heritage sector and the creative and cultural economy;
- A particular emphasis on supporting the development of activities which will help heritage organisations to derive value from the sustainability agenda and the developing low carbon economy;
- Encourage all supported organisations to be outward-looking and fully aware of their potential role in supporting the development of the wider knowledge economy;
- Encourage all supported organisations to be particularly accommodating of new ways of working with private sector businesses and third sector organisations; and
- Support local heritage anchor institutions to maximise their impact within local areas and to engage in mutually beneficial partnership working.

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Annex

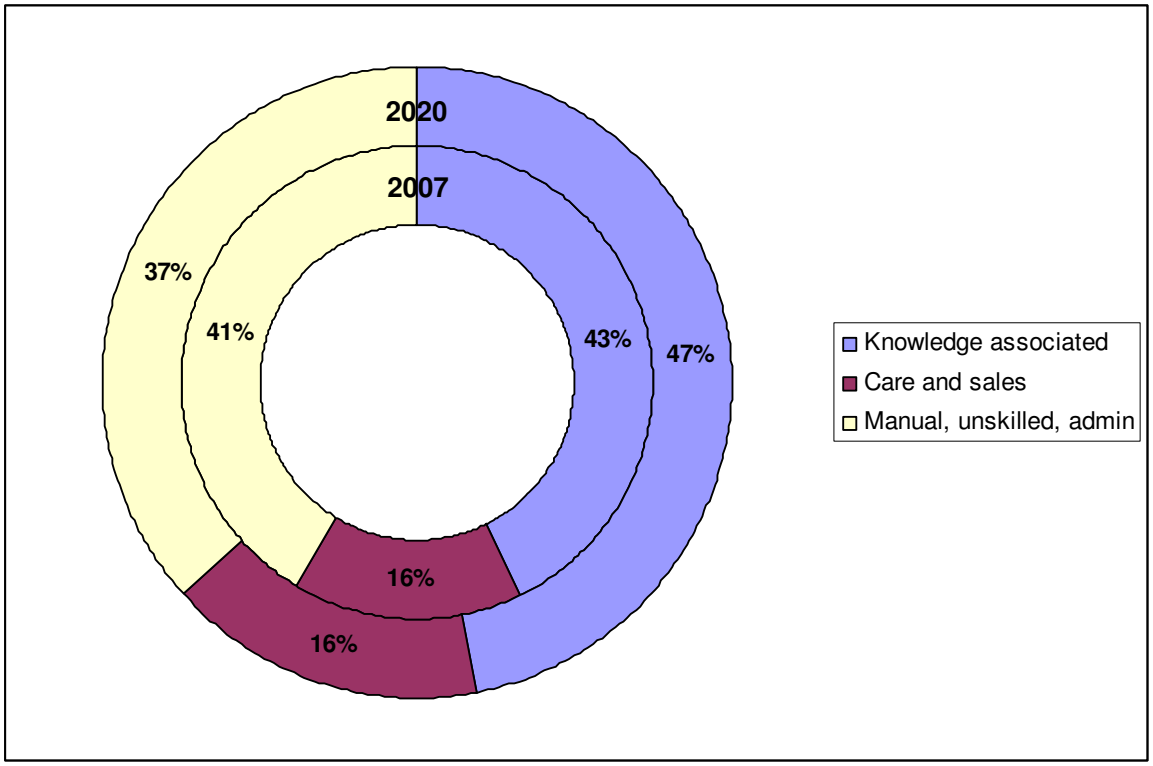
Section 1: Employment in the heritage sector

Table 1: Summary of employment in the Heritage Sector in 2010

Component	2010 Heritage Sector Employment
Museums, libraries and archives (Built Heritage Assets)	Libraries & archives – 45,000 Museums – 25,000 Historic sites – 20,000 Broad mix of highly knowledge intensive and low skilled work across subsector
Natural Heritage assets	Botanical/ zoological / nature reserves – 10,000 Forestry – 10,000
Construction services provided to heritage assets	110,000 workers on pre 1919 buildings Although heritage restorations have specific skills demands, industry characterised by low levels of knowledge intensity.
Heritage Tourism	195,000 jobs supported by a heritage related spend of £12.4bn Employment heavily concentrated in low-skill service occupations.
Education, training and research	Teachers – 22,500 Archaeologists – 7,000 University researchers – 2,000

Section 2: The Nature and Shape of the 2020 Economy

Figure X: Predicted Change in Employment in Knowledge Intensive Occupations (2007-2020)



Source: Based on UKCES Working Futures (2008) and Work Foundation calculations

Recession and Recovery

As well as these long-term drivers of change, the development of the economy over the next decade will also depend on how it responds to the current recession. This will in turn depend on the decisions made by government and households, and the ability of businesses to win share in global markets.

Given current economic uncertainty, rather than attempting to predict the shape of the recovery, this research has looked to develop two scenarios for the recovery. The first is characterised by a rapid return to the growth seen before the recession. The second scenario reflects fears of persistent economic stagnation. Developing these two extreme scenarios makes it possible to consider the implications for the heritage sector of the most likely economic futures.

Scenario 1 – From Recession to Recovery:
This scenario draws heavily on the government's Pre-Budget Report (December 2009) and presents an economy characterised by a steady recovery from recession and economic growth. Consumer and business demand will have expanded rapidly to pre-recession rates, public sector spending cuts of approximately 7-15% by 2014 will have been implemented largely through efficiency savings without hurting the delivery of essential services, the UK's trade balance will have improved, and unemployment will have fallen.

- A return to economic growth – Following growing confidence in the economy through 2009, and aided by the ongoing impact of fiscal and monetary stimulus, an ease in credit conditions and the boost in demand for exports associated the depreciation of the pound, GDP growth resumed in 2010. By 2011 it returned to the pre-recession level of around 3% p.a. and maintained this level through the decade;

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Figure X: GDP Growth (2000-2020)

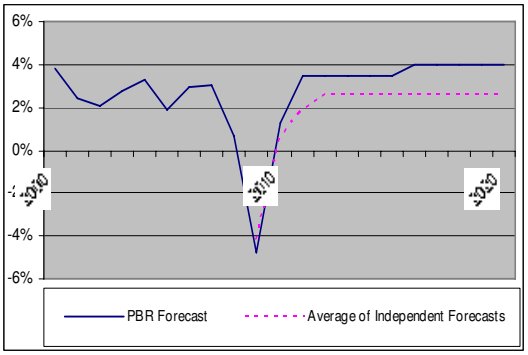
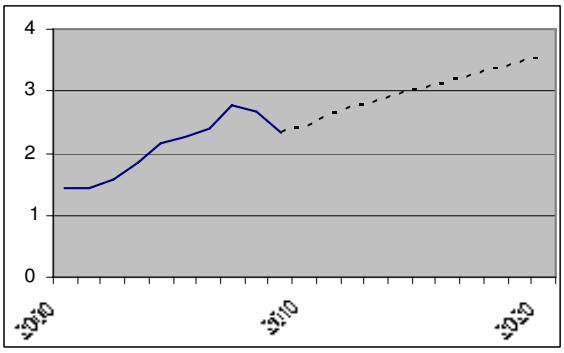


Figure X: UK GDP in current $US trillion (2000-2020)



Source: World Bank Development Indicators, PRB 2009 and Work Foundation calculations

- Expansion of consumer and business demand – Private consumption developed strongly with growing confidence in the economy. The Bank of England's quantitative easing programme supported higher rates of lending to businesses and households. A virtuous cycle developed, with low interest rates helping to keep savings rates low and maintain consumer spending. Business demand from investment picked up as firms looked to respond to new opportunities in the post recession period;

Figure X: Private Consumption and Business Investment (2009-2012)

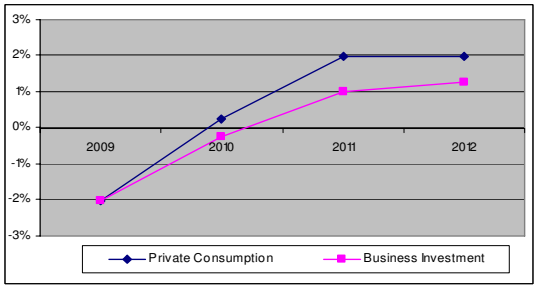
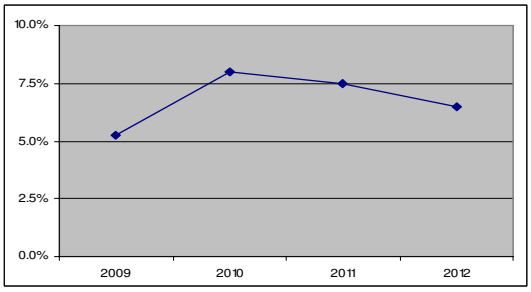


Figure X: Savings Ration as a % of total household resources (2009-2012)



Source: PBR (2009)

- Public Spending Cuts – announced cuts of 7-15% implemented between 2011 and 2014. Front line services including health, education and international aid were protected, with efficiency savings across the rest of the public sector delivering the bulk of the reduction. Cuts timed to coincide with strengthening private demand to minimise negative impacts on economic recovery. Government spending grew by only 0.8% per year. Spending increases in health and education led to cuts around 6% per year in other departmental budgets;
- Net Trade Growth – World trade growth accompanied the global recovery from the recession. Since the economies of a small group of emerging nations (led by China) were first to recover from recession, trade with these countries grew most rapidly. The diversification of UK exports away from financial services was supported by the depreciation of the pound. This acted to improve the UK's trade balance and contributed to economic growth;
- Falling Unemployment – Unlike in previous recessions, redundancies were not associated with an increase in long term structural unemployment. Greater workforce flexibility and key investments made in employment support before and during the recession, meant that the labour force were ready to return to work. Recovery was therefore accompanied by steady falls in unemployment.

Figure X: Predicted Unemployment Rates (2009-2014, Claimant Count, millions)

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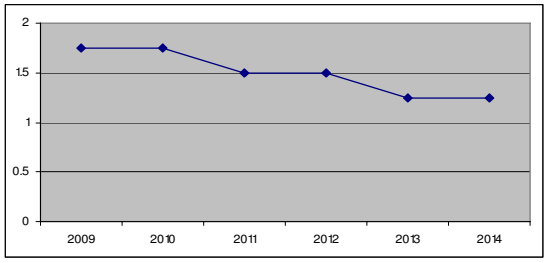


Source: PBR (2009)

Scenario 2: A Lost Decade of Economic Growth

This scenario draws heavily on the experience of Japan since the early 1990s, a period when economic growth came to a total halt. It presents an economy that has effectively failed to recover from recession. In Japan, strong government spending and a low interest rate failed to boost consumer and business demand. Reflecting fears that such a situation could be repeated in the UK, the scenario presents a UK economy where domestic consumer and business demand have failed to expand, and where export performance has stalled. Such a situation would be disastrous for the public finances, potentially forcing even sharper spending cuts than those already announced.

- Economic Stagnation**:** GDP growth did not resume to pre-recession rates. Consumer and business retrenchment meant that the economy did not return to historical rates of growth. With GDP growth averaging just 1.1% p.a.[88] it took until close to the end of the decade before the losses of the recession were regained.

- **Figure X: GDP Growth (2000-2010)**

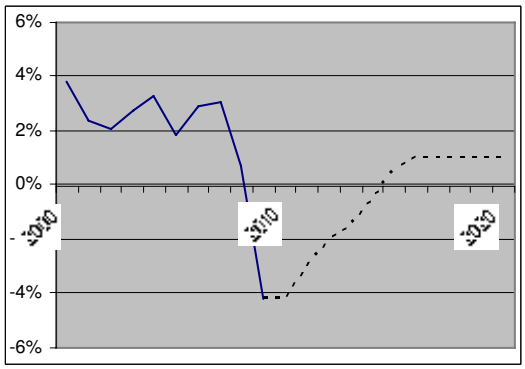
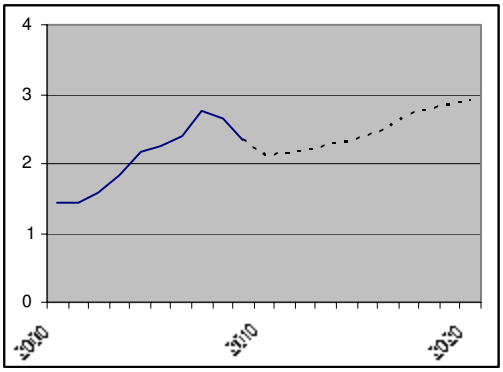


Figure X: GDP in current US trillion dollars (2000-2010)



Source: World Bank Development Indicators and Work Foundation calculations)

- Consumer and Business Retrenchment: Fiscal and monetary stimuli failed to boost demand. Consumers and business hit by falling asset prices, cut spending in order to rebuild their savings and balance sheets. This led to an increase in the savings ratio despite historically low interest rates. Constraints on the availability of credit continued as banks also looked to strengthen their balance sheets instead of lending. Low demand and tightening credit conditions limited business investments. Despite low interest rates, and implementations of quantitative easing, the country faced persistently low demand.

- Long-Term Deflation Risk: The Bank of England extended its quantitative easing programme repeatedly in an attempt to offset sustained falls in prices. In the face of low

[88] This reflects the rate of growth seen in the Japanese economy over the past two decades: Wolf, M. (2010) 'What can we learn from Japan's decades of troubles', *The Financial Times,* 12 January (http://www.ft.com/cms/s/0/3c5b388e-ffb2-11de-921f-00144feabdc0.html?nclick_check=1)

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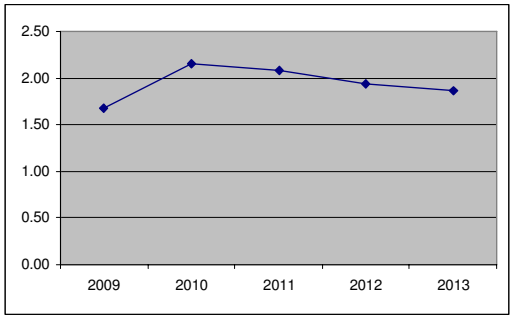
aggregate demand due to consumer retrenchment, inflation stayed below the BoE's 2% target.

- Unsustainable Public Finances: The 'go for growth' strategy pursued in the fist six months of 2010 failed, putting the plan for long-term public deficit reduction in jeopardy. Ratings agencies responded negatively, downgrading government bonds. This dramatically increasing the cost of servicing the national debt. Adjustment and the consolidation of public spending proved to be a lengthy and painful process. High unemployment, and other calls on public spending such as the ageing population and its increased demands on health and social protection made cutting spending in other areas even more of a priority. However, prevention of long-term deflation required delaying some cuts and increasing public spending in the medium term, which created a dilemma between the need to stimulate the economy and the need to deal with increasing public debt[89]. As GDP growth halted, public sector borrowing continued to increase and is around 6. 5 % of GDP in 2020-2021[90]. National debt continued to rise and is around 80% of national income. It is decreasing only very slowly; debt to income ratio will halve only by 2032[91], forcing further and more dramatic cuts in spending.

- Continued High Unemployment: Average unemployment rate in the long-term remained much higher than in the pre-recession period. The recovery in the labour market was very slow. The unemployed increasingly withdrew from the labour market as new employment opportunities failed to materialise. Due to low aggregate demand and lack of available credit, claimant count unemployment increased until 2011. It declined only very slowly thereafter. With a persistently high savings ratio and public spending cuts, unemployment increased steadily from 2014 and reached 2.25 million in 2021[92].

Figure X: Predicted Unemployment Rates (2009-2014, Claimant Count)



Source: HMT Forecasts for the UK Economy May 2009

- Slowdown in Globalisation/World Trade: World trade characterised by growing isolationism as all countries attempted to ensure fiscal stimulus packages supported only home firms. In particular, trade volumes deteriorated as the Chinese and other Non-OECD economies failed to sustain long term economic growth based on an export strategy. The return of 1930s style projectionist policies meant that a depreciated pound did not boost demand for UK exports.

Figure X: Recession Speeds up Structural Change (Employment Structure and Total Employment Change April-June 2008-2009)

[89] MENAFN News.(2009) *Japan unveils 10-year strategy to overcome deflation.* 30 December 2009
[90] Institute of Directors (2009). *An Economic Recovery Plan for the UK.* Institute of Directors Budget 2009 Representations
[91] The Guardian (2009). *Labour's boost to public services spending since 2001 'will be wiped out by cuts' says IFS.* 10th December
[92] Oxford Economics forecast 2009

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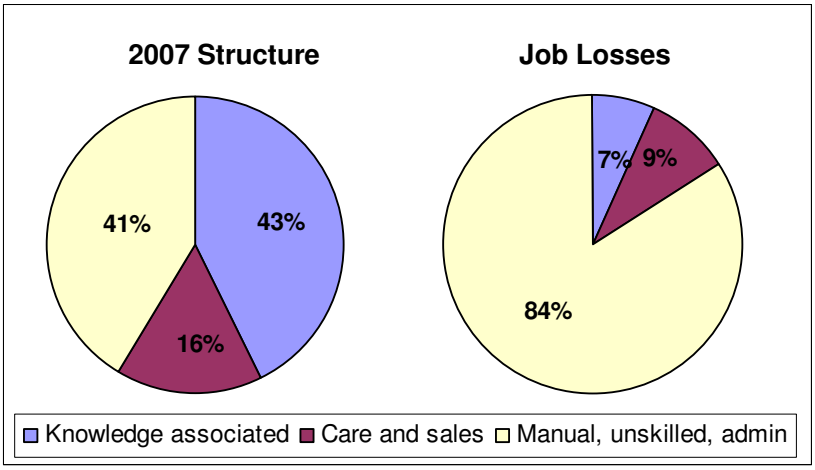
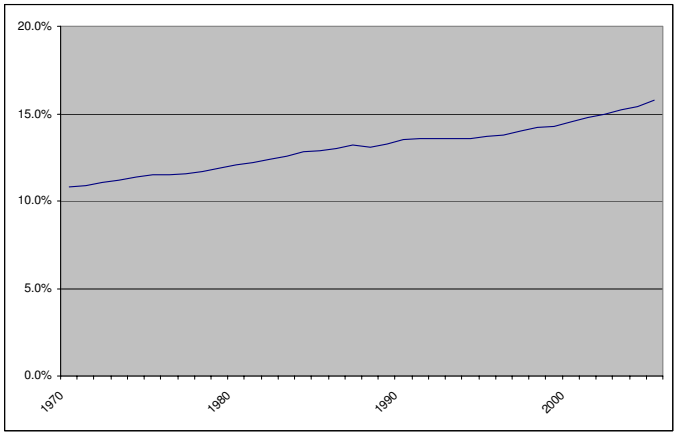


Source: UKCES Working Futures (2008), ONS (2009) and Work Foundation Calculations

Figure X: Proportion of Japanese Employment Concentrated in Knowledge Intensive Industries (1970-2005)



Source: EU KLEMS Database www.euklems.net

Overall, our analysis of the development of the Japanese economy since the 1990s also suggests that these interaction effects may be relatively modest compared to the direct effects of the primary drivers. As the figure below illustrates, the proportion of Japanese employment which is concentrated in the most knowledge intensive industries did stop growing in the early 1990s. However, despite slow overall growth, these industries were expanding by the end of the decade.

Section 3: The Role of Heritage in Place

Anchor Institutions

Defining Anchor Institutions

According to the University of Pennsylvania (2008), anchor institutions:

- Have a large stake and important presence in the city and community;
- Have substantial economic impacts on employment, revenue gathering, and spending
- patterns;
- Are one of the largest local employers;
- Consume sizeable amounts of land;

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- Have relatively fixed assets and are unlikely to relocate;
- Are among the largest purchasers of goods and services in the local area;
- Generate jobs and employment, both directly and indirectly;
- Attract businesses and highly skilled individuals;
- Provide multiple employment possibilities at all levels; and are centres of culture, learning and innovation with substantial human and intellectual resources.

Netter Centre for Community Partnerships (2008) Anchor Institutions Toolkit: A guide for neighbourhood revitalisation, University of Pennsylvania: Philadelphia

Literature from the US identifies a wide array of institutions as anchor institutions, including[93]:

- Private and community universities;
- Hospital and medical centres;
- Cultural and heritage institutions, including museums, libraries and performing arts facilities;
- Religious institutions;
- Utility companies;
- Military bases;
- Sports teams
- Locally rooted private sector businesses

We would like to thank individuals from the organisations for participating in this research and sharing their valuable insights:

Newcastle-Gateshead

- BALTIC
- Shipley Art Gallery
- Tyne and Wear Museums and Archives
- Newcastle Heritage Partnership
- Newcastle Gateshead Initiative
- Grainger Town Project
- Theatre Royal Newcastle

The Peak District

- Peak District Mining Museum
- Peak District National Park Authority
- Derbyshire County Council
- College of the Peak
- Agricultural Business Centre, Bakewell
- Speedwell and Peak Cavern, Castleton
- Haddon Hall

[93] Netter Centre for Community Partnerships (2008) *Anchor Institutions Toolkit: A guide for neighbourhood revitalisation*, University of Pennsylvania: Philadelphia

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Heritage in the 2020 Knowledge Economy
A report for the Heritage Lottery Fund

Table: Role of Heritage and Heritage Institutions in Newcastle Gateshead

	BALTIC	Shipley Art Gallery	Tyne & Wear Museums and Archives	Newcastle Heritage Partnership	Newcastle Gateshead Initiative	Grainger Town Project	Theatre Royal Newcastle
Primary purpose	• Showcasing Modern art gallery	• Engage people as a cultural institution and provide access to art	• In charge of 12 museums and archives in Tyne an Wear (5 in GG)	• Facilitating networking amongst heritage institutions (set up by Newcastle City Council)	• To promote Newcastle Gateshead	• Regeneration project in the historic core of Newcastle (heritage led)	• Contemporary theatre
Importance of Heritage to Newcastle Gateshead	• Heritage has been supplanted by culture in Gateshead. • Cultural regeneration has contributed a lot.	• There is a strong cultural identity • Heritage of NG is historical (industrial) and arts (creative/cultural). • 'Cant imagine NG without heritage'	• A sense of heritage is important to the local people • People of Tyneside have a strong connection to innovation and creation • Over last 10-15 years has become more important to people	• There is a fantastic plethora of heritage • Large sense of pride based on heritage • Can play a bigger role in the future • Difficult to quantify	• Makes the city distinctive • Is an important driver of tourism (but not the most important) • Heritage attractions have improved in recent years with funding making a better packaged offer	• From a development perspective it is very important to play to your strengths – make the most of what is distinctive. • Has huge potential – uniqueness is a key differentiator	• Local Authority greatly values culture: cultural regeneration has been core to regeneration • Culture linked to heritage but never though of heritage as a driver of the economy • Heritage sometimes gets in way of corporate image
Way in which institution contributes to local heritage	• Do not really dwell on the historic nature of the building • However, use history as an entry point to encourage visitors	• Art collections showcase local heritage • Tells a local story • Engages with people especially children on local/ regional culture	• Hold public benefit • Actively engaged in the heritage sector (support both small and large projects) • Working with other cultural institutions to make more out of less	• Looking at ways we can increase the communication between heritage institutions • Developing the idea of a NHP badge to prevent competition between individual institutions	• Promote the total offer of NG – heritage is one aspect of this. • Work with many local and national organisations to generate ideas for events and help other people deliver them	• Developed a heritage led regeneration strategy • Produced children's books on the area to build up civic pride • Plaques detailing life in 1840s	• 'One of the most attractive theatres in the country' • Coming up to 175th anniversary (2012) – restoring auditorium – heritage is going up the agenda) • Working with the tourist sector to promote our heritage
Key issues for the future	• Corporate funding capability • Difficult to grow as an institution in the north east.	• Funding • Partnership • Sustainability	• Concerns about funding • There is a need to be confident in the future of the heritage sector	• Peoples disposable incomes – heritage attractions are the first things to go • Need to mix and match marketing of the city – e.g. heritage and shopping.	• Isn't enough critical mass in lottery funding to make the improvements that are needed (funding sustainability) • Heritage is always growing – challenge is how the sector absorbs the additions	• Funding • Implications of state of the economy • Confidence in heritage led regeneration	• Cultural regeneration being replaced by science • 'The never ending capital question' • Limited opportunities available for funding (e.g. Northern Rock has stopped funding heritage projects)

Table 3: Role of Heritage and Heritage Institutions in the Peak District

	Peak District Mining Museum	Peak District National Park Authority	Derbyshire County Council	College of the Peak	Agricultural Business Centre	Speedwell and Peak Cavern	Haddon Hall
Primary Purpose	• Museum of mining in the PD and fluorspar mine	• Conserving the natural environment, promoting enjoyment and understanding and fostering social and economic wellbeing of the residents	• 'Improving life for local people' • Has influence over the Peak District (works alongside the Park Authority)	• Delivering training in heritage building skills	• Livestock sales facility (also home to rural businesses and conference space)	• Tourist attractions; Speedwell (leadmining) and Peak (rope making)	• 12th century home of Lord and Lady Edward Manners and tourist attraction
Importance of heritage to Peak District	• Industrial heritage of mining is very important to the PD – generating a great amount of wealth for the area • Younger people need to appreciate 'what our nation was built on' • Will play a bigger role in the future	• Vital – brings people in. • The economy is based on tourism (directly related to the heritage) • The landscape is a cultural landscape • Landscape contributes to competitiveness of the region eg 14000 jobs • Carbon capture	• Influences everything in PD • 'Heritage is a thing with hooks on it' – even if people are shopping in Bakewell, they are experiencing the landscape • Has become core to regeneration work in towns e.g. THI • Very difficult to quantify • Increasingly important	• Heritage is integral to the local building stock – the local landscape • Growing interest in heritage renovation from people moving into the area. • Realisation that a lot of the traditional ways of doing things are some of the most sustainable. • Have worked directly with heritage buildings	• Very important – has increased over the last century. • In Bakewell, receive many visitors to the farmers markets (one day had 40-45 coach trips) • Bakewell is a tourist centre • Is a place that people want to retire too	• Natural and Industrial heritage hugely important • Natural beauty above and below ground • Literary heritage is also important to the Caverns • But visitor numbers to the caverns have decline over the years; a lifestyle thing – competition from TV, shopping etc	• Area has a rich heritage ranging from the historic heritage of the Hall which attracts visitors and more recently interest from film producers (Pride and Prejudice has been filmed on site) • Heritage acts as a hook
Way in which institution contributes to local heritage	• Promoting the heritage of the PD miner • Receive 135000 paying visitors per year	• Conserving and enhancing • Improve access to the park • Advice and heritage information (e.g. to farmers) • Projects such as cycling pilot (over old railway bridges)	• Culture at the centre of the council • No direct involvement in projects but help with funding and planning/ building/ grant advice	• Developing and conserving heritage building skills (such as dry stone walls) – only place in country that can be trained from beginner to advanced	• Hold livestock market (top 5 in the country) in conjunction with the stall market in Bakewell (goes back to 1330) • Facilitates other cultural events such as fine art auctions	• Promote industrial, natural, literary heritage through tours and education • Will not change the way in which we operate- it is a heritage tourist attraction	• Film location tourism – sites such as Haddon promoted by Visit Peak District • Part of a group of PD heritage institutions that network and learn from each other
Key issues for the future	• Funding and self sustainability	• Heritage low on list of government priorities • Loss of officer expertise (through job cuts) • Funding • Sustainability agenda: PD ideal for looking at alternative energy sources	• Economic conditions – need a new way of running the sector • Working with community could be key	• New requirements for a skilled workforce in heritage building work.	• Finding ways for the heritage sector to expand and be forward looking (becoming an all year round place – e.g. Haddon Hall and Chatsworth open at Christmas with Christmas decorations)	• Climate change is affecting the tourism trade – we are losing summer days • Loss of trade causing us to cut staff (seasonal contracts)	• Recession and the implications for peoples disposable incomes • Staycationing has brought a new type of tourist that have previously holidayed abroad and heritage institutions may not be able to cater for.

Data Annex

Employment at heritage assets and in trade of assets

List of assets:

- 18 World Heritage Sites
- 19,271 Schedlued Monuments
- 373,892 Listed buildings
- 1,600 registered parks and gardens
- 43 historic batttlefields
- 46 marine heritage sites
- 9,300 conservation areas
- 12,150 sq kilometers of AONB
- 3,540 sq kilometerss of ancient woodland
- 32 historic environment records online

Source: Heritage counts 2009

Historic Houses:

- Historic Houses Association - 10,000 are directly employed by privately owened historic houses in tourism opening. These contribute between £1.6bn and £2bn annual in tourism alone. (Confirmed via email correspondence with the HHA – 2008 data, update to this forthcoming)

Forestry:

- Scotland – 10,300 directly employed, 1,500 indirectly & 7,500 volunteers (Forrestry Commission Scotland)
- Estimate that 167,000 jobs are provided by trees and forests in the UK (Parliamentary POST Note 2007)
- British forestry account for 18,646 direct jobs in 2004 – 6,313 in removals, 8,355 in sustainable maintenance, planting and nurseries, and 3,977 in non timber outputs (PACEC 2004)
- ABI annalysis estimates there to be 11,600 forestry workers, defining those workers to be involved in the planting, cultivation and protection of trees (ABI 2007).
- LFS analysis estimates there to be 8,900 employed in the logging, timber and forestry industries (LFS 2009).

Libraries & Archives

- 25,768 employed in public libraries, with revenue expenditure of £1,154m (in 2007/8), 9,846 employed in academic libraries, with expenditure of £597m (in 2006/7) and 2,814 employed in national libraries, with expenditure of £147m (in 2004/5) (LAMPOST 2009).
  This suggests a total of 38,428. This is similar to the LFS estimate of 37,262, although when library assistants are included, the LFS figure almost doubles to 70,800.
- 1,400 employed in archives, with total net expenditure of £86m (in 2006/7).
- The ABI analysis classification groups together library and archive activities, totalling 46,700 (ABI 2007)
- The LFS analysis estimates the total numer of archivists, conservators and curators to be 14,076. The breadth of the SOC definition makes it difficult to compare the two figures (LFS 2009).

Museums & Historic Sites

- 5,199 employed in local authority museums (in 2006/7), with an expenditure of £230m (in 2006/7).

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- There were 34m visits to DCMS museums in 2005/6, but not possible to calculate employment per visitor
- The ABI estimates there to be 23,800 people working in museums (ABI 2007).
- The LFS identifies 14,000 archavists and curators. However this is poor estimate of museum employment. It also identifies a further 19,400 individuals concerned with the operation of historical sites and buildings and similar visitor attractions (LFS 2009)

Indirect Heritage Based Employment from Heritage Assets
Employment generated by provision of support services to heritage assets:

Construction / Maintenance workers:

- Works on pre-1919 buildings required £5.41bn in 2007 – 15% of national spend on maintenance. This would have created employment for 108,824 workers (based on a standard coversion rate of 23 jobs per £1m spend on 2000 prices) (NHTG 2008).
- Skills – 33,000 of these needed to handle traditional materials (NHTG 2008).
- 92% decribe themselves as general contractors, only 8% as heritage specialists, but VAT statistics suggest that this underepresents the situation (NHTG 2008).
- In 2003/04, the private sector spent £3.4 billion on historic buildings (HHA 2006)
- In 2006, the CoE spent £109.2m on repairs in listed places of worship (Heritage Counts 2008).

Education, Training & Research on Heritage Related Topics

Secondary school / college based analysis
Estimation of teaching staff required to support GCSE / A-Level / Degree students.

Student numbers:

- 194,000 GCSE & 42,107 A-Level History candidates (Heritage Counts 2009)
- 119,795 students in HE studying courses related to the historic environment (Heritage Counts 09 data).
- 109,440 student in HE studying courses related to heritage (calculation based on HESA 07/08 estimates), 4.75% of all HE students.

Teacher numbers:

- 300 classics teachers, in secondary schools (SSCSS 2007).
- 15,700 history teachers, in secondary schools (SSCSS 2007).
- 16,000 teachers of heritage-related subjects, 4.10% of total, in secondary schools (SSCSS 2007).
- 6,438 staff employed in heritage-related educational services (at HE level). (based upon a calculation of 4.75% of students in HE, requiring a proportionate amount of teaching and support services, out of the total teaching and support stafff of 135,655). (HESA 07/08)
- 4,611 teachers in heritage-related teacher training. (based upon a calculation of 4.75% of students in teacher training), (HESA 07/08).

Archeology employment

- 6,865 archeologists in 2007/08, 20% up on 5 years ago, 50% up on 1997/98 levels (Archaeology Labour Market Intelligence 2008).
- Half of this employment is within the private sector, focusing on field investigation and research – may be dependent on contiuned development / planning (Archaeology Labour Market Intelligence 2008)

University resarch

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- 1,865 researchers in heritage-related areas. TWF calculation based on above estimates of student numbers.

Recreation and tourism related

- Histioric Houses Association member houses attract 15 million visits per year and 400,000 educational visits, contributing between £1.6 and £2billion annually to the national economy through tourism alone (HHA)
- The Association of Leading Visitor Attractions, the membership of which is almost exclusivly made up of heritage organisations reported 79,602,438 visitors in 2008.

Oxford Economics 2009 study – Economic impact of the UK heritage tourism economy:

- Heritage-based tourism direct expenditure of £12.4bn a year and 195,000 jobs
- Responsible for £20.6bn in GDP and 466,000 jobs including indirect effects
- Calculations also presented for heritage-based tourism, excluding green spaces – direct expenditure of £7.2bn and 113,000 jobs. Including indirect and induced effects this rises to £11.9bn and 270,000 jobs.

Employment Data for Heritage Related Activities

GB employment in selected standard industrial classifications – Sourced from the Annual Business Inquiry 2007

SIC Code 2007	TWF Heritage Category	SIC Class	Employment (SIC 07)
0170	Natural	Hunting, trapping and related service activities	200
0210	Natural	Silverculture and other forestry activities	9,100
0220	Natural	Logging	600
0240	Natural	Support services to forestry	1,000
4613	Related	Agents involved in the sale of timber and building materials	7,300
4761	Related	Retail sale of books in specialised stores	18,700
4779	Related	Retail sale of antiques including antique books, in stores	24,100
5510	Related	Hotels and similar accommodation	322,800
5520	Related	Holiday and other short stay accommodation	35,600
5530	Related	Camping grounds, recreational vehicle parks and trailer parks	21,300
5590	Related	Other accommodation	5,600
8122	Related	Furnace and chimney cleaning services	8,100
8130	Related	Landscape service activities	8,000
8520	Related	Primary Education	968,200
8531	Related	General secondary education	548,000
8542	Related	Tertiary education	400,600
8552	Related	Cultural education	4,600
8560	Related	Educational support activities	2,100
9001	Related	Performing arts	32,800
9002	Related	Support activities to performing arts	1,500
9003	Related	Artistic creation	32,100
9004	Related	Operation of arts facilities	11,900
9101	Built	Library and archive activities	46,700

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9102	Built	Museum activities	23,800
9103	Built	Operation of historical sites and buildings and similar visitor attractions	19,400
9104	Natural	Botanical and zoological gardens and nature reserve activities	12,300

Source: ONS (2009)

Employment in selected standard industrial classifications – Sourced from the Annual Business Inquiry 1998-2007			
SIC Code 2003	**SIC Class**	**1998**	**2007**
0201	Forestry and logging	6,900	9,800
0202	Forestry and logging related service activities	400	900
9251	Library and archive activities	32,700	46,400
9252	Museum activities and preservation of historical sites and buildings	28,400	43,200
9253	Botanical and zoological gardens and nature reserve activities	6,800	12,300
All Employment	All classes	23,146,400	26,602,300

Source: Nomis (2009)

NB: to allow analysis through time of key heritage sectors SIC2003 codes were used. These do not map directly to the new SIC2007 classifications reported above. Due to discuntiuities with sampling and reporting methods over the timeperiod the change data presented should be viewed as only illustrative.

UK employment in selected standard occupational classifications – Sourced from the Labour Force Survey Q2 2009			
SOC	**TWF Classification**	**Description**	**Total in employment**
1211	Related	Farm managers	32,200
1212	Related	Natural environment and conservation managers	n/a
2311	Related	Higher education teaching professionals	138,000
2312	Related	Further education teaching professionals	110,800
2314	Related	Secondary education teaching professionals	417,400
2319	Related	Teaching professionals NEC	155,700
2451	Built	Librarians	37,300
2452	Built	Archivists and curators	14,000
3411	Related	Artists	36,800
3412	Related	Authors, writers	63,600
3413	Related	Actors, entertainers	37,800
3414	Related	Dancers and choreographers	n/a
3415	Related	Musicians	33,000
3431	Related	Journalists, newspaper and periodical editors	57,600
3434	Related	Photographers and audio-visual equipment operators	64,400

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3551	Related	Conservation and environmental protection officers	26,500
3552	Related	Countryside and park rangers	n/a
4135	Built	Library assistants/clerks	33,600
5111	Related	Farmers	109,200
5113	Related	Gardeners and groundsmen/groundswomen	188,700
9111	Related	Farm workers	58,000
9112	Natural	Forestry workers	11,600

Source: ONS (2009)
Note: Vales are not seasonally adjusted. However, visitor numbers to heritage sites in the period April to June (quarter two) are closest to the annual mean.

Data Sources

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- *Annual Business Enquiry data available from* www.nomisweb.com
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Libraries, Archives & Museums

- *LAMPOST; Libraries, Archives, Museums, & Publishing Online Statistic Tables*

http://www.lboro.ac.uk/departments/dils/lisu/lampost.html

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