

Valuing the Benefits of Regeneration

Economics paper 7: Volume II - Logic chains and literature review



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Preface

This report is one part of a study to value the benefits of regeneration interventions. It was undertaken between late 2009 and early 2010 by a team led by Professor Peter Tyler (Project Director), Colin Warnock (Project Manager) and Angela Brennan from Cambridge Economic Associates (CEA), in association with Allan Provins and Zara Phang from eftec, Peter Wells, Ian Cole, Jan Gilbertson, Tony Gore and Richard Crisp from CRESR at Sheffield Hallam University, Anne Green from the University of Warwick and Mike May-Gillings from Cambridge Econometrics.

The research team is grateful for the assistance of an Expert Team which comprised Professor Ken Willis (Newcastle University), Professor Jennifer Roberts (University of Sheffield), Professor Roger Bowles (York University), Dr Daniel Graham (Imperial College), and Bobby Duffy (NOP/MORI).

The research benefited greatly from an Expert Workshop held on the 26 March 2010 which was attended by:

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Joe Clease	Department for Work and Pensions
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Alice Clarke	Department for Communities and Local Government
Lucy Spurling	Department for Communities and Local Government
Andrew Amerasekera	Department for Communities and Local Government
Graham Kinshott	Department for Communities and Local Government

The research team would like to acknowledge the valuable contribution of all those who contributed to the research. It should be noted that the timing of the study meant that it pre-dates the new government's focus on the big society and localist approaches to regeneration and community/economic development. Similarly, some of the policies referred to in the report may have been ended or modified. Nevertheless, the volume's findings will still be relevant to national and local level regeneration practitioners by summarising the evidence base and processes by which they might aim to produce positive outcomes across a range of different kinds of regeneration interventions.

1. Introduction

Background and study objectives

- 1.1 In October 2009 the Department for Communities and Local Government (DCLG) commissioned research to examine how the benefits of regeneration might be valued. The research is seen as an essential component in enabling the Department to make strategic choices on the shape and form of regeneration policy in the years ahead. It is designed to provide an analytical framework that will underpin a programme of research on the value of the benefits from regeneration and how they compare with the relevant costs. The intention is to establish a robust evidence base, identify potential challenges and provide constructive suggestions on how these could be overcome.
- 1.2 The focus of the research has been on developing a practical methodology with which to place an **economic** value on the benefits that are produced by regeneration policies in line with the recommendations of HM Treasury (HM Treasury Green Book¹). More specifically, the main objectives of the research were to:
- develop a conceptual framework that could be used to value the benefits of regeneration
 - review and assess the existing evidence base in relation to valuing regeneration. To assist in this process, the study team benefited from an Expert Panel of leading academics in the fields of health, crime, transport and environmental economics
 - pilot approaches to assigning a monetary value to the benefits of regeneration
 - make recommendations to improve the appraisal and evaluation of regeneration to enable better quantification of benefits and the assignment of regeneration outcomes.
- 1.3 The research has **not** been concerned with:
- comparing the value of the benefits from regeneration with the value of benefits produced by other forms of public intervention
 - establishing the overall fiscal cost to the tax-payer from regeneration initiatives (although some attention has been given to the fiscal impact of policies designed to tackle worklessness)

¹ HM Treasury (2008) *The Green Book. Appraisal and Evaluation in Central Government*. Treasury Guidance. London: TSO. www.hm-treasury.gov.uk/d/green_book_complete.pdf

- the impact of regeneration initiatives on the wider flows of public expenditure in regeneration areas.

1.4 It is also important to emphasise that **the work has focused on the development of an analytical framework that now needs to be populated with more robust evidence from further research and evaluation**. The unit costs, unit values and Benefit Cost Ratios that have been derived are **illustrative**. They are based on readily available evidence. At the present time this is limited for some regeneration activities due to a paucity of good quality evaluation material. Recommendations are made as to where the evidence base needs to be strengthened.

Why do the benefits of regeneration need to be valued?

- 1.5 There has been much work devoted to evaluating the achievements of regeneration initiatives. The key steps have been discussed at length in documents such as the Green Book and the 3R's Guidance produced by Department for Communities and Local Government,² which replaced the HM Treasury EGRUP Guidance.³ Most recently the Cabinet Office has produced *A Guide to Social Return on Investment*.⁴ Guidance has been produced by the Homes and Communities Agency to help assess the additionality of regeneration activities⁵ and the Department for Business, Innovation and Skills have commissioned further research into the additionality associated with economic development and regeneration projects building on the extensive database produced as part of the recent Regional Development Agency Impact Evaluation.⁶
- 1.6 The rationale for Government regeneration interventions has played heavily to the need to overcome market failure and/ or equity or distributional arguments. There has been general agreement that successful regeneration is about achieving additional economic, social and environmental outputs and outcomes that would not otherwise have occurred (or which would have been delivered later or of a lower quality).
- 1.7 Regeneration initiatives should seek to be cost-effective and represent good Value for Money. As part of the assessment of Value for Money, HM Treasury is unequivocal that benefits should be valued: *"The general rule is that the benefits should be valued unless it is clearly not practical to do so. Even if it is not feasible or practicable to value all of the benefits of a proposal, it is clearly important to value the difference between*

² ODPM (2004) *Assessing the impact of spatial interventions. Regeneration, renewal and regional development. 'The 3Rs guidance'*. London: Office of the Deputy Prime Minister.

³ HM Treasury (1995) *A framework for the evaluation of regeneration projects and programmes*. London: HM Treasury.

⁴ The Cabinet Office (2009) *A guide to social return on investment*. London: Cabinet Office (Office of the Third Sector). www.neweconomics.org/sites/neweconomics.org/files/A_guide_to_Social_Return_on_Investment_1.pdf

⁵ English Partnerships (2008) *Additionality Guide: A standard approach to assessing the additional impact of interventions. Method Statement*. Third Edition. London: English Partnerships.

options” (HM Treasury Green Book, p.21).

- 1.8 Given the guidance contained in the Green Book it would seem an obvious question to ask why there is so little evidence available on the value of regeneration benefits. A number of conceptual and measurement problems can be identified.
- 1.9 One immediate factor is that regeneration initiatives are usually associated with a very wide and diverse range of physical, economic and social impacts. Some have explicit economic objectives and thus seek to create jobs, either directly or indirectly, and stimulate growth by enhancing business competitiveness. Many improve the environment and stimulate the workings of land, property and particularly housing markets. An increasing number are engaged with a broad social agenda that works to improve health, reduce crime, build social capital and much more besides. In terms of the sheer spread of objectives, the Single Regeneration Budget was a classic example of the diversity of regeneration activity that could be pursued.⁷ Other reasons for the lack of evidence include the high cost of undertaking primary data collection.
- 1.10 Where possible the research has sought to value the benefits of regeneration using market based data. This is in line with Treasury Guidance. However, in other cases, market based information with which to value the benefits of regeneration is not readily available and the research investigated the feasibility of using other approaches. The research has undertaken two pilot studies: a stated preference survey to value environmental quality and amenity improvements of regeneration schemes; and a hedonic pricing study to assess the scope for placing values on brownfield land reclamation. The pilot stated preference work was undertaken in Seaham in East Durham. This area was selected because it has been the focus of significant physical regeneration resources covering a variety of different environmental improvements. As a pilot study it was important that the work could be undertaken in a cost-effective manner and thus identify participants likely to be knowledgeable of the regeneration activities concerned to inform questionnaire design. As a relatively small town, the chosen case-study area also benefited from not having the background ‘noise’ associated with larger urban areas.
- 1.11 The approach adopted in the stated preference work combined both choice experiment and contingent valuation methods to give a flexible survey instrument capable of valuing local environmental amenity attributes individually and ‘packages’ of improvements covering multiple attributes. The work was designed as a pilot study that could then lead to a full scale survey to generate valuation evidence for general use in appraisal and evaluation of regeneration schemes.
- 1.12 The hedonic pricing study sought to examine the impact of a major brownfield

⁶ BIS (2009) *Research to improve the assessment of additionality. Final Report*. London: Department for Business, Innovation and Skills.

reclamation project on house prices in the adjacent residential area of Hebburn in South Tyneside. The former Monkton Coke Works was selected because it involved the reclamation of a significant and well known area of brownfield land, was adjacent to a relatively stable area of housing which was not dominated by new residential development (since this would distort the housing market) and because the activities were undertaken sufficiently long ago for there to be a sufficient number of housing transactions through which to observe any price effects.

Defining the scope of regeneration

- 1.13 The first part of the research explored the scope of regeneration and provided the working definition critical for this study. In doing so we reflected and incorporated the main dimensions of regeneration policy as it has evolved over recent years in England. We also considered the diversity of regeneration activity and ensured that each element was classified in an appropriate manner that recognises the contribution it makes to people and place.
- 1.14 Our working definition emerged with three regeneration Themes covering eight Activity Categories (Figure 1.1). These Activity Categories in turn comprise a total of 46 Activity Types, each with their own logic chain. The logic chains are described in Sections 2, 3 and 4 and detailed in Annex A.

Figure 1.1: Regeneration Themes and Activity Categories	
Theme 1. Worklessness, skills and business development	
↗	Worklessness, skills and training (1.ST)
↗	Enterprise and business development (1.ENT)
Theme 2. Industrial and commercial property and infrastructure	
↗	Industrial and commercial property (2.ICP)
↗	Infrastructure (2.INF)
Theme 3. Homes, communities and the environment	
↗	Housing growth and improvement (3.HOUS)
↗	Community development (3.COMM)
↗	Environmental improvement (3.ENV)
↗	Neighbourhood renewal (3.NEIGH)

Report structure

- 1.15 The final report is in two volumes. Volume I sets out the main findings, including the valuation approaches adopted, the evidence that has been applied and recommendations for ways in which the evidence and guidance on its application can be strengthened in the future.
- 1.16 This volume (Volume II) provides greater detail on the logic chains that make up the

⁷ Department of Land Economy (2009) *The Single Regeneration Budget: Final Evaluation*. Cambridge: Department of Land Economy.

three regeneration themes (detailed in Annex A) and presents our review of the literature on valuation issues and options (the references for which are provided in Annex B).

- 1.17 The Technical Report provides a detailed exposition of the pilot Stated Preference and Hedonic Pricing studies undertaken as part of the research.

2. Worklessness, skills and business development

Introduction

- 2.1 This section discusses the objectives, logic chains and valuation issues and options associated with Theme 1: Worklessness, skills and business development. There are two Activity Categories within this theme:
- Worklessness, skills and training (1.WST)
 - Enterprise and business development (1.ENT).
- 2.2 For each of these Activity Categories we begin with a brief overview of the activity, present a summary logic chain showing the typical activities within the Category and how they are expected to bring about change, and then discuss the findings from the evidence review regarding valuation and measurement.

Worklessness, skills and training (1.WST)

Overview

- 2.3 A mainstay of welfare-to-work initiatives over the last 13 years, and a relatively well-researched area in terms of evaluation evidence, have been the New Deal programmes, focusing on moving the long-term unemployed and economically inactive towards and into employment. These have involved provision of information, advice and guidance via personal advisers, job search activities and elements such as education and training programmes to enhance skills and (subsidised) employment experience schemes. Alongside these there is a National Minimum Wage and other measures to make work pay, both by easing the transition from non-employment into work and through in-work tax credits.
- 2.4 The New Deal policies have been targeted at particular population sub-groups: the New Deal for Young People, New Deal 25 Plus, New Deal for Lone Parents, New Deal 50 Plus, New Deal for the Disabled, New Deal for Partners and Pathways to Work (designed to help people with health conditions and disabilities to consider their options for work). Some of these policies have been mandatory and others have been voluntary, so raising issues about the different nature of entrants to these programmes. Voluntary schemes may tap into individuals who are eager to work. Evidence suggests that the motivation of an individual to participate in the labour market and enter employment is a key factor in any form of action to reduce worklessness (Hasluck and Green, 2007).

- 2.5 The New Deal policies outlined above have been focused on ‘people’ rather than on ‘places’ *per se*. However, there have also been initiatives focusing on particular places with high levels of worklessness – examples include Employment Zones and Action Teams for Jobs. Yet these policies have retained a foremost impact on people. Like the New Deals, they are characterised by a *supply-side orientation* on the basis that deficiencies among the (potential) workforce are a key part of the worklessness problem. Indeed, individuals with no formal qualifications experience lower employment rates than those with low, intermediate and higher levels qualifications, and once in work are more likely to experience ‘churning’ between employment and non-employment. This highlights the need for in-work support and a greater emphasis on progress in employment and sustainable employment. While at one time learning and skills was ‘divorced’ from employment policy, with the Leitch Review there has been a move towards a more integrated employment and skills system.
- 2.6 The New Deal programmes which focused on particular sub-groups of the workless population are now being replaced by the Flexible New Deal, with an emphasis on more flexible and individualised services in accordance with individuals’ needs and situations. There is also a shift towards delivery of employment services by private sector, third sector and local authority providers (Convery, 2009). These changes suggest enhanced variation in delivery individuals, sub-groups and areas. After all, the evidence base suggests that there are no ‘magic bullets’ and the diversity of worklessness is such that there is no ‘one size fits all’ approach (Green and Hasluck, 2009).
- 2.7 Tackling worklessness has been increasingly to the forefront of regeneration in recent years and this is best illustrated through the creation of the Working Neighbourhoods Fund in December 2007. The Working Neighbourhoods Fund, which replaced Neighbourhood Renewal Funding, provides resources to 61 of the most deprived local authorities to tackle worklessness and low levels of skills and enterprise in their most deprived areas. Since 2008 the Department for Communities and Local Government (DCLG) and the Department for Work and Pensions have jointly provided £1.5bn of Working Neighbourhoods Fund funding for local councils which the recent Working Neighbourhoods Fund Scoping Study (Dept of Land Economy, 2009) found was being used on a wide range of supply-side and demand-side interventions. The Working Neighbourhoods Fund was recently (November 2009) topped up with additional resources targeted at enhancing the skills and employment prospects of families suffering from persistent unemployment.
- 2.8 A further joint DCLG and Department for Work and Pensions initiative, the Future Jobs Fund, was announced in Budget 2009 and targeted at 18-24 year olds whose employment prospects were particularly hard-hit in the recent recession. This initiative, which is part of the Young Person’s Guarantee, and targeted at unemployment hot-spots, seeks to ensure that everyone aged 18-24 years old will

get an offer of a job, work experience, or training lasting at least six months.

Worklessness, skills and training logic chains

- 2.9 The core objective is to value the benefits provided by regeneration initiatives as they get people into work and enhance their skills. Thus, as an individual moves from economic inactivity through various stages of sustainable employment the requirement is to estimate the value to the individual and society as a whole. The broad pattern of labour market progression is summarised in Figure 2.1 alongside the policy response.

Figure 2.1: Possible Pathway from Economic Inactivity to Sustainable Employment

long-term inactive (not in labour market, not searching for work)	→	unemployed (in labour market, but not in employment)	→	pre-employment training	→	job placement	→	entry level job (in employment)	→	sustained employment (retention in employment)	→	progression in employment (move into a more skilled, better paid job)
POLICY RESPONSE												
outreach information advice and guidance		employability training basic skills training job-specific training		job broker finding placement to fit individual		specific help to take up a job (e.g. help with travel, clothes, equipment), in-work tax credits		in-work support from PA		informal and formal training on-the-job and off-the-job to enhance skills		continuing skills development

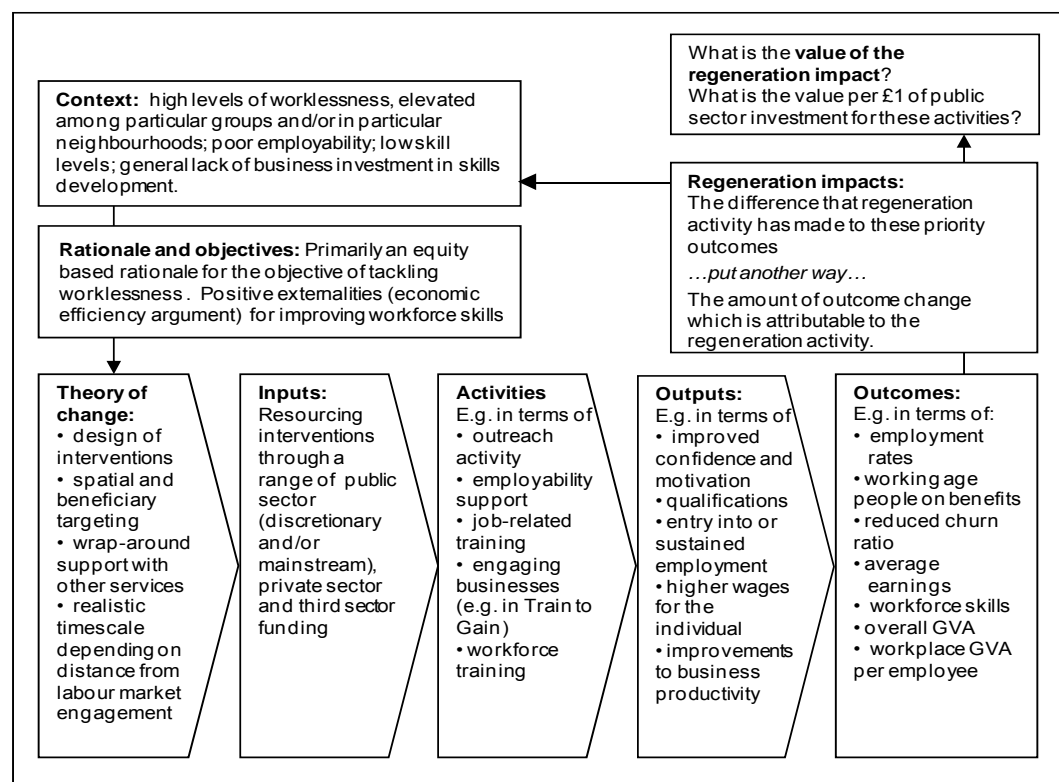
- 2.10 The skills and training Activity Category has four Activity Types for which individual logic chains are presented in Annex A. These logic chains, which describe the route from regeneration investment through activities to outputs and outcomes, are:

- Helping people to become work-ready (1.WST.A1)
- Helping people into work (including re-entrants) (1.WST.A2)
- Helping people to stay in work (1.WST.A3)
- Helping employees and businesses with skills development in the workplace (1.WST.A4).

- 2.11 From an individual's perspective, the four Activity Types essentially describe movement or progression within four different employment states. The first (1.WST.A1) relates primarily to those who are the long-term inactive: those who are not in the labour market and are not searching for work. Here the focus is on reaching out to people with information, guidance and advice, and motivating them and giving them the confidence to take the first steps towards work. This logic chain has activities relating to employability support and may lead to some basic skills or other employability qualification by the beneficiary. This contributes to an overall improvement in basic skills and employability.

- 2.12 The second logic chain – helping people into (or back into) work (1.WST.A3) – represents the next stage on the “customer journey”. Here the activities are more focused on job-related training, job brokerage activity and specific help to take up a job (e.g. help with travel, clothes, equipment and in-work tax credits). Outputs include vocational and academic qualifications and, ideally, entry into employment with the consequent income benefits associated with working. This logic chain has the potential to culminate in reductions in worklessness, improved earnings and thus Gross Value Added, as well as overall improvements in the skills and qualifications of the workforce.
- 2.13 Over recent years there has been an increasing focus on ensuring that those finding work are assisted to retain their jobs (1.WST.A3). Typically this involves in-work support and advice from Personal Advisors with the objective of keeping them in work for sustained periods of time (ideally at least six months). The primary outcome of this activity is in reducing the churn between employment and unemployment.
- 2.14 The final activity type (1.WST.A4) targets both those in employment and their employers to improve workforce skills. Through initiatives such as Train to Gain, employers and employees are encouraged to invest in skills development, with potential outcomes for individuals of higher wages and improved employability and for the business in terms of productivity.
- 2.15 Figure 2.2 provides a summary logic chain for the worklessness, skills and training Activity Category.

Figure 2.2: Summary logic chain for worklessness, skills and training



Key relationships in the logic chain

- 2.16 In the context of skills training the inputs are the resource interventions through which public sector (mainstream and discretionary), private sector and third sector funding lead to people having improved confidence and motivation, enhanced qualifications, more effective job search, entry into sustained employment, higher wages for individuals in employment and improvements to business productivity.
- 2.17 These outputs then feed into increased employment rates, reductions in the number of people on working age benefit, increased earnings, Gross Value Added and Gross Value Added per employee.
- 2.18 It is also possible to estimate the savings to Exchequer costs which can be captured by moving people off benefits and into work (see Freud, 2007). While these 'benefits' need to be treated separately from real resource benefits to the economy from incomes and Gross Value Added, they are a legitimate consideration for those appraising and evaluating the performance of regeneration interventions.

Problems around concept and measurement

- 2.19 There are a number of issues that need to be considered for the successful implementation of the worklessness, skills and training part of the conceptual framework. Many of the policy actions seek to reduce worklessness but the relationships between activities, the outputs they produce and the impact that these then have on worklessness and other outcomes is often not known in a precise way. The evidence is generally best when it comes to the link between activity and output where much evaluation research has been undertaken. The evidence is far weaker when it comes to understanding the links between outputs and outcomes.
- 2.20 Another problem is that programmes aimed at tackling worklessness and skills development typically include several different ingredients, and an individual participating in a programme may partake of different mixes of ingredients. Such 'heterogeneity' within programmes means that it is difficult to know what has been provided to whom and so what the impact of specific ingredients within a programme has been; indeed, interventions work in combination and factors interact in complex ways. This **attribution** challenge is all the more significant in the context of a system of employment and skills interventions that is more flexible and individualised.
- 2.21 **Context** emerges as important in policies/initiatives to address worklessness. This encompasses the individual in a broader household context, social context, the local context and the broader macroeconomic context. Results of a valuation/cost-effectiveness study cannot be translated directly from one particular set of economic circumstances to another – for example, holding other factors constant, it is more difficult to move an individual into employment in a slack than in a tight labour market – so highlighting the importance of labour demand.

- 2.22 Another key issue is the **timescale** over which it is appropriate to measure ‘success’. To move those individuals who are most distant from work towards sustainable employment may take some time. There is also a legitimate question of what is a reasonable time period over which benefits can be claimed.
- 2.23 The measurement of progress and of attributable benefits therefore relies heavily on good quality information about the pre-intervention and post-intervention state of the individual and business, about the extent to which the improvement can be attributable to the intervention and about the measurable difference the improvement has made in relation to key metrics such as wages and productivity. This requires a combination of high quality survey evidence of both individual and business beneficiaries, relating to the effectiveness of specific intervention types as well as more general research on the relationship between, for example, skills and pay and skills and productivity.

What does the existing evidence base tell us

- 2.24 The literature review undertaken as part of the Objective 2 phase of the study examined a number of research studies that considered the impact of skill enhancement on progression in the labour market. The review considered over 280 evaluations undertaken for HM Government between 2001 and 2009 covering a range of economic development and regeneration interventions across the UK. The key sources for these evaluations were DCLG, the Department for Business, Innovation and Skills, Regional Development Agency evaluations, Scottish Enterprise and OffPAT.

Research Studies

- 2.25 The review identified a number of factors that should be considered in assigning value to the outputs and outcomes associated with employment, skills and training interventions. Some of these related to the nature of provision/intervention – most notably that programme delivery typically includes several different ingredients, and an individual participating in a programme may partake of different mixes of ingredients. Such ‘heterogeneity’ within programmes means that it is difficult to know in some cases what has been provided to whom and so what the impact of specific ingredients within a programme has been; indeed, interventions work in combination and factors interact in complex ways. This problem is likely to become more significant when the intervention is more flexible and individualised.
- 2.26 Another factor was the importance of recognizing how impact on an individual could be expected to vary according to the specific local, household and macroeconomic context and effects might take a considerable time to emerge.
- 2.27 The evidence pointed to the benefits of basic skill enhancement on the likelihood of an individual obtaining employment, higher earnings, job satisfaction and benefits beyond the labour market such as better health. There is robust evidence that

associates higher qualifications and skills with higher average wages. The level and nature of qualifications has an impact on the rate of return.

- 2.28 McIntosh and Vignoles (2000) were able to estimate how skill enhancement increased the probability of employment. Their study provided plausible estimates of how progression to Level 1 numeracy and literacy enhanced earnings. The Institute for Fiscal Studies and the Centre for Education undertook work to assess the gains to earnings from enhanced qualifications (IFS/Centre for Education, 2003). McIntosh (2004) used data from the Labour Force Survey to examine the return to academic and vocational qualifications. Further work was undertaken by Powdthavee and Vignoles (2006) and the returns to qualifications in England at Level 2 and Level 3 was investigated by Jenkins, Greenwood and Vignoles (2007). A detailed occupational analysis is provided in this study.
- 2.29 Felstead et al (2007)⁸ found that pay returns only become sizeable for jobs at Level 3 and above compared with jobs that do not require qualifications. On the basis of analyses of pooled Labour Force Survey data, Dickerson and Vignoles (2007)⁹ show that returns to qualifications rise considerably at Level 4 (i.e. degree level).
- 2.30 In general, returns to vocational qualifications are lower than for academic qualifications; leading some commentators (e.g. Keep, 2007)¹⁰ to suggest that qualifications are relatively unimportant when selecting employees for jobs at the lower end of the occupational spectrum. However, this finding has been questioned because there may be a 'skills escalator' effect such that individuals obtaining lower level qualifications may go on to gain higher level qualifications (De Coulon and Vignoles, 2008).¹¹
- 2.31 Moreover, basic skills are necessary for individuals to participate in education and training which enhance their labour market prospects. Dickerson and Vignoles (2007)¹² also highlight differences in patterns of returns to qualifications by gender and by sector, as well as by the age at which a qualification was gained, so highlighting the heterogeneity of patterns of returns. For degree level qualifications returns also vary by subject of study (PricewaterhouseCoopers, 2005).¹³ In terms of generic skills, returns to individuals are highest for influencing and computing skills (Felstead et al, 2007). Overall, the key message is that returns to qualifications / skills vary according to the level of the qualification.
- 2.32 The studies on rates of return provide evidence that enables a value to be placed on

⁸ Felstead, A., Gallie, D., Green, F. and Zhou, Y. (2007) *Skills at Work, 1986 to 2006*. SKOPE, Universities of Oxford and Cardiff.

⁹ Dickerson, A. and Vignoles, A. (2007) 'The Distribution and Returns to Qualifications in the Sector Skills Councils'. *Research Report 21*. SSDA, Wath-upon-Deane.

¹⁰ Keep, E. (2007) 'Skills and economic justice'. *Issues Paper 16*. SKOPE, Universities of Oxford and Cardiff.

¹¹ De Coulon, A. and Vignoles, A (2008) *An analysis of the benefit of NVQ2 Qualifications acquired at age 26-34*. London: Centre for the Economics of Education.

¹² op cit.

the impact of skill progression on the individual.

Evaluations

- 2.33 A number of evaluations had also sought to establish how an individuals skills and thus earnings had been enhanced by the regeneration activity and, where appropriate, the impacts on productivity and business Gross Value Added.
- 2.34 In some cases the evaluation work proceeded by asking beneficiaries to identify the earnings up-lift that they attribute to the project. This often provides rather mixed results so an alternative approach has been to establish the qualification level of the individual before and after they participated in the initiative.
- 2.35 The approach requires information on the occupations that the beneficiaries of the programme have accessed. The average earnings in each occupation is established using the Office for National Statistics Annual Survey of Earnings. The estimates are made for those who move from being previously workless into work, as well as for those who were employed but progress in the labour market. Findings from a number of studies can be used to identify the size of the earnings up-lift believed to be appropriate including research published by the Department for Education and Skills (2003), McIntosh (2004), and Dearden et al (2000).
- 2.36 Research undertaken by Blundell, Dearden and Sianesi (2003), *Estimating the Returns to Education: Models, Methods and Results*, IFS Working Paper No WP03/20, are of particular relevance in the present context. In some evaluations this work has been used to suggest that an employees achieving a higher NVQ level of qualification as a result of a regeneration activity might experience an increase in wages of 15 per cent (up to NVQ Level 2) and up to 5 per cent (up to NVQ Level 3).

Discussions with the Department for Work and Pensions

- 2.37 Discussions with the Department for Work and Pensions detailed recent studies that they had commissioned that might have some relevance to how the labour market related impact of regeneration initiatives should be evaluated. The Department had developed Cost Benefit Guidance to ensure that its policies and programmes were assessed in a consistent way and had commissioned research that sought to improve this guidance (Greenberg and Knight, 2006).
- 2.38 Much of this guidance was concerned with the procedures adopted to assess the estimation of additional jobs associated with Department for Work and Pensions employment and training programmes and in particular the durability of jobs. However, the research also considered the earnings impact of programmes and how this might be assessed when primary information was not available. The work reviewed how the indirect benefits of employment and training programmes on health, crime and children might be incorporated into cost benefit analysis, as well as

¹³ PricewaterhouseCoopers (2005) *The Economic Benefits of Higher Education Qualifications*. Report for the Royal Society of Chemistry and the Institute of Physics.

the use of distributional weighting to reflect impact on different income groups in society.

- 2.39 Other research undertaken for the Department for Work and Pensions has examined the impact of labour market programmes on public finances (Barrell et al, 2003).
- 2.40 More recently, the Department for Work and Pensions have published a Guidance Note on Valuing Net Additional Jobs Created and Movements Off Out-of Work Benefits in a Regeneration Context. This note is 'aligned with the Department for Work and Pension's current guidance on Cost Benefit Analysis of labour market interventions but has been tailored to take into account the unique circumstances of regeneration areas'. Importantly, the Guidance provides estimates of the average value of annual earnings of individuals moving off out-of-work benefits. The estimated gross annual earnings per average claimant for 2008-09 are estimated to be £11,779 for a person moving from being a Jobseeker's Allowance claimant, £11,702 for a former Incapacity Benefit claimant and £8,869 for a former lone parent-income support claimant. As the Guidance notes 'The higher the earnings, the greater the value generated so from a policy perspective its not only about moving individuals into any job but is also about the quality of the job'. The Guidance also estimates of the fiscal, or exchequer cost, savings associated with people coming off various Department for Work and Pensions programmes.
- 2.41 In relation to the impact of employment and skills programmes on the individual in society the Department for Work and Pensions observed that in the first instance participation in programmes to enhance employability and skills meant that an individual's time on benefits was increased (i.e. for the duration of time spent in training rather than employment). There is an ongoing debate about the efficacy of 'work first' programmes vis-à-vis training programmes. Some concerns about 'work first' programmes are related to the tendency for some individuals with poor skills to 'churn' between benefits and insecure employment, with the latter perhaps being characterised by in-work poverty. The move towards greater emphasis on the integration of employment and skills places primacy on 'matching' of skills to specific jobs and career ladders, which in the longer time would operate to promote sustainable employment and, ideally, upward occupational (and income) mobility. There are also issues concerning substitution, the effects of which may not be easily measurable and which may be diffuse.
- 2.42 While it was important to recognise these issues, the discussions with the Department for Work and Pensions and their recent Guidance Note confirmed that it should be possible to use earnings data to value the benefits to individuals in regeneration areas from regeneration.
- 2.43 The Department for Work and Pensions evidence base on employment, skills and training interventions comprises quantitative, qualitative, cross-sectional and longitudinal studies, but the majority of studies have been uncontrolled (i.e. they have

not included a robust counterfactual of what might have been achieved in the absence of an intervention) (see Hasluck and Green, 2007;¹⁴ Griggs et al, 2008). This has led Knight (2009) to speak of a “skeleton” of evidence that is focused more on ‘effectiveness’ than on ‘cost effectiveness’ (Griggs et al, 2008, p.29).¹⁵

- 2.44 While helpful for programme design, such evaluations typically lack the fine-grained evidence on unit costs and net additional outputs that can be readily related to programme investment. This hinders the development of ready reckoners for use by appraisal practitioners in particular.
- 2.45 In order to overcome these constraints we believe there is merit in focusing more on the beneficiaries supported and the net additional outputs associated with their labour market progression, for example, in terms of positive outcomes into employment for those who are unemployed, or enhanced incomes for those already in employment with a measurable increase in skills.
- 2.46 There is an increasing focus at the local level on data sharing and the development of ‘tracking systems’, but to date this information has been used to serve reporting requirements and to calculate job entries for particular sub-groups, rather than for valuation purposes.
- 2.47 In recent years evaluations of discretionary skills and training programmes – typically funded by Regional Development Agencies and local authorities - have provided some relevant evidence. Important sources of evidence include DCLG evaluations such as New Deal for Communities, evaluation evidence commissioned by Scottish Enterprise and the recent wide-ranging evaluation of Regional Development Agency projects and programmes (PWC, 2009). These data sources provide some useful evidence on the unit costs of intervention (i.e. costs per beneficiary) and evidence on the net additionality associated with the delivery of key outputs (e.g. positive outcomes into employment, or improvements in skills).
- 2.48 Turning to how these metrics can then be valued, a number of studies have considered how the benefits of a range of initiatives designed to **tackle worklessness** might be assigned a monetary value (e.g. the evaluations of the ESF Opportunities Funds 1 and 2, the impact of Thames Gateway Jobnet, workforce development and construction skills).
- 2.49 A central question is the ease with which key survey information can be obtained and the relative costs involved. The approach requires surveys of those who benefit and, in some cases, the businesses they work for. These surveys have been developed extensively. The cost of undertaking these surveys is not prohibitive, but it is desirable that sample sizes allow reliable estimates to be derived. The usual approach is to ask the potential beneficiaries to estimate how much they believed the regeneration initiative enabled them to move from one position in their labour market

¹⁴ Op cit.

¹⁵ Op cit.

progression to another. Thus the respondents are asked if they feel they can now obtain a higher skilled job.

- 2.50 The different positions can then be valued using existing labour market information that is available from published sources like the Office for National Statistics Annual Survey of Hours and Earnings – providing information on earnings, the Labour Force Survey/Annual Population Survey – providing information on economic position, sector, occupation, hours of work, qualifications, pay, job-related training, etc, and evidence on Gross Value Added per employee. The approach is thus a combination of beneficiary survey and use of published sources, but is based on applying the approach to people (and businesses) participating in a regeneration programme or project.
- 2.51 In considering how the benefits of **skills and training activity** might be valued, there is an extensive literature on ‘rates of return’ to different qualifications, drawing on human capital theory. The idea here is that in a reasonably competitive labour market, the benefits of skills development (as measured by qualifications) can be estimated on the basis of additional earnings once the skill has been obtained.
- 2.52 UKCES (UK Commission for Employment and Skills) is undertaking evidence reviews on issues of skills and employment that can be drawn upon here.¹⁶ For example, Dearden et al. (2000 and 2005) indicate that increasing the proportion of workers trained in Britain by 5 percentage points could result in a 4 percentage point increase in value added per worker. However, it should be borne in mind that not all productivity gains resulting from training are reflected in a corresponding increase in individual remuneration – rather the benefits might accrue more to firms than to individuals (Blundell, 1999; Hansson, 2008).
- 2.53 The evidence suggests that, as a general rule, higher qualifications and skills attract on average higher returns in terms of wages, but variations in the level and nature of qualifications has a non-linear impact on the rate of return. For example, Felstead et al (2007) find that pay returns only become sizeable for jobs at Level 3 and above compared with jobs that do not require qualifications. On the basis of analyses of pooled Labour Force Survey data, Dickerson and Vignoles (2007) show that returns to qualifications rise considerably at Level 4 (i.e. degree level). In general, returns to vocational qualifications are lower than for academic qualifications; leading some commentators (e.g. Keep, 2007) to suggest that qualifications are relatively unimportant when selecting employees for jobs at the lower end of the occupational spectrum. However, qualifications may not be of such limited value as this evidence suggests at face value, because there may be a ‘skills escalator’ effect such that individuals obtaining lower level qualifications may go on to gain higher level qualifications (De Coulon and Vignoles, 2008) However, it does emphasise that ‘time’ is an important factor in measuring the ‘success’ of particular interventions.

¹⁶ See www.ukces.org.uk/server.php?show=conWebDoc.80 .

Moreover, basic skills are necessary for individuals to participate in education and training which enhance their labour market prospects.

- 2.54 Dickerson and Vignoles (2007)¹⁷ also highlight differences in patterns of returns to qualifications by gender and by sector, as well as by the age at which a qualification was gained, so highlighting the heterogeneity of patterns of returns. For degree level qualifications returns also vary by subject of study (PricewaterhouseCoopers, 2005). In terms of generic skills, returns to individuals are highest for influencing and computing skills (Felstead et al, 2007).
- 2.55 The key message is that returns to qualifications/skills vary significantly/greatly according to the level of the qualification. The studies on rates of return highlighted above do not value skills and qualifications in the context of specific project interventions, but are nevertheless helpful in assigning relative probabilities of acquiring different types of qualifications for individuals with different characteristics.

Summary of strengths and weaknesses in the evidence base

- 2.56 One main strength of the evidence base is the availability of contextual information on the labour market and the experience of individuals in the labour market from Annual Survey of Hours and Earnings and the Labour Force Survey/Annual Population Survey that can be used in valuing transitions from non-employment to employment for different population sub-groups. However, there are limitations on the robustness of the latter source at small levels of geography.
- 2.57 A key weakness of the information base of evaluation studies is the relative lack of counterfactuals (i.e. what would have happened to the same/similar individuals in the absence of an intervention) and in the context of increasing emphasis on individualised and flexible packages of support to individuals, specifically which interventions have been accessed and which are effective in moving individuals into employment.

Enterprise and business development (1. ENT)

Introduction

- 2.58 There has been considerable emphasis in regeneration policy on addressing issues relating to the creation and stimulation of business. In this section we consider:
- general support for business growth and competitiveness
 - start-up assistance and the promotion of spin-outs
 - the attraction of inward investment
 - trade promotion and export development
 - the promotion of business enterprise, research and development.

¹⁷ op cit.

Overview

- 2.59 A significant number of regeneration initiatives have been designed to improve the economic well being of areas that have experienced a dramatic decline in their economic fortunes in the post war period. Economic decline on the back of substantial economic restructuring has probably been most pronounced in the older urban cores of the United Kingdom but there are also many examples in remote rural areas. The underlying challenge has been to 'bring about economic, physical and social renewal against a backdrop where so much of their existing stock of floorspace, human and physical capital is committed to the production of goods and services that either no longer exist or which are now made elsewhere'. (Rhodes et al, 2009).
- 2.60 A number of enterprise and business development initiatives have been developed. These include provision of access to capital/finance, land/premises, business advice, innovation support and the encouragement of collaboration/networking. Support has been given to indigenous business development and/or to attract investment into an area from elsewhere. The targeting of the support has varied by sector, stage of company development and a number of other characteristics that are thought to influence start up activity and business success.
- 2.61 During the 1980s there was an emphasis on encouraging new business development in an area through the use of land and property initiatives as in Enterprise Zones (Tyler, 1993). Throughout, the Department of Trade and Industry gave assistance to companies through Regional Selective Assistance. There was also business support for SMEs through the Training and Enterprise Councils.
- 2.62 With the advent of City Challenge the emphasis shifted to the use of area based initiatives whereby local authorities produce plans for local area regeneration for which they sought funding from central government. Although the emphasis was on more 'holistic' regeneration much attention was given to developing activities that were targeted on encouraging the new formation of firms and assisting existing businesses to grow. This momentum was maintained with the advent of the Single Regeneration Budget in 1994.
- 2.63 The Single Regeneration Budget Challenge Fund approach to local area regeneration contained a number of innovative features but a central component was the increased involvement of the private sector in the process of local area regeneration. The breadth and depth of business approaches to local area regeneration was enhanced.
- 2.64 One substantial change to the way in which support was given to business in England was the creation of the Regional Development Agencies. Although they began operations in 1998 they were launched formally in the eight English regions on 1 April 1999 with the ninth in London, established on the 3 July 2000 following on the heels of the establishment of the Greater London Authority. The Regional

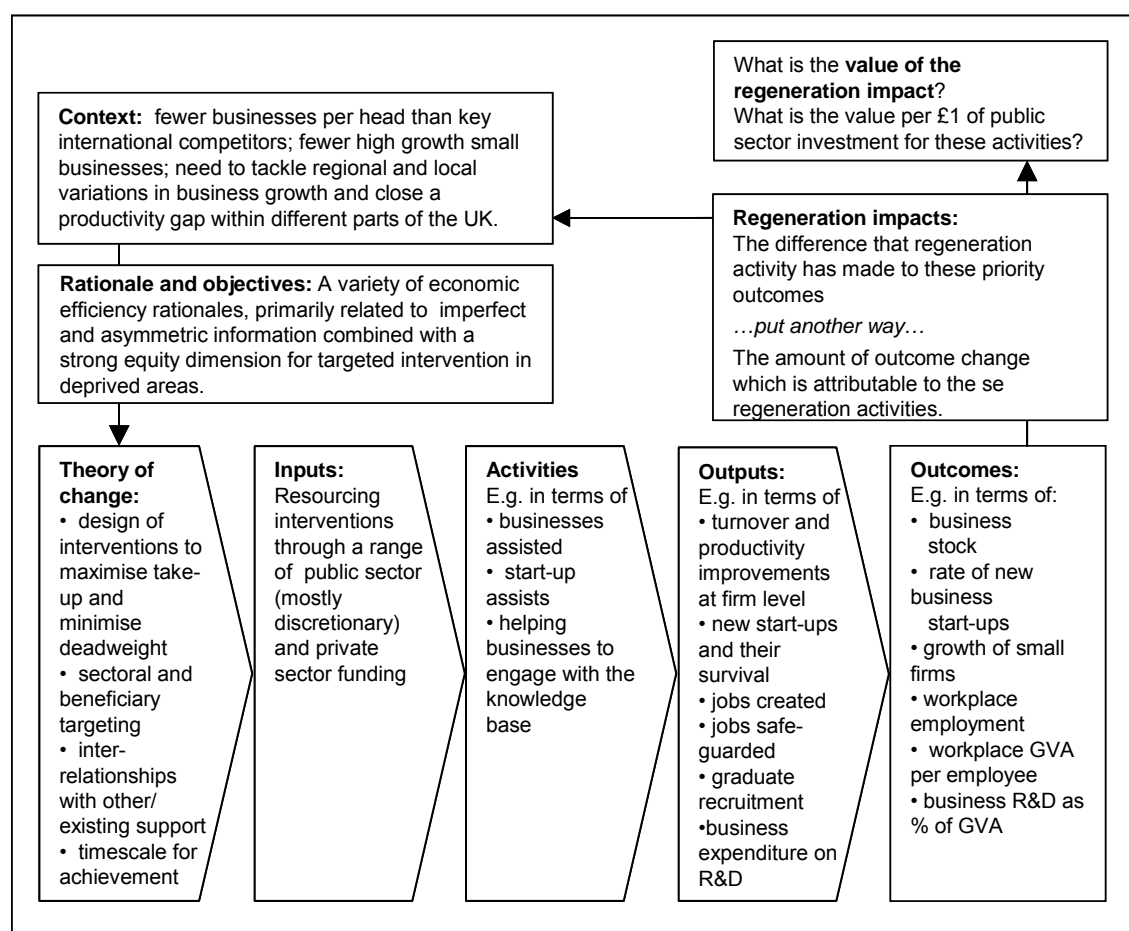
Development Agencies were given the statutory requirements of furthering economic development and regeneration, promoting business efficiency, investment and competitiveness, promoting employment; enhancing development and the application of skill to employment; and contributing to sustainable development at the regional level.

- 2.65 Following the 2000 Spending Round the Government agreed to allow the Regional Development Agencies to roll their various programmes of regeneration, including the Single Regeneration Budget, into a Single Programme that was to be adopted from 2002-03. Since that date the Regional Development Agencies have been tasked with further responsibilities related to business development and new firm creation with one of the most recent additions being responsibility for Business Link.
- 2.66 DCLG has also been engaged in the enterprise agenda through the Neighbourhood Renewal Fund and subsequently the Working Neighbourhoods Fund as well as specific initiatives such as the Local Enterprise Growth Initiative.

Logic chains

- 2.67 Figure 2.3 presents a summary logic chain for the enterprise and business competitiveness Activity Category.
- 2.68 The diagram summarises the four Activity Types within the enterprise and business competitiveness Activity Category. These logic chains, each of which has a separate logic chain in Annex A, are:
- general support for business growth and competitiveness (1.ENT.A1)
 - start-up assistance and promotion of spin-outs (1.ENT.A2)
 - promotion of business enterprise research and development (1.ENT.A3).

Figure 2.3: Summary logic chain for enterprise and business competitiveness



- 2.69 Although this Activity Category has multiple logic chains they fall into two principal groups: four of these relate to support directed at existing individual businesses while the fifth relates to the creation of new firms.
- 2.70 As the logic chains indicate, the types of activity can be categorised to some extent and related to the aspect of business behaviour that is being targeted. Thus 1.ENT.A1 is focused on bringing about enhanced business growth and competitiveness primarily through changes to the internal operation of the firm, including management capability, efficiency improvements through, for example, improving the time to bring new products to market, better team working and improved supply chain relationships.
- 2.71 Encouragement for greater innovation is specifically dealt with under its own logic chain (1.ENT.A3) because of the importance of engagement with universities and other parts of the UK knowledge base and the role that this can play in bringing new products to market and in improving productivity. Such activity is often targeted at particular sectors, or at groups of companies in a particular locality with the objective of supporting cluster development.
- 2.72 Support for start-ups needs to be treated separately (1.ENT.A2), because it is focused (primarily, though not exclusively) on individuals who are seeking to set up

their own business. Advisory support and, in some cases, grant funding activity can help the business through its formative business planning stages and securing the necessary loan or other finance needed to begin trading. Increasingly there is a focus on high-growth start-up activity and thus issues of targeting are to the fore. Within deprived areas, initiatives such as the Local Economic Growth Initiative provide valuable support to encourage new firm formation with the explicit objective of increasing employment opportunities for those in deprived areas. The survival of new start-ups is of crucial importance and thus a key output measure. Ultimately the longer-term outcomes from this form of business support are the overall growth in the business base, Gross Value Added and employment.

How valuation can be approached in this Activity Category

- 2.73 There are relatively few conceptual issues associated with the valuation of enterprise and business development activity. Such interventions help businesses to start-up or expand in terms of turnover, creating or safeguarding employment and, in some circumstances, enhance their productivity. These outputs then feed into increased business growth, enhanced workplace Gross Value Added per employee and things like increased business R&D (measured as a percent of Gross Value Added). In general, most evaluations identify these relevant components in the logic chain.
- 2.74 As part of the research we reviewed a wide range of evaluation literature relating to enterprise and business development. One source of information has been some 180 Regional Development Agency impact evaluation reports which informed the Regional Development Agency Impact Evaluation (PWC, 2009) and which in turn was based on the Department for Business, Innovation and Skills Impact Evaluation Framework (DTI, 2006). These reports follow broadly the same format and thus contain a wealth of information with well-populated logic chains and models. A number also included discussion on cost benefit analysis and in some case have sought to value gains to business competitiveness.
- 2.75 In addition, a number of major evaluation reports published through DCLG with a business/enterprise element have been included in the literature review (including the Neighbourhood Renewal Fund, New Deal for Communities and the Single Regeneration Budget). These reports highlighted the transition from gross to net outputs. Many are concerned with value for money against the programmes aims and objectives looking at cost-effectiveness through an assessment of cost per job. Some other reports sourced via the OffPAT e-library also informed the review, including evaluations of programmes such as Profit through Procurement and an examination of the Manufacturing Advisory Service.
- 2.76 Much evaluation work has also been undertaken in Scotland and the Scottish Enterprise “evaluation online” website contains a detailed database of evaluation reports categorised by theme with easy access to evaluation reports. Over 50 of the reports which fell within the business and enterprise theme included some attempt at

calculating the impact of a project or programme on the local/regional area and these were included in the literature review. In general these evaluations traced through from gross to net outputs. The most common impacts assessed were on employment, sales and profitability with the reduction in costs to the business also considered in many cases. The contribution to GDP was also reviewed in some cases, often translated from net attributable turnover. Most evaluations included both local and regional (Scotland) spatial levels with many also including a sub regional level. Net Gross Value Added to turnover ratios were also calculated in many cases. A Gross Value Added impact was shown per employee in some reports. However, in many cases overall monetary values were not applied to benefits.

- 2.77 Other reports were analysed following searches on other databases such as IDOX. The New Economic Foundation report,¹⁸ *Hitting the target, missing the point*, which evaluated the Government's flagship programme - the Local Enterprise Growth Initiative calculated a monetary value to social return using Social Return on Investment principles. This drew on a wide range of valuation approaches discussed elsewhere in Sections 2 and 4 of this report.
- 2.78 In relation to enterprises that are associated with more community-based activity there has been some work around the use of cost benefit analysis and the rate of return on investment. This has been a feature of the recent Local Economic Growth Initiative evaluation. Part of the analysis identifies the issues that are of concern to stakeholders and financial substitutes are used to attach values to those elements that are not traded in the market. There is considerable scope to formalise these approaches further.

Summary of strengths and weaknesses in the evidence base

- 2.79 In some respects the evidence base is quite strong since there have been a large number of evaluations of enterprise and business competition measures. There exists an established approach to derive the required outputs. However, notwithstanding the large body of literature, and the extensive monitoring of business support over the years, the measurement of the quantitative benefits of public sector led interventions on business growth and productivity is still surprisingly immature. Linkage into the required outcomes and their subsequent valuation is often done by using a basic Gross Value Added to employment relationship and insufficient attention has been given to tailoring estimates more to the type of business being evaluated. For example, the overarching Regional Development Agency Impact Evaluation relied on estimates of net additional employment in order to establish the Gross Value Added of Regional Development Agency interventions.
- 2.80 Evaluations of business support initiatives face all the standard evaluation problems of establishing what would have happened in the absence of the policy support.

¹⁸ Lawlor, E. and Nicholls, J. (2008) *Hitting the target, missing the point: how government regeneration targets fail deprived areas*. (New Economics Foundation). www.neweconomics.org/publications/hitting-the-target

Although a variety of methods have been used to establish additionality, the most commonly adopted approach has been to use questionnaires targeted on either the beneficiaries of the policy or project managers responsible for its delivery. A number of fairly standard output measures have been adopted. Where it has been felt important to identify the value associated with the policy, the most common approach has been to translate estimates of the employment effect into gross value added using Gross Value Added/employee ratios derived from established statistical sources. There have been many examples of this in the recent Department for Business, Innovation and Skills Regional Development Agency Impact Evaluation work.

- 2.81 The challenge is now to establish a more standardised approach to the valuation of enterprise and business support measures that will enable better estimates of Gross Value Added per employee to be applied to the relevant net policy outputs that can be readily customised to the type of business activity concerned. More consistency in questionnaire design and better quality statistical data would help.
- 2.82 In its recently published IEF+ guidance, the Department for Business, Innovation and Skills has placed considerable focus on the importance of improved and more standardised surveys of business beneficiaries to improve the quality of evidence on the impact of interventions on business competitiveness, including productivity at the firm level. The new Department for Business, Innovation and Skills guidance also seeks to ensure greater consistency in the assessment of additionality and it recognises that the persistence of benefits is another issue that requires further research.

3. Industrial and commercial property and infrastructure

Introduction

- 3.1 This section discusses the objectives, logic chains and valuation issues and options associated with Theme 2: Industrial and commercial property and infrastructure. There are two Activity Categories within this theme:
- Industrial and commercial property (2.ICP)
 - Infrastructure (2.INF).
- 3.2 For each of these Activity Categories we begin with a brief overview of the activity before present a summary logic chain showing the typical activities within the Category and how they are expected to bring about change. We then review the available literature to discuss how valuation can be approached. Finally, we summarise the strengths and weaknesses in the evidence base.

Industrial and commercial property

Overview

- 3.3 Regeneration activities undertaken in the industrial and commercial property activity category include land reclamation, site servicing and the facilitation of new industrial and commercial floorspace, whether directly or in conjunction with the private sector. These activities regenerate by removing blight, enable brownfield land and greenfield sites to come forward for development and ultimately (within this theme) accommodate floorspace and business activity, which generate jobs and Gross Value Added. (The same preparatory activities also occur in Theme 3 to support new housing provision). Linked with infrastructure activities – including new road building and public transport improvements – these activities have the potential to enable new economic activity and improve productivity by reducing congestion and making jobs and workers more accessible to each other.
- 3.4 Government intervention in the industrial and commercial property market has been a dominant feature of regeneration activity for many years. Almost all of the urban policy instruments of the last three decades have had some form of land and property dimension, from the Enterprise Zones and first Urban Development Corporations of the early 1980s through to the Urban Regeneration Companies (1999) and the second incarnation of Urban Development Corporations (2004/05). A considerable amount of Government investment in land and property regeneration was also channelled through the Single Regeneration Budget (from 1994),

particularly Rounds 1 and 2.

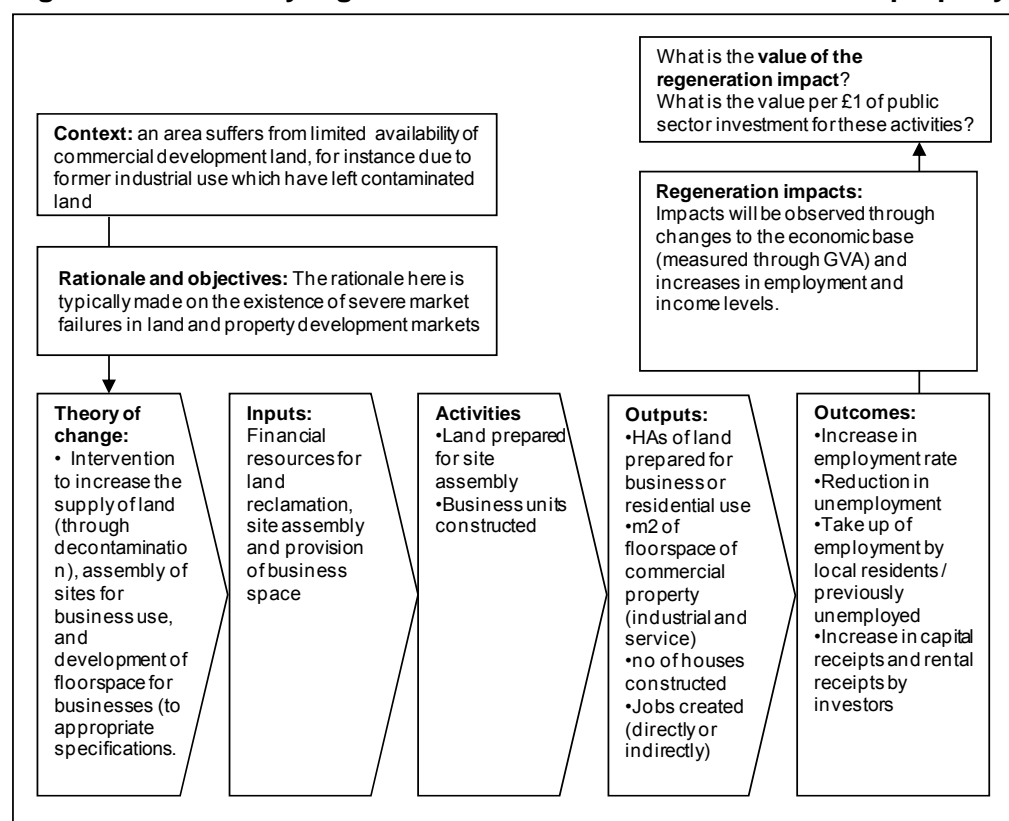
- 3.5 Beyond these area-based initiatives, specific funding instruments were also available to local authorities and private sector developers to encourage land reclamation and property development. Key examples include Derelict Land Grant (managed by Department for Communities and Local Government's (DCLG) predecessor, the former Department of the Environment (1982 to 1994) and Urban Development Grant (from 1982) and Urban Regeneration Grant (from 1987) which were merged into City Grant in 1988.
- 3.6 Key Government agencies have also had a remit to stimulate moribund property markets and bring about regeneration. English Estates, the forerunner to English Partnerships (now the Homes and Communities Agency) played an instrumental role in creating serviced sites across the country in the 1980s and early 1990s. In 1993, when English Partnerships was created as the Government's Urban Regeneration Agency, it grew out of English Estates and subsumed responsibility for Derelict Land Grant from the Department of Environment as well as establishing its own grant-making powers through a Land Reclamation Programme and interventions such as the Partnership Investment Programme. Land Reclamation Programme projects transferred to the Regional Development Agencies on their formation in 1999, but English Partnerships retained overall funding responsibility for the National Coalfields Programme that has sought (via a Service Level Agreement with Regional Development Agencies) to remediate over 100 sites since 1999. At the present time the Homes and Communities Agency still has a land and reclamation remit through its Property and Regeneration Programme.
- 3.7 Within the current policy and delivery landscape the Regional Development Agencies and local authorities play probably the most significant role in relation to land and property initiatives directed at business growth. The Homes and Communities Agency also remains an active delivery agent in this area.
- 3.8 For small workspace activities, where returns are low and/or risk aversion particularly high, the public sector has had to take a clear lead in delivery. However, for most other land and property activity, private sector finance to support a combination of infrastructure investment and construction costs has typically been available. Although funding instruments for land and property have changed several times throughout the last three decades, the one constant has been a focus on the ability of public sector instruments to lever resources from the private sector. Their ability to do so has varied from project to project and place to place. In considering the applicability of evidence from the past, a key issue for land and property activity is the impact of the post 2007 property market downturn its implications for private sector leverage and thus the unit cost of public sector investment in land and property activity now compared with previously.

- 3.9 On the benefits side, an initial focus of land and property intervention to support industrial and commercial developments has evolved over the last decade (particularly since the 1999 Urban Task Force report) to favour more mixed use approaches, bringing residential developments back into town and city centres. Since land and property regeneration activity has the ability to lead to multiple outputs and outcomes of relevance not only to this Theme, but also the creation of homes, communities and the environment (Theme 3) this inevitably complicates the apportionment of costs against different outputs and outcomes.

Industrial and commercial property logic chains

- 3.10 Figure 3.1 presents a summary logic chain for the land and property Activity Category.

Figure 3.1: Summary logic chain for industrial and commercial property



- 3.11 The industrial and commercial property Activity Category has just one Activity Type: industrial and commercial property development (2.ICP.A1). As noted above, this logic chain incorporates aspects of land reclamation and site servicing which are common to the new build housing Activity Type (3.HOUS.A1).
- 3.12 The logic chain is primarily considered with overcoming a market failure - notably developers will not invest in site development and provide speculative property without some level of incentive. A typical route through the logic chain will involve funding site development (overcoming a market failure) through clearing and making ready land (activities) to creating a certain level of developed land which has direct

employment effects (outputs) and leads to outcomes in the form of business activity and employment.

How valuation can be approached in this Activity Category

- 3.13 Two quite different approaches could be taken to valuation within this Activity Category. The first focuses on the production benefits associated with the end use of industrial and commercial property linked to employment and Gross Value Added. The second is based on the valuation of the property asset. Each is discussed in turn below.

Valuing the benefits associated with the end use

- 3.14 Valuation of economic impacts tends to focus on the total (“gross”) employment accommodated in industrial and commercial property, assessing the additionality of the public sector’s intervention and the extent to which the employment can be regarded as additional. Valuation can then be achieved by applying Gross Value Added/employment ratios derived from Office for National Statistics data (e.g. Regional Accounts and the Annual Business Inquiry) and applying this to net employment outputs to express the value in Gross Value Added terms. There may also be second order benefits, for instance around improvements to quality of life or environmental benefits, although to a large extent these may be captured in the main economic measures.
- 3.15 Apart from standard monitoring and evaluation exercises that simply present a tally of what has been achieved by a given programme (e.g., hectares of land reclaimed; square metres of industrial or commercial floorspace constructed or refurbished), there appears to be very little analysis of input to output relationships in terms of land and property development. One technique that has been proposed in this sphere has been vacancy chain analysis (Robson et al, 1999).
- 3.16 This permits an examination of both immediate occupancy of built property (i.e., outputs) and any knock-on effects on the wider property market resulting from moves to these new buildings (i.e., outcomes). The only reported study along such lines is that by Francis and Thomas (2006) to estimate the amount of new investment brought into the Cardiff Bay regeneration area by a series of property-based renewal schemes. Their approach proceeded in a series of logical steps. The first was to identify firms within the Urban Development Corporation area that had taken up occupancy since the launch of the regeneration body. This in itself was quite a labour and information-intensive task. Following that, data on previous locations of these firms (just over 100 in total,) was gathered from a range of different sources. This information included the current occupancy status of buildings previously used by firms in the sample (classified simply into taken up by new occupiers or vacant). Establishing all of these chains was again an arduous and time-consuming process.

- 3.17 Analysis of all this 'property chain' data revealed that the vast majority (90%) of firms new to the area had experienced very few changes of location (no or just one move). This indicated that the Urban Development Corporation attracted a lot of new or fairly new businesses. Around 40 per cent of this property take-up involved displacement, with the majority of firms who moved in coming from within the Urban Development Corporation area or from other areas in the city. However, in most of these cases their former premises had been subsequently occupied by another firm. Only a small number moved from outside the city, and all but one of these relocated from elsewhere in South Wales.
- 3.18 The analysis enabled calculation of precise figures for additionality (57%) and overall displacement (43%), but with net displacement (taking account of vacated buildings being occupied by others) at 12 per cent. There was no attempt to translate these figures into monetary terms. One useful distinction was made the different roles played by separate parts of the regeneration area, with one (with a focus on incubator units) being more conducive to new start-ups, and the other (a more traditional industrial estate) being more attractive to existing firms wanting to expand.
- 3.19 Since employment outputs are a key metric in this approach, it is important to develop consistent approaches to estimation. Where the level of floorspace is known, employment density guidance (HCA, 2001) enables floorspace to be translated into gross jobs accommodated.
- 3.20 These can be further adjusted from total employment to full-time equivalents using data from the Annual Population Survey (formerly Labour Force Survey) or the Annual Business Inquiry on the extent of full and part time working.
- 3.21 Where there is no information on the quantum of floorspace, a useful reference source is the Homes and Community's Best Practice Note 15 on the cost per net additional job. This provides a range on the public sector cost per net additional FTE for land and property projects at local level. The Note suggests a central estimate of cost per net additional job of £31,800 (adjusted to 2009/10 prices), within a range where the "low" is considered to be £19,000 and the 'high' end is judged to be £48,000. While this is not a statistical analysis and there are no Confidence Intervals, it provides a useful range within which to consider value for money for appraisal practitioners and a valuable way of generating estimates of net employment where there is no other information known about the project other than its total public sector expenditure.

Valuing the industrial or commercial property asset

- 3.22 An alternative approach is to use the value of the property asset itself as the basis for valuing the benefits of regeneration. Since the development of land and the construction or refurbishments of built property directly involve creation of a tradeable commodity they have monetary values readily attached to them. These include advertised and realised prices for property interests that are bought and sold; total

and unit rental charges for those buildings occupied under some form of leasing agreement; and rateable values calculated for the purposes of local property taxation. The availability of current and historic data for these items tends to be good, some of it collected and disseminated on a national basis (e.g., house prices), others more on a local or sub-regional basis (e.g., commercial property registers).

3.23 This approach raises a number of issues about the difficulty of attributing enhanced land and property values to the regeneration activity under investigation. In this three distinct strands can be identified:

- land improvement and development activities that form part of the regeneration programme being evaluated
- land and property value changes that are not directly associated with regeneration activities, but fall within the designated regeneration zone (or within the immediate environs of the redeveloped site)
- land and property value changes that occur outside the designated regeneration zone (or beyond some specified buffer zone around the redeveloped site).

3.24 A further difficulty is the linking of land and property developments with subsequent 'downstream' effects - referred to elsewhere as 'external benefits'. One argument holds that these are reflected in property value changes anyway, so they should already be reflected in the primary analysis. The alternative view is that activities such as provision of serviced sites and construction of industrial and commercial units are merely a prelude to other regeneration activities (and hence the start of a different regeneration 'logic chain'). In other words, efforts to attract expanding businesses or to stimulate new ones, along with the appropriate skills training and access to employment initiatives that can support them, are the proper place to estimate these effects.

3.25 That said, the literature that seeks to derive a valuation of the net benefits (or costs) produced by regeneration programme investments or interventions in land and property development appears to be extremely meagre, although, as we note in Section 4 in relation to housing, there has recently been some work that has sought to capture uplift in land values that arise from changes in land use designation (Department for Transport, WebTAG 3.16D, 2010).

3.26 Approaches include:

- Hedonic analysis or hedonic price models: by comparison over time and space this approach seeks to extract that element of a property's valuation that is related to the regeneration intervention in question.
- The Delphi technique, or similar qualitative collation of experts' opinions about the impact of a particular regeneration activity on the property market. This tends to be used in conjunction with prior quantitative analysis, notably where

considerable estimation has been required, to act as a means of confirming the results.

- Other methods such as cost-benefit analysis, tracking of property investment returns and vacancy chain analysis.

- 3.27 Most attention has been paid to the impact of redevelopment on property values in the area surrounding the site or the regeneration zone. Thus, in a recent paper De Sousa, Wu and Westphal (2009) measured the impact of more than 100 publicly assisted brownfield redevelopment projects in two US cities on nearby residential property values. This included an attempt to trace the geographic scope of these effects. To do this they used a mixed-methods approach involving hedonic modelling on the one hand, and stakeholder interviews on the other.
- 3.28 The first disaggregated the analysis by types of scheme and nature of the local area. This involved setting a series of buffer zones around each house transaction, and linking information about any brownfield site redevelopment to that transaction. These associations were then subject to regression analysis, first in terms of dwelling characteristics, and second in relation to type of site end use. This was undertaken on a pre-(1996) and post (2004) redevelopment basis, so that negative (derelict site) and positive (new development/environmental improvement) influences could be explored.
- 3.29 The hedonic house price model was constructed and calibrated using the standard least squares with fixed effects regression approach. The results showed that brownfield site redevelopments generated not only good economic returns themselves, but also spillover effects on house prices that were significant in both quantity and geographical scope. Although green space and residential uses generated the largest gains, industrial and commercial developments also had positive net impacts. This was only in part associated with removing the previous negative impact of deindustrialised spaces on adjacent values. These impacts were found irrespective of project size and cost.
- 3.30 Another study by Bond (2001) examined the residual "stigma" associated with remediated contaminated land and the value penalty that it imposes. Stigma was defined as the blighting effect on property value caused by perceived risks and uncertainties such as: the inability to effect a total remediation "cure", the risk of failure of the remediation method, the risk of changes in legislation or remediation standards, and the difficulty in obtaining finance.
- 3.31 Post-remediation "stigma" is the residual loss in value after all costs of remediation have been allowed for. This equates to the difference in value between a remediated contaminated site and a comparable "clean" site with no history of contamination. The paper reports on a study of market sales data of post-remediated vacant residential land along the Swan River, in Perth, Western Australia, from 1992-1998, using a standard hedonic pricing. It found that sites with a history of contamination

experienced a "stigma" effect that resulted in an approximately 30 per cent decrease in sales prices. However, this negative effect was to an extent moderated by other factors such as locational advantages (e.g., riverside situation), and the provision of additional amenities nearby, such as walking and cycle paths, children's playgrounds, etc. It was difficult to quantify these offsetting benefits accurately.

- 3.32 A rather different approach was adopted by Adair et al. (2003), in their attempt to develop a "total returns index" designed to measure the investment performance of commercial property in regeneration areas. This index was not designed as a means of assessing the overall performance of regeneration schemes or policies, but as a contribution to the limited knowledge base amongst property professionals about the risks and returns associated with brownfield site investments.
- 3.33 A specific emphasis was upon investment quality property, which allowed comparisons with already established benchmarks. In this sense its relevance is limited to a rather narrow segment of this market. The construction of the index utilized data on specific properties either located within designated urban regeneration locations or alternatively properties that had been subject to some form of intervention such as grant assistance. Further information was gathered on the locational context of the buildings, and detailed site investigations were undertaken to capture the full range of information for each building. The index was then developed using the same approach as the Investment Property Databank (IPD) UK index (the benchmark).
- 3.34 The results indicated that over the long-term, investment returns for regeneration property had outperformed national benchmarks, albeit but only marginally. This pattern was apparent across each of the three main sectors of the commercial property investment market (retail, office and industrial), but notably in the retail sector. By contrast, investment returns in the office sector, although exceeding the national benchmark, were not appreciably different.
- 3.35 A helpful study by Adair et al. (2005) raised some pertinent concerns about the valuation of urban redevelopment land. They carried out a survey of valuers from around 20 leading practices throughout the UK, to ascertain what valuation approaches they used for sites in regeneration areas. Their rationale for the study emerged from the misgivings within the valuation profession over the applicability of standard approaches such as the use of comparative method or the residual approach.
- 3.36 The survey asked in particular about the bases of valuation, the availability and utilisation of data, the reporting of the value figure and the management of risk. It concluded that "... *the appraisal of urban regeneration sites is one of the most challenging tasks currently facing the valuation profession.*" (ibid. p.231). There were a number of reasons for this, including limitations on available data (including a paucity of comparable transactions), the need to factor in public sector intervention in

the form of regeneration programmes, and the difficulty of assessing risk. As a result, many valuers are reluctant to provide open market appraisals of urban regeneration sites, preferring instead to give professional advice on development options.

- 3.37 The authors concluded that appraisers should recognise the limitations of the comparative approach; and move to a fully reasoned cash flow based appraisal. There also needed to be use of standard risk management techniques.
- 3.38 Overall, those studies that have been conducted suggest that any approach based on property asset valuation faces three key and closely linked challenges:
- the time and effort involved in identifying, obtaining, collating and analysing the data required to trace through and place a value on the effects of land and property developments
 - securing the services of personnel trained and experienced in the application of sophisticated quantitative techniques such as hedonic analysis
 - meeting the costs of these first two challenges.

Conclusions on strengths and weaknesses of the two approaches

- 3.39 The second approach described in detail above discusses how the development of land and the construction or refurbishment of built property directly involve creation of a tradable commodity and, as such, already have monetary, market values readily attached to them. The availability of such data is also good, including at local or sub-regional level, though it tends not to be sufficiently disaggregated in terms of end use. However, the valuation approach is highly resource intensive, technically challenging and data hungry. Moreover, without substantial investment in a large study covering a representative sample of projects, it is not one that is likely to generate results capable of ready application in an appraisal context.
- 3.40 By comparison, the first approach is based on the premise that industrial and commercial land and property developments are clearly supported by the public sector not as an end in themselves, but as a way of generating subsequent 'downstream' economic benefits. The rents that businesses pay, and thus the yields which support capital investment in industrial and commercial property, already reflect the production benefits of the property over time. This presents a powerful argument for focusing more on the occupation of the property and the economic benefits that are generated through employment, an approach described in Section 2. Since the employment effects offer a more "complete" capture of the economic benefits generated by industrial and commercial property, we would argue that this approach has greater merit.
- 3.41 While there may be indirect benefits from the provision of industrial and commercial property linked to (perhaps) transport and environmental improvements, these effects

are likely to be highly project specific and we argue that they are best considered in relation to their own particular logic chains (e.g. see Section 4, Environmental improvements).

Infrastructure (2.INF)

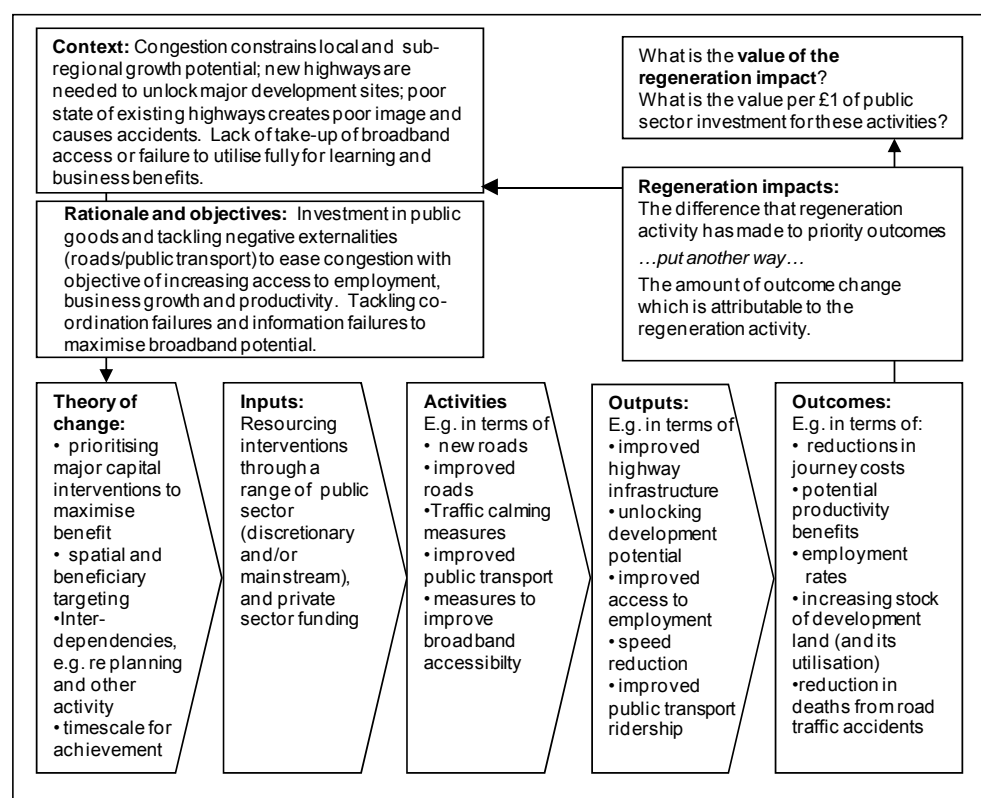
Overview

- 3.42 Until recently, transport infrastructure has played only a limited role in the evolution of regeneration policy and for many years the focus of appraisals of transport investments was on the measurement of direct time savings to users and the associated cost savings and any impact on economic development and regeneration was not considered as part of the investment decision.
- 3.43 In 1999 the Standing Advisory Council on Trunk Road Assessment (SACTRA) raised the possibility of including wider economic benefits (now known as “wider impacts”) in transport appraisals. It concluded that *“transport improvements could, in principle, improve economic performance [through] reorganisation or rationalisation of production, distribution and land use; effects on labour market catchment areas and hence on labour costs; increases in output resulting from lower costs of production; stimulation of inward investment; unlocking inaccessible sites for development; and triggering growth which in turn stimulates further growth”* (SACTRA, Transport and the Economy 1999).
- 3.44 This theme was pursued in the 2006 study by Sir Rod Eddington (“Transport’s role in sustaining the UK’s productivity and competitiveness”) that began to quantify these hitherto ignored effects from transport investment. Both the SACTRA and Eddington work also echoed emerging interest in agglomeration economies and the specific role that significant transport improvements can play in improving productivity.
- 3.45 Therefore, while the form that transport improvements have taken remains largely unchanged, the appreciation that these investments can have wider impacts has brought about a more explicit focus within transport appraisal of the inter-relationships between transport infrastructure and key drivers of economic growth.

Infrastructure logic chains

- 3.46 Figure 3.2 presents a summary logic chain for the infrastructure Activity Category.

Figure 3.2: Summary logic chain for transport and communications



3.47 The infrastructure Activity Category has five Activity Types, each of which represents a single logic chain presented in Annex B. These logic chains are:

- New road building (2.INF.A1)
- Highway improvements (2.INF.A2)
- Traffic calming (2.INF.A3)
- Public transport improvements (2.INF.A4)
- Access to broadband (2.INF.A5).

3.48 New road building (2.INF.A1) and public transport improvements (2.INF.A4) work through clear and direct logic chains and ultimately have the potential to bring about two principal types of outcomes: a reduction in congestion (and thus reduction in the generalised cost of travel for all road users with consequent productivity benefits) and the ability, in particular circumstances, to open up new development sites and to make it easier for workers to access employment. There are therefore a combination of growth and productivity gains to be had from investment in roads and public transport.

3.49 Access to broadband (2.INF.A5) has potential to enhance business growth and productivity, as well as – in the home environment – learning and skills. Improvements in communications can reduce the time taken to do. For businesses

this can mean that they are able to realise the benefits of locating in places with lower costs that leads to improved competitiveness. Some of these benefits may emerge without further intervention beyond the improvement in broadband access itself. Maximising the potential may require further intervention through other Activity Categories such as those considered in Theme 1 relating to skills and training, and enterprise and business development.

- 3.50 In this valuation study the decision has been taken to minimise the complexity of the conceptual framework by including all infrastructure activities within Theme 2. However, we recognise that while improvements to existing highways (2.INF.A2) and traffic calming (2.INF.A3) may make some modest contribution to enhancing growth potential, their primary benefit stream will be to support Theme 3, namely homes, communities and the environment.

How valuation can be approached in this Activity Category

- 3.51 Standard transport assessment has traditionally focused on direct user impacts and a number of these are relevant here, particularly as they relate to congestion and the impact on journey times. There is a considerable body of literature on **the valuation of time**, particularly in relation to road users.
- 3.52 The Standing Advisory Committee on Trunk Road Assessment (SACTRA, 1999) recognised the importance that investment in transport may have on the distribution of economic activity particularly as it affects areas that are the subject of regeneration measures. Since markets are not perfect, wider impacts arise as the direct effects are *“amplified through the economy”* (DfT TAG Unit 2.8, 2009). The fact that traditional transport cost benefit analysis may fail to capture these effects received renewed attention in the Eddington Study (Eddington, 2006) where it was argued that the magnitude of these effects may be significant.
- 3.53 Recently proposed additions to the assessment of these **wider impacts**, which build on the SACTRA work, include consideration of productivity gains to business that may arise from the realisation of agglomeration benefits, effects on labour supply, the movement of workers between jobs with different levels of associated productivity and benefits to the regeneration of run-down economies (DfT TAG Unit 2.8, September 2009). A separate Regeneration Report (formerly Economic Impact Report) is also mooted (though this is not likely to be required in all cases) to demonstrate how specific proposed transport investments might impact on economic activity in regeneration areas.
- 3.54 DfT’s TAG Unit 2.8 provides guidance on how to assess the impact of transport investment on regeneration. Guidance on the appraisal of regeneration impacts is given in TAG 3.5.8 and TAG 3.5.14 covers the appraisal of wider impacts. Whilst the impact analysis concentrates on wider welfare impacts associated with market imperfections, the emphasis on the regeneration side is more on distributional effects as they impact on regeneration areas. Both effects are thus seen as important but

are not substitutes for each other in the relevant analysis.

- 3.55 Whatever the final WebTAG guidance for Unit 2.8 concludes, over time we expect that a rich evidence base should emerge which will provide a more robust, quantitative demonstration of the potential impact of transport improvements on regeneration.
- 3.56 Of particular interest to the valuation or regeneration benefits is the agglomeration metric used by the Department for Transport in the wider impacts work which is based on empirical work by Dr Dan Graham at Imperial College, London. The approach seeks to value the productivity effect arising from the change in the level of agglomeration. This is based on the elasticity of productivity with respect to “effective density”.
- 3.57 The effective density metric is regarded as a measure of the mass of economic activity across the modelled area. It thus indicates the accessibility of companies and workers to each other and can be related to the generalised cost of business, commuting and freight travel. Using this measure, the level of agglomeration is estimated for the reference case without the intervention. The agglomeration metric is then estimated with the intervention in place. Comparing the two can produce an estimate of the change in agglomeration that results from the transport improvements.
- 3.58 The estimation is undertaken on a sector-by-sector basis. Absolute changes in productivity are derived from GDP and employment information on a sector-by-sector basis. The Department for Transport has derived ‘Functional Urban Areas’ (based on work that has been based on work undertaken by the Group for European Metropolitan Areas Comparative Analysis (GEMACA). The Department for Transport consider that a transport scheme may have an effect on productivity (and thus economic welfare) if the transport investment is in an area that has ‘sufficient proximity to an economic centre or large employment centre’ (p.5, TAG Unit 2.8). Schemes also need to be more than £20m so scale is also important. .
- 3.59 As regards internet and ICT investments, assigning value to the regeneration benefits of enhanced communication has again tended to follow the broad approach used in transport studies when it comes to valuing time savings. DCLG have recently commissioned a study that has sought to understand the value and benefits of establishing and running a local information system (Foley et al, 2009 - *Understanding the value and benefits of establishing and running a local information system*).
- 3.60 There are a number of issues that arise in seeking to measure the extent of communication infrastructure impact on business competitiveness but in general the main approach is to seek to assess the additional improvement to business performance measured through gross value added. Although there is little evaluation evidence that can be drawn on directly for this, the basic approach to measurement

requires primary survey work of the kind promoted by the Department for Business, Innovation and Skills in its recently published impact evaluation guidance (BIS, 2009).

Summary of strengths and weaknesses

- 3.61 The application of the techniques is still at a relatively early stage. In any situation they would merit careful attention, but specifically in relation to regeneration activity – where in some cases the level of investment and the activities may be relatively modest – there are risks of overstating the level of benefit.

4. Homes, communities and the environment

Introduction

- 4.1 This section discusses the objectives, logic chains and valuation issues and options associated with Theme 3: Homes, communities and the environment. There are four Activity Categories within this theme:
- Housing growth and improvement (3.HOUS)
 - Community development (3. COMM)
 - Environmental improvement (3.ENV)
 - Neighbourhood renewal (3.NEIGH).
- 4.2 For each of these Activity Categories we begin with a brief overview of the activity before present a summary logic chain showing the typical activities within the Category and how they are expected to bring about change. We then review the available literature to discuss how valuation can be approached and the problems around concept and measurement. Finally, we summarise the strengths and weaknesses in the evidence base.

Housing growth and improvement (3.HOUS)

Overview

- 4.3 Regeneration activities undertaken in the housing activity category include the construction of new housing (for example in the Thames Gateway and other Growth Areas, improvements to existing housing stock (e.g. via Decent Homes activity) and the demolition and new build activity (for example in Housing Market Renewal Pathfinder areas).
- 4.4 A number of recent Government imperatives for housing are an attempt to deal with legacies of earlier housing policies, notably the impacts of deregulation, privatisation and housing subsidy restructuring on the failure of housing supply, tenure polarisation and housing affordability (Stephens et al, 2005).
- 4.5 The Sustainable Communities Plan (DCLG, 2003) identified growth areas where new housing and associated infrastructure were to be promoted, and areas of housing market renewal where demolition and selective new build has been seen as one way of dealing with problems of low demand. It also promoted initiatives to enable first time buyers to access housing and bring about more intermediate forms of tenure that would assist others on lower incomes to get on the housing ladder. Shortly after, the Barker Review of Housing Supply (Kate Barker, 2004) concluded that various

factors, principally land supply and the housebuilding industry's attitude to risk, were holding back the supply of new housing.

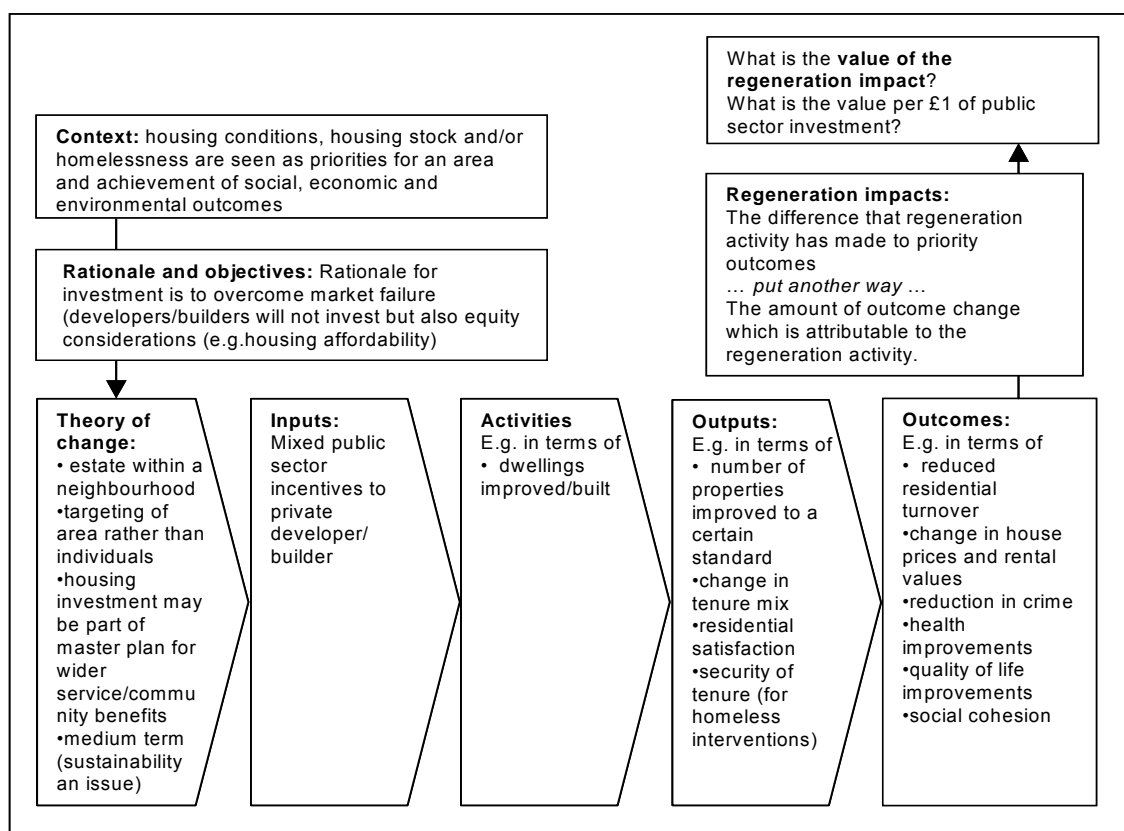
4.6 While issues of supply and demand for housing have been to the fore, the last decade has also seen an increasing focus on sustainability and energy efficiency. Sustainability has also been a key dimension of the design agenda with the introduction first of the EcoHomes standards in 2000 and more recently (in 2006) its replacement by the Code for Sustainable Homes. Minimum levels of the Code for Sustainable Homes (and other design and quality standards, such as Lifetime Homes and Building for Life), are currently demanded by organisations such as the Homes and Communities Agency over and above the Department for Communities and Local Government's (DCLG) building regulations which have themselves continued to demand ever-higher energy efficiency from new homes.

4.7 The difficulty for measurement, as we note below, is that the complex interplay of factors influencing the supply and demand for housing are further compounded in regeneration areas through relationships between housing, economic development and other policies, such as transport infrastructure.

Housing growth and improvement logic chains

4.8 Figure 4.1 presents summary logic chain for the housing growth and improvement Activity Category.

Figure 4.1: Summary logic chain for housing growth and improvement



4.9 The Housing growth improvement activity category contains the following four logic chains:

- new build
- improving existing stock
- demolition and new build
- reducing homelessness.

4.10 These activities are common features of regeneration programmes, with the first three primarily involving capital investment. The logic chain for each is now considered in turn.

New build

4.11 New build programmes have typically sought to address issues of housing supply at a local or regional level (e.g. the Thames Gateway) and/or sought to change the residential mix of an area (offering a broader array of housing choice both in terms of tenure and type). Conceptually, the investment in new build is likely to involve the public sector seeking to offer incentives to private developers and builders, their scale depending largely on the scale of market failure. Inputs will be measured in terms of the scale of incentives alongside other support (e.g. master planning), with outputs primarily comprising additional numbers of dwellings built, with consideration made of tenure, type of property and standard (increasingly in environmental terms).

Improving existing stock

4.12 The rationale for improvements to existing housing is typically made of the basis of direct benefits to residents (improved housing quality) and on wider area benefits (in terms of attractiveness). These underpin the theory of change and stock improvements can be seen as a means to reduce turnover, increasing the attractiveness of an area (in the social and private sectors) and providing a basis for wider quality of life improvements. The activity-output relationship typically explores the numbers of units improved and the extent of that improvement. A legitimate approach to the valuation of benefits is to consider the uplift in the asset value. However, looking beyond such one-off gains it is possible to apply shadow pricing techniques to value of quality of life and health benefits which may be derived from improved stock, particularly rental stock.

Demolition and new build

4.13 Particularly in housing market renewal areas, stock improvements alone are sometimes insufficient to achieve policy objectives and work is needed to acquire and demolish low demand or very low quality stock and replace it with new build housing. Although this logic chain is more complex, as it is required to understand the process of re-housing (temporary or permanent) and whether the theory of change assumes new residents to the area or returning residents, it is similar to a

new build in that final outcomes may be around changing the mix of tenure and type of property, and thereby also changing the social mix of the neighbourhood. As a result, the output and outcome measures and valuation issues are broadly similar to those discussed above.

Homelessness

- 4.14 Homelessness is not a typical regeneration priority but maybe used where homelessness is a specific problem faced by the area. Homelessness in this context is assumed to include all groups without a permanent dwelling as well as rough sleeping. The theory of change for interventions may be around addressing local issues of affordability (affecting supply) but also support to groups experiencing or vulnerable to homelessness. Interventions may therefore be in physical capital but also include advice and individual payments. Given the diversity of activity and objectives, and the very limited resources targeted at this activity, we have not attempted to value the benefits of this activity.

Problems of concept and measurement

New build

- 4.15 Conceptual and measurement issues for new build activity include assessment of market failure and equity considerations and possible issues around crowding out of private investment. There are also issues to do with valuing design and housing quality improvements require valuation of quality of life improvements through use of hedonic pricing or willingness to pay and contingent valuation techniques.

Improving existing stock

- 4.16 One of the key conceptual issues in this activity type relates to causation and attribution. Few studies have explored the outcomes that arise from interventions. One study by Pawson et al (2009) noted that housing associations play a wider role in regeneration through expenditure on capital projects (e.g. community centres) and services (e.g. youth clubs) that operate alongside the housing remit. This hints at some of the potential outcomes of housing development projects such as the increased social capital and reduced crime generated by the non-housing related activities of providers. The study only values inputs, however, in terms of housing association expenditure on these activities.
- 4.17 While the link between poor housing and poor health is well established – many cross sectional studies have reported statistically significant associations between poor housing conditions and poor health - the evidence suggesting that investment in housing improvement or new housing can lead to health improvements is less straightforward and much more mixed.
- 4.18 It is not easy to draw out specific housing hazards to act upon to improve residents' health. Housing is bound up with the socio-economic circumstances of individuals

and areas that are also important determinants of health. Whilst it may be possible to control for some confounding factors, the inter-related nature of many variables means that it is virtually impossible to isolate the housing effect on health. It is possible to over-control for factors which are themselves health determinants and also influenced by housing e.g. smoking has been argued to be a mediator for the stress of living in poor housing.

- 4.19 Another challenging area is timing of benefits: for instance health benefits may only be revealed over the long term. Finally, there is also the issue of sustainability of investments: ensuring these may require additional investments that need to be considered (e.g. maintenance costs). Benefit streams may also drop-off quickly after initial benefits (e.g. sustainability of benefits requires further investment).
- 4.20 Health impacts can also occur in an indirect way, i.e. housing improvements may also have other impacts that may have subsequent health impacts. So for example, energy efficiency improvements may result in an easing of household budgets and improve the ability of households to afford more of the basic essentials of life (see Green and Gilbertson, 1999). Savings on heating bills can increase available income that can be spent on food and may result in dietary improvements. Conversely they can have unintended negative impacts which indirectly affect health. Increased rents as a result of improvement programmes may mean tenants economise on food, or for those on benefits such an increase in living costs may act as a barrier to employment opportunities (Ambrose, 2000).

Demolition and new build

- 4.21 A specific conceptual issue for the logic model here is around understanding the benefits to the residents displaced residents and any knock-on effects of this in terms of other areas. As before the measurement issues will draw on price data for renting and purchasing property, but also need to include values on social, quality of life and health benefits. Given the nature of the investment, there may be scope to undertake some form of before-and-after study.

Homelessness

- 4.22 Benefits from this set of interventions may focus on the direct beneficiaries but also the wider area. Certain types of intervention may focus on diversion and therefore may displace homeless people to other areas, raising issues for tracking. Valuation techniques are more likely to focus on non-monetised outcomes, such as improvements to health (for individuals) and to the wider area. Attribution with respect to area benefits will be difficult and with few exceptions is unlikely to be the main plausible benefit.
- 4.23 Figure 4.2 below summarises the main areas of benefit from the key housing activity types discussed above and indicates which are production benefits and which are consumption benefits.

Figure 4.2: Housing growth and improvement – main types of benefit and disbenefit

	Activity type		
	New build	Acquisition, demolition and new build	Housing improvement (existing stock)
Key consumption benefits			
Value uplift (private consumption benefits) from new or improved housing	Planning permission for new housing increases land values – the stream of private consumption benefits from housing (shelter, warmth etc) are capitalised in the asset value.		Improvement to houses will tend to increase the asset value reflecting a gain in private consumption benefits
Consumption benefits or disbenefits (society) from gain or loss of amenity	Change in land use (e.g. from greenfield to housing) results in a loss of amenity value to society as a whole	Removal of derelict properties results in an amenity gain to society as a whole	N/A
Consumption benefits (society) from reduced carbon emissions	Regeneration interventions may support new homes with reduced level of CO2 emissions compared to market delivery	Potential energy efficiency gains for replacement stock if this is more energy efficient than the stock it replaces	Potential reduction in CO2 emissions from improved energy efficiency if this is a component of the refurbishment activity.
Consumption benefits (private) from improved security, health and warmth	N/A – no material gain, except where material differences through additionality relating to security (and potentially long term care via Lifetime Homes)	Potential gain where inferior stock is replaced with modern housing stock	Gain for refurbished stock (e.g. Decent Homes or other retrofit activity)
Key production benefits			
Production benefit to the economy – employment enabled by new housing and associated transport infrastructure	Particularly in housing growth areas (but also applicable to all new housing activity) supporting employment growth through increase in labour supply.	Potential gain where replacement stock seeks to deliberately reprofile housing choice (quality, type, tenure) to support economic development	Less likely, but potential gain where material improvement in quality, type or tenure explicitly to support economic development.

Consumption benefits and disbenefits from provision of new or improved housing

- 4.24 As part of the 2007 Housing Green Paper, DCLG and the Department for Transport set out a joint commitment to develop a methodology to better capture the economic benefits generated by new housing developments which would then be included in the Department for Transport's appraisal guidance (New Approach to Appraisal (NATA)). This guidance was published in draft in January 2010 as part of the Department for Transport's Transport Appraisal Guidance (TAG) series as TAG 3.16D. While the methodologies adopted have clearly been designed for a transport context, we believe that one dimension in particular has potential for application in all housing contexts.

- 4.25 The main housing-specific conventions in the TAG 3.16D would suggest a potential approach for establishing the value to society of new housing which takes:

the private betterment value, represented by the uplift in land values arising from a planning permission for housing development. This uplift is the value of the land in residential use with planning permission minus the value of the land in its existing use (e.g. agriculture, or industrial or commercial use).

minus

the external impact of the housing development, represented by the loss or gain in the amenity value of the land compared to its existing use.

- 4.26 In transport-related contexts there may be other external costs to take into account, for example the exacerbation of congestion by new housing. TAG 3.16D provides specific guidance on these matters.
- 4.27 There is an important conceptual issue with any property value in relation to duration/persistence. This is because the future stream of private benefits is already capitalised in the house price. As a result, we do not believe that this benefit can or should be claimed on a recurring basis. This is internally consistent with the approach taken on the disamenity values used in WebTAG 3.16D which already expresses the amenity values over a 30 year period.
- 4.28 The approach above is clearly relevant for new dwellings. As regards existing stock, on balance we believe that where regeneration interventions are adding value to existing asset values, this approach would also be appropriate so long as it is applied in a cautious manner, ideally informed by bespoke property valuation advice.
- 4.29 An alternative approach taken to valuing social housing stock is to use future income stream expectations (Tenanted Market Value). This does not refer to savings in housing benefit or other fiscal savings, but is a way of establishing the capital value of social housing and is usually undertaken to value housing as part of the stock transfer process (see Nevin, 1998). However, other commentators have identified difficulties in implementing such methods (See Gruis and Nieboer, 2006). In theory this could be applied before and after the stock improvement. However, for social housing in particular it does not necessarily follow that the improvements in the physical fabric of the property will be reflected in higher rents, since these will often tend to shadow local reference rents (i.e. rents in the private sector). Thus, while this may be useful for valuing affordable housing stock for financial appraisal purposes, it does not necessarily help in relation to economic appraisal or evaluation of stock improvement interventions.

Consumption benefits from removal of derelict properties

- 4.30 The private gains in value apply to projects involving the acquisition and demolition of derelict properties and the provision of new build in the same way as described

above. However, just as the provision of new housing on greenfield sites is likely to lead to a loss of amenity value to society, so there is evidence to show that the demolition or substantial renovation of derelict properties would lead to an amenity gain. Here the valuation issues and options are similar to those for environmental improvement discussed later in this section and at length in Volume II and in the Technical Report. In theory either stated preference or revealed preference methods could be used. Since property improvements were included within the pilot stated preference survey conducted as part of this research we have sought to apply those results in an illustrative way to show how valuation could be approached if data were available.

Consumption benefits to society from reduced carbon emissions

- 4.31 The Government's approach to carbon valuation was recently reviewed (DECC, July 2009) and the approach now adopted uses the cost of mitigating the impacts of climate change as the basis for its valuation of carbon. The guidance sets out the values for tonnes of CO₂ that should be used for policies that affect emissions in sectors covered by the EU Emissions Trading Scheme ("traded price of carbon") as well as those that should be used in sectors not covered by the EU ETS ("non-traded price of carbon").
- 4.32 For appraisal and evaluation practitioners, the issue is not so much the valuation approach that should be used – for which the Department of Energy and Climate Change guidance is quite explicit – but rather the estimation of the net additional effectiveness of programmes and projects in terms of their contribution to carbon savings.
- 4.33 For new build, this requires some knowledge of the extent of construction under the reference case as well as the prevailing Building Regulations which the market would have to follow irrespective of any policy intervention (e.g. a requirement to build to a higher level of the Code for Sustainable Homes (for residential). The local planning authority may also require a minimum level of BREEAM (Building Research Establishment Environmental Assessment Method) for industrial or commercial property. The Homes and Communities Agency developed an in-house model for its new housing activity based on the former Shadow Price of Carbon and the November 2007 English Partnerships price and quality standards. This model enabled appraisal practitioners to assess the net additional gain in carbon emissions from the proposed intervention, over and above market delivery of Building Regulations.
- 4.34 With the recent (April 2010) changes in Building Regulations there is a need for such models to be updated to reflect the changing reference case and the potential impact of potential levels of enhanced intervention. However, it should be recognised that such benefits will be highly project-specific, taking into account local planning authority requirements. Thus work is needed which sets out transparently the carbon

emission reductions applicable to different levels of the Code for Sustainable Homes and BREEAM so that these can be applied by appraisers according to particular characteristics of their project, but within a common framework.

- 4.35 For refurbished housing, technical advice is widely available which can relate baseline and target Standard Assessment Procedure ratings for energy efficiency with carbon emissions, and the methodology used for the Energy Performance Certificates can also generate Standard Assessment Procedure and emission assessments simultaneously.
- 4.36 DCLG's English House Condition Survey 2007 Annual Report reviews the potential energy performance of the housing stock if cost effective measures (Energy Performance Certificates recommended energy efficiency measures) were fully implemented. The same chapter also looks at the impact on Standard Assessment Procedure, carbon emissions and cost savings. However, the English House Condition Survey is unable to separate out the effects of improvement to existing dwellings from the effects of new build/demolition/change of use and, at a sector level, does not separate these issues from sales/transfers from one sector to another. Given the complexity of private and publicly funded investment this means that it is not able to identify which dwellings are benefiting from what funding stream.
- 4.37 The key constraint in this areas is therefore a lack of programme-specific data on the effects of specific refurbishment activities on Standard Assessment Procedure ratings and emissions. The evaluation of Warm Front generated quantitative estimates of carbon reductions, but this initiative focused solely on energy efficiency, not wider housing improvements which would typically be the focus of regeneration.
- 4.38 The key issue for regeneration home improvements is therefore being able to calibrate the energy efficiency focus/content of general housing refurbishment activity. There needs to be a stronger focus in the evaluation of refurbishment activity on these issues to generate more evidence that could be used for valuation purposes in regeneration appraisals.

Consumption benefits from improved warmth, security and health

- 4.39 Few studies have examined the costs effectiveness of housing related interventions to improve wider social outcomes. One area where the cost benefits of housing related improvements have been examined is in the area of **energy efficiency**. A large randomised controlled trial from New Zealand that assesses whether insulating older houses increases indoor temperatures and improves occupants' health and wellbeing has included a cost benefit analysis (see Chapman et al, 2009). The benefit cost study summarises the overall social impact of the intervention and shows mainly positive effects that are statistically significant. The study provides economic value estimates for a range of benefits of retrofitting insulation to housing and suggests that total benefits in present value (discounted) terms are one and a half times the magnitude of the cost of retrofitting insulation. Clinch and Healy (2001)

have attempted to provide a template for ex-ante economic evaluations of domestic energy efficiency programmes.

- 4.40 Evaluations of Warm Front (see for example, Green and Gilbertson, 2008) have tended to focus on the health benefits from warmer homes and the alleviation of dampness, rather than the energy efficiency gains. There are numerous studies that have examined relationships between housing and health (see below). It is understood that EAGA, which manages the programme on behalf of the Department of Energy and Climate Change, is collecting data on Standard Assessment Procedure improvements at the dwelling level associated with the programme. This could be used, through an assessment of consequent reductions in carbon emissions, to place a value on the improved energy efficiency.
- 4.41 There are a number of reviews of studies that have examined the effects of housing improvement on **health** (see Thomson et al, 2001; 2002; Taske et al, 2005). However, Thomson's review suggests that the quality of these studies was often poor and there was often insufficient data to attribute specific health changes to a particular type of housing improvement. The NICE review (Taske et al, 2005) concludes that there is an urgent need for primary research on these relationships. Despite these limitations, an examination of the evidence suggests that housing improvements are likely to lead to particular health improvements, in particular those related to well being and mental health. There is also some evidence that respiratory health may be improved through energy efficiency improvements to housing.
- 4.42 As noted above, there is evidence on the costs and benefits of domestic energy efficiency improvements and this seems to be an area where the strength of evidence on the relationship between housing improvements and health is improving (see Chapman et al, 2009). Benefits include improved self rated health, fewer visits to a general practitioner, fewer days off work, and fewer days off school).
- 4.43 There is also some evidence of costs and benefits of the health impact of the Decent Homes Programme (see Gilbertson et al, 2008), homelessness programmes (see Flatau et al, 2006) and extra care housing (Baumker et al, 2008).
- 4.44 Work has been conducted on valuing the cost of poor housing which assumes that the increased incidence of ill health associated with poor living conditions is likely to add costs, not only to health services, but also to a wide range of other key service providers. In a review of studies examining the cost of poor homes, the Cost Effectiveness in Housing Investment (CEHI) research team termed these additional costs "exported costs" because they are generated by under-investment in the housing sector and then exported as costs such as increased levels of poor health for other service providers to deal with (Ambrose et al, 1996). The levels of costs which could be related to poor housing were categorised and a matrix was developed in an attempt to provide a theoretical framework for estimating the total costs associated with poor housing (see Ambrose and Randles, 1999; Ambrose, 2000).

Rudge et al (2000) has also employed modelling techniques to quantify the cost damp housing.

- 4.45 The Building Research Establishment have developed a toolkit to show how links between homes and health can be made, including where possible, the cost benefit of some specifically linked housing and health issues (BRE, 2008). The toolkit provides a method of measuring and showing the value of private sector housing intervention to health, society and quality of life and is designed to enable users to find a baseline and work out the most effective and cost efficient methods of improving homes. The evidence-based toolkit utilises Health Impact Assessments to show the impact of housing intervention measures on wider health benefits. It also employs a cost calculator based on the Housing Health and Safety Rating System¹⁹ as a way of providing the number of incidences within local authority areas, together with the health costs and cost of mitigating the hazard. This figure generated can be used as evidence of the cost and subsequently compared to the costs of improvement works.
- 4.46 Two Health Improvement Assessments of the Decent Homes Programme in Sheffield and Ealing (see Gilbertson et al, 2006; 2008) have utilised the Housing Health and Safety Rating System as a way of estimating the reduced likelihood of harm to health arising from the Decent Homes work being implemented. The study in Ealing also carried out a preliminary cost benefit analysis using methods which give a monetary value to gains in personal health status (Quality Adjusted Life-Years), reduced costs to the NHS and criminal justice system, and a reduction in working days lost through ill health.
- 4.47 Some studies have employed "Quality Adjusted Life-Year" as a way of trying to estimate the monetary value of gains in the well being of beneficiaries of housing improvements (e.g. see Gilbertson et al, 2008). Quality Adjusted Life-Year measures are widely used in the evaluation of the health effects of medical treatments and many other public investments affecting health, and have also been used to estimate the victim costs of violent crime (Dolan et al, 2005) and to estimate the loss to health of fear of crime (Dolan and Peasgood, 2007).
- 4.48 Overall/generally, most approaches taken to valuation are not based on primary research. Studies tend to review available and appropriate evidence from elsewhere, and then import the relevant evidence and data in order to estimate benefits and costs.

¹⁹ The Housing Health and Safety Rating System is the Government's approach to evaluating the potential risks to health and safety posed by deficiencies identified in dwellings. It shifts the focus of the assessment of housing conditions from the structure of dwellings to the potential effect on health. From 6 April 2006, it became the prescribed method for assessing housing to determine whether enforcement action should be taken under Part 1 of the Housing Act 2004. It also replaced the Fitness Standard as a part of the Decent Homes Standard.

Production benefits from employment growth enabled by new housing and associated transport infrastructure

- 4.49 The final key area of housing-related benefit explored by the research has been the production benefits that arise from employment growth enabled by new housing. New housing provision responds to changes in household composition, but a proportion of new housing supply will facilitate economic growth. In some areas (such as those supported by Growth Point funding) employment growth is constrained by a lack of housing or a lack of affordable housing, while in lower demand areas (such as Housing Market Renewal Pathfinder Areas) the type and quality of housing is the constraint, rather than the quantum of supply.
- 4.50 In considering how much of the housing can legitimately be taken to represent a driver of economic growth in regeneration areas, a further consideration is the extent of out-commuting. Having made an assumption about the extent of new housing that facilitates employment growth within target regeneration areas, it is possible to use data on household size, working age population and the employment rate to estimate the number of net additional jobs enabled and their market value, revealed via the application of Gross Value Added/employee ratios.
- 4.51 In the analysis below we have undertaken an illustrative valuation to show how these principles could be applied, adopting a cautious approach that assumes that only 25 per cent of dwellings support employment growth. Clearly this will vary across the country and each development needs to be assessed on its own merits. There is considerable scope to examine these issues in more detail and more explicitly as part of the preparation of local economic assessments and in investment planning tools.

Summary of strengths and weaknesses in the evidence base

- 4.52 Evaluations of housing interventions tend to focus narrowly on housing-related outputs or, more rarely, outcomes without considering the broader relationship between housing and other domains such as the economy, community development and community safety. Output to outcome relationships across these domains are not well defined and this is a consequence of the difficulties in both theorising and operationalising methods to measure the value of the broader outcomes that arise from housing interventions. The evidence base on valuing housing interventions within regeneration programmes is, therefore, incomplete and inconclusive.
- 4.53 Although there appears to be some useful evidence emerging on programmes like Decent Homes, the significance of the housing growth and market renewal activity, and the lack of clear outcome-based valuation evidence for these aspects of housing policy, mean that it is appropriate to seek to derive a range of unit values that can be applied to net outputs, rather than outcomes.
- 4.54 There is some good evaluation evidence available from appraisals. Where there is not, ready reckoners are available from published evaluations and other sources.

For example, most housing research focuses on measuring the relationship between inputs and outputs using value for money analysis such as the Final Evaluation of City Challenge (DETR, 2000) that estimated a cost of £6,250 for each dwelling improved. The Homes and Communities Agency also records the expected and outturn net public sector cost per net dwelling on its own internal databases, and this may provide a more varied evidence base on which to make assumptions about the range on unit costs. The recent Housing Market Renewal Pathfinder evaluation (Tyler et al, 2009) was also able to provide unit costs for refurbishment and acquisition/demolition and new build activity.

- 4.55 Of the approaches explored above, the collaborative work between DCLG and the Department for Transport on WebTAG 3.16D offers a particularly useful way forward in terms of valuing the private consumption benefits of new housing, and we believe this could be extended to improved housing as well. There are also established amenity values that can help to take account of the opportunity cost to society from changes in land use. Taken together with considerations about the role of new housing in facilitating economic growth (measured through employment and Gross Value Added) there is a suite of techniques which, while relatively crude in some cases, could present a practical way forward for appraisal and evaluation practitioners.

Community development (3.COMM)

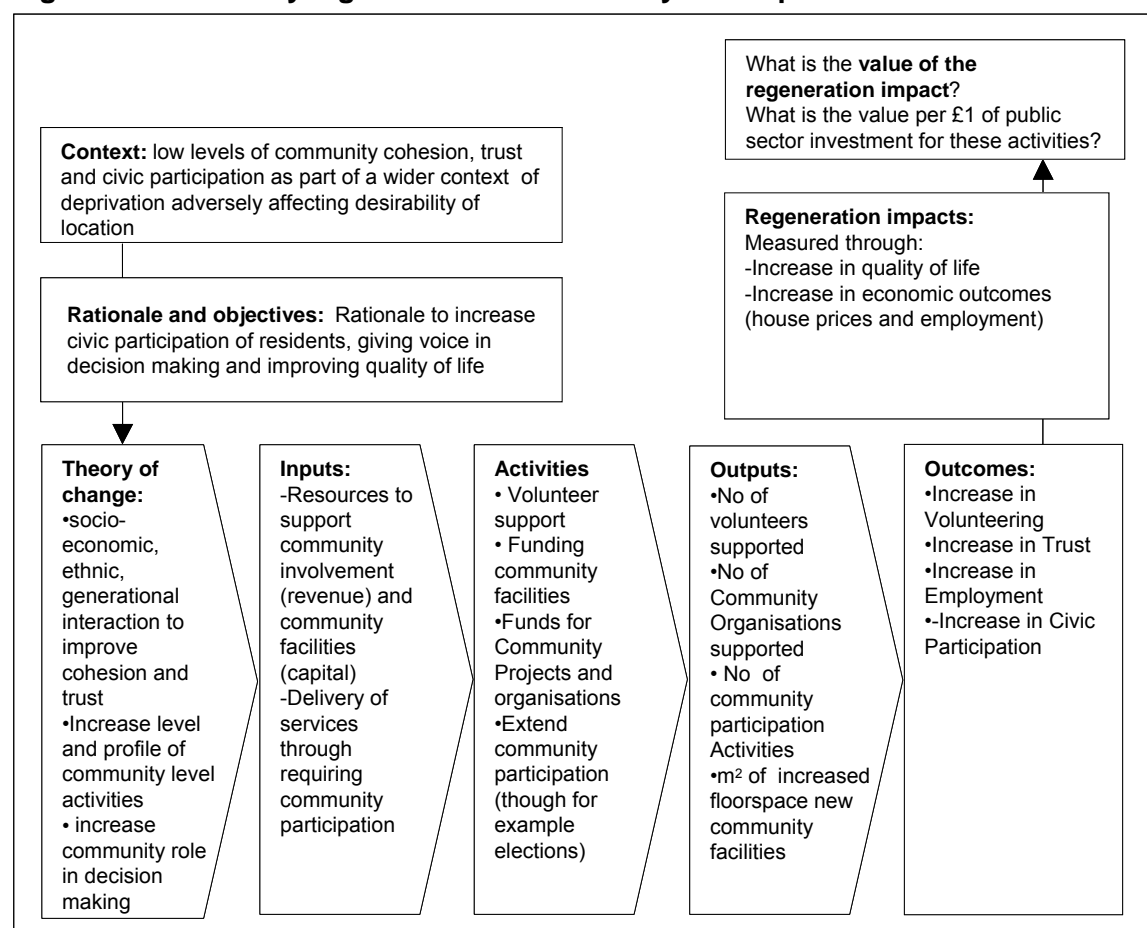
Overview

- 4.56 The community development agenda has evolved significantly over the last decade. Examples include the requirement on Local Strategic Partnerships to involve local communities and the voluntary sector, facilitated in its early stages by a Community Empowerment Fund and the establishment of Community Empowerment Networks. Community empowerment was seen as a key strand of many dimensions of the Government's National Strategy for Neighbourhood Renewal, notably New Deal for Communities, Neighbourhood Management Pathfinders and Neighbourhood Wardens.
- 4.57 The creation of the Office of the Third Sector within the Cabinet Office in 2006 provided further impetus for community and voluntary sector activity and was followed by a wide-ranging review of the role of the sector in social and economic regeneration. Of particular relevance to regeneration, the strategy that emerged included initiatives focused on community assets, capacity building support targeted on developing financial sustainability, encouragement for the creation and growth of social enterprises, the promotion of volunteering, small grants for local groups and a programme of endowments in community organisations to secure their long term grant-giving ability. As detailed below, there is evidence that these activities can bring about stronger, more active and better-connected communities.

Community development logic chains

4.58 Figure 4.3 presents summary logic chain for the community development Activity Category.

Figure 4.3: Summary logic chain for community development



4.59 A common feature of this set of activities is the theory of change that greater civic participation, community development and generally resident involvement in neighbourhood activities can bring outcomes such as greater trust, higher levels of quality of life and can feed through into economic benefits such as employment and the desirability of a neighbourhood. Conceptually, community development activities are seen at the heart of regeneration programmes, including New Deal for Communities and Neighbourhood Management Pathfinders.

4.60 The community development Activity Category has four Activity Types, each of which represents a single logic chain presented in Annex C. These logic chains are:

- Volunteering (3.COMM.A1)
- Investment in community organisations (3.COMM.A2)
- Formal participation (3.COMM.A3)
- Community facilities (3.COMM.A4).

How valuation can be approached in this Activity Category

- 4.61 Conceptually, it is possible to make quite strong links between investments and support of community activities and greater levels of participation in a neighbourhood. However, the following conceptual problems which need to be addressed in impact valuation:
- distribution of benefits, in particular understanding who participates
 - causation, notably whether social capital leads to rising house prices and employment or vice versa
 - spillover and adjacency effects to neighbouring areas.
- 4.62 These conceptual problems are also reflected in measurement problems. The challenge for valuation is around placing monetary proxies on non-monetised impacts. This is largely addressed in three ways: through estimating economic benefits from quality of life or cohesion gains (through for example hedonic modelling or shadow pricing); the contribution of increases in social capital to employability (i.e. extent to which it increases household income); and finally through contingent valuation of quality of life improvements.
- 4.63 However, notwithstanding the potential valuation techniques, there is a lack of underpinning evidence that could be harnessed to measure the outcomes and impact of community development initiatives and place reasonable values on them. This may be due to the methodological difficulties in evaluating what is, according to Burton et al. (2006) in their work on community involvement, '*a procedural or operating principle*' rather than a '*substantive intervention*'. Community involvement is often a commitment to engage local stakeholders on the principle that residents should be engaged in the process of regeneration, rather a series of interventions designed to achieve a set of clearly specified outcomes.
- 4.64 Chanan's (2009) paper reviews existing research as the basis for exploring the possibilities for **measuring the outcomes of community empowerment initiatives**. The study suggests that community empowerment generates 'primary' outcomes that can be measured by National Indicators (NI 4 (influence) and NI 7 (thriving Third Sector)) as well as 'secondary' outcomes (the contribution of empowerment to any of the other local government indicators (8-198) on education, health, safety, planning, housing, employment, environment, transport, sport or arts and satisfaction with these services and with the locality in general. Chanan goes on to note, however, that few studies have sought to quantify the benefits of community empowerment initiatives in this way. She suggests that most evaluations lack the necessary data including one or more of the following:
- investment costs
 - number of people benefiting
 - quantified evidence of primary outcomes

- testimony of secondary outcomes
 - imputed monetary value of outcomes.
- 4.65 Chanan also observes the difficulties in trying to establish the relationship between individual involvement in community empowerment initiatives and outcomes for the wider community. She concludes that evaluations of interventions are often prone to a 'funnel effect' where they make the case for empowerment on the basis of socio-economic disadvantage (crime, employment etc) but then evaluate empowerment in narrow terms e.g. outputs from projects (at best) without trying to ascertain the project's impacts on these broader measures of disadvantage.
- 4.66 Chanan identified one study that attempted to value the outputs of community development work in Newcastle. This identified the number of individual residents that had been engaged through a set of community-focused initiatives (regeneration, community engagement, crime and safety) and valued each involvement at £24 based on the total community development budget of the local authority (£1m)/number of individuals involved (42,000). Chanan notes, however, that the study made no attempt to quantify the outcomes or value of outcomes arising from the engagement of residents.
- 4.67 Burton et al. (2006) may offer a route of this impasse with their call for **a theory-based approach to studying community involvement** that seeks to identify the range of outcomes that could arise from community involvement. This includes both the individual benefits that accrue to individuals directly involved as well as the broader benefits enjoyed by the wider community. Measuring these broader social benefits is difficult, however, given the lack of simple, linear relationship between individual participation and wider social outcomes (Burton et al, 2006 and Chanan, 2009). Whilst 'social capital' as measured both in national surveys (e.g. the Citizenship Survey) as well as within area-based programmes (see Grimsley et al, 2005) which may provide appropriate indicator(s) of such community-wide benefits, there has been little attempt to link outcomes to particular community development initiatives.
- 4.68 There is growing interest in, and recognition of, output to outcome relationships in literature on community development, and more broadly in literature from and about the voluntary and community sector. Much of this literature has been led by the sector itself rather than the subject of systematic academic research. It therefore tends to focus on how tools may be operationalised by practitioners, often in evidencing impacts for funding audiences, rather than generating comparable data.
- 4.69 Key examples of the practitioner-led literature include
- Social Return on Investment and Social Value
 - Outcomes toolkits (see for instance work by the Charities Evaluation Services and work funded by the Big Lottery Fund)

- Social Accounting and Audit
- Toolkits on practitioner calculation of Local Multipliers (see in particular the New Economic Foundation's LM3).

4.70 A summary of this practitioner led material has been undertaken by the Charities Evaluation Services (see www.ces-vol.org.uk/index.cfm?pg=315). The above techniques are largely underpinned by some form of input-activity-output-outcome logic model. However, they place a strong emphasis of participative and stakeholder led approaches to evaluation, as noted above. Although work on the Social Return on Investment, notably that funded by the Office of the Third Sector, has sought to bring together comparable studies and to provide some audit or quality assurance aspect, most are more locally specific and present difficulties in extracting comparable data from them. These issues are discussed further below.

4.71 In a narrow sense, volunteering, investment in community organisations and community facilities can be valued using the same techniques as for the valuation of business support or skills support. For example, volunteering support does in many cases lead to labour market outcomes. However, it may also lead to wider social returns (e.g. provision of social care) and environmental returns (e.g. community based initiatives such as community composting schemes). Similarly expenditure on community organisations (whether directly or through a third sector infrastructure organisation) can be valued in similar ways to business support. For example, benefit streams can be estimated and outcomes such as increased surpluses (equivalent to profits) or staffing levels (additional wage costs) converted to estimates of additional Gross Value Added.

4.72 The key indicators that are needed to value community development activities are:

- The **number of community beneficiaries**. This typically splits out three groups: organisational beneficiaries (e.g. community groups); direct beneficiaries (e.g. volunteers); and wider neighbourhood effects (normally taken as all residents).
- For community organisations support, measures need to be made of **net additional employment change** (taking account of deadweight, displacement, leakage and multiplier effects) together with **net additional changes in operating margins of community organisations** (taken as a proxy for profits). An important technical issue here when economic multiplier models are used is accounting for expenditure which may have occurred within the neighbourhood anyway.
- For **volunteering initiatives**, practice on valuing volunteers varies, and settles on three broad approaches: (i) Asking volunteers what value they place on the time input and/or what their current wage/benefits level is; (ii) Using a National Minimum Wage level; and (iii) Using the local median wage. Each approach has its merits although the first is likely to be the most

accurate. These are discussed in more detail later in this sub-section.

- Estimates of the **Gross Value Added per employee or per organisation** for the location in question can be estimated. For employees this could be done using the Labour Force Survey that denotes data for third sector employees, albeit at a regional level. For organisations, it is possible to use the Financial Accounts of Charities, and draw estimates from income, expenditure and operating margins. In both instances, however, some primary survey research is likely to be required, especially where estimates are needed at small spatial scales (below LAD) and for what is termed 'below radar' organisations (those with income of below £25,000).
- An assessment of **how long the benefits will persist**.
- A clear indication of the **spatial area** in which impact is being assessed.
- An assessment of **displacement**.

4.73 However, there are limitations with these approaches: they treat interventions in isolation and critically do not account for 'social capital' benefits, not least, improvements in quality of life.

4.74 As noted above **Social Return on Investment** offers a broad approach for measuring value that incorporates social, environmental and economic costs and benefits. The model (as outlined in OTS, 2009) comprises the following steps:

- **Identify financial value of inputs** (including monetised and non-monetised e.g. volunteer time - the report suggests valuing volunteer time at the average market rate for type of activity (rates available at www.volunteer.org.uk))
- **Clarify outputs**
- **Identify outcomes** (and appropriate indicators for measuring incomes) based on organisational objectives as well as the views of stakeholders
- **Value outcomes** using one of a range of techniques for identifying proxy values (see matrix for more detail):
 - i) Proxy values
 - ii) Contingent value
 - iii) Revealed preference techniques
- **Calculate impact** (allowing for deadweight, displacement, attribution, drop-off):

Impact = ((outcomes x proxy financial value) - deadweight) x attribution

- 4.75 Finally, the Social Return on Investment is calculated as follows
- the (NET) Social Return on Investment value = (Net) Present Value (after discounting)/Inputs**
- 4.76 Notwithstanding the apparent attractions of Social Return on Investment, it will be clear from the logic chain above that there remains the requirement to identify the impact of community development interventions on specific outcomes and for the reasons described above this remains problematic for community development.
- 4.77 In summary, there is a missing link in the evaluation chain for community development activity. Research focuses either on valuing the inputs or outputs of volunteering or social outcomes in the form of social capital. But there has been little attempt to connect the two by identifying how community development activities translate into social outcomes e.g. social capital and, further, how those outcomes can be valued to identify the economic impact of community development activity.
- 4.78 The one element of community development that has generated considerable academic debate is **the value of volunteer activity**, which, as a key component of community development work, has some applicability within a regeneration context.
- 4.79 In terms of empirical work, a study by Mayer (2003) positions itself as a pioneering attempt to measure the 'indirect benefits' of volunteering as measured by the economic value of increases in social capital generated by volunteer activity. Using estimated regression equation slopes derived from US studies of social capital, Mayer estimates the economic benefits of an increase in social capital in terms of, for example, reductions in crime and mortality rates (see matrix for more details). Critically, however, Mayer fails to explain how it is possible to link the volunteering to increases in social capital, relying instead on figures derived from other studies to value the economic benefits of a one unit increase in social capital. This means it is not possible to quantify the proportion of the economic benefits identified that can be attributed to volunteering in Australia.
- 4.80 Given these difficulties much of the literature has focused on attempts to monetise the value of volunteering as an *input* into organisational activity. It should also be noted that few studies explore the value of volunteering in the context of regeneration, but the methods outlined are clearly applicable in the sense that could be used to value volunteer activities that form part of community development initiatives.
- 4.81 Most commonly, the techniques explored in the literature involve valuing volunteering using some form of proxy wage in the form of '**opportunity costs**' or '**replacement wages**'.
- 4.82 **Opportunity cost** methods rely on estimating the value of volunteering by calculating the wages that volunteers could otherwise have received if engaged in their usual form of paid employment:

opportunity cost = hours volunteered x hourly rate of usual paid employment

4.83 Possible modifications to this opportunity cost method include:

- Differentiating between volunteers who are in paid work (with values calculated using the wages they receive in paid employment) and volunteers who do not have any paid employment (who are asked to estimate the hourly value of their volunteer time (Handy and Srinivisan, 2004)). The authors claim this distinction avoids the flawed assumption within opportunity cost models that all volunteers would work in the absence of volunteering. But the authors do not address the potential difficulties in asking individuals to make a subjective judgement on the value of their labour. A different study (Pho, 2008) suggests that the value of volunteer activity for those without any form of paid employment should be valued at the minimum wage.
- Asking volunteers to place a monetary value on their voluntary activity: this is simply a variant of the method above where all volunteers (instead of only those who do not have paid employment) are asked to estimate a 'reasonable' hourly rate for their volunteer activities (Mook et al, 2007). The authors acknowledge, however, that is not always practical to survey volunteers on the value they place on their activities, which means that opportunity cost and wage replacement methods are often the most commonly deployed techniques. Handy and Srinivisan (2004) also claim that this 'leisure time' method is preferable as opportunity cost models wrongly assume individuals would otherwise work and, moreover, would value their volunteer activity at the same rate as their paid work. Meanwhile, the replacement wages method (see below) is flawed for assuming volunteer organisations would replace volunteer labour with paid labour in the event of a shortage.

4.84 **Replacement wage** methods calculate the value of volunteer activity by estimating how much it would cost to replace volunteers with paid employees compensated at market rates. Replacement wages are calculated using publicly available rates of pay although there are variations in both the variables used to determine equivalent jobs and the sources of pay rates:

- Gaskin and Dobson's (1997) UK study estimated replacement wage rates using pay rates displayed in local Jobcentres as an estimate of the local rate for the job. They explored two different methods for identifying linking volunteer activities to equivalent paid jobs: i) soliciting job titles from volunteers and finding the nearest equivalent at the Jobcentre (and multiplying all hours performed by that volunteer by the pay rate identified) and ii) asking volunteers to complete a time-use diary, with hours spent on similar tasks aggregated across all volunteers and then multiplied by the local rate for the equivalent paid job, again using rates advertised at the Jobcentre.

- Egerton and Killian (2006) sourced wage rates from the 2002 Office for National Statistics Household Satellite Accounts and developed a three tier typology of rates to calculate the value of volunteer time (Professional (£14.85); Personal and Protective (£6.55) and Clerical and Secretarial (£6.95)).
- Mook et al's. (2007) Canada-based study explored the different values generated by using three different rates: i) An hourly rate based on occupation and skill (from the National Compensation Survey of the U.S. Bureau of Labour Statistics) and ii) An hourly rate based on the North American Industry Classification System (for the Professional Organizations sub-sector and (iii) An hourly rate based on survey responses (when asked what they would consider to be a reasonable wage per hour for their volunteer activities).

4.85 Some studies suggest that the hourly rates used to calculate values using the opportunity cost or replacement wage methods need to be modified to account for fringe benefits, tax, costs to volunteers and recipients' hypothetical willingness to pay:

- **Taxes:** Brown (1999) deducts 25% to allow for tax.
- **Benefits:** A US-based study suggests adding 12% (Brown, 1999) whilst a Canadian study (Handy and Srinivisan, 2004) adds 18% to wage rates to allow for in-work benefits (pensions, healthcare etc).
- **Costs to volunteers:** Soupourmas and Ironmonger (2002) add 12.7% to the value of volunteer time to factor in additional costs shouldered by volunteers (particularly the use of cars and costs of petrol).
- **Discount to allow for recipients' hypothetical willingness to pay:** Brown (1999) argues that wage rates need to be discounted by a factor of 0.73 to reflect the difference between the market rate of labour and the willingness of recipients to pay for the service offered (if they had the propensity to pay).

Calculating the “net benefits” of volunteering

4.86 Some studies set the value of volunteering against the costs of using volunteers to estimate so called “net benefits”, i.e.:

“net benefits” = total value of volunteer activity - total costs of using volunteers

4.87 Drawing on definitions across a series of studies, net costs are typically identified as including both:

- The non-labour costs of insurance, administration, and advertising for and recruitment of volunteers as well as overheads.
- The labour costs of managing volunteers based, for example on the hourly

costs of paid managers or the market equivalent for volunteer managers
(Gaskin and Dobson, 1997)

“Value added” and “return ratios” from volunteering

- 4.88 Some studies provide techniques for measuring the added value of voluntary activities. The simplest method for calculating added value is provided by the Volunteer Investment and Value Audit framework (see explanation in Soupourmas and Ironmonger, 2002). This provides a ratio of returns in terms of the value of volunteer activity for every £ invested derived from the following calculation:

ratio of returns = value of volunteer time/organisational investment (including labour and non-labour costs)

- 4.89 Mook et al's (2007) study of a Canadian non-profit institution within the higher education sector provide a more sophisticated model for calculating value added based on social accounting techniques. They suggest that the economic value of volunteering can be used to calculate an **Expanded Value Added Statement (EVAS)**:

Value added = primary financial outputs (e.g. costs of conferences) + dollar value of volunteer activities + dollar value of volunteer 'out-of-pocket' expenses (e.g. petrol) - goods and services purchased externally

The ratio of value added to purchases = value added/the costs of external goods and services (the authors calculate, for example, that the non-profit organisation studied generated \$1.48 (US) of value added for every \$1 expended on goods and services).

Calculating the value of outputs from volunteering

- 4.90 A few studies maintain that measuring outputs i.e. the value of good and services produced is a more accurate way of valuing volunteer time. The advantage over opportunity cost or wage replacement methods is that valuing outputs avoids the reliance on assumptions about the equivalence of volunteer and paid labour. This assumption is problematic because it is not self-evident that organisations would use paid labour in the absence of volunteers (see Bowman, 2009; Egerton and Killan, 2006; Soupourmas and Ironmonger, 2002). Bowman (2009) suggests that calculating Volunteers Contribution to Revenue - e.g. the revenue generated by a café staffed by volunteers - provides a better estimate of the value of volunteer labour as it reflects the direct costs that would be incurred by organisations in the event of losing all volunteers (rather than hypothetical assumptions about how much it might cost to replace volunteers with waged labour). Bowman concludes that replacement techniques tend to overestimate the value of volunteer activities.

Environmental improvement (3.ENV)

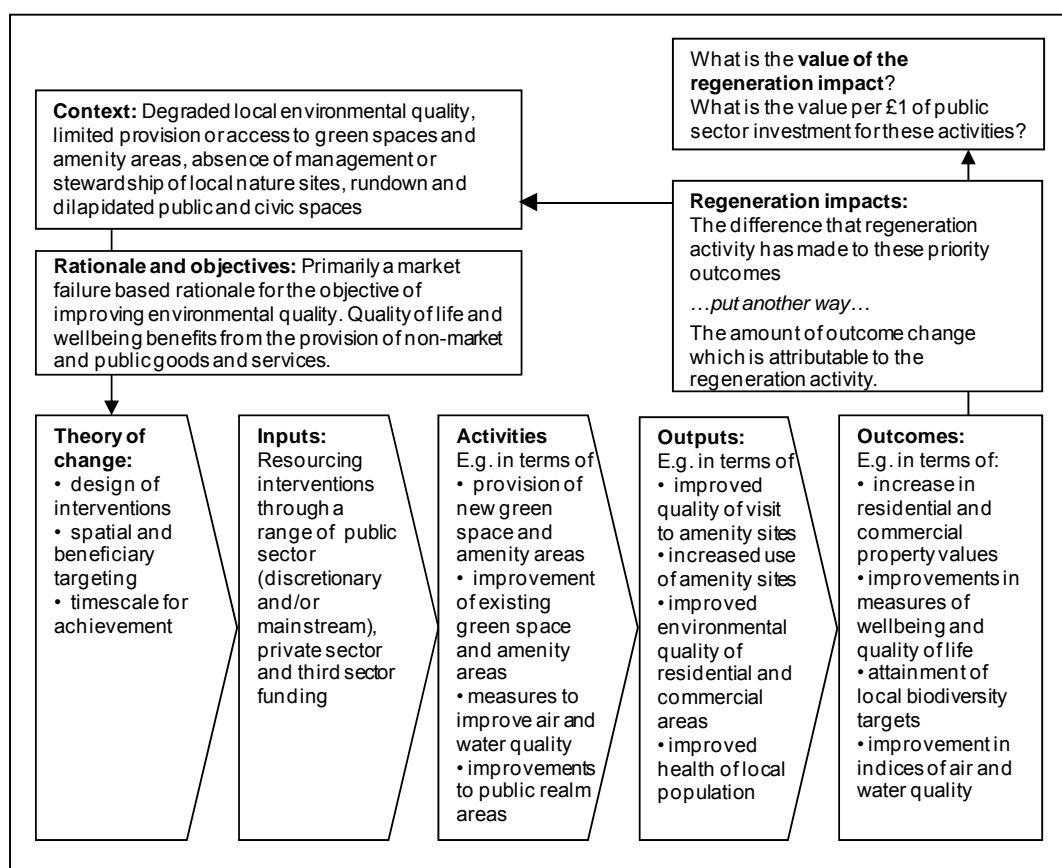
Overview

- 4.91 The increasing focus on good urban design was prompted by the Urban Task Force report in 1999 and a policy agenda on “liveability” in 2001. These issues were subsequently developed in the report of the Urban Green Spaces Taskforce which set out the contribution that parks and green spaces can make to quality of life in urban areas and their potential to deliver a range of social, economic and environmental benefits. In 2002 the Office of the Deputy Prime Minister launched its Living Places initiative which made a number of recommendations that were subsequently reflected in *Sustainable Communities – Delivering Through Planning* (ODPM, 2002) aimed at improving the planning system so that it added more value through design.
- 4.92 These aspirations were embedded in the planning system through new Planning Policy Guidance 17 in 2002 (Open Space, Sport and Recreation) and in the 2004 Sustainable Development Strategy and associated 2005 Planning Policy Statement 1 (Delivering Sustainable Development) and Planning Policy Statement 6 (Planning for Town Centres). At the same time these matters have also been promoted and researched by the Commission for Architecture and the Built Environment.
- 4.93 While many of these policy evolutions can be regarded as “mainstream”, in the sense that they affect all areas of the country, not just regeneration areas. However, in addition to its policy and regulatory responsibilities, DCLG has also directly promoted these activities through the regeneration activity delivered by English Partnerships (now the Homes and Communities Agency), the Regional Development Agencies and its direct annual support of Groundwork.

Environmental improvement logic chains

- 4.94 Figure 4.4 presents summary logic chain for the environmental improvement Activity Category.

Figure 4.4: Summary logic chain for environmental improvement



4.95 The environmental improvement Activity Category has 8 Activity Types, each of which represents a single logic chain presented in Annex C. These logic chains are:

- Open space (3.ENV.A1)
- Community space (3.ENV.A2)
- Nature reserves (3.ENV.A3)
- Public realm (3.ENV.A4)
- Green routes (3.ENV.A5)
- Blue routes (3.ENV.A6)
- Water quality (3.ENV.A7)
- Air quality (3.ENV.A8).

4.96 Primarily the Activity Types relate to either the provision or improvement of local 'environmental infrastructure' or more general aspects of environmental quality in terms of water and air quality. These contribute to improved quality of life or enhanced wellbeing for the beneficiary population(s) and can be classified as both non-market and public goods and services.

- 4.97 Distinctions between open space (3.ENV.A1), community space (3.ENV.A2) and nature reserves (3.ENV.A3) in part relate to land management and the use of the land. Open space (e.g. parks, play areas, sports pitches) for example is managed for the purposes of informal (walking, dog-walking, etc.) or formal recreation activities (e.g. sports) and also aesthetic amenity. Wellbeing outcomes accrue in terms of non-consumptive use value, which is the benefit derived from non-market environmental goods and services without any extractive usage. In contrast, community spaces (e.g. allotments and community gardens) are managed for consumptive use for mainly food and other produce.
- 4.98 The objective of management of nature reserves is to maintain or enhance biodiversity. Depending on the provision of access, this may provide use value benefits in terms of informal and formal (e.g. angling) recreation and in select cases more indirect ecosystem services such as flood protection (for instance in the case of wetlands habitat and sustainable urban drainage schemes). Where access is prohibited, wellbeing outcomes for the local population can be attributed to indirect use value (e.g. air quality benefits from woodland) and non-use value motivations. In addition the provision of 'natural land' may not necessarily be through formal establishment and management of nature reserve areas (e.g. the Local Nature Reserve designation), but could also arise through management practices of open space, for example allowing wild grass and wooded areas to be established in parks.
- 4.99 Improvements to public realm (3.ENV.A4) will largely enhance wellbeing via perceptions of local amenity and aesthetic quality of areas such as town and city squares, pedestrian streets and promenades. This may also include elements of landscaping in public areas and public sculptures and art installations. These all can provide benefits in terms of non-consumptive use value.
- 4.100 Green routes (3.ENV.A5) and blue routes (3.ENV.A6) characterise linear 'environmental infrastructure'. The primary purpose is to provide access links for the local population and these routes can enhance recreation opportunities and also facilitate healthier lifestyle choices (e.g. cycling). Use of the term 'routes' contrasts with green or blue corridors which are typically ecology (e.g. the connectivity of habitats) or riparian (e.g. accommodation space for river flooding) focused.
- 4.101 Water quality (3.ENV.A7) and air quality (3.ENV.A8) improvements can arise from a variety of activities (e.g. preventing discharges to water courses or traffic management schemes resulting in reductions in emissions to air from vehicles) and may give rise to both direct (e.g. benefits to anglers) and indirect (e.g. human health) use benefits to the local population.
- 4.102 Given that each of the environmental improvement Activity Types can be associated with different aspects of use and non-use value, the definition of the Output Measure varies mainly in relation to the expectation of the beneficiary population. Broadly the resident population comprises the beneficiaries of local environment improvements

but further distinctions can be identified, for example specialist users groups in terms of formal recreation activities (e.g. angling). Provision of some amenities (for example a country park) may also draw visitors from beyond the immediate resident population.

- 4.103 The extent of the beneficiary population represents the economic jurisdiction for environmental improvement interventions, and in most if not all instances this will be influenced by spatially relevant factors. In particular the beneficiary population can be characterised by a set of sub-groups:
- *Residents within immediate vicinity/close proximity of an environmental amenity improvement:* these will likely derive a mix of direct and indirect use benefits (e.g. aesthetic and visual improvements, improved recreation opportunities, air or water quality improvements). The value of such benefits may be revealed by uplift in property prices.
 - *Residents within the wider local area:* these may derive similar benefits to the above, but may be beyond the spatial area over which property prices are impacted. Instead travel cost (time and money spent) may reveal the value of direct use benefits from amenity sites.
 - *Visitors* may be attracted to amenity sites from the regional or even national scale. Again travel costs can reveal the value of direct use benefits derived.
 - *Non-users:* in some instances this can be a significant source of wellbeing for individuals who receive no direct or indirect use benefits from an environmental good or service. Value is generated by altruistic, bequest and existence motivations and is generally associated with unique and iconic resources. The extent of the non-user beneficiary population is likely to be a valid concern where regeneration is expected to impact such distinctive features and resources.
- 4.104 In practice, distinctions between different population groups are likely to be gradual and in effect there is a continuum that can be represented by increasing distance from the site of interest. Outputs from some activities will be confined to the area in the immediate vicinity of the amenity sites. For others with broader economic jurisdiction, as distance from the site increases, beneficiaries will include both residents and visitors (and possible non-users).
- 4.105 One important factor that determines extent of the economic jurisdiction is the availability of substitutes. For example the economic jurisdiction for improvements to an urban park may be relatively limited if the wider urban area features an abundance of good quality parks. Note also that substitutes do not have to be 'perfect' substitutes; access to open space may imply substitutability between visits to nature reserve sites and parks and green routes.

- 4.106 Consideration of the extent of beneficiary population also links into the Outcome Measures and how these may be valued. Well perceived environmental amenity benefits are suited to valuation via revealed preference methods such as hedonic pricing and travel cost methods, subject to data availability. In the case of regeneration, hedonic pricing is of particular relevance where property prices are influenced by local amenity aspects such as the availability and quality of parks, green routes and aspects of the public realm.
- 4.107 The value of enhanced wellbeing arising from non-market goods and services is also widely addressed by the use of stated preference methods, such as contingent valuation and choice experiments. Depending on their specific focus, these can provide measures of benefits derived by both (direct and indirect) user populations and non-user populations, or both. They also have wider applicability than revealed preference methods, being able to provide valuations for outcomes that are not well represented by property markets or recreation demand behaviour.

Problems around concept and measurement

- 4.108 Within the bounds of economic analysis, the conceptual basis concerning environmental goods and services is generally not regarded as an area of dispute. The notion of wellbeing generated by non-market and public goods is firmly established, as is the basis of the total economic value framework that provides the underlying typology for the use and non-use values that are derived. Practical concerns are more relevant to measurement issues with respect to Output Measures and Outcome Measures.
- 4.109 For example, issues of double-counting can be highlighted with respect to the logic chains set out in Annex A and the Outcome Measures reported. In particular the Outcome Measures capture elements of the wellbeing associated with environmental improvements, either in economic value or other terms (e.g. surveys of perceptions of quality of life). Those outcomes that can be valued are not necessarily additive; establishing the value of local amenity improvements via a hedonic analysis of house prices provides an estimate of the use value, which could also be captured via a stated preference study eliciting values for improvements in environmental quality. Here the total economic value framework is of particular use in identifying distinct outcomes that are additive, and in this links into the identification of the beneficiary population and user types in relation to Outcome Measures.
- 4.110 However, since outcomes in terms of use (and non-use) value derived by the beneficiary population can be additive, this gives rise to another issue for measurement. In particular, that of independent valuation and summation in relation to programmes that deliver multiple environmental amenity improvements. As noted, benefits derived from different activities such as improving open space, improving nature reserves and provision of green routes may be substitutable. Hence an improvement in one aspect of environmental amenity will lessen the benefit derived

from another amenity (all else equal), in contrast to the case where the improvements are delivered in isolation. With respect to the valuation of environmental improvements, the consequence of independent valuation and summation is the over-valuation of aggregate benefits. Similarly in assessing the aggregate worth of regeneration programmes, substitution effects may also be evident between environmental amenity and aspects such as reduction in crime, improvements in health, and other public service areas.

- 4.111 The implication is that an explicit account should be made for substitution effects between differing aspects of environmental amenity improvements and wider elements of regeneration interventions. For example, a well-specified and executed hedonic pricing study can control for such interactions, as too can stated preference studies that control for such 'part-whole' effects. The key risk arises where benefits are valued separately and latterly combined in a setting such as cost benefit analysis, and consequently total benefits of the programme are overstated.

- 4.112 The role of substitutes is also, as noted above, central to the issue of establishing the extent of the beneficiary population. The usual expectation is that a distance-decay relationship will be observed, which is generally presented in terms of the unit value of an environmental improvement (e.g. as measured by the willingness to pay of households) declining as distance from the site at which the good provided increases. The relationship is driven by location-specific factors; as distance from the site increases, the abundance of substitute sites increases, as does the cost of accessing the resource in terms of time and travel. Accordingly the proportion of users to non-users for a given site declines with increasing distance.

- 4.113 The practical implication concerns the way in which aggregate benefits of an environmental improvement are valued. Ordinarily an estimate of the unit value for the benefit is multiplied by the estimated beneficiary population (e.g. WTP per household × no. of households). In instances where the unit value is non-constant across the extent of the beneficiary population, there is a risk of over-estimating aggregate benefits, if the unit values that are applied are not 'spatially sensitive' (i.e. reflective of distance-decay).

- 4.114 Further, with respect to regeneration, a rationale for intervention is likely to be a deficit of good quality green infrastructure in an area. Application of value evidence based on locations where there is an abundance of good quality green infrastructure can potentially under-estimate the value of the intervention to the beneficiary population.²⁰ The underlying reasoning is that of diminishing marginal utility; the greater the abundance of the non-market good, or substitutes for it, the lower benefit of increasing its provision. Hence much scrutiny is required as to the scarcity of environmental amenity in regenerated areas and the significance of accounting for

²⁰ Coupled with this, there are also issues where socio-economic characteristics of beneficiary population differ between source studies for value transfer and the case in hand. These too can result in 'transfer errors'.

this in estimating the value of outcomes, whether via revealed or stated preference methods, or via value transfer.

How valuation can be approached in this activity category

- 4.115 The review of evidence in relation to environmental improvements covers a varied selection of studies. This includes a broad range of topic areas, where ‘regeneration’ *per se* is not necessarily the focus of the evidence. Instead the outcomes and outputs of interest can be delivered by many different types of policy and project and this is reflected in the available evidence.
- 4.116 As would be expected, the review reveals that whole range of non-market valuation methods have been applied, in terms of both primary studies and those that use secondary valuation evidence; i.e. meta-analysis and value transfer. This includes a number of hedonic pricing studies (e.g. GLA, 2006; Cambridge Econometrics et al, 2003; Powe et al, 1995; Willis and Garrod, 1994) and related analysis of house price differentials in relation to the presence of environmental amenities and local services (e.g. Gibbons, 2001; 2003; Gibbons and Machin, 2004).
- 4.117 In general though, more recent examples of the application of hedonic pricing are for US based studies (e.g. Wachter and Gillen, 2006; Mansfield et al, 2005; Laverne and Winson-Geideman, 2003). For instance Wachter and Gillen use sales price data on residential properties in Philadelphia to determine the effect of various urban regeneration programmes (“public investment strategies”), such as vacant land management, neighbourhood greening, and the condition of business corridors, on the sales price of residential properties within the area.
- 4.118 A couple of relatively dated travel cost studies have also been identified by the review (e.g. Willis and Garrod, 1991; Lockwood and Tracy, 1995), although one area for the review to be extended is to consider more recent applications in relation to recreation sites (e.g. forest sites). These are potentially relevant to regeneration activities.
- 4.119 The evidence from stated preference studies (contingent valuation, contingent ranking, choice experiments, etc.) covers various topic areas. For example urban green space (Bullock, 2005; Oppewal et al, 2005), regeneration of historic and cultural sites (Riganti et al, 2005), urban river water quality (Hanley et al, 2006; 2007; Bateman et al, 2006), and public realm (Alberini et al, 2004).
- 4.120 Methodologically the relevance of the stated preference studies identified so far is high, demonstrating various approaches to estimating the value of environmental improvements. This was particularly useful for developing the stated preference pilot survey work under Objective 3 of this project (see Technical Report). Practically, relevance in terms of ‘transferable’ evidence is low. The most relevant are perhaps Alberini et al (2004) which reports on a choice experiment to assess various preferences for regeneration in Belfast, including the valuation of attributes such as

extent of open space, building height and residential-retail mix of buildings, and Georgiou et al (2000) and Bateman et al (2006) which both report on contingent valuation and choice modelling to value urban river water quality improvements for the River Tame in Birmingham.

- 4.121 Two studies identified so far also investigate both revealed and stated preference approaches to valuing environmental amenity (Dolan and Metcalfe, 2008; Earnhart, 2001). Dolan and Metcalfe in particular assess the value of regeneration activities in Swansea, in terms of mostly aesthetic improvements (renewal of fascias, gutters and roofs of houses, renewing property front boundary walls and paths/paved areas, and road resurfacing and provision of new improved feature street lighting) and other aspects that overlap with housing improvements (e.g. internal renovation and disabled adaptations and energy efficiency) and energy efficient boiler replacements. Most of the analysis however is aimed at methodological issues (i.e. comparison of methods and measures of welfare) rather than transferable results.
- 4.122 None of the meta-analysis studies identified in the review are specifically focused on the value of environmental improvements from regeneration activities. However, they cover relevant subject areas such as wetlands (e.g. nature reserves) (Ghermandi et al, 2007) and air quality. For example Smith and Huang (1995) provide a meta-analysis focusing on 37 hedonic pricing studies on air quality.
- 4.123 Value transfer is used in several of the studies for British Waterways to estimate additional visitor expenditure due to improvements made to canals (e.g. Ecotec, 2006; GHK, 2007). Estimates of additional visitor numbers and expenditure per visitor are taken from valuation studies on canals which have had similar improvements made on them and are located in similar socio-economic areas.
- 4.124 GHK (2007) have also assessed the impact of long term canal-side development in the Birmingham city centre. The programme of improvements has taken place over 20 years and included the development of public areas and access to the canals such as walkways, a new public square, residential areas and visitor attractions, as well as the development of hotels, offices, bars and restaurants. The study estimates that the total additional value of residential properties within the improved canal-side areas is within the region of £25.7m and £57.1m for the years 2002 to 2007. In addition an assessment is made of visitor numbers to attraction sites, which underpins estimates of total visitor expenditure.
- 4.125 Bullock (2005) provides an interesting example in relation to green space – in particular parks in Dublin - which established factors that lead to higher valued amenities. The contribution of trees, play areas, other facilities and the presence of other people to the value of parks was estimated by using a choice experiment approach. A greater amount of facilities attracted higher values, as did small playgrounds (as opposed to adventure play areas or no play area at all), the presence of scattered trees (as opposed to mostly grass or areas characterised as

woods/meadows), and a medium amount of other people (a mix of busy and quiet, not too quiet or too busy). Overall the study provides an interesting counter-point to the assumption that all environmental improvements are 'good'; in reality there is likely to be heterogeneity in preferences as evidenced by the valuation attributed to aspects such as grass cover and types of play area.

- 4.126 The evidence base also consists of studies that establish the conceptual basis for valuing the benefits/costs of various environmental amenities, as well as those which provide literature reviews. For example, Jacobs (2009) investigates the value of inland waterways, covering various aspects that can be potentially influenced by regeneration activities (e.g. recreation, visual amenity). Similarly, DCLG/ODPM (2002) establishes a typology of benefits from undeveloped land (e.g. parks and community amenity areas). Literature reviews include Glaves et al (2007) in relation to economic and 'other' benefits of inland waterways as well as more formal papers on the state of literature (e.g. Boyer and Polasky, 2004 in relation to urban wetlands in the US).
- 4.127 Conceptually, hedonic pricing is well suited to the valuation of environmental improvements arising from regeneration activities. In particular outcomes are likely to be confined in most cases to the resident population in close proximity to the improvement. Where improvements are well perceived it is likely that these will be reflected in the local property market. That said demand for housing is influenced by a multitude of factors which if not adequately controlled for can undermine the validity of studies. For example GLA (2006) estimates a hedonic model to estimate the value of green spaces in London. A range of factors are included in the analysis, which is undertaken at the Borough level, including travel times to central London, accessibility to healthcare and education service, and air quality as well as aspects such as crime rates, dwelling density and population on income support. The analysis however omits variables controlling for the characteristics of properties (e.g. type – detached, terraced, etc. - number of bedrooms, garden, garage, etc.), which in general limits the relevance of the study results.
- 4.128 A recent US study provided by Wachter and Gillen (2006) provides an account of the range of factors that a hedonic study needs to control for in relation to valuing aspects of urban regeneration. Data on property characteristics (including the size of the property and lot, the condition of the property, whether the property has air conditioning or not, the location of the property relative to downtown Philadelphia, and whether the property was a house or flat) and the state of the overall housing market in Philadelphia (to control for sales over time) were used to account for the general factors that would affect property prices. Data related to regeneration impacts included neighbourhood crime rates, school quality, availability of public transportation, public greening (tree plantings, 'streetscaping' and improvement of vacant lots) and quality of commercial corridors.

- 4.129 The study found that an 'excellent' or 'good' quality of nearby commercial corridors, management of vacant land, neighbourhood greening, the existence of 'business improvement districts' (neighbourhood-based quasi-public agencies who are primarily focused on improving the condition and safety of outdoor public spaces within their jurisdiction and marketing their jurisdiction to outside businesses, residents and tourists), close proximity to subway stops, and good public services (characterised by a low high school drop-out rate after controlling for income and a low crime rate) positively affect the sales prices of residential properties.
- 4.130 While the 'transferability' of the study results is limited, Wachter and Gillen do provide a useful example of application of hedonics in relation regeneration, particularly in terms of highlighting the data-intensity of the approach.
- 4.131 In relation to the application of stated preference studies, Bateman et al, (2006) (and also Georgiou et al, 2000) demonstrates the importance of establishing the extent of the affected population in terms of measuring the outputs of environmental improvement activities. The study primarily uses contingent ranking to estimate economic values for the public benefits of river water improvement for the River Tame in Birmingham. At the time of the study the water quality of the River Tame was classified as 'very poor' with limited species diversity in terms of aquatic plants and small numbers of pollution tolerant life surviving within the river. Moreover the river water was hazardous to human health due to high bacterial levels and not suitable for water-based recreational activities.
- 4.132 A key aspect of the study is the use of geographical information system to aid the estimation of a distance-decay function for willingness to pay to improve the water quality in the river. This provides an explicit example of a study that establishes empirically the boundaries of the economic impacts arising from the environmental improvements. In particular the geographical information system was used to calculate distances from each survey respondent's home address to the River Tame. This was combined with survey data detailing individuals' knowledge of water quality in the River Tame, visitation patterns, attitudinal data, etc.
- 4.133 It is found that even for the largest improvement in river quality, the extent of the economic jurisdiction of beneficiaries (i.e. those with a positive willingness to pay for improvements) is restricted to less than a 30km radius from the site. This is stark contrast to many studies that provide no assessment of the spatial sensitivity of environmental improvement outputs and assume arbitrarily as to the extent of the beneficiary population.

Summary of strengths and weaknesses in the evidence base

- 4.134 The review show far indicates that the evidence base contains a series of particularly relevant studies, the majority of which are in relation to environmental improvements in rivers and canals. However, some of these are dated (mid-1990s). Further studies relate to aspects such as open spaces and nature reserves (or biodiversity)

conservation). However, the latter generally do not focus on urban settings for nature conservation. Activity areas where valuation evidence is limited include public realm community spaces (e.g. allotments and community gardens) and green routes.

- 4.135 Initial assessments of the quality of evidence suggest that the broad base of studies could in practice be quite limited in terms of studies from which transfer of evidence would be recommended. Moreover many studies provide useful results in terms of methodological application and developments, but are of restricted relevance. This is particular the case for US studies where contextual differences (such as the nature of property markets and institutions) typically preclude the transferability of evidence.
- 4.136 Given these limitations, as part of this research two experimental studies were commissioned: a pilot stated preference survey to value environmental quality and amenity improvements of regeneration schemes; and a pilot hedonic pricing study to assess the scope for placing values on brownfield land reclamation.
- 4.137 The pilot stated preference work was undertaken in Seaham in East Durham. This area was selected because it has been the focus of significant physical regeneration resources covering a variety of different environmental improvements. As a pilot study it was important that the work could be undertaken in a cost-effective manner and thus identify participants likely to be knowledgeable of the regeneration activities concerned to inform questionnaire design. As a relatively small town, the chosen case-study area also benefited from not having the background 'noise' associated with larger urban areas.
- 4.138 The approach adopted in the stated preference work combined both choice experiment and contingent valuation methods to give a flexible survey instrument capable of valuing local environmental amenity attributes individually and 'packages' of improvements covering multiple attributes. The work was designed as a pilot study that could then lead to a full scale survey to generate valuation evidence for general use in appraisal and evaluation of regeneration schemes.
- 4.139 The pilot hedonic pricing study sought to examine the impact of a major brownfield reclamation project on house prices in the adjacent residential area of Hebburn in South Tyneside. The former Monkton Coke Works was selected because it involved the reclamation of a significant and well known area of brownfield land, was adjacent to a relatively stable area of housing which was not dominated by new residential development (since this would distort the housing market) and because the activities were undertaken sufficiently long ago for there to be a sufficient number of housing transactions through which to observe any price effects.
- 4.140 The detailed methodologies, findings and lessons learned from these two pilot studies are set out in the Technical Report.

Neighbourhood renewal (3.NEIGH)

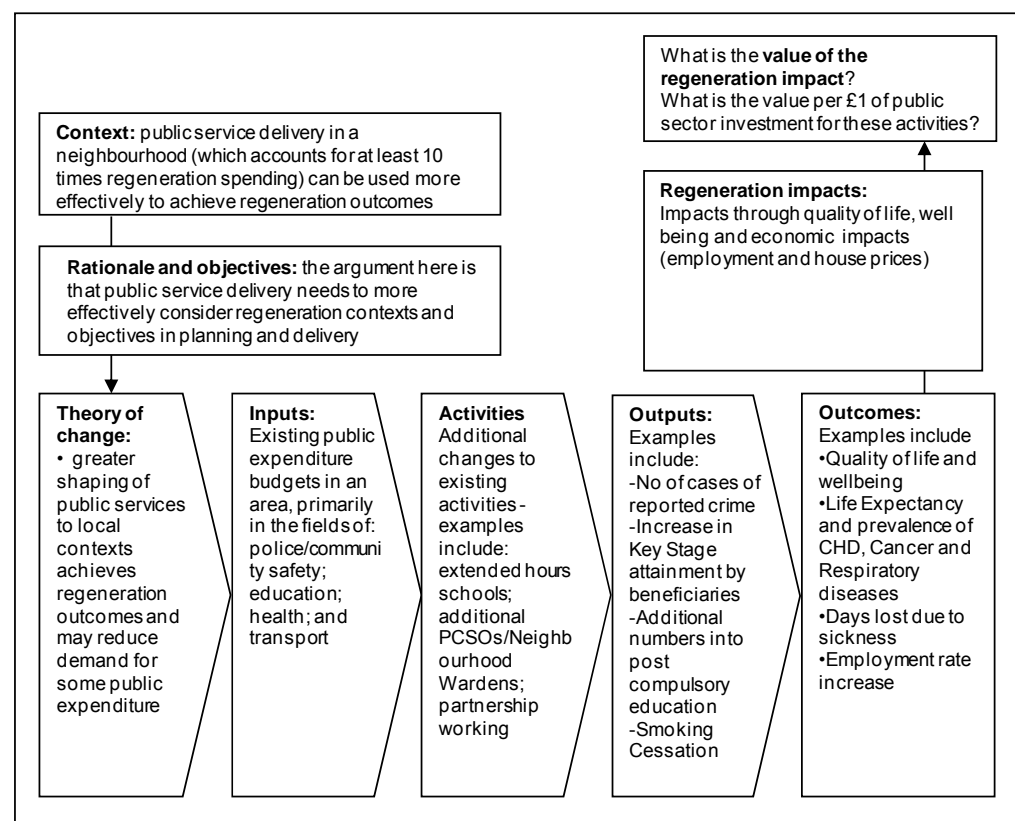
Overview

- 4.141 An important dimension of regeneration over the last decade has been the interaction between residents and mainstream service providers to bring about neighbourhood renewal. The broadening of regeneration to become more holistic in its engagement with mainstream service providers began with later rounds of the Single Regeneration Budget and continued through the introduction of the Neighbourhood Renewal Fund and area based initiatives such as New Deal for Communities, Neighbourhood Management Pathfinders and Neighbourhood Wardens from the late 1990s onwards. Such initiatives have worked to bring about lasting improvements to service delivery which will have a positive impact on key outcomes such as crime and anti-social behaviour, ill-health, low levels of educational attainment and poor environmental quality. All of these initiatives have been subject to long-term evaluation by DCLG and provide a useful evidence base on the outcomes associated with neighbourhood-based efforts to challenge and improve mainstream service provision.

Neighbourhood renewal logic chains

- 4.142 Figure 4.5 presents summary logic chain for the neighbourhood renewal Activity Category.

Figure 4.5: Summary logic chain for neighbourhood renewal



- 4.143 The Neighbourhood Renewal Category has 13 Activity Types, each of which represents a single logic chain presented in Annex C. These logic chains cover four main service areas: crime reduction; health improvement; education and street and environmental cleanliness. The 13 logic chains in the framework are for:
- Crime reduction – neighbourhood wardens and community police (3.NEIGH.A1)
 - Crime reduction – multi-agency partnership working (3.NEIGH.A2)
 - Crime reduction – CCTV (3.NEIGH.A3)
 - Health improvement – healthy living (3.NEIGH.A4)
 - Health improvement – smoking cessation (3.NEIGH.A5)
 - Health improvement – teenage pregnancy (3.NEIGH.A6)
 - Health improvement – drug and alcohol treatment (3.NEIGH.A7)
 - Health improvement – supported living (3.NEIGH.A8)
 - Education – truancy (3.NEIGH.A9)
 - Education – classroom assistants (3.NEIGH.A10)
 - Education – raising aspiration mentors (3.NEIGH.A11)
 - Education – family learning support (3.NEIGH.A12)
 - Street and environmental cleanliness (3.NEIGH.A13).
- 4.144 The theory of change is that regeneration funding can help to stimulate direct or indirect improvements in the frequency, level and/or quality of service to beneficiaries that better targets the needs of residents or priority regeneration areas. Conceptually this approach is reflected in interventions such as the Neighbourhood Management Pathfinders and Total Place. It is also argued that better targeted public service delivery increases the attractiveness of an area (possibly supporting more mixed communities) and, critically, that it contributes to enhanced outcomes for existing residents.

Problems around concept and measurement

- 4.145 The central conceptual and measurement problem associated with the Neighbourhood Renewal Activity Category is that the focus is not on the assessment of additional funding but the extent to which changes in the targeting of services, as well as the level, accessibility and quality of services in order to bring about outcome changes in target beneficiaries, areas or groups. Theory of change and logic model approaches can illuminate how outcome changes are brought about.
- 4.146 The following benefit streams are particularly relevant:
- social and wellbeing outcomes experienced directly (by beneficiaries) or

indirectly (demonstration effects)

- improvements in quality of life (e.g. an increase in wellbeing enables greater social participation)
- public service delivery outcome improvements (e.g. improvements in educational qualifications) which can feed through into improvements in house prices

4.147 A further conceptual challenge is ensuring that double counting of these streams of outcomes is avoided (e.g. house price increases may also be revealed in higher income levels).

How valuation can be approached in this Activity Category

Valuing the individual benefits of neighbourhood renewal

- 4.148 In order to deal with the complexities above, one approach that could be adopted is to undertake an individual analysis of each of the main benefit streams influenced by neighbourhood renewal. This would involve examining the additional benefits arising from specific neighbourhood renewal-influenced service improvements and seeking to apply values to society for each of those benefits. As noted above, the key service areas in this Activity Category are health, education, crime and street scene (litter and rubbish). Another important dimension of neighbourhood renewal activity has been efforts to tackle worklessness, now formally reflected in the activities of interventions like the Working Neighbourhoods Fund (see Section 2).
- 4.149 Applying this “forensic” approach to valuing neighbourhood renewal has strong overlaps with the valuation of some of the indirect benefits discussed earlier, for example the indirect effects of worklessness on crime reduction and health discussed in Section 2. There we described the techniques recommended by the Department for Work and Pensions which involve the application of values related to property crime and NHS costs. In those cases, the values applied had taken into account causation issues in relation to the impact of worklessness on property crime and health, but the same principles could be applied to crime and health in a neighbourhood renewal context, provided that there was sufficient evidence on causation between the intervention and the change in outcome.
- 4.150 In the rest of this sub-section we explore how these issues have been explored in a public health context where a cost-effectiveness approach has tended to dominate.
- 4.151 A number of cost-effectiveness studies compare the use and effectiveness of different approaches to improving health services in a particular public health area such as physical activity, obesity, smoking etc. For example studies may examine different approaches to treatment for drug or alcohol problems, smoking cessation etc., and then compare the outputs from these interventions to see which is most effective.

- 4.152 Typical outputs for smoking cessation interventions include - primary outcomes - quit rates, annual smoking trend, the one-year quitters who remained non-smokers, the number of clients who accessed services and subsequently agreed a date for quitting smoking; the number of clients receiving nicotine replacement therapy and bupropion; the number of clients reported to have quit at four weeks; the background population cessation rate; and the proportion of patients who reported smoking cessation at four weeks who would relapse by 12 months
- 4.153 Outputs from physical activity interventions - reduction in the proportion of people classified as sedentary, increase in the number of people who were active, and movement to a higher level of physical activity.
- 4.154 Outputs from drug and alcohol interventions include total alcohol and other substance abstinence rates.
- 4.155 Many of the studies to evaluate lifestyle interventions use cost effectiveness analysis techniques. Studies draw resource and effectiveness data from published studies elsewhere. Effectiveness data is usually drawn from controlled trials and observational studies, published data and surveys. Overall, there seems to be a lot of available information to draw on, and for the most part the key relationships in the logic chain are established (for example between smoking and ill health etc). However, at times the evidence for the final outcomes may only be based on a single study.
- 4.156 The challenge for some particular studies like the Supported People Programme is that there is limited information on the impact of these services on recipients' behaviour and experience. This particular evaluation says it is the first study which has attempted to value the benefits of housing related support and there was no information on the level of impact that these services have on the behaviour and experiences of those receiving them. The evaluation used working assumptions on the level of impact, as well as assumptions on the characteristics of the client groups, and on costs. It focused on those client groups where this evidence was stronger, namely: older people, the single homeless, people with learning disabilities, people with mental health problems, women at risk of domestic violence, homeless families, offenders and those at risk of offending, and people with drugs problems. The analysis for the study is then based on assumptions of the level of impact rather than based on evidence.
- 4.157 The causal links between lifestyle factors such as smoking and health are well established. It has taken numerous large scale longitudinal studies over many years to explore these links and establish these causal relationships. In the area of smoking and smoking cessation for instance, studies have confirmed that smoking reduces life expectancy and causes or aggravates a many diseases and that stopping smoking increases life expectancy and reduces the risk of developing one of the life threatening diseases associated with smoking (see Doll, R., Peto,R., Boreham, J.,

and Sutherland, I. (2004) Mortality in relation to smoking: 50 years' observations on male British doctors. *British Medical Journal*, 328, p.1519). However, the problem when trying to link the outputs from a particular intervention to health outcomes is that these outcomes are often long term and usually take years to be realised.

- 4.158 Although linking outputs to outcomes is complicated by the long term nature of many health improvements, there are standard validated instruments to measure health status and health outcomes and these usually fall into a number of areas; mortality (standardised mortality ratio); morbidity direct measurement e.g. incidence and prevalence of disease; morbidity proxy measurement e.g. use of services, absence from work, sickness benefit; and survey measures of self reported health status. Outcome measures typically used in cost effectiveness studies of lifestyle interventions include: relative risk of mortality; life-years saved; and life years gained.
- 4.159 Costing templates have been produced by NICE to provide an implementation tool to estimate the resource impact to the NHS of implementing public health interventions.
- 4.160 Evaluations of programmes have also looked at costs and benefits. See evaluations of the Supporting People Programme (Matrix Research, 2004; 2006) and Sure Start (Meadows et al, 2006).
- 4.161 In summary, therefore, the main strength is that there are a large number of cost effectiveness studies in area of public health service interventions and there are available methods for estimating the monetary/economic value of health benefits measures (life-years gained, quality-adjusted life year etc.). However, there is considerable debate about the merits of each approach and further research required to decide which is the most appropriate.

Shadow pricing

- 4.162 An alternative approach to provide monetised value to both human and social capital building outcomes from neighbourhood renewal is shadow pricing. This technique determines the compensating change in income that would produce an equivalent change in quality of life as would change in a given outcome. So for example, what extra income would increase an individual's quality of life by an equivalent amount to the improvement in quality of life from making a transition from, not being satisfied, to being satisfied, with their local area?
- 4.163 There are only a limited number of examples where shadow pricing has been used to value outcomes. To give two examples, Moore (2006) using data for 2003, estimated the value of feeling 'very' or 'fairly' unsafe walking alone in the local area after dark to be approximately £9,400 in household income.²¹ Powdthavee (2008) finds that an increase in the level of social involvements is worth up to an extra £85,000 per year in per capita household income. A third approach, described in detail below, is the one adopted in the recent National Evaluation of the New Deal for Communities

²¹ The study estimated the value at €13,538 which is approximately £9,400 at 2003 exchange rates

(Beatty et al, 2010) since this is the most recent example of the application of the technique at the neighbourhood level in the United Kingdom.

4.164 The New Deal for Communities evaluation used pooled data from four New Deal for Communities household surveys to construct multiple regression models to estimate a respondent's quality of life, given a range of known socio-demographic characteristics; their reported real equivalised household income, based on a single person reference case; and a range of outcomes upon which the New Deal for Communities Programme might have impacted.

4.165 Formally this may be presented as:

$$Q = \alpha + \beta_Y Y + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon$$

4.166 Where Q is a measure of quality of life, α is a constant, Y is a measure of individual income and X_n are dummy variables for a range of socio-demographic characteristics that are known to influence quality of life, and ε is an error term.

4.167 The estimated coefficients from this equation can be used to estimate the increase, or decrease, in quality of life from a given change in each outcome, while holding all other things constant. For example, a transition between not feeling satisfied, to feeling satisfied, with the local area, will have an average estimated impact of increasing an individual's quality of life by just over half a point on the quality of life scale, holding all other thing constant.

4.168 Using this equation, it is then possible to estimate the increment to individual income that would produce an equivalent expected increase in an individual's quality of life.

4.169 Figure 4.7 lists derived unit benefits computed using a shadow pricing method by the New Deal for Communities evaluation team for a range of outcomes of the Programme. So, for instance, in the case of a transition from not satisfied, to satisfied, with the area the expected increase in quality of life produced by this transition is equivalent to an increase in individual income of £59,600. The magnitude of this value represents the large positive influence that feeling satisfied with the local area has on an individual's quality of life. Having such feelings are likely to reflect a wide range of place-related issues, such as safety, the quality and availability of local facilities, and having friendly neighbours, variables which themselves have substantial monetary values. This helps explain why the value of feeling 'very' or 'fairly' satisfied with the local area is so high.

Figure 4.7: Derived unit benefits: shadow pricing	
	Unit benefits pa (£)
Education	
Taken part in educ./training in the past year	2,300
Worklessness and finance	
In employment	4,900
Health	
Do no exercise for 20 minutes or more	-15,800
Smoke cigarettes	-5,900
Feel own health not good	-30,600
SF36 mental health index, high score	33,500
Very/fairly satisfied with family doctor/GP	5,400
Crime	
Feel a bit/very unsafe after dark	-6,100
Been a victim of any crime in last year	-9,400
Lawlessness and dereliction index, high score	-9,800
Housing and the physical environment	
Trapped	-12,500
Very/fairly satisfied with area	59,600
Want to move	-23,600
Very/fairly satisfied with accommodation	41,000
Problems with environment index, high score	-5,000
Community	
Feel part of the community a great deal/a fair amount	14,900
Neighbours look out for each other	11,600
Can influence decisions that affect local area	9,000
Source: Ipsos MORI New Deal for Communities Household Survey	

Further insight into key valuation techniques

- 4.170 The evidence in this section has pointed to the use of a range of key valuation techniques that have been used to value the impact of environmental amenity and over aspects of community and neighbourhood based regeneration. Particular attention has been given to the use of stated preference and hedonic pricing techniques. The issues around the application of these techniques, particularly as they combine both choice experiment and contingent valuation methods, are discussed further in a Technical Report to this Volume.
- 4.171 Annex A of this Volume sets-out all of the key logic chains that have been discussed in this Volume describing the relevant activity categories, activity measures, output measures and outcome measures.
- 4.172 Annex B provides a summary of the references used in the review of evidence.

Annex A: Logic chains

THEME 1: WORKLESSNESS, SKILLS AND BUSINESS DEVELOPMENT

Activity categories and activities	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
1.ST – Worklessness, skills and training			
1.WST.A1 - Helping people to become work-ready	1.WST.AM1 - No. of individuals given advice and guidance	1.WST.OP1 - % of individuals reporting enhanced confidence and motivation	1.OC1 - No. of Level 1 qualifications in literacy (including ESOL) achieved (NI161)
	1.WST.AM2 - No. of training places (basic skills and/or employability training)	1.WST.OP2 - No. of people completing employability programmes	1.OC2 - No. of Entry level qualifications in numeracy achieved (NI162)
	1.WST.AM3 - No. of training weeks (basic skills and/or employability training)	1.WST.OP3 - No. of individuals achieving an employability qualification	
		1.WST.OP4 - No. of individuals achieving a qualification by Level	
1.WST.A2 - Helping people into work (including re-entrants)	1.WST.AM1 - No. of individuals given advice and guidance	1.WST.OP1 - % of individuals reporting enhanced confidence and motivation	1.OC3 - Working age employment rate (NI151)
	1.WST.AM4 - No. of training places (job-related training)	1.WST.OP3 - No. of individuals achieving an employability qualification	1.OC4 - Median earnings of employees (NI166)
	1.WST.AM5 - No. of training weeks (job-related training)	1.WST.OP4 - No. of individuals achieving a qualification by Level	1.OC5 - Working age people on out of work benefits (NI152)
	1.WST.AM6 - No. of individuals receiving job brokerage support	1.WST.OP5 - No. of individuals (re)entering unsubsidised employment	1.OC6 - Working age people on out of work benefits in the worst performing neighbourhoods (NI153)
		1.WST.OP6 - No. of individuals (re)entering subsidised employment (e.g. Future Jobs Fund, intermediate labour market schemes, former New Deal for Young people)	1.OC7 - Flows onto incapacity benefit from employment (NI173) <i>(Note: some concerns about operationalisation of this indicator given the introduction of the Employment Support Allowance (ESA))</i>
			1.OC8 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 2 or higher (NI163)
			1.OC9 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 3 or higher (NI164)

Activity categories and activities	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
1.ST – Worklessness, skills and training			
			1.OC10 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 4 or higher (NI165)
1.WST.A3 - Helping people to stay in work	1.WST.AM7 - No. of individuals receiving in-work support from a Personal Advisor	1.WST.OP.7 - % of individuals supported with employment retention activity who continue in their job for 13 weeks	1.OC11 - Churn ratio (measuring churning between employment & non-employment). <i>(Note: would require access to Work and Pensions Longitudinal Study or a special longitudinal research study)</i>
	1.WST.AM8 - No. of people receiving financial in-work support	1.WST.OP.8 - % of individuals supported with employment retention activity who continue in their job for 26 weeks	
1.WST.A4 - Helping employees and businesses with skills development in the workplace	1.WST.AM9 - No. of people assisted in their skills development	1.WST.OP1 - % of individuals reporting enhanced confidence and motivation	1.OC12 - No. of individuals receiving training in the last 4 weeks
	1.WST.AM10 - No. of training weeks (both on-the-job and off-the-job training)	1.WST.OP4 - No. of individuals achieving a qualification by Level	1.OC4 - Median earnings of employees (NI166)
	1.WST.AM11 - No. of businesses supported to develop their workforce	1.WST.OP9 - No. of Investors In People accredited companies	1.OC8 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 2 or higher (NI163)
	1.WST.AM12 - No. of employers engaged in Train to Gain	1.WST.OP10 - Increased productivity	1.OC9 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 3 or higher (NI164)
	1.WST.AM13 - No. of learners engaged in Train to Gain		1.OC10 - Proportion of population aged 19-64 for males and 19-59 for females qualified to at least Level 4 or higher (NI165)
			1.OC11 - Churn ratio (measuring churning between employment & non-employment). <i>(Note: would require access to Work and Pensions Longitudinal Study or a special longitudinal research study)</i>
			1.OC13 Skills gaps in the current workplace reported by employers (NI174)
			1.OC14 - Gross Value Added
			1.OC15 - GVA/employee (productivity)

Activity categories and activities	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
1.ST – Worklessness, skills and training			
<i>* Note that this logic chain has outputs and outcomes for both employees (in terms of their progression in employment) and for business competitiveness</i>			

Activity categories and activities	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
1.ENT - Enterprise and business development			
1.ENT.A1 - General support for business growth and competitiveness	1.ENT.AM1 - overall no. of businesses assisted to improve their performance, of which:	1.ENT.OP1 - No. of jobs created (FTEs)	1.OC14 - Gross Value Added
	- SMEs	1.ENT.OP2 - No. of jobs safeguarded (FTEs)	1.OC15 - GVA/employee (productivity)
	- other businesses	1.ENT.OP3 - No. of businesses with improved performance - GVA	1.OC16 - Workplace employment (by SIC and size of firm)
	- social enterprises	1.ENT.OP4 - No. of businesses with improved performance - new products, processes or services	1.OC17 - % of small businesses in an area showing employment growth (NI172)
		1.ENT.OP5 - No. of graduates placed in SMEs	
		1.ENT.OP6 - Increase in GVA from improved performance	
		1.ENT.OP7 - Increase in GVA/employee (productivity) from improved performance	
<i>* Note that activities, outputs and outcomes here apply equally to activities targeted at groups of companies, particular sectors etc.</i>			
1.ENT.A2 - Start-up assistance and promotion of spin-outs	1.ENT.AM2 - No. of businesses supported to start-up (e.g. individuals helped to start a business or HEIs or SMEs encouraged to spin-out new companies)	1.ENT.OP8 - No. of new businesses created, of which:	1.OC18 - Total business stock
		- private companies/sole traders	1.OC19 - Stock of social enterprises
		- social enterprises	1.OC14 - Gross Value Added
		1.ENT.OP9 - No. of new businesses still in operation after 12 months	1.OC15 - Productivity (GVA/employee)
		1.ENT.OP10 - GVA of new businesses still in operation after 12 months	1.OC16 - Workplace employment (by SIC and size of firm)
		1.ENT.OP1 - No. of jobs created (FTEs)	1.OC17 - % of small businesses in an area showing employment growth (NI172)
		1.ENT.OP2 - No. of jobs safeguarded (FTEs)	
		1.ENT.OP11 - No. of new businesses demonstrating growth between 12 and 24 months	

Activity categories and activities	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
1.ENT - Enterprise and business development			
1.ENT.A3 - Promotion of business enterprise research and development (BERD)	1.ENT.AM3 - No. of businesses engaged in new collaborations with the UK knowledge base	1.ENT.OP12 - Value of increased R&D in those businesses engaged with the knowledge base	1.OC20 - Business R&D as a proportion of GVA
	1.ENT.AM4 - Other activities (advice, signposting, consultancy, networking) targeted at increasing business R&D activity	1.ENT.OP13 - R&D expenditure as % of turnover in beneficiary firms	1.OC14 - Gross Value Added
		1.ENT.OP14 - No. of patents filed	1.OC15 - Productivity (GVA/employee)
		1.ENT.OP7 - Increase in GVA/employee (productivity) due to R&D investment	
<i>* Note that this logic chain may also be useful for interventions directed at cluster development</i>			

THEME 2: COMMERCIAL PROPERTY AND INFRASTRUCTURE

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
2.CP – Commercial Property			
2.CP.A1 - Industrial and commercial property development	2.CP.AM1 - Hectares of brownfield land cleared by demolition and levelling	2.CP.OP1 - Sq.m. of space constructed (by type and grade)	2.OC1 - Hectares of previously developed land that has been vacant or derelict for more than 5 years (NI170)
	2.CP.AM2 - Hectares of contaminated land remediated	2.CP.OP2 - Sq metre of buildings occupied	2.OC2 - % increase in stock of development land (by type: industrial/commercial and residential)
	2.CP.AM3 - Tonnes of Spoil Removed	2.CP.OP3 - Occupancy level for different use (by SIC)	2.OC3 - % increase in commercial land values
	2.CP.AM4 - Hectares of land regraded	2.CP.OP4 - Occupancy level (proportion of floorspace)	2.OC4 - Workplace employment (by SIC)
	2.CP.AM5 - Length of new site access and on-site roads constructed	2.CP.OP5 - Number of jobs accommodated (FT/PT > FTEs)	2.OC5 - Gross Value Added
	2.CP.AM6 - Installation of metres of linking and on-site service networks (sewers, water supply, gas, electricity, telecoms)	2.CP.OP6 - No of businesses accommodated (by SIC)	2.OC6 - % increase in commercial property values
	2.CP.AM7 - Hectares of land serviced for industrial or commercial development		

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
2.INF – Infrastructure			
1.INF.A1 - New road building	2.INF.AM1 - km of roads built	2.INF.OP1 - km of new roads	2.OC7 - Congestion - average journey time per mile during the morning peak (NI167)
		2.INF.OP2 - hectares of land opened up for development (to 2.CP.A1 or 3.HOUS.A1/A3)	2.OC8 - % saying that level of traffic congestion most needs improving
			2.OC2 - % increase in stock of development land (by type: industrial/commercial and residential)
			2.OC3 - % increase in commercial land values
* This logic chain may then lead on to others, e.g. 2.CPA1 or 3.HOUS.A1/A3			

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
2.INF – Infrastructure			
1.INF.A2 - Highway improvements	2.INF.AM2 - road maintenance activity	2.INF.OP2 - km of roads improved	2.OC9 - Principal roads where maintenance should be considered (NI168)
			2.OC10 - Non-principal classified roads where maintenance should be considered (NI169)
			2.OC11 - Resident satisfaction with road and pavement repairs (Place Survey)
<i>* Note: the outcomes of this logic chain are likely to primarily benefit Priority Outcome 3 (sustainable place) through they may bring image benefits which enhance growth potential</i>			
1.INF.A3 - Traffic calming	2.INF.AM3 - no. and type of traffic calming schemes implemented	2.INF.OP3 - average speeds on target routes	2.OC12 - People killed or seriously injured in road traffic accidents (NI47)
			2.OC13 - Children killed or seriously injured in road traffic accidents (NI48)
<i>* Note: the outcomes of this logic chain are likely to primarily benefit Priority Outcome 3 (sustainable place) through they may bring image benefits which enhance growth potential</i>			
1.INF.A4 - Public transport improvements	2.INF.AM4 - no. of new bus services introduced	2.INF.OP4 - number of passengers on new bus services	2.OC14 - Access to services and facilities by public transport, walking and cycling (NI175)
	2.INF.AM5 - improvements to existing bus services (e.g. frequency, capacity, price)	2.INF.OP5 - increase in passenger numbers on improved bus services	2.OC15 - Working age people with access to employment by public transport (and other specified modes) (NI 176)
	2.INF.AM6 - improvements to local transport information (e.g. real-time information at bus-stops)		2.OC16 - Bus services running on time (NI178)
			2.OC17 - % very/fairly satisfied with local bus services (Place Survey)
			2.OC18 - % very/fairly satisfied with local transport information
			2.OC7 - Congestion - average journey time per mile during the morning peak (NI167)
			2.OC8 - % saying that level of traffic congestion most needs improving
1.INF.A5 - Access to broadband	2.INF.AM7 - Activities to increase the coverage of the broadband network	2.INF.OP6 - % of households with a computer	2.OC19 - Increase in 5 A*-C GCSEs Rate
		2.INF.OP7 - % of households accessing the internet by any means	2.OC20 - Increase in Key Stage Results Rate

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
2.INF – Infrastructure			
		2.INF.OP8 - % of households with broadband internet access	2.OC21 - % Reduction in Claimant Unemployment Rate (16-25 yr olds)
		2.INF.OP9 - % of businesses with broadband internet access	2.OC22 - % Increase in Employment Rate
		2.INF.OP10 - Increase in use of internet by individuals for learning and skills development	2.OC4 - Workplace employment (by SIC)
		2.INF.OP11 - % of businesses with a website	2.OC5 - Gross Value Added
		2.INF.OP12 - % of businesses supplying goods and services using the internet	
* The outcomes of this logic chain link to the business competitiveness outcomes in Theme 1 and the educational attainment outputs of Theme 3			

THEME 3: HOMES, COMMUNITIES AND THE ENVIRONMENT

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.HOUS - Housing growth and Improvement			
3.HOUS.A1 - New build	2.HOUS.AM1 - Hectares of brownfield land cleared by demolition and levelling	3.HOUS.OP1 - No. of new dwellings by tenure type	3.OC1 - Hectares of previously developed land that has been vacant or derelict for more than 5 years (NI170)
	2.HOUS.AM2 - Hectares of contaminated land remediated	3.HOUS.OP2 - No. of new dwellings constructed to Code for Sustainable Homes Level X (where X could be, e.g., 3, 4 or 6)	3.OC2 - % increase in stock of development land (residential)
	2.HOUS.AM3 - Tonnes of Spoil Removed	3.HOUS.OP3 - No. of new dwellings constructed achieving energy efficiency over SAP X (where X could be, e.g., 75, 95 etc.)	3.OC3 - % increase in residential land values
	2.HOUS.AM4 - Hectares of land regraded		3.OC4 - house price change (by property type)
	2.HOUS.AM5 - Length of new site access and on-site roads constructed		3.OC5 - net additional homes provided (NI154)
	2.HOUS.AM6 - Installation of metres of linking and on-site service networks (sewers, water supply, gas, electricity, telecoms)		3.OC6 - no. of affordable homes delivered (gross) (NI155)
	2.HOUS.AM7 - Hectares of land serviced for residential development		3.OC7 - % change in tenure type
	3.HOUS.AM8 - No. of new dwellings constructed		3.OC8 - % of new dwellings built to Code for Sustainable Homes Level X
			3.OC9 - % of new dwellings achieving energy efficiency over SAP 75
			3.OC10 - % of new dwellings achieving energy efficiency over SAP 85
			3.OC11 - % increases in health (respiratory conditions, self reported mental health)
3.HOUS.A2 - Improving existing stock	3.HOUS.AM9 - No of dwellings improved	3.HOUS.OP4 - Proportion of dwellings in private sector that meet the decency standard	3.OC12 - % Reduced residential turnover
		3.HOUS.OP5 - Proportion of dwellings in public sector that meet the decency standard	3.OC13 - More diverse and better balanced local market able to attract socially and economically mixed household intake
		3.HOUS.OP6 - Increased level of satisfaction with landlord	3.OC9 - % of new dwellings achieving energy efficiency over SAP 75
		3.HOUS.OP7 - Increased level of satisfaction with accommodation	3.OC10 - % of new dwellings achieving energy efficiency over SAP 85

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.HOUS - Housing growth and Improvement			
		3.HOUS.OP8 - Wider range of affordable housing options for local residents	3.OC11 - % increases in health (respiratory conditions, self reported mental health)
		3.HOUS.OP9 - Improved residential offer	3.OC4 - house price change (by property type)
		3.HOUS.OP10 - Fewer visible signs of neglect/decay	3.OC14 - % reduction in overall reported crime rate
		3.HOUS.OP11 - Enhanced economic sustainability of the area (broader base, attracting in more economically active households etc)	3.OC15 - % increase in proportion of people trusting neighbours (plus other social capital measures)
		3.HOUS.OP12 - Houses Target Hardened	3.OC16 - % increase in market value of social housing
			3.OC17 - % increase in market value of private housing
			3.OC18 - % increase in market value of estate-based commercial property
			3.OC19 - % Reduction in void rental loss
			3.OC20 - % of Programmed Repair Budgets deferred
			3.OC21 - % Reduction in average household utility bills (gas and electricity)
			3.OC22 - % Savings on ongoing property maintenance costs
			3.OC23 - Increased level of satisfaction with neighbourhood
			3.OC24 - Local authority tenants satisfaction with landlord services (NI160)
3. HOUS.A3 Demolition and New Build	3.HOUS.AM10 - No of dwellings demolished	3.HOUS.OP13 - No. of residents rehoused satisfactorily	3.OC12 - % Reduced residential turnover
	3.HOUS.AM8 - No. of new dwellings constructed	3.HOUS.OP6 - Increased level of satisfaction with landlord	3.OC13 - More diverse and better balanced local market able to attract socially and economically mixed household intake
		3.HOUS.OP7 - Increased level of satisfaction with accommodation	3.OC9 - % of new dwellings achieving energy efficiency over SAP 75
		3.HOUS.OP8 - Wider range of affordable housing options for local residents	3.OC10 - % of new dwellings achieving energy efficiency over SAP 85

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.HOUS - Housing growth and Improvement			
			3.OC11 - % increases in health (respiratory conditions, self reported mental health)
			3.OC4 - house price change (by property type)
			3.OC14 - % reduction in overall reported crime rate
			3.OC15 - % increase in proportion of people trusting neighbours (plus other social capital measures)
			3.OC16 - % increase in market value of social housing
			3.OC22 - % Savings on ongoing property maintenance costs
			3.OC25 - Proportion of dwellings in private sector that meet the decency standard
			3.OC26 - Proportion of dwellings in public sector that meet the decency standard
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
			3.OC28 - Improved residential offer
			3.OC29 - Fewer visible signs of neglect/decay
			3.OC30 - Enhanced economic sustainability of the area (broader base, attracting in more economically active households etc)
3.HOUS.A4 Reducing Homelessness	3.HOUS.AM11 - No of Affordable Homes Constructed	3.HOUS.OP14 - No of individuals entering secure tenure	3.OC31 - Reduction in no of Homeless
	3.HOUS.AM12 - £ Payments to individuals/families	3.HOUS.OP15 - Satisfaction level with accomodation	3.OC32 - Reduction in no. of repeat presentations
	3.HOUS.AM13 - Cases of Advice to individuals/families	3.HOUS.OP16 - Proportion of individuals remaining in secure tenure after 12 months	3.OC33 - No. of households living in temporary accommodation (NI156)

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.COM - Community Development			
3.COM.A1 - Volunteering	3.COM.AM1 - No. of new volunteers (hours per week)	3.COM.OP1 - % New volunteers entering or improving employment	3.OC34 - % increase in formal volunteering
	3.COM.AM2 - Support to new volunteers	3.COM.OP2 - % Supported Volunteers gaining additional qualifications (NVQ1,2+)	3.OC35 - % increase in informal volunteering
	3.COM.AM3 - Support to Volunteer Involving Organisations	3.COM.OP3 No. Additional Services Delivered (e.g. environmental improvement, care support)	3.OC36 - % reduction in claimant unemployment and IB
		3.COM.OP4 - No. reporting increase in confidence	3.OC37 - % of people who believe people from different backgrounds get on well in the local area
		3.COM.OP5 - No. reporting increase social connections	3.OC38 - % of people who believe they belong in their local area
			3.OC39 - % of people who feel they can influence decisions in their locality
			3.OC14 - % reduction in overall reported crime rate
3.COM.A2 - Investment in Community Organisations	3. COM.AM4 - Cases of Support to Local Third Sector Organisations	3.COM.OP6 - No. Additional Services Delivered (e.g. environmental improvement, care support)	3.OC34 - % increase in formal volunteering
	3.COM.AM5 - £ Support to Local Third Sector Organisations	3.COM.OP7 - No. of residents supported	3.OC35 - % increase in informal volunteering
		3.COM.OP8 - No. of other Third Sector Organisations Supported	3.OC36 - % reduction in claimant unemployment and IB
			3.OC37 - % of people who believe people from different backgrounds get on well in the local area
			3.OC38 - % of people who believe they belong in their local area
			3.OC39 - % of people who feel they can influence decisions in their locality
			3.OC14 - % reduction in overall reported crime rate
3.COM.A3 - Formal Participation	3.COM.AM6 - No of Places of Partnerships for local residents	3. COM.OP9 - No. of Residents taking up positions on Partnerships	3.OC40 - % of people who feel they can influence decisions in their locality
		3. COM.OP10 - No. of Residents taking up positions on Neighbourhood and Resident Groups	

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.COM - Community Development			
3.COM.A4 - Community facilities	3.COM.AM7 - No of new or improved community facilities	3. COM.OP11 - No. of residents using new or improved community facilities (by age group) (survey needed for discrete no. of residents, rather than overall utilisation)	3.OC41 - Increase in Quality of Life/Well Being
		3. COM.OP12 - No. of voluntary and community groups making regular use of new or improved community facilities	3.OC34 - % increase in formal volunteering
			3.OC35 - % increase in informal volunteering
			3.OC42 - Increase in Civic Participation

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.ENV - Environmental improvement			
3.ENV.A1 - Open Space	3.ENV.AM1 - Hectares of public open space improved/provided (e.g. urban parks, country parks)	3.ENV.OP1 - No. of (additional) recreational visits or visitors	3.OC43 - Increase in quality of life/wellbeing
	3.ENV.AM2 - No. of new or improved play areas and facilities for teenagers (e.g. skateboard parks)	3.ENV.OP2 - No. of households within immediate vicinity/close proximity (environmental amenity improvement)	3.OC44 - % increase in adjacent residential housing and commercial property values
	3.ENV.AM3 - Hectares of new or improved sport facilities and pitches		3.OC45 - % of people who feel that local environmental quality has improved
			3.OC46 - % increase in physical activity
			3.OC47 - % of residents satisfied or very satisfied with their local area as a place to live
3.ENV.A2 - Community Space	3.ENV.AM4 - Hectares of new or improved community allotments	3.ENV.OP3 - No. of allotment leaseholders	3.OC43 - Increase in quality of life/wellbeing
	3.ENV.AM5 - Hectares of new or improved community gardens	3.ENV.OP4 - No. of (additional) residents participating in community garden schemes	3.OC44 - % increase in adjacent residential housing and commercial property values
	3.ENV.AM6 - No. of new or improved city/urban farms	3.ENV.OP5 - No. of (additional) visits or visitors to city/urban farms	3.OC45 - % of people who feel that local environmental quality has improved
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.ENV - Environmental improvement			
3.ENV.A3 - Nature Reserves	3.ENV.AM7 - No. of new or improved (management) local nature reserves (e.g. woodland, grasslands/meadows, wetland and rivers/lakes)	3.ENV.OP6 - No. of (additional) visits or visitors	3.OC48 - % Local sites where positive conservation management has been or is being implemented (NI 197 - improved local biodiversity)
	3.ENV.AM8 - Hectares of new or improved local nature reserves	3.ENV.OP2 - No. of households within immediate vicinity/close proximity (environmental amenity improvement)	3.OC49 - No. of interventions that deliver biodiversity targets: BAP priority habitats and species (local or national), SSSIs (favourable, unfavourable, declining, recovering)
	3.ENV.AM9 - Km of new or improved nature reserve footpath		3.OC44 - % increase in adjacent residential housing and commercial property values
			3.OC43 - Increase in quality of life/wellbeing
			3.OC45 - % of people who feel that local environmental quality has improved
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
3.ENV.A4 - Public Realm	3.ENV.AM10 - Hectares of public realm (hard surfaced areas) improved/provided	3.ENV.OP7 - Increase in footfall in public areas	3.OC43 - Increase in quality of life/wellbeing
	3.ENV.AM11 - Hectares or km of landscaping ('soft' surfaced areas) of public realm	3.ENV.OP2 - No. of households within immediate vicinity/close proximity (environmental amenity improvement)	3.OC44 - % increase in adjacent residential housing and commercial property values
	3.ENV.AM12 - Km of pedestrian zones/promenades improved/provided		3.OC45 - % of people who feel that local environmental quality has improved
	3.ENV.AM13 - No of public art installations and sculptures provided		3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
3.ENV.A5 - Green Routes	3.ENV.AM14 - Km of new or improved pedestrian path	3.ENV.OP2 - No. of households within immediate vicinity/close proximity (environmental amenity improvement)	3.OC43 - Increase in quality of life/wellbeing
	3.ENV.AM15 - Km of new or improved road or rail corridor	3.ENV.OP8 - No. of (additional) cyclists	3.OC44 - % increase in adjacent residential housing and commercial property values
	3.ENV.AM16 - Km of new or improved cycle route		3.OC45 - % of people who feel that local environmental quality has improved

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.ENV - Environmental improvement			
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
			3.OC50 - % increase in physical activity
3.ENV.A6 - Blue Routes	3.ENV.AM17 - Km of new or improved river and canal bank access	3.ENV.OP1 - No. of (additional) recreational visits or visitors	3.OC43- Increase in quality of life/wellbeing
		3.ENV.OP2 - No. of households within immediate vicinity/close proximity (environmental amenity improvement)	3.OC44 - % increase in adjacent residential housing and commercial property values
			3.OC45 - % of people who feel that local environmental quality has improved
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
			3.OC50 - % increase in physical activity
3.ENV.A7 - Water Quality	3.ENV.AM18 - Km of water body water quality improved (all water bodies - e.g. rivers, lakes, ponds, marine 1km from shore)	3.ENV.OP9 - No. of (additional) visits or visitors to water bodies (informal recreation)	3.OC51 - River quality grade (A-F): chemistry (biological oxygen demand, ammonia, dissolved oxygen), biology (NTAXA, ASPT), nitrates, phosphates
		3.ENV.OP10 - No. of (additional) anglers using water body sites (formal recreation)	3.OC52 - Ecological river quality (European Water Framework Directive status - 2015 predicted quality) - high, good, moderate, poor, bad
		3.ENV.OP2 - No. of households within immediate vicinity/close proximity to improved water bodies (environmental amenity improvement)	3.OC44 - % increase in adjacent residential housing and commercial property values
			3.OC43 - Increase in quality of life/wellbeing
			3.OC53 % of people who feel that local river water quality has improved
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
	3.ENV.AM19 - No of sites where bathing water quality is improved/maintained	3.ENV.OP11 - No. of visits or visitors/additional visits or visitors to beaches	3.OC54 - No. of sites meeting European Bathing Water Directive guideline standard (excellent), or minimum standard (good) or failing minimum standard (poor or closed)

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.ENV - Environmental improvement			
		3.ENV.OP12 - Reduction in no. of individuals suffering gastroenteritis illnesses from contact with sea water	3.OC55 - No. of blue flag beaches and marinas (new or maintained)
			3.OC56 - % of people who feel that local bathing water quality has improved
3.ENV.A8 - Air Quality	3.ENV.AM20 - Reduction in tonnes of air pollutant (nitrogen dioxide, particulates (PM10), sulphur dioxide, benzene)	3.ENV.OP13 - Reduction in no. of individuals suffering respiratory illnesses	3.OC57 - % reduction in NOx and primary PM10 emissions (NI 194 - local authority estate and operations)
		3.ENV.OP14 - No. of households benefitting from air quality improvements	3.OC58 Combined air quality index, nitrogen dioxide index, particulates index (PM10), sulphur dioxide index, benzene index
			3.OC43 - Increase in quality of life/wellbeing
			3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
			3.OC59 - % of people who feel that local air quality has improved

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.NEIGH – Neighbourhood renewal			
3.NEIGH.A1 - Crime Reduction - wardens and community police	3.NEIGH.O1 Neighbourhood Wardens/Community Police (no.)	3. NEIGH.OP1 - No of Cases of Reported Crime	3.OC14 - % reduction in overall reported crime rate
		3. NEIGH.OP2 - No of Cases Signposted to Police/Other Agencies	3.OC60 - Reduction in Fear of Crime
		3. NEIGH.OP3 - No of Residents Supported	3.OC61 - Increase in Arrests/Convictions
			3.OC43 - Increase in Quality of Life/Well Being
3.NEIGH.A2 - Crime Reduction - multi-agency partnership working	3.NEIGH.O2 - Police-Community-Agency Partnership	3. NEIGH.OP4 - No of Partnership Meetings	3.OC14 - % reduction in overall reported crime rate
		3. NEIGH.OP5 - No of Joint Responses/Signposting	3.OC60 - Reduction in Fear of Crime
			3.OC61 - Increase in Arrests/Convictions
			3.OC43 - Increase in Quality of Life/Well Being

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.NEIGH – Neighbourhood renewal			
3.NEIGH.A3 - Crime Reduction - CCTV	3.NEIGH.03 - CCTV Installed (Number of Cameras)	3.NEIGH.OP6 - Cases of Evidence/Intelligence Shared	3.OC14 - % reduction in overall reported crime rate
			3.OC60 - Reduction in Fear of Crime
			3.OC61 - Increase in Arrests/Convictions
			3.OC43 - Increase in Quality of Life/Well Being
			3.OC62 - % Reduction in No. of Crimes in Area
3.NEIGH.A4 - Health Improvement - healthy living	3.NEIGH.04 - Healthy Living Support Programme - additional no. of people supported	3.NEIGH.OP7 - No Making Lifestyle Changes	3.OC63 - Increase in Life Expectancy
		3.NEIGH.OP8 - No Eating "5 A Day"	3.OC64 - Reduction in Rate of Cancer/CHD/Respiratory Failure
			3.OC65 - Increase Participation in the Labour Market
			3.OC43 - Increase in Quality of Life/Well Being
3.NEIGH.A5 - Health Improvement - smoking cessation	3.NEIGH.05 - Smoking Cessation Programmes - additional no. of people supported	3.NEIGH.OP9 - No Stopping Smoking	3.OC63 - Increase in Life Expectancy
			3.OC64 - Reduction in Rate of Cancer/CHD/Respiratory Failure
			3.OC65 - Increase Participation in the Labour Market
			3.OC43 - Increase in Quality of Life/Well Being
3.NEIGH.A6 - Health Improvement - teenage pregnancy	3.NEIGH.06 - Teenage Pregnancy Reduction Programmes - cases of support (through 1:1 mentoring, peer support cases)	3.NEIGH.OP10 - No. of pregnancies among target beneficiaries	3.OC65 - Increase Participation in the Labour Market
			3.OC66 - Increase in Income
			3.OC43 - Increase in Quality of Life/Well Being
			3.OC67 - Reduction in Rate of Teenage Pregnancy

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.NEIGH – Neighbourhood renewal			
3. NEIGH.A7 - Health Improvement - drug & alcohol treatment	3.NEIGH.07 - Drug and Alcohol Treatment Programmes (cases of 1:1 support, mentoring support, no. of drop-in places)	3.NEIGH.OP11 - No reducing alcohol consumption	3.OC63 - Increase in Life Expectancy
		3.NEIGH.OP12 - No stopping use of drugs	3.OC64 - Reduction in Rate of Cancer/CHD/Respiratory Failure
			3.OC65 - Increase Participation in the Labour Market
			3.OC43 - Increase in Quality of Life/Well Being
3.NEIGH.A8 - Health improvement - supportive living	3.NEIGH.08 - Supportive Living Programmes (increased capacity of advisers)	3.NEIGH.OP13 - No of Vulnerable Adults Supported in relation to Housing Needs	3.OC63 - Increase in Life Expectancy
			3.OC64 - Reduction in Rate of Cancer/CHD/Respiratory Failure
			3.OC65 - Increase Participation in the Labour Market
			3.OC43 - Increase in Quality of Life/Well Being
3.NEIGH.A9.Education - truancy	3.NEIGH.09 - Interventions to Reduce Truancy (in classroom support cases, cases of diversionary activities, family support cases)	3.NEIGH.OP14 - No of Fewer Truancies	3.OC66 - Increase in 5 A*-C GCSEs Rate
			3.OC68 - Increase in Key Stage Results Rate
			3.OC69 % Reduction in Claimant Unemployment Rate (16-25 yr olds)
			3.OC70 - % Increase in Employment Rate
3.NEIGH.A10.Education - classroom assistants	3.NEIGH.10 - Additional Classroom Support (no of additional classroom assistants)	3.NEIGH.OP15 - Increase in relevant Key Stage Results by Beneficiary	3.OC66 - Increase in 5 A*-C GCSEs Rate
		3.NEIGH.OP16 - Reduction in Staff-Student Ratios for Schools Assisted	3.OC68 - Increase in Key Stage Results Rate
			3.OC69 % Reduction in Claimant Unemployment Rate (16-25 yr olds)
			3.OC70 - % Increase in Employment Rate

Activity categories and activity type	Activity measures (AM)	Output measures (OP)	Outcome measures (OC)
3.NEIGH – Neighbourhood renewal			
3.NEIGH.A11.Education - raising aspiration mentors	3.NEIGH.11 - No of Raising Aspiration Mentors	3.NEIGH.OP17 - Additional Numbers intending to enter post compulsory education	3.OC66 - Increase in 5 A*-C GCSEs Rate
		3.NEIGH.OP18 - Additional Take up of Higher Education	3.OC68 - Increase in Key Stage Results Rate
			3.OC69 % Reduction in Claimant Unemployment Rate (16-25 yr olds)
			3.OC70 - % Increase in Employment Rate
			3.OC71 - % 16 year olds staying on
			3.OC72 - % of 18/19 year olds entering HE
3.NEIGH.A12.Education - family learning support	3.NEIGH.12 - Family Learning Support - additional capacity supported	3.NEIGH.OP19 - Increase family participation in formal education	3.OC66 - Increase in 5 A*-C GCSEs Rate
		3.NEIGH.OP20 - Increase family participation in informal education	3.OC68 - Increase in Key Stage Results Rate
			3.OC69 % Reduction in Claimant Unemployment Rate (16-25 yr olds)
			3.OC70 - % Increase in Employment Rate
3.NEIGH.A13.Street and environmental cleanliness	3.NEIGH.14 - Change in frequency of street cleansing activity (1 in x week cycle; x times per annum)	3.NEIGH.OP21 - results of surveys of target streets and open spaces using NI195 grading system (Grades A, B, C and D) for each of litter, detritus, graffiti and fly posting	3.OC73 - Improved street and environmental cleanliness (levels of litter, detritus, graffiti and fly posting) (NI195)
	3.NEIGH.15 - Change in frequency of litter picking (measure as above)	3.NEIGH.OP22 - Number of fly tipping incidents dealt with in target area	3.OC74 - Improved street and environmental cleanliness - fly tipping (NI 196)
	3.NEIGH.16 - Average response time for dealing with reported incidents of graffiti	3.NEIGH.OP23 - Number of fly tipping enforcement actions taken against fly-tipping incidents in the target area	3.OC27 - % of residents satisfied or very satisfied with their local area as a place to live
	3.NEIGH.17 - Average response time for dealing with reported incidents of fly tipping	3.NEIGH.OP24 - Number of missed bins per 100,000 collections of household waste	
	3.NEIGH.18 - Measures to reduce the number of missed bins		

Annex B: References from the evidence review

The tables below present the reports that were examined in relation to the evidence review.

General

Authors	Year of publication	Title	Type of report	Location/link
Department for Communities and Local Government/ ODPM	1995	Assessing the Impacts of Spatial Interventions: Regeneration, Renewal and Regional Development 'The 3Rs guidance'	Published report	www.communities.gov.uk/documents/corporate/pdf/146865.pdf
Department for Business, Innovation and Skills	2009	Research to improve the assessment of additionality. Final Report	Published report	BIS Occasional Paper No. 1 www.berr.gov.uk/files/file53196.pdf
Department for Business, Innovation and Skills	2009	RDA Evaluation: Practical guidance on implementing the Impact Evaluation Framework	Published report	www.berr.gov.uk/files/file54096.pdf
Department for Business, Innovation and Skills	2005	England's Regional Development Agencies RDA Corporate Plans for 2005-2008 Tasking Framework.	Published report	www.bis.gov.uk/files/file26126.pdf
English Partnerships	2008	Additionality Guide: A standard approach to assessing the additional impact of interventions. Method Statement. (version 3)	Published report	www.urcs-online.co.uk/webmaster3/files/urcs/website/backgroundDocuments/Document/Additionality%20Guide.pdf
HM Treasury	2008	The Green Book. Appraisal and evaluation in central government	Published report	www.hm-treasury.gov.uk/d/green_book_complete.pdf
HM Treasury	1995	A framework for the evaluation of regeneration projects and programmes	Published report	www.offpat.info/download.aspx?id=301
Urban Task Force	2005	Towards a strong urban renaissance	Published report	Independent report for Communities and Local Government www.urbantaskforce.org/UTF_final_report.pdf

Worklessness, skills & training and enterprise & business development

Authors	Year of publication	Title	Type of report	Location/link
Adam s, Bozio A, Emmerson C, Greenberg D and Knight G	2008	A cost-benefit analysis of Pathways to Work for new and repeat incapacity benefits claimants'	DWP Research Report 498	http://research.dwp.gov.uk/asd/asd5/rports2007-2008/rrep498.pdf http://research.dwp.gov.uk/asd/asd5/summ2009-2010/612summ.pdf
Alan Brazewell Economics Ltd; IBP Strategy and Research	2005	Evaluation of the impact of Business Growth services 2003-05	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=183
Alan Brazewell Economics Ltd; IBP Strategy and Research	2004	Evaluation of the Business Gateway Fife Start-Up Service	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=190

Authors	Year of publication	Title	Type of report	Location/link
Amion Consulting	2005	Evaluation of South West Manufacturing Advisory Service (SWMAS)	Published report	pdf
Barrell R, Kirby S, Riley R and van Welsum D	2003	Evaluating Labour Market Policies Aimed at Reducing the Number of Benefit Recipients	Published report	National Institute of Economic and Social Research, London http://research.dwp.gov.uk/asd/asd5/ih2003-2004/IH124.pdf
BERR	2008	Eval of DTI support for Biotechnology	Published report	hard copy
Biggar Economics	2008	Evaluation of NEXXUS: the West of Scotland Bioscience Network	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=97
Biggar Economics	2006	Evaluating the impact of One NE	published report	pdf
Biggar Economics	2006	Evaluation of the Scottish Semiconductor Supplier Forum Network: final report	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=63
Biggar Economics	2005	Evaluation of Innovation Support Programme: a final report	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=60
Biggar Economics	2004	Evaluation of Scottish Enterprise Borders' response to Foot and Mouth disease: a final report to Scottish Enterprise Borders	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=104
Blundell, R, Dearden, L. Meghir, C. and Sianesi, B.	1999	Human capital investment: the returns to education and training to the individual, the firm and the economy.	Peer reviewed paper	Fiscal Studies 20, 1-23
Brenda Graham Assocs	2005	Evaluation of Profit through Procurement programme	Published report	PDF
Cambridge Economic Associates	2009	NDC programme: Outputs and Expenditure over the period 1999-2007	Published report?	hard copy
Cambridge Policy Consultants	2002	Activity-based impact model: estimates of SE Network performance 2001-02	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=5
Cebulla A and Fiore G (with Greenberg D)	2008	The New Deal for Lone Parents, Lone Parent Work Focused Interviews and Working Families' Tax Credit: A review of impacts. Research Report No. 484	Published report	DWP, Leeds http://research.dwp.gov.uk/asd/asd5/rports2007-2008/rrep484.pdf
Centre for Economics in Education (LSE)	various	Various	Published reports	http://cee.lse.ac.uk/pubs/default.asp link to their publications above
Convery P.	2009	Welfare to Work – from special measures to 80 per cent employment.	Peer reviewed paper	<i>Local Economy</i> , 24, 1-27
Cummings C, Dyson A, Muijs D, Papps I, Pearson D, Raffo C, Tiplady L and Todd L (with Crowther D)	2007	Evaluation of the Full Service Extended Schools Initiative: Final Report. DFES Research Report No 852	Published report	University of Manchester, Manchester www.dcsf.gov.uk/research/data/uploadfiles/RR852.pdf
De Coulon A. and Vignoles A	2008	An analysis of the benefit of NVQ2 Qualifications acquired at age 26-34.	Published report	Centre for the Economics of Education, London.
Dearden, L., McGranahan, L. and Sianesi, B..	2005	Returns to Education to the Marginal Learner: Evidence from the British Cohort Study 1970. Discussion Paper 45.	Peer reviewed paper	Centre for the Economics of Education, LSE, London http://cee.lse.ac.uk/cee%20dps/ceedp45.pdf
Dearden, L., McIntosh, S. Myck, M. And Vignoles A.	2000	The Returns to Academic Vocational and Basic Skills in Britain, Department for Education and Employment, London;	Published report	Department for Education and Employment, London;
Department for Business, Innovation & Skills	2009	RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework	Published report	www.berr.gov.uk/files/file54095.pdf

Authors	Year of publication	Title	Type of report	Location/link
Department for Education and Skills	2003	Education and Skills: the economic benefit	Published report	www.dcsf.gov.uk/rsgateway/DB/ECO/e000998/Eco_Social_Text.pdf
Department for Work & Pensions	2010	Non-market time in Cost Benefit Analysis	Working papers	DWP, London
Department for Work & Pensions	2010	Product Market Corrector in Cost Benefit Analysis	Working papers	DWP, Central Analysis Division, London
Department for Work & Pensions	2010	General equilibrium effects in Cost Benefit Analysis	Working papers	DWP, Central Analysis Division, London
Department for Work & Pensions	2010	Distributional weights in Costs Benefit Analysis	Working papers	DWP, Central Analysis Division, London
Department for Work & Pensions	2010	Multiplier effects in Cost Benefit Analysis	Working papers	DWP, Central Analysis Division, London
Department for Work & Pensions	2010	Taking account of in-work costs in Cost Benefit Analysis	Working papers	DWP, London
Department for Work & Pensions	2010	Social cost of public finance (SOCF) in Cost Benefit Analysis	Working papers	DWP, Central Analysis Division, London
Dept of Land Economy [in association with Cambridge Econometrics and Educe Ltd].	2009	The Working Neighbourhoods Fund Scoping Study. Worklessness and how WNF is being used to tackle it'.	Published report	For Communities and Local Government. University of Cambridge, Cambridge.
Dickerson A. and Vignoles A.	2007	The Distribution and Returns to Qualifications in the Sector Skills Councils	Peer reviewed paper	Research Report 21, SSDA, Wath-upon-Deane.
DTZ	2007	Evaluation of the Manufacturing Advisory Service	Published report	Pdf
DTZ Consulting and Research	2007	Prince's Scottish Youth Business Trust (PSYBT): evaluation of impact and strategic contribution	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=89
DTZ Consulting and Research	2007	Re-evaluation of the Business Start-up Award for the 18-30s 2007 survey	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=90
DTZ Pidea Consulting	2006	Review of the Business Start-Up Award for the 18-30s	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=92
EKOS Ltd	2008	Evaluation of the Single Regeneration Budget in the West Midlands	Published report	pdf
EKOS Ltd	2008	Perth Concert Hall and Perth Theatre impact assessment	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=33
EKOS Ltd	2007	Evaluation of Scottish Large Company R&D Plus Scheme	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=93
EKOS Ltd	2007	Evaluation of Scottish Food and Drink Information Service	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=29
EKOS Ltd	2007	Evaluation of Scottish Enterprise Technology Park (SETP)	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=36
EKOS Ltd	2006	Evaluation of The Research Centre (Media Innovation Support Programme Phase 3)	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=184
EKOS Ltd	2006	Evaluation of Stirling University Innovation Park Operations 1996 – 2005 Final Report for Scottish Enterprise Forth Valley	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=72
EKOS Ltd	2005	Evaluation of Rolls-Royce Project ACE	Published	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=72

Authors	Year of publication	Title	Type of report	Location/link
			report	tion=show&id=62
EKOS Ltd	2004	e-Business Initiative evaluation	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=4
EKOS Ltd	2004	Evaluation of impact of International Rugby Board Under 21 World Championship	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=277
EKOS Ltd	2004	Mentoring and New Product Development	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=187
EKOS Ltd	2003	Economic impact of Scottish Opera and the Theatre Royal: report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=243
EKOS Ltd	2002	Evaluation of Targeting Technology Limited	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=155
EKOS Ltd	2001	Evaluation of Profit Through Knowledge Programme: final report for Scottish Enterprise Glasgow	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=116
EKOS Ltd	2001	Evaluation of BSUSS	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=189
Felstead A., Gallie D., Green F., and Zhou Y.	2007	Skills at Work, 1986 to 2006.	Book	SKOPE, Universities of Oxford and Cardiff.
Freud D	2007	Reducing dependency, increasing opportunity: options for the future of welfare to work.	Published report	For the Dept for Work and Pensions, HMSO, Norwich. www.dwp.gov.uk/policy/welfare-reform/legislation-and-key-documents/freud-report/
Frontline Consultants	2008	Evaluation of TalentScotland: report for Scottish Enterprise	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=38
Frontline Consultants	2007	Evaluation of Globalscot	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=74
Frontline Consultants	2006	Evaluation of the Tourism Innovation Approach	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=186
Frontline Consultants	2002	Hillington Park Innovation Centre evaluation: final report for Scottish Enterprise Renfrewshire	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=125
Frontline Consultants	2004	Evaluation of leadership programmes	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=82
Frontline Consultants; Alan Brazewell Economics Ltd	2005	Evaluation of High Growth Start-up Service: final report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=59
Frontline Consultants; Alan Brazewell Economics Ltd	2005	Review of the SE High-Growth Start-Up Unit: final report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=59
Fujiwara, D. 2010.	2010	The Department for Work and Pensions Social Cost-Benefit Analysis Framework: Methodologies for estimating and incorporating the wider economic and social impacts of work in cost-benefit analyses of employment programmes	Published report	Dept for Work and Pensions
GEN Consulting	2006	Evaluation of Spends and Trends 2004: a report to Scottish Enterprise Energy Team	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=44
GEN Consulting	2004	Evaluation of eLearninternational	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=290

Authors	Year of publication	Title	Type of report	Location/link
GEN Consulting; O'Herlihy and Co Ltd; Research Resource	2005	Evaluation of internationalisation support: a final report to Scottish Enterprise Lanarkshire	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=83
GEN Consulting; O'Herlihy and Co	2008	Evaluation of University to SME Technology Transfer in Opto and Microelectronics (TTOM)	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=94
GEN Consulting; Research Resource	2006	Evaluation of Decommissioning supply chain engagement project	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=43
Green A.E. and Hasluck C.	2009	Action to reduce worklessness: what works?',	Peer reviewed paper	<i>Local Economy</i> , 24, 28-37.
Greenberg D and Knight G	2007	Review of the DWP Cost Benefit and how it has been applied. Working Paper No. 40	Published report	DWP, Leeds http://research.dwp.gov.uk/asd/asd5/WP40.pdf
Griggs J., Whitworth A., Walker R., McLennan D. and Noble M.	2008	Person- or place-based policies to tackle disadvantage? Not knowing what works.	Published report	www.jrf.org.uk/sites/files/jrf/2176-policies-people-place.pdf
Hall Aitken	2006	The social and economic impacts of regional casinos in the UK	Published report	www.culture.gov.uk/CAP/eip/eip_docs/blackpool/post_info/Hall_Aitken.pdf , www.culture.gov.uk/Cap/eip/eip_docs/blackpool/post_info/Hall_Aitken_part_two.pdf
Hall Aitken	2003	Ayrshire Internationalisation Programme evaluation 2001 – 2003	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=163
Hansson B.	2008	Job Related Training and benefits for Individuals: A Review of Evidence and Explanations,	Peer reviewed paper	OECD Education Working Paper 19.
Hasluck C. and Green A.	2007	What Works for Whom? A Review of Evidence and Meta-Analysis,	Published report	DWP Research Report 407. Leeds: Corporate Document Services.
Hasluck C., Bimrose J., Barnes S-A, Brown J., Marris L., McGivern G, Orton M. and White R.	2006	Evaluation of Skills Coaching trials and Skills Passports: A synthesis of qualitative and quantitative evidence' DWP Research Report 391	Research report	http://research.dwp.gov.uk/asd/asd5/rports2005-2006/rep391.pdf http://research.dwp.gov.uk/asd/asd5/summ2005-2006/391summ.pdf
Hayton K (Hayton Consulting); Graham Thom, Vincent Percy, Chris Boyd, Kathleen Latimer (GEN Consulting)	2008	Evaluation of the Scottish Co-Investment Fund: a report to Scottish Enterprise	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=32
Jenkins A, Greenwood C and Vignoles A	2007	The Returns to Qualifications in England: Updating the Evidence Base on Level 2 and Level 3 Vocational Qualifications. Discussion paper 89	Published report	Centre for the Economics of Education, LSE, London http://eprints.lse.ac.uk/19378/1/The_Returns_to_Qualifications_in_England_Updating_the_Evidence_Base_on_Level_2_and_Level_3_Vocational_Qualifications.pdf
Keep E (2007)	2007	Skills and economic justice, <i>Issues Paper</i> 16,	Published report	SKOPE, Universities of Oxford and Cardiff.
Kellard, K., Adelman, L., Cebulla, A and Heaven, C.	2002	From Job Seekers to job keepers: job retention, advancement and the role of in-work support programmes. DWP Research Report 170	Research report	http://research.dwp.gov.uk/asd/asd5/rrep170.pdf
Knight G.	2009	The skeleton of evidence: A comment on a review of evidence for DWP, PSI, London.	Published report	www.psi.org.uk/waew/sessions/1/Comment_GKH.ppt

Authors	Year of publication	Title	Type of report	Location/link
Lawlor, E; Nicholls, J (New Economics Foundation)	2008	Hitting the target, missing the point: how government regeneration targets fail deprived areas	Research Paper	www.neweconomics.org/publications/hitting-the-target
Learning and Skills Council	2008	Train to Gain employer evaluation: Sweep 1 Research Report	Published report	http://readingroom.lsc.gov.uk/Lsc/National/nat-ttgemployerevaluation-may08.PDF
Leitch S	2006	Prosperity for all in the global economy – world class skills. Leitch Review of Skills for HM Treasury, 2006.	Published report	http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/d/leitch_finalreport051206.pdf
McIntosh S	2004	Further analysis of the returns to academic and vocational qualifications. Discussion paper 35	Published report	Centre for the Economics of Education, LSE, London http://eprints.lse.ac.uk/19472/1/Further_Analysis_of_the_Returns_to_Academic_and_Vocational_Qualifications.pdf
McIntosh S and Vignoles A	2000	Measuring and assessing the impact of basic skills on labour market outcomes. Discussion Paper 3	Published report	Centre for the Economics of Education, LSE, London http://eprints.lse.ac.uk/19557/1/Measuring_and_Assessing_the_Impact_of_Basic_Skills_on_Labour_Market_Outcomes.pdf
Morrell G., Hales J., Barnard M., Tait C. and Tipping S	2009	A scoping study on the added value of a longitudinal survey of working age customers of Jobcentre Plus and the Pension, Disability and Carers Service. DWP Research Report 612.	Research report	http://research.dwp.gov.uk/asd/asd5/rports2009-2010/rrep612.pdf
National Audit Office	2007	Helping people from worklessness into work	Published report	http://www.nao.org.uk/publications/0607/helping_the_workless_into_work.aspx
ODPM	2004	Ex post eval of English, Scottish & Welsh Obj 5b progs	Published report	hard copy
O'Herlihy and Co Ltd	2005	Evaluation of Wireless Innovation Centre	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=48
O'Herlihy and Co Ltd	2003	Evaluation of inward investment in Forth Valley 1997 – 2002: final report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=169
O'Herlihy and Co Ltd	2001	Evaluation of the Scottish Offshore Achievement Awards: draft report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=46
O'Herlihy and Co Ltd; BiGGAR Economics	2003	Evaluation of High Growth Start-Ups	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=182
ONS	various	Regional Accounts	Published reports	www.statistics.gov.uk/statbase/Product.asp?vlnk=7359
Policy Studies Institute (Genevieve Knight)		The skeleton of evidence: a comment on a review of evidence for the DWP	Slide presentation	www.psi.org.uk/waew/sessions/1/Comment_GKH.ppt#1
Powdthavee N and Vignoles A	2006	Using Rate of Return Analyses to Understand Sector Skill Needs. Discussion Paper 70	Published report	Centre for the Economics of Education, LSE, London http://eprints.lse.ac.uk/19408/1/Using_Rate_of_Return_Analyses_to_Understand_Sector_Skill_Needs.pdf
PricewaterhouseCoopers LLP	2009	Impact of RDA spending: national report. Volume 1. Main report. Volume 2 appendices	Published report	Report for Department for Business, Innovation and Skills. http://bis.ecgroup.net/Publications/RegionalEconomicDevelopment/RegionalDevelopmentAgencies.aspx
PricewaterhouseCoopers LLP	2008	Kelvin Institute Evaluation: final report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=40
PricewaterhouseCoopers LLP	2008	Edinburgh Stanford Link Evaluation: final report	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=41
PricewaterhouseCoopers	2005	The Economic Benefits of Higher Education Qualifications,	Published report	Report for the Royal Society of Chemistry and the Institute of Physics.

Authors	Year of publication	Title	Type of report	Location/link
RDA 1		People and skills	Unpublished report	
RDA 1		Regeneration Zones	Unpublished report	
RDA 1		High Technology Corridors	Unpublished report	
RDA 1		Premium automotive research and development (PARD) programme	Unpublished report	
RDA 1		Clusters Programme (AWM)	Unpublished report	
RDA 1		Mercia Spinner	Unpublished report	
RDA 1		Rover and MG Rover Task Force	Unpublished report	
RDA 2		Business premises	Unpublished report	
RDA 2		EPIC	Unpublished report	
RDA 2		Capital projects	Unpublished report	
RDA 2		Workforce Development	Unpublished report	
RDA 2		Investing in Communities	Unpublished report	
RDA 2		Construction Skills	Unpublished report	
RDA 2		University of Essex in Southend	Unpublished report	
RDA 2		Early Stage Business Support	Unpublished report	
RDA 2		Attraction of Inward Investment	Unpublished report	
RDA 2		Rural Business Support	Unpublished report	
RDA 2		Innovation Capital	Unpublished report	
RDA 2		Innovation Revenue	Unpublished report	
RDA 2		Sustainable Consumption and Production (SCP)	Unpublished report	
RDA 3		Site Development – Commercial	Unpublished report	
RDA 3		Site Development – Industrial	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 3		Site Development – Mixed	Unpublished report	
RDA 3		Site Development – Housing	Unpublished report	
RDA 3		Acquisition Plus	Unpublished report	
RDA 3		Disposal	Unpublished report	
RDA 3		Reclamation	Unpublished report	
RDA 3		Reclamation plus	Unpublished report	
RDA 3		Site Development – Crime Reduction Initiative	Unpublished report	
RDA 3		Acquisition	Unpublished report	
RDA 3		Centres of Excellence	Unpublished report	
RDA 3		Technology Centre	Unpublished report	
RDA 3		Site Development – Public Realm Improvement	Unpublished report	
RDA 3		Site Development – Community, Sports and Training Facilities	Unpublished report	
RDA 3		Transport Infrastructure	Unpublished report	
RDA 3		"Other projects"	Unpublished report	
RDA 3		EMDA - Business support	Unpublished report	
RDA 3		Inward investment and trade promotion	Unpublished report	
RDA 3		Boosting demand for the region's agricultural products	Unpublished report	
RDA 3		ICT Adoption and connectivity	Unpublished report	
RDA 3		Promoting Trade Opportunities	Unpublished report	
RDA 3		Initiative to develop renewables	Unpublished report	
RDA 4	2008	Supply London and London Value Chain Interim Impact Evaluation	Unpublished report	pdf
RDA 4	2008	Impact evaluation of Heathrow City Enterprise Project	Unpublished report	pdf

Authors	Year of publication	Title	Type of report	Location/link
RDA 4	2008	Collage Arts Economic Impact Evaluation	Unpublished report	pdf
RDA 4	2008	Thames Gateway Jobnet Interim Impact Evaluation	Unpublished report	pdf
RDA 4		Wembly / Park Royal: Physical regen	Unpublished report	
RDA 4		Rich Mix Centre	Unpublished report	
RDA 4		London Riverside: Physical regen	Unpublished report	
RDA 4		Woolwich North Bexley: Physical regen	Unpublished report	
RDA 4		Laban Dance Centre	Unpublished report	
RDA 4		Bernie Grant Centre	Unpublished report	
RDA 4		London Riverside: People & skills	Unpublished report	
RDA 4		Wembly / Park Royal: People & skills	Unpublished report	
RDA 4		Woolwich / North Bexley: People & skills	Unpublished report	
RDA 4		ESF Co-Financing Programme	Unpublished report	
RDA 4		Non-ESF RSP Inclusion Programme	Unpublished report	
RDA 4		ESF Opportunities Round 1	Unpublished report	
RDA 4		Non-ESF Opportunities Round 1	Unpublished report	
RDA 4		Refugee and Migrant Qualifications	Unpublished report	
RDA 4		On Your Marks	Unpublished report	
RDA 4		STEP	Unpublished report	
RDA 4		ESF RSP Productivity Programme	Unpublished report	
RDA 4		Non-ESF RSP Productivity Programme	Unpublished report	
RDA 4		ESF RSP Inclusion Programme	Unpublished report	
RDA 4		Access to finance	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 4		Wembley/Park Royal	Unpublished report	
RDA 4		London Riverside	Unpublished report	
RDA 4		Woolwich/North Bexley	Unpublished report	
RDA 4		BioLondon	Unpublished report	
RDA 4		Jump Start	Unpublished report	
RDA 4		Pre-commercial fund	Unpublished report	
RDA 4		Secondment into Knowledge	Unpublished report	
RDA 4		Up and running	Unpublished report	
RDA 4		Business London	Unpublished report	
RDA 4		British Library business and IP centre	Unpublished report	
RDA 5		SRB: Hyndburn PACT	Unpublished report	
RDA 5		SRB: Beacons East Manchester (Round 5)	Unpublished report	
RDA 5		Kingsway Project, Widnes	Unpublished report	
RDA 5		Ancoats Regeneration Programme	Unpublished report	
RDA 5		Barrow Call Centre	Unpublished report	
RDA 5		Liverpool Commercial District	Unpublished report	
RDA 5		The Regional Strategic Sites Programme	Unpublished report	
RDA 5		Whitemoss Business Park	Unpublished report	
RDA 5		West Lakes Renaissance	Unpublished report	
RDA 5		Futures Park, Bacup	Unpublished report	
RDA 5		Historic River Wall, Chester	Unpublished report	
RDA 5		LV Public Realm Interim	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 5		BESS programme	Unpublished report	
RDA 5		Project Unity	Unpublished report	
RDA 5		URC Whitworth Media Technology centre	Unpublished report	
RDA 5		Lancaster University leadership centre	Unpublished report	
RDA 5		Maximising opportunity in Warrington	Unpublished report	
RDA 5		Blackburn Town Centre Renaissance (TCR) programme	Unpublished report	
RDA 5		Cheshire Rural Recovery Programme	Unpublished report	
RDA 5		Sefton Village Partnership	Unpublished report	
RDA 5		Lancashire Rural Recovery Programme	Unpublished report	
RDA 5		West Lancashire Investing in business programme	Unpublished report	
RDA 5		InfoLab21 Programme	Unpublished report	
RDA 5		Salford Start 2 Centre Managed Workspaces	Unpublished report	
RDA 5		Powder Ject Project	Unpublished report	
RDA 5		Higher Education Innovation Funds Round 2 (HEIF2)	Unpublished report	
RDA 5		Agenda for Change	Unpublished report	
RDA 5		Clusters Programme (NWDA)	Unpublished report	
RDA 5		Liverpool Digital Project	Unpublished report	
RDA 5		BREW Programme	Unpublished report	
RDA 5		ENWORKS NW Minimisation Project	Unpublished report	
RDA 5		East Manchester Economic Programme	Unpublished report	
RDA 5		Infrastructure work at Arvato Gravure Printing Site, Speke	Unpublished report	
RDA 5		Quinn Glass, former Ince Power Station	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 5		NW Business Investment Funds	Unpublished report	
RDA 5		Daresbury Science and Innovation Centre (SIC)	Unpublished report	
RDA 5		Project Access	Unpublished report	
RDA 5		The North West Science Fund	Unpublished report	
RDA 5		Bio Investments	Unpublished report	
RDA 5		ICT Aimes Project	Unpublished report	
RDA 5		National Bio-manufacturing Centre	Unpublished report	
RDA 5		Regional Rural Programme	Unpublished report	
RDA 6	2008	A programme-level evaluation of ONE North East's quality of places activities 2002-7	Unpublished report	pdf
RDA 6		ONE NE economic inclusion programme	Unpublished report	
RDA 6		ONE NE skills and higher education	Unpublished report	
RDA 6		Access to finance	Unpublished report	
RDA 6		A review of ONE NE Sectors programme	Unpublished report	
RDA 6		IEF impact evaluation of the business theme - enterprise support	Unpublished report	
RDA 6		E-business programme evaluation	Unpublished report	
RDA 6		Midas project evaluation	Unpublished report	
RDA 7		Physical Regeneration (employment led schemes)	Unpublished report	
RDA 7		Physical Regeneration (residential led schemes)	Unpublished report	
RDA 7		Physical Regeneration (Public Realm)	Unpublished report	
RDA 7		Sea Space	Unpublished report	
RDA 7		Strategic sites evaluation (Chatham Maritime)	Unpublished report	
RDA 7		Innovation Infrastructure (Managed workspaces)	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 7		St Cross Business Park	Unpublished report	
RDA 7		Skills and employability (S&E)	Unpublished report	
RDA 7		Skills and employability (S&E)	Unpublished report	
RDA 7		Area Programmes	Unpublished report	
RDA 7		Skills and Employability - Infrastructure	Unpublished report	
RDA 7		Area investment framework	Unpublished report	
RDA 7		Individual Enterprise Support	Unpublished report	
RDA 7		Business Competitiveness (Trade)	Unpublished report	
RDA 7		Business Competitiveness (Inward Investment)	Unpublished report	
RDA 7		Innovation infrastructure (Knowledge Transfer and R&D)	Unpublished report	
RDA 7		Business Competitiveness (Sector Support)	Unpublished report	
RDA 8		Sites and Premises: <i>Workspace</i>	Unpublished report	
RDA 8		Rural Renaissance	Unpublished report	
RDA 8		The Eden Project	Unpublished report	
RDA 8		Advanced Engineering Skills	Unpublished report	
RDA 8		Skills EIR: Infrastructure	Unpublished report	
RDA 8		Skills EIR: Skills development for individuals	Unpublished report	
RDA 8		Relocation of Gloucester FE College	Unpublished report	
RDA 8		Skills EIR: Skills development for firms	Unpublished report	
RDA 8		Genesis - Somerset Sustainable Construction Centre	Unpublished report	
RDA 8		Gloucestershire Floods	Unpublished report	
RDA 8		Sites and Premises: <i>Incubation facilitates and science parks</i>	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 8		Enterprise Pavilion	Unpublished report	
RDA 8		SW Food and Drink	Unpublished report	
RDA 8		ICT as an Economic Enabler	Unpublished report	
RDA 8		Business EIR: <i>Technology and R&D</i>	Unpublished report	
RDA 8		Coral Reef	Unpublished report	
RDA 8		Tamar Science Park	Unpublished report	
RDA 8		Business EIR: <i>Sector Based Support</i>	Unpublished report	
RDA 9	2008	Evaluation of the Phase one restoration of Wentworth Castle and Stainborough Park	Unpublished report	pdf
RDA 9		Renaissance Market	Unpublished report	
RDA 9		Holbeck Urban Village	Unpublished report	
RDA 9		Renaissance Towns and cities	Unpublished report	
RDA 9		Hull Quays	Unpublished report	
RDA 9		South Yorkshire Transitional Labour Market Mid Term Evaluation	Unpublished report	
RDA 9		Directions Finningly	Unpublished report	
RDA 9		West Yorkshire Skills Programme	Unpublished report	
RDA 9		Graduates Yorkshire	Unpublished report	
RDA 9		Barnsley University	Unpublished report	
RDA 9		South Yorkshire Social Infrastructure Programme	Unpublished report	
RDA 9		E-Business unlimited	Unpublished report	
RDA 9		South Yorkshire Design works	Unpublished report	
RDA 9		York and North Yorkshire Business Support and Enterprise Programme	Unpublished report	
RDA 9		Targeted Export support service	Unpublished report	

Authors	Year of publication	Title	Type of report	Location/link
RDA 9		Broadband Gap and NYnet	Unpublished report	
RDA 9		BREW / Resource Efficiency	Unpublished report	
RDA 9		Cluster Support YF	Unpublished report	
Dept of Land Economy (Rhodes J, Tyler P, Brennan A, Otero-García, M, Stevens, S, Warnock, C, Duffy B and Williams, R)	2009	The Single Regeneration Budget: Final evaluation	Published report	www.landecon.cam.ac.uk/research/reuag/uars/pdf/part1_final_eval_feb_07.pdf www.landecon.cam.ac.uk/research/reuag/uars/pdf/part2_final_eval_feb_07.pdf www.landecon.cam.ac.uk/research/reuag/uars/pdf/part3_final_eval_feb_07.pdf www.landecon.cam.ac.uk/research/reuag/uars/pdf/annexes_10april.pdf
Roger Tym and Partners	2006	Evaluation of Faulds Park	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=239
Roger Tym and Partners; Knight Frank	2004	Evaluation of Strathclyde Business Park	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=47
SES (the Sunderland Common Ownership Enterprise Resource Centre Ltd)	2008	Improving livelihoods through enterprise: full social accounts 2007/08	Newsletter	www.ses.coop/images/Reports/ses_social_accounts_newsletter.pdf
SQW Limited	2004	Evaluation of the Inverclyde Business Store	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=22
SQW Limited; Alan Brazewell Economic Consultancy (ABEC); T L Dempster Strategy and Research	2002	Evaluation of support to Account and Client Managed companies - final report to Scottish Enterprise Lanarkshire	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=121
SQW Limited; Alan Brazewell Economic Consultancy; T L Dempster	2002	Assessing the impact of the Business Development Strategy	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=25
SQW Limited; NFO WorldGroup	2004	MTV Europe music awards Edinburgh 03: a final report to City of Edinburgh Council, Scottish Enterprise Edinburgh and Lothian and EventScotland	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=52
Tyler P	1993	Enterprise Zones: the British experience". International Economic Insights, Vol. 4, No. 3. Department of the Environment (1995) Final evaluation of Enterprise Zones,	Published report	by PA Cambridge Economic Consultants in association with Richard Ellis and Gillespies, London: HMSO
yellow book	2001	Small Company Innovation Scheme	Published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=127
York Consulting, Amion Consulting	2008	Impacts & Outcomes of NRF	Published report	hard copy

Commercial property

Authors	Year of publication	Title	Type of report	Location/link
Adair, A, Berry, , McGreal, S, Hutchison, N, Watkins, C and Gibb, K	2003	Urban regeneration and property investment performance	Journal Article	Journal of Property Research, 20: 4, 371-386
Adair, A; Hutchison, N; Burgess, ; Roulac, S	2005	The appraisal of urban regeneration land: A contemporary perspective allowing for uncertainty	Journal Article	Journal of Property Investment & Finance, Vol. 23 No. 3, pp. 213-233
Bond, Sandy	2001	Stigma assessment: the case of a remediated contaminated site	Journal Article	Journal of Property Investment & Finance, Vol. 19 No. 2, pp. 188-210.
Cambridge Economic Associates	2009	NDC programme: Outputs and Expenditure over the period 1999-2007	Published report?	hard copy
Cambridge Economic Associates	2007	HMR evaluation - VFM issues	Published report	hard copy
Centre for Urban Policy Studies (Manchester)	1998	Impact of the Urban Development Corporations in Leeds, Bristol and Central Manchester	published report	Department for Communities and Local Government
Communities and Local Government	2009	Land use change statistics/Live Tables	Published data	www.communities.gov.uk/planningandbuilding/planningbuilding/planningstatistics/livetables/landusechange/
De Sousa, Christopher A; Wu, Changshan; Westphal, L M	2009	Assessing the effect of publicly assisted brownfield redevelopment on surrounding property values	Journal Article	Economic Development Quarterly, Vol 23 No 2 May, pp95-110
EKOS Ltd	2008	Evaluation of the Single Regeneration Budget in the West Midlands	published report	pdf
EKOS Ltd	2003	Property 'Gap Funded' interventions: evaluation - final report for Scottish Enterprise Borders	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=127
EKOS Ltd	2002	Granton Waterfront economic impact appraisal	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=281
Francis, L; and Thomas, H	2006	Evaluating property-led initiatives in urban regeneration: tracing the vacancy chains in Cardiff Bay	Journal Article	Local Economy, Vol 21 No 1 Feb, pp49-64
Hardisty, P E; Ozdemiroglu, E; Arch, S	2008	Sustainable remediation: including the external costs of remediation	Journal Article	Land Contamination and Reclamation, Vol 16 No 4, Oct, pp307-317
Homes and Communities Agency	various	National Land Use database	Databse	www.homesandcommunities.co.uk/NLUD
Nappi-Choulet, I, Maleyre, I and Maury, Tristan-Pierre	2007	A Hedonic Model of Office Prices in Paris and its Immediate Suburbs	Journal Article	Journal of Property Research, 24: 3, 241-263
National Audit Office	2009	Regenerating the English Coalfields	published report	National Audit Office
ODPM	2004	Ex post eval of English, Scottish & Welsh Obj 5b progs	published report	hard copy
ONS	various	Regional Accounts	Published reports	www.statistics.gov.uk/statbase/Product.asp?vlnk=7359
PACEC	2000	WDA Evaluation of the Town Improvement Grants and Urban Investment Grants	published report	Pdf
PACEC	1995	Final Evaluation of Enterprise Zones	published report	Department for Communities and local Government

Authors	Year of publication	Title	Type of report	Location/link
Robson, B T, Bradford M G and Deas I A	1999	"Beyond the boundaries: vacancy chains and the evaluation of urban development corporations," Environment and Planning A,	Peer reviewed paper	Environment and Planning A, Pion Ltd, London, vol. 31(4), pages 647-664, April. http://ideas.repec.org/a/pio/envira/v31y1999i4p647-664.html
Roehl, KE; Gregolec, G	2005	Implementation of remediation technologies - theory and practice	Journal Article	Land Contamination and Reclamation, Vol 13 No 2 Apr, pp123-135
Roger Tym and Partners; Knight Frank	2004	Evaluation of Strathclyde Business Park	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=47
Roger Tym and Partners; Knight Frank	2004	Final evaluation of the Lanarkshire Enterprise Zone	published report	www.evaluationsonline.org.uk/evaluations/Search.do?ui=basic&action=show&id=122
Roger Tym and Partners; Knight Frank	1998	Urban Development Corporations: Performance and Good Practice	published report	Department for Communities and Local Government

Transport and communication

Authors	Year of publication	Title	Type of report	Location/link
Department for Transport	2009	Wider impacts and Regeneration	For consultation	www.dft.gov.uk/webtag/documents/project-manager/pdf/unit2.8c.pdf
Department for Transport	2003	Wider economic impacts	Published report	TAG Unit 2.8 www.dft.gov.uk/webtag/documents/project-manager/pdf/unit2.8.pdf
Department for Transport	2004	Completing the Affordability and Financial Sustainability (AFS) Tables	Published report	TAG Unit 3.8 Supporting analysis www.dft.gov.uk/webtag/documents/expert/pdf/unit3.8.1.pdf
DTZ Pieda Consulting	2004	Economic effects of road infrastructure improvements: stage 3 report	Research Paper	National Assembly for Wales
Eddington R	2006	The Eddington Transport Study – Main Report: Transport's role in sustaining the UK's productivity and competitiveness	Published report	For the Department for Transport, The Stationery Office
Foley, P., Alfonso, X. and Wiseman, I., Sutton, D and Cordagnone, C	2009	Understanding the value and benefits of establishing and running a local information system	Published report	Department For Communities and Local Government www.communities.gov.uk/documents/communities/pdf/1448815.pdf
Forrest D, Glen J and Ward R	1996	The impact of a light railway system on the structure of house prices: a hedonic longitudinal study	Journal article	www.bath.ac.uk/e-journals/jtep/pdf/Volume_XXX_No_1_15-29.pdf
Gospodini, Aspa	2005	Urban development, redevelopment and regeneration encouraged by transport infrastructure projects: the case study of 12 European cities	Journal Article	European Planning Studies, Vol 13 No 7 Oct, pp1083-1111
Graham, D J., Gibbons, S and Martin, R	2009	Transport investment and the distance decay of agglomeration benefits	Published report	Department for Transport, London http://personal.lse.ac.uk/gibbons/Papers/Agglomeration%20and%20Distance%20Decay%20Jan%202009.pdf
Henneberry, J.	1996	A Delphi Study of Expert Opinion on the Property Market Impactsof Transport Investments in Sheffield	Research Paper	Supertram Impact Series Working Paper SIS24, CRESR, Sheffield Hallam University
Henneberry, J.	1996	The Impact of the South Yorkshire Supertram on House Prices in Sheffield	Research Paper	Supertram Impact Series Working Paper SIS32, CRESR, Sheffield Hallam University

Authors	Year of publication	Title	Type of report	Location/link
Lucas, K , Tyler, S; Christodoulou, G	2009	Assessing the 'value' of new transport initiatives in deprived neighbourhoods in the UK	Journal Article	Transport Policy, Vol 16 No 3 Jul, pp115-122 See also JRF report 2008 "The value of new transport in deprived areas: who benefits, how and why?"
SACTRA	1999	Transport and the economy: summary report	Published report	For the Department of the Environment, Transport and the Regions www.cipra.org/alpknowhow/publications/sactra/sactra1
Venables, A J	2005	Evaluating urban transport improvements: cost-benefit analysis in the presence agglomeration and income taxation	Research Paper	Centre for Economic Performance, LSE (CEF discussion paper no 651)

Housing growth and improvement

Authors	Year of publication	Title	Type of report	Location/link
Adair A, Berry J, McGreat S	1995	Fiscal policy, taxation incentives and inner-city housing development	Book	Amenity Valuation and Housing Market Segmentation
Adair A, Downie M L , McGreat S and Vos G (Eds)	1996	European valuation practice: theory and technique	Book	European valuation practice: theory and technique
Adams D et al	2003	Assessing the impact of planning, housing and transport and regeneration policies on land pricing	Published report	www.communities.gov.uk/documents/corporate/pdf/142754.pdf
Allen T.	2000	Housing renewal - doesn't it make you sick?	Peer reviewed paper	Housing Studies, 15, pp.443-461
Altes W K K		The impact of abolishing social-housing grants on the compact-city policy of Dutch municipalities	Peer reviewed paper	www.environmentandplanning.com/epa/fulltext/a39/a38281.pdf
Ambrose P.	2000	A drop in the ocean: the health gain from the central Stepney SRB in the context of national health inequalities	Published report	Health and Social Policy Research Centre, University of Brighton
Ambrose P.	2000	The cost of poor housing-and how to reduce it.	Chapter in a book	In Rudge J., Nicol F. (eds) Cutting the cost of cold: Affordable warmth for healthier homes. E&FN Spon
Ambrose, P and Randles, J	1999	Looking for the joins: A qualitative study of inter-agency working.	Published book	London, Hackney
Ambrose, P, Barlow J, Bonsey, A, Pullin, M, Donkin, V and Randles, J	1996	The real cost of poor homes: a critical review of the research literature by the University of Sussex and University of Westminster	Published book	Royal Institution of Chartered Surveyors, Lodon
Atkinson R., Thomson H., Kearns A., Petticrew M.	2006	Giving urban policy its medical: assessing the place of health in area-based regeneration	Peer reviewed paper	Policy and Politics, 34(1), pp.5-26
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Gibbons, S	2003	The costs of urban property crime	Published report	-
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Gibbons, S; Machin, S	2004	Valuing Rail Access using Transport Innovations	Published report	-
Gibbons, S; Machin, S	2001	Valuing Primary Schools	Published report	-
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Greater London Authority / Varma, Adarsh	2003	Valuing Greenness: Is there a segmented preference for housing attributes in London?	Published report	http://legacy.london.gov.uk/mayor/economic_unit/docs/valuing_greenness_paper.pdf
Glaves, P.; Rotherham, I.D.; Harrison, K. Egan, D.	2007	An initial review of the economic and other benefits of inland waterways. Summary of literature and information review with recommendations	Published report	www.iwac.org.uk/downloads/research/iwac-shu_review_of_economic_benefits_july2007.pdf
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Neighbourhood renewal

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