Creating a Setting for Investment

Project Report

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1. Introduction - The CSI project

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It has been widely argued in a number of publications over recent years that there is a positive link between the quality of the environment, or environmental improvements where existing quality is low, and improvements in the economy through inward investment and retaining and creating jobs. In 2003 with funding from Yorkshire Forward the South Yorkshire Forest Partnership commissioned the University of Sheffield to carry out a scoping study designed to explore the nature of this link and develop a project that would seek to examine and demonstrate its operation, through both research and action on the ground. The scoping study resulted in a successful bid to the Interreg IIIB North West Europe programme for a project titled "Creating a Setting for Investment" (CSI).

The CSI project aimed in particular to examine and demonstrate the links between **landscape** quality and economic investment decisions and address the lack of real evidence that had been identified by the scoping study. Over a 5 year period the project has explored the links between landscape quality, the location decisions of investors and occupiers and the value of land at commercial property development locations. The Interreg IIIB North West Europe programme provided the main funding for the €10m project; Yorkshire Forward (the Regional Development Agency for Yorkshire & the Humber), the UK department for Communities and Local Government, the Walloon Region of Belgium, RAG Montan Immobilien GmbH and Institut für Landes- und Stadtentwicklungsforschung (ILS) have all provided match funding.

1.1 Project partners

CSI has been an international project involving partners in the UK, Germany and Belgium. In the UK, the **South Yorkshire Forest Partnership**, one of England's Community Forests, led the project. The South Yorkshire Forest Partnership works within **Sheffield City Council** and brings together public, private and community organisations to realise regeneration using green infrastructure improvements. With their significant international reputations, the **University of Sheffield** in the UK (Department of Landscape and Department of Town and Regional Planning), the **University of Liège** in Belgium and **ILS** in Germany brought their expertise in research to the project and made very significant strides in developing a body of knowledge and evidence related to creating a setting for investment. **SPI+** (Services Promotion Initiatives en Province de Liège), the development agency in the Liège region in Belgium and **RAG Montan Immobilien GmbH**, a landowner of former industrial sites, investor and service provider in Germany, have each brought expertise in economic and industrial development. Each of the partners also brought with them a network of sub-partners and contacts that have been invaluable in providing professional support and input for the development and implementation of the project.

The project partners represent regions suffering from post-industrial decline in Germany, Belgium and the UK. Bringing these organisations together in a joint endeavour has allowed sharing of knowledge and experience as these different regions work to progress economic development by seeking to create a positive image through high quality landscapes, which can in turn promote a higher quality of life. Fundamentally, the project aims to assist in realising sustainable, balanced development and to reconcile the objectives of building economic prosperity and protecting environmental assets, which are often perceived as contradictory.

Although North West Europe is one of the world's strongest economic regions, by tackling the significant areas of brownfield land and other poor quality local environments, opportunities for attracting further investment will be created. In establishing the project the partners identified four main issues that were of relevance across transnational boundaries in North West Europe and beyond, and which it was hoped the work could help to address:

- Unequal competition and lack of complementarity between metropolitan areas and second rank areas and regions aiming to attract economic development;
- Pressure on urban fringes and resulting urban sprawl;
- Lack of evidence of the benefits environmental quality can bring in relation to economic development and how this can help lead to successful sustainable development;
- Variation in investment and planning processes, policy and strategy across North West Europe and a large number of variables that influence investment decision making leading, to a lack of knowledge and coherence in approaches tackling the issues.

1.2 Context for the project

There is widespread recognition of the growing importance of the knowledge-based economy in Western Europe. In many countries, regions characterised by the decline of traditional industries (such as coal mining and steel making), and their legacy of unattractive, low quality environments and derelict and degraded brownfield land, are seeking to attract new forms of development and to compete in this vital 'knowledge' marketplace. Places that offer a high quality of life; including the quality of the environment for both living and working, have a competitive advantage when seeking to attract the highly qualified and increasingly mobile and discerning employees needed in knowledge based enterprises.

In addressing the link between economy and the environment the relationships are far from straightforward and this complexity needs to be understood in order for action and change to be achieved. Prior to the CSI project no substantive work had been undertaken to assess how the environment in the general, and landscape quality in particular is weighed alongside other investment factors. Strategic planning documents have sometimes made the link between economic development, environmental quality and quality of life but still little evidence exists to actually prove this link. Several major reports over the last few years have highlighted the benefits of high environmental quality within the economic context, but none specifically examine the impact of the quality of the landscape on investment and development processes. There is also a lack of understanding and evidence about how landscape quality influences investor choice and the benefits it brings in helping to make areas more attractive for economic growth. Without such work it is difficult to embed strategies for creating settings for investment into policy and practice. Against this background the CSI project set out to demonstrate the links between landscape quality and economic investment decisions and so address this lack of evidence.

Five years on from the launch of the CSI project, consciousness of the relationship between the environment and the economy has never been more relevant. Taking a holistic approach - integrating economic, environmental and community measures - is high on everyone's agenda, from business leaders and politicians to the general public. This has been made especially clear by the Gothenberg Strategy for sustainable economic, social and environmental development and the impact of the recently re-launched Lisbon Strategy with it's aim to make Europe "the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment by 2010". High quality environments have an important role to play in building competitive cities and regions and in contributing to quality of life for both communities and workers. Site based economic investment decisions are undoubtedly shaped by a variety of factors including transport infrastructure, access to skilled labour, proximity to markets and supply

chains. However these decisions are also influenced by perceptions of the area or regional 'image' as an attractive, prosperous setting for living, working and therefore investing in.

1.3 Components of the project

Groundbreaking research is at the heart of the CSI project. The research component consisted of a series of discrete actions undertaken by one or more of the project partners. The research actions listed below were used to investigate which aspects of landscape quality have the most influence on investment decision making, which actors, or business activities would be most influenced, and at which scale it has most impact.

- **Land values** - internet based surveys of professional land valuers to quantify the impact of 'greening' on the value of out-of-town brownfield sites designated for business park development. Research was carried out in the UK and in Belgium;
- **Retrospective cost benefit analysis** - work to identify the impact of landscape quality in and around former brownfield sites previously improved as part of the 'Working in the Park' regeneration concept in the Ruhr region;
- **Impact of landscape quality on location decisions** - collection of quantitative and qualitative information to increase knowledge of how and which aspects of landscape quality affect investor, developer and occupier location choices. Research carried out in the UK and Belgium;
- **Influence of regional landscape quality on investor decisions** - study of how environmental conditions have affected the regional image and influenced occupier decisions in the Ruhr 'Working in the Park' areas;
- **Community perceptions and involvement** - interviews with local communities in Belgium to gain understanding of how they perceive the effect of landscape quality (on commercial sites) on their quality of life and to explore best practices for meaningful community involvement throughout the process of site development;
- **Case studies** - these studies, which include some of the CSI demonstration sites, were undertaken to identify the role landscape quality plays in positive economic and social development.

The challenge in all this research work lay in isolating the impact of landscape quality amongst the multitude of variables affecting investment and development decisions. This necessitated a research focus on business park locations and **businesses involved in knowledge based activities**. Computer generated visualisations enabled assessment of alternate landscape quality scenarios.

In addition to the research component a major proportion of the project funding was used to cover implementation of works at a suite of **demonstration sites** illustrate more sustainable approaches to regeneration, through on-the-ground improvements to landscape quality. These create attractive places for business and investment.

The project also set out to **raise awareness and understanding and seek to influence decision makers** over the role that the environment plays in promoting more sustainable regeneration, and particularly the impact of landscape quality on investment location decisions and in delivering sustainable communities.

1.4 Important concepts and definitions

The idea of **landscape quality** is crucial to the CSI project and it is important at the outset to establish what this means, especially as it tends to be used interchangeably with the idea of environmental quality. Environmental quality and landscape quality are connected but distinct concepts; environmental quality is primarily concerned with physical aspects such as air quality, production of greenhouse gases,

access to sustainable transport; waste management, water quality and biodiversity. Landscape quality is a holistic concept, a complex sum of environmental, social and economic factors to be considered at site, setting, local and regional scales; each having some bearing on quality of life and investors choices. CSI identified six influential factors on landscape quality as research 'themes'; physical environment, image and identity, access and linkages, economic aspects, social aspects, management. This enabled research into individual components, ratings/comparisons of quality, and targeting of improvement actions. Fuller consideration of the meaning of landscape quality is included in Section 2 of this report.

It is also important to understand that landscape quality operates and can have an impact at a number of different scales, namely:

- **Region or sub-region:** The wider region being broadly considered as a location for investment;
- **Local area:** The area within which the investment and development would take place and within which most occupiers and their employees would live and work;
- **Setting:** The area immediately surrounding and visible from any site being considered for investment and development;
- **Site:** The area that the investor, developer or occupier will have either direct control over or some form of stake in.

The institutional structure of any property market - in terms of the actors and their roles - will affect its behaviour, including its response to policy initiatives and understanding of this markets and its operation in different partner countries is also critical to the CSI project. There are significant differences between the Belgian, German and UK markets. For example in the UK, most industrial development is privately driven, while in Wallonia most industrial estates are developed by public agencies. In North Rhine-Westphalia and the Ruhr there is a high level of public sector activity in the industrial property market. Commercial areas on former agricultural land are developed mainly by municipalities although the private sector is also active in brownfield development, with large land owners (such as subsidiaries of coal and steel companies) and private companies buying, developing and selling/renting plots for specific uses.

The roles and attitudes of several different actors have been examined in the course of the CSI project. Their role in the land and property development process is discussed in greater detail in Section 3.1 of this report. At this stage it is necessary only to briefly introduce the five key groups of actors who were identified within the commercial property development market, recognising that an actor may perform more than one role for example an owner-occupier or owner-developer. They are:

- **Landowners:** who control the amount of land available for development at any given time.
- **Developers:** who develop the site or plots within a site and either retain the development as an investment or sell it on to an investor.
- **Investors:** who purchase development schemes from developers in order to generate returns on their investment. These returns are generated through renting the property to occupiers.
- **Occupiers:** who need property for their daily business activities and may benefit from capital growth if the business park increases in value.
- **Property valuers:** who influence the process by advising the actors on land values, rents and investment yields based on the demand and supply balance in the property market

In general investors and developers expect to influence landscape treatments **within the sites**. Where another party, such as a public authority, has already influenced the landscape treatment this may be perceived as a benefit or a disadvantage - depending on the nature of the treatment and whether or not it restricts the investor's planned

use of the site. The wider setting of sites and the character and quality of the local area (or the region or sub region) within which occupiers and employees may live and travel, cannot usually be influenced by an individual site investor but can be influenced by the public sector through appropriate regional strategies.

1.5 The nature of this report

The CSI project has been running for five years. During that time a number of documents have been written which provide detailed information about the work that has been carried out. The following documents are available on the CSI project website (www.environment-investment.com):

Report of the original scoping study;

A series of technical reports covering all the research actions listed above, that is:

Research on land values in the UK
- Technical Report 4.1 UK

Research on land values in Belgium
- Technical Report 4.1 Be

Retrospective Cost Benefit Analysis in the Ruhr area
- Technical Report 4.2 De

Research actions 4.4 - Impact of landscape quality on investor decisions

Technical Reports on Research Action 4.4.1
- Preliminary interviews with occupiers
- Technical report 4.4.1 UK
- Technical report 4.4.1 Be
- Technical report 4.4.1 De

Technical Reports on Research Action 4.4.2
- Impact of landscape quality on investor decisions
- Technical report 4.4.2 UK
- Technical report 4.4.2 Be

Technical reports on Research Action 4.4.3
- Perceptions and preferences of office occupiers
- Technical report 4.4.3 UK
- Technical report 4.4.3 Be

Research on the Influence of Regional Environment on Investment
- Technical Report 4.5

Research on Community Perceptions of Development
- Technical Report 4.6

Descriptions of all the demonstration sites from the project.

This final project report is a summary and overview that brings together the main findings from the research and the demonstration projects. It does not include all the technical detail which can be found in the reports on the website but it tries to draw out common conclusions and findings from work in the different partner countries. They are reported under five headings that address the main themes emerging from the project:

Section 2 addresses the 'Landscape Quality Effect' in investment and development decision making;
Section 3 summarises the effects of landscape quality on property markets and land values;
Section 4 addresses the costs and benefits of landscape quality on Brownfield sites;
Section 5 summarises findings relating to landscape quality and the community context;
Section 6 provides an overview of the investment sites and the lessons learnt from them;
Section 7 summarises the conclusions and draws out recommendations which arise from the research and the demonstration projects

There is also a separate summary document, published under the title "Economic Landscapes" which briefly summarises the research outcomes and case study examples that illustrate how to successfully marry landscape quality improvements with economic development, and provides a series of 'pathways' that the research points toward, based on the conclusions and recommendations in this report.

2. The 'Landscape Quality Effect'

Authors: M. Burton, C. Rymsa-Fitschen.

2.1 Landscape Quality and Perceptions of Investment Decision Makers

Landscape quality is a complex concept, which is difficult to define and to quantify. It operates at a multitude of scales and is dynamic changing over the seasons and time. The term is often used interchangeably with environmental quality, however whereas environmental quality is primarily concerned with physical aspects, such as air quality, production of greenhouse gasses, access to sustainable transport, waste management, water quality and biodiversity, landscape quality is a holistic concept to which a range of environmental, social and economic aspects contribute.

Drawing on current literature, CSI identified six key attributes or themes of landscape quality, as defined by 'professionals' i.e. designers, policy makers and researchers, providing a framework for research actions. These are summarised in table 2.1 below.

Table 2.1: Themes, indicators and measurements of landscape quality

	PROFESSIONALS		ACTORS	
THEMES	**indicators**	**measurements**	**indicators**	**measurements**
Physical environment	Level of pollution (air, soil, water, noise, litter) Biodiversity Hydrological system Proportion of green cover	Environmental/ecological data Water quality and management Litter/quantity of trees Other types of planting	Cleanliness Planting Spatial quality	Functional/open Quantity (enough but not too much) Maturity (big enough but not too big) Functional/open
Image and identity	Attractive Secure Special character and distinctiveness	Popularity Crime statistics Vandalism Building conditions Landmarks Heritage/local references	Good location (attractive/desirable) Appropriate image (general impression/right image for the companies on site) Secure	Surroundings (nice) Good views 'Nice and tidy' Business like and professional (imaginative but not too striking) Welcoming, good first impression (entrance) No vandalism Controlled access (but no obtrusive fence) Good visibility
Access and linkages	Accessible Connected Network quality Safe Pedestrian and cyclist friendly	Transport pattern Parking pattern Links with the surrounding area Accident data Pedestrian/cyclist activities	Good location (easily accessible by car) Legible access	Car parking (lots) Good links with road network Signage/Entrance
Economic aspects	Infrastructure Vitality Popularity Economically sustainable Adaptability/robustness	Local business ownership Land-use patterns Property values Rent levels Retail sales Mixed uses	Economically viable/sustainable	Cost effective Appropriate rent level Brand exposure
Social aspects	Welcoming/friendly and inclusive Social interaction Sense of well being Pride/sense of ownership Beneficial to the local communities	Social mix data and networks Street life Facilities Range of outdoor activities Evening and weekend use Use of the landscape to promote the business Relationship with local communities	Social interaction between occupiers (employees) of the business park Well being (mainly for employees) Pride in workplace (image)	Seating areas exclusively for the occupiers Amenities Places to walk, sit, eat Contact with nature Proud of workplace
Management	Sustainable Cost effective Long term commitment	Level and type of maintenance Cost Quality Duration of management plan	Cost Intensity Quality	Low cost Low maintenance High quality maintenance ('cared for')

A 4-point scoring system applied to this framework provides a simple, 'rough and ready' research tool for measuring landscape quality. An example of how this was applied to the theme physical environment is illustrated in Table. 2.2. This was used to enable comparisons to be made between locations, identification of which elements impact on investment decisions and which elements should be prioritised for improvement. Individual elements from the framework can be brought together to develop visulisations, as shown in fig. 2.1, illustrating different levels of landscape quality and used to engage with investors or communities.

Table 2.2: Example of quality scoring for landscape quality attributes the 'physical environment':

Quality level	Local area / Setting	Site
1 (low)	Polluted area (air, water, noise pollution) Fly tipping Low biodiversity Mostly built up/no or very limited planted areas	Soil/water contamination (no/very limited remediation)/industrial waste Major litter problems Low biodiversity Mostly built up/no or very limited planted areas
2	Polluted area that has undergone some remediation measures Some fly tipping Limited biodiversity Small percentage of planted areas	Polluted site that undergone some remediation measures but water/soil quality problems still evident Some litter problems Limited biodiversity Small percentage of planted areas
3	Clean local area with some localised / not serious pollution problems Limited and localised fly tipping Medium level of biodiversity Some tree planting and other planted areas	Overall a clean site with limited, sporadic/localised pollution problems Limited and localised litter problems Medium level of biodiversity Some tree planting and other planted areas
4 (high)	Clean local area with measures in place to keep it clean and achieve a sustainable and healthy environment No fly tipping High biodiversity High percentage of tree cover	Clean site with specific sustainable measures to keep it clean and achieve a healthy and sustainable environment No litter/measures to encourage recycling High biodiversity High percentage of tree cover

Figure 2.1: Visualisations of landscape quality levels

Using the framework and visualisations, CSI research actions found a discrepancy between the way the themes are perceived and quantified by professionals and actors. The actors are those involved in investment decision making such as the developers or occupiers (a full description of these actors/roles is given in section 3). This is illustrated in fig. 2.1. Many of the 'professionals' indicators of landscape quality such as biodiversity, sustainable transport, robustness (capacity for a development to sustain change though time) or inclusiveness were not mentioned by actors. Only in the Ruhr region of Germany, where many brownfield sites feature the re-use of industrial relics as part of the new regional image, was the quality indicator 'identity' mentioned by occupiers.

The indicators identified by occupiers demonstrated a more simplistic understanding of landscape quality influenced mainly by visual elements rather than the holistic, complex concept described by the professionals.

The research revealed a low expectation amongst occupiers of what is possible in terms of landscape quality. Perhaps unsurprisingly, the key landscape quality indicator identified by occupiers was car access and parking, significantly identified as one of the key factors influencing location decision making. The identification of indicators of landscape quality is affected by personal experience and taste, perceptions of 'the norm' and perceptions that certain elements may benefit business. It was found

that occupiers of offices on business parks in South Yorkshire expected a lower level of landscape quality from the site and the setting of the site, than those in the South East of England where the landscape quality of sites in particular is higher.

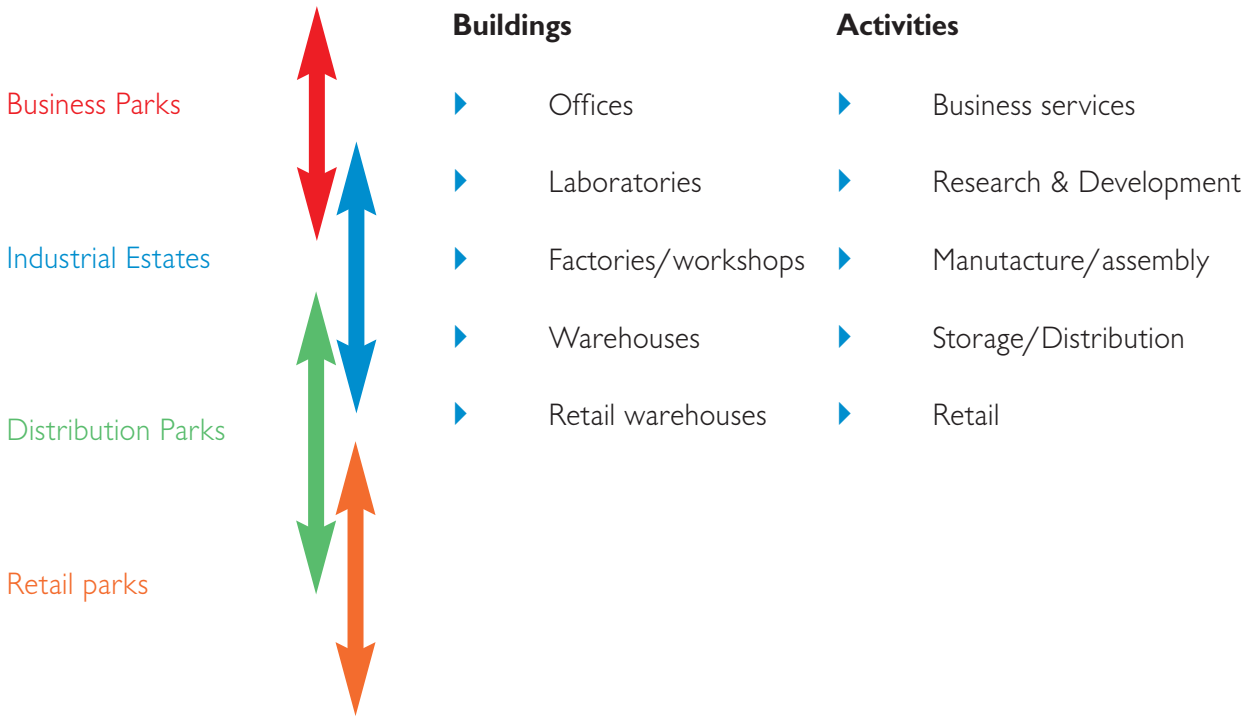
If occupiers are not familiar with high quality landscapes, or the indicators described by professionals, then they are unlikely to mention them in their perception of quality, or demand them from developers. The research did demonstrate, however that there is potential to change perceptions and raise aspirations. When offered choices of non-typical, sustainable landscape treatments many occupiers in the UK sample preferred these and when prompted considered inclusion of natural elements and sustainable transport important as long as these were 'appropriate' for the location and well maintained. For example colourful meadows were preferred to mown grass along road corridors but were not acceptable outside the main office entrance where a 'neat and tidy' corporate image was preferred.

Unless aspirations are raised, or incentives are in place to promote non-standard, more sustainable or creative approaches, then the aspirations of professional planners, designers and policy makers for higher landscape quality will not be met by the majority of developers.

2.2 Relationship of occupier activities to landscape quality

Categorising businesses by activity, type of building occupied and type of site, allowed comparisons to be made between the way different occupiers perceive and assess the relevance of landscape quality to their operations. Fig 2.2 below illustrates the broad categorisation used.

Figure 2.2 Categorisation of occupier activities



The research indicated that all types of business would prefer a higher level of landscape quality of both site and setting as long as the priorities of vehicular access and proximity to workforce are met. However, businesses engaged in knowledge based activities (business services, research and development) are measurably more sensitive to landscape quality than those engaged in manufacturing or storage and distribution activities. Landscape quality and the image it projects, is important for the knowledge sector as it is perceived to communicate success and expertise and by offering a higher quality of life at work it serves to attract highly skilled employees; this was demonstrated by CSI research into location decision making in the Ruhr area.

For manufacturing and logistics activities, the need for storage space and hard-standing means the external environment plays a greater functional role than in the knowledge based sector so it is not surprising that large paved areas are prioritised over planted social spaces. The social use of external spaces was highlighted by business services, research and development and, to some extent the storage and distribution companies. This was not considered important by the manufacturers.

2.3 Landscape Quality and Scale -

Landscape quality operates at different scales and in order to maximise any impact it may have on investment decision making it is important to know at which scale it exerts most influence. For example does the landscape quality of the site have more impact on decision making than the setting of the site?
The possible scales at which landscape quality might influence decisions are described below and illustrated in fig. 2.3.

1. the **region or sub-region** being broadly considered as a location for investment;
2. the **local area** within which the investment and development would take place and within which occupiers and their employees would live and work;
3. the area immediately surrounding and visible from any site being considered for investment and development, which can be called the **site setting or setting of sites** (i.e. what can be seen from the site that impinges on perceptions of the site itself)
4. the **site** itself, which is the area that the investor, developer or occupier will have either direct control over or some form of stake in.

The impact of landscape quality at each of these scales was explored through the CSI research.

Figure 2.3 Scales at which landscape quality could influence decisions

2.4 Promoting a positive image

Although landscape quality cannot be regarded as a hard location factor it does play a significant role in improving image and business confidence at site, setting, local area, and regional scales. A positive image can help to increase business confidence, whilst a negative image can serve to decrease business confidence.

Many aspects of landscape quality were clearly identified by occupiers as factors contributing to a more positive or negative image. These can be termed 'attractors' and 'detractors' and are summarised in table. 2.3. Detractors in particular play a major role in image formation and should be tackled as a priority if confidence in an area is to be improved. Derelict and undeveloped land was identified by occupiers as a key detractor creating a perception that an area is unsafe as it would attract misuse such as fly tipping and undesirable people as well as being ugly and open. It also gives rise to a sense of uncertainty over future development; will the new development be appropriate (retail parks were mentioned as inappropriate development), create noise, dirt and increased traffic?
Creating a 'cared for' appearance is a precursor to creating a more positive image. In particular the lack of maintenance was a recurring concern for occupiers, to the extent that some, when given the option, rejected high quality planting as they believed it would not be maintained and would soon become a detractor. The concern and cynicism about ongoing maintenance was borne out of respondents' personal experiences.

As long as it is maintained and kept litter-free, the quality and quantity of planting has a large impact on the image. Mature, established planting is seen as an indicator of an established, more affluent area, an area perceived by occupiers as having 'proven' business success compared to a newly established site. Planting can also effectively screen detractors; research images showed that boundary planting and a simple fence transformed an area of undeveloped land, perceived by occupiers to be a detractor, into a contributing factor to a more positive area wide image.

Planting generally costs less to implement than the hard landscape elements sometimes used to improve site image or identity, such as sculpture. In particular, occupiers responded positively to images of native woodland planting along road corridors, compared to the mostly negative response to iconic sculpture (sculpture produced very mixed reactions wherever it was used). As for planting in general, the qualities of the woodland valued by occupiers were 'substantial and established'; it would screen the derelict land which could be imagined beyond.

Table 2.3 Attractors and Detractors identified by occupiers

attractors create positive image and raise confidence	**detractors** create negative image and lower confidence
'cared for' appearance ▸ no litter, fly-tipping, graffiti ▸ managed planting ▸ thought and care in design, attention to detail, quality materials and planting ▸ coherent design - not ad hoc	**'uncared for' appearance** ▸ litter, fly tipping, graffiti ▸ unmanaged planting ▸ lack of design input ▸ low quality materials and features
quality and quantity of planting ▸ mature planting, particularly trees ▸ the 'right amount' - substantial, screening detractors but not too dense nearer buildings. ▸ variety and colour	**dereliction, undeveloped land** ▸ derelict land and buildings, attracts misuse ▸ undeveloped land creates uncertainty over future use.
useable landscape ▸ variety of facilities, amenities ▸ pleasant and easy to use	**emptiness** ▸ lack of planting or facilities (and buildings) ▸ open, bleak ▸ new, un-established (unproven commercially)

Although cost effective, new planting can take time to acquire these characteristics. Advance planting around areas of new development, retaining existing mature trees and incorporating some larger trees in key locations such as entrances would maximise the early impact. The ongoing maintenance requirements of planting should not be overlooked although these can be reduced through careful plant selection and naturalistic planting combinations.

2.5 The regional image

The research revealed that improving landscape quality at an individual site has minimal impact on investment decision making; it is at the regional scale where landscape quality has maximum economic impact by contributing to regional competitiveness. This is discussed further in section 3. High landscape quality can help to create a new, positive image for the region and attract skilled workers through enhancing the quality of life on offer, both at home and at work and this is becoming increasingly important as a location factor for businesses in the knowledge based economy.

Regions suffering from post industrial decline can suffer from a negative image which is difficult to shake off. Those who do not know a region can build an unfavourable impression of it, influenced by negative media representation. Areas of environmental degradation visible from transport routes, road and train, can reinforce this image - would such an image attract highly skilled workers to the area? In Germany the majority of the population outside of the Ruhr region associated it with environmental degradation, a grey industrial region with a one-sided economic structure, limited leisure opportunities, low residential value, and low educational achievement.

The experience of the Ruhr however, demonstrates how landscape quality can play a major role in transforming regional image. The improvement strategies which were started during the IBA Emscherpark, such as the 'working in the park' concept improving former brownfield sites (see case study 1), have over the last decade made a big contribution to the formation of a new image for the whole region. This was combined with image campaigns to counteract the prejudices and stereotyped images.

Industrial heritage has played a major role in creating a unique identity for the Ruhr and was identified by occupiers as such. Industrial relics have become positive, interesting features of the 'working in the park' sites and 'industrial culture' has played an integral role in increasing tourism; identified as a positive component of the new regional image. However, an image based on industrial heritage would not suit all regions with an industrial past and each should identify its own unique recognisable image which maximises its existing assets. The success of the approach in the Ruhr, as summarised in table 2.4, lies in their choice of a clear identity based on its distinctive regional characteristics and delivery of this through strategic, long term planning which cuts across administrative boundaries. This has been translated on-the-ground through the implementation of high quality landscaping at the setting and site level. In this way the development of individual sites collectively had a major impact in changing the regional image and improving the quality of life.

Case Study 1 - Working in the Park
Working in the park, Ruhr, IBA Emscherpark

The IBA Emscherpark initiated the 'Working in the park' concept as part of the Emscher Landscape Park plan to change the quality of life and work in the Ruhr. The regeneration of 500 hectares of brownfield sites into 22 high quality business parks played an important role in upgrading the region - both economically and ecologically:

- Reclamation of brownfield land would minimize use of agricultural land for industrial sites.
- High quality settings would meet the demands of employees.
- Lack of public open spaces in surrounding urban areas would be addressed, as often more than 50% of the sites were restored to green end use.
- Reuse of listed buildings and preservation of industrial heritage would enhance regional identity and the attractiveness of the sites.

The implementation of high quality landscape on the sites - including open space, water elements and environmental waste management - served to promote and enhance the economic competitiveness of the region creating the necessary conditions for interregional and international private investment and new jobs. When surveyed, 90% of businesses located on the sites confirmed that the area's image had significantly improved, and that the high landscape quality had had a positive effect on perceptions of the Ruhr elsewhere in Germany with ongoing benefits for business.

Table 2.4 Achieving a positive regional image

Desired outcome	**Recommendations** - how to achieve
A distinctive regional image which contributes to regional competitiveness though marketing a high quality of life.	▸ Co-operation between regional/sub-regional actors ▸ Identification of distinctive 'regional image' and the role of landscape quality in this ▸ Strategic marketing strategy projecting a new landscape and improved quality of life ▸ Regional strategy of comprehensive physical improvements to deliver the image and targeting main 'detractors' along transport corridors and views from, gateways, economic (business and amenity) centres

The landscape quality of both setting and local area influence occupiers' perceptions of the quality of the area as a place to locate. Although not the primary locational factor, they would prefer to locate to an area with high landscape quality to one with low landscape quality. As seen at the regional level, areas or settings for development within a locality can suffer from a negative image and the presence of detractors create or reinforce this image. This was clearly illustrated by the responses of occupiers in South Yorkshire to images of a new high quality office development located in either an area of either high, or low landscape quality, see figure 2.4 below. The low quality setting creates an image of a

downmarket, unsafe, economically unproven area which would have a negative impact on staff and visitors. The area with higher landscape quality is perceived as more affluent and likely to attract better businesses. It is safer and creates a more welcoming impression to visitors and would have a positive impact on staff.

Occupiers are very clear about what comprises an

Figure 2.4 Responses of occupiers to offices located in an area with high and low landscape quality

LOW QUALITY SETTING	OCCUPIER COMMENTS	IMAGE
  	It looks very **downmarket, underdeveloped,** a little bit threatening .. visitors would get a very **poor impression** of the site, driving past all this open scrubland'. 'car parking on **wasteland, unmanaged areas..** I know one or two clients who occupy areas like this and your **heart sinks** when you go there' it looks **less well established**. It looks ... it looks **brand new**, it **doesn't look friendly or inviting**' '**(staff)** you know that obviously they're **not going to be as happy** in an environment like that,	▸ downmarket, less affluent ▸ unsafe - business, personal ▸ newly developed - risky ▸ negative impression - visitors ▸ negative impact on staff
HIGH QUALITY SETTING	**OCCUPIER COMMENTS**	**IMAGE**
  	'The approaches to it are more **affluent**, it gives a **better impression** of the business' 'Gives impression it has some **maturity and standing** whereas other looks as if there's still a lot of development to happen' 'Its down to aesthetics, the image it projects is a **more profitable** place, one with more **local pride** because its **well maintained**', 'You want an area to look good, its important at lunchtimes that they're **(staff)** in a **happy, pleasing safe environment** then that does make a difference'	▸ affluent ▸ likely to attract 'better' businesses ▸ welcoming - positive impression ▸ positive impact on staff

attractive business setting. It is one which delivers their business needs; a positive image and easy vehicle access to their site, as well as contributing to staff well-being. The research demonstrated that preferences for certain styles of landscape treatment are determined by personal experience and taste therefore developers or local authorities should engage with businesses to understand their individual business needs, rather than asking what 'style' of treatment they prefer. Table 2.5 summarises the role of landscape quality in creating a more attractive business setting which meets occupier needs.

Table 2.5 Role of landscape quality in creating a more attractive site and setting/local area

Occupier needs	Indicators	How to achieve - setting / local area	How to achieve - site
accessible and legible	▸ Easy to find way to and around site and individual businesses ▸ No congestion ▸ Easy to park ▸ Adequate vehicular access for deliveries, storage.	▸ Strategic planning of transport networks to avoid congestions hotspots. ▸ Sites well signed and access roads/entrances clearly visible.	▸ Legible road network and site layout ▸ Access from major roads, site, access roads and plots well signed ▸ Adequate, easily accessible car parking ▸ Spacious, well planned, secure hard standing.
Image	▸ Creating the 'right business image' - professional, affluent but not too 'flashy'. ▸ Creating a good first impression - 'cared for' welcoming appearance ▸ Site looks well established ▸ Minimal actual and perceived crime	▸ Strategic planning and coherent design across area to create a defined, positive image, not piecemeal development. ▸ Improvements targeted at road corridors, entrances and amenities. ▸ Advanced, area wide strategic planting and green space networks to create 'greened' setting with particular attention to views from development sites and from transport corridors. ▸ Temporary planting or screening of derelict land. ▸ Area must feel safe and secure - remove / screen signs of dereliction, vandalism and misuse e.g. graffiti, fly tipping. ▸ High quality materials, street furniture, signage and other features	▸ Site masterplan to develop coherent image. ▸ Targeted improvements at entrances and internal roads ▸ High quality planting, particularly mature trees ▸ High quality materials and features. ▸ Comprehensive maintenance of site and individual plots ▸ Removal of indicators of crime - graffiti, litter, fl-tipping etc. ▸ Co-ordinated (across site), un-obtrusive security measures; the 'invisible fence'

Table 2.5 (continued) Role of landscape quality in creating a more attractive site and setting/local area

Occupier needs	Indicators	How to achieve - setting / local area	How to achieve - site
employee well-being	▸ Attractive views from windows ▸ Useable landscape around site ▸ Promotes feelings of belonging and pride, 'happy' to come to work ▸ Contact with nature ▸ Car parking/access/public transport links	▸ Provision of a diversity of easily accessible amenities (the local high street) which feel safe to use. ▸ Places to walk (with paved footpaths) and sit quietly - local parks, nature areas. ▸ High quality, colourful planting along routes to work ▸ Creating a positive image as described above	▸ Building orientation to maximise views ▸ Structural planting to screen detractors and to create and frame views of setting. ▸ Social facilities for staff - seating, places to walk with paved paths. ▸ High quality and colourful planting ▸ Naturalistic planting attracting wildlife. ▸ Creating a positive image as described above.

2.6 Targeting improvements in the setting and local area

Within the setting for a development and the local area, landscape quality improvements in certain locations will have more impact on an occupier's impression of the quality of an area as a business location, than others. When occupiers in South Yorkshire, UK and Wallonia, Belgium were asked to rank locations in order of their impact, the most significant locations were the entrance and access road to the development site. Their responses are summarised in Table 2.6. Not surprisingly this is where the 'good first impression' of the company is obtained. In general those locations linked to car access (a hard location factor), and those near the site which help create the business image, are ranked highest. Elements further away from the site, or perceived as having little direct business relevance such as public open space, are ranked lower, although they are recognised as contributing to the overall quality of the area. The quality of local amenities was also ranked highly because of its importance to staff as well as for business needs to entertain clients and for day to day office supplies.

Where budgets are limited it makes sense to target high quality improvements in the locations which have most impact, along road corridors and 'gateway' entrances. Targeting improvements to create a new image was central to the major regeneration project at Wath Mavers in South Yorkshire, UK, see case study 2. A new 'green gateway' entrance the area, highly visible from the major road corridor was developed through the creation of a wetlands nature reserve on a formally derelict site. High quality road corridor improvements were undertaken throughout the scheme.

Table 2.6 Ranked responses of occupiers considering a new business park location - where improvements to landscape quality would affect their perception of the quality of the business location.

UK	Belgium
1. Site **entrance**	1. Site **entrance**
2. **Access road** to the development site	2. **Access road** to the development site
3. Local **amenities** within 5 minutes walk	3. **Boundary** around development site
4. **Road corridor** - from motorway to access road	4. **Local amenities** within 5 minutes walk
5. **Boundary** around development site	5. **Road corridor** - from motorway to access road
6. **Undeveloped land adjacent** to site	6. **Undeveloped land adjacent** to site
7. **Open space** within 5 minutes walk	7. **Open space** within 5 minutes walk
8. **Undeveloped land further afield**, visible from road corridor	8. **Undeveloped land further afield**, visible from road corridor

Case Study 2 - Manvers

Manvers Regeneration scheme, Rotherham

The 700 acre Manvers regeneration site sits in the Dearne Valley, adjacent to the wetland habitat creation at RSPB Old Moor, and developments carried out by Yorkshire Forward and neighbouring local authorities, which have, together transformed a vast area of dereliction into a thriving economic and residential zone.

The former heavy industrial area of Manvers, comprising mine workings, tip, colliery buildings and railway sidings has been reclaimed over a period of 20 years by Rotherham MBC to provide 400 acres of industrial and commercial facilities and 300 acres of recreation and amenity areas.

The scheme aimed to replace the 8,000 jobs lost due to the colliery closures, and create a high quality landscape as a setting for regeneration and development.

New infrastructure was developed to increase road and service capacity. Integral to this was the high quality landscape work along the road corridors. Four 'industrial zones' were designed and the sites marketed and sold by Rotherham Investment Development Office. A public amenity area comprising a lake and golf course was also created, winning the Civic Trust Landscape award in 2000

Private sector investment in the scheme to date has been estimated at over £350,000,000, and approximately 9,000 jobs have been created. Completion of the new waterfront development is likely to create a further 1,000 to 1,500 jobs.

To create a more positive image a strategic approach is required, as for the regional level. The implementation of individual landscape quality improvements and new developments should be co-ordinated as part of a long term area wide strategy to create a marketable, unique and coherent identity which contributes to the new regional image.

2.7 Creating an attractive site

At the site level, as for the setting and local area, landscape quality plays a role in creating an appropriate image of the company, providing for employee needs as well as enhancing the functional needs of the site associated with vehicle access. This is summarised in table 2.5.

Occupiers, particularly those who receive visitors, are concerned with creating the 'right' image. Typically this implies a 'neat and tidy' entrance, which gives a business-like, professional image. The whole site should look 'cared for' implying a well maintained appearance although the cost of maintenance is a concern and typically low maintenance solutions are desired. Amongst the companies interviewed the smaller companies in particular were concerned not to project an image that is 'too flashy' giving the impression that they are spending too much money on non-essentials. Features such as sculpture fall into this category. Sustainable landscape approaches are desirable as long as they do not compromise the right business image. In some cases these and more naturalistic, 'wildlife friendly' features such as ponds can be placed away from main entrances and access roads, around the periphery of the site, or in the wider setting, where they do not compromise the more formal 'business-like' image. This is illustrated in figure 2.5. The real challenge however is to develop sustainable approaches which do match the desired business image. Thoughtful design employing a wider range of plant species than seen in the majority of business parks (in the UK at least) can enhance biodiversity particularly in urban situations, look attractive and be low maintenance.

Figure 2.5 Comparison of different landscape approaches

The neat and tidy entrance (above) is preferred to the meadow at the building entrance as it creates more appropriate 'business-like' image

Figure 2.5 (continued) Comparison of different landscape approaches

The colourful meadow planting (left) along the local area road corridor is preferred to the formal, mown grass. Occupiers perceive that this locates their business in a setting that visitors and staff will find visually attractive without affecting the image which they individually want to project.

In terms of access, as well as adequate car parking, the layout of sites should be legible and well signed ensuring individual companies are easy to find. The signage of individual plots should be easily visible, not obscured by planting.

Security is of major concern to occupiers, particularly if they have suffered from crime in the past. Graffiti, fly-tipping, and obtrusive security measures such as high security fencing and controlled barriers are seen as indicators of high crime levels, '*are we trying to repel some kind of invaders or is there a security issue with this place?*' and create an unwelcoming image. Occupiers face a dilemma between creating the right image for their company, not a fortress or prison, and feeling secure. What they really want is the invisible fence! In the UK, the majority of occupiers who were located on business parks in the UK expressed a desire to exclude 'the community' from their sites as they were seen as a security threat. On the 'working in the park' sites in the Ruhr, where buildings are located in a fully accessible public park this sentiment was echoed by those who had suffered security problems, however others saw a community presence as enhancing site security through the social control it offers, particularly at night.

Removing the visual evidence of crime can have a major impact on the image of a site. At Langthwaite Grange in West Yorkshire (see case study 3) this approach combined with the introduction of a new estate wide CCTV security system, entrance and access road improvements, has helped to turn around a cycle of decline. These improvements combined with improved footpath connections to the surrounding residential areas have encouraged the local community to use the site as an access route yet discouraged unwelcome visitors.

Case Study 3 - Langthwaite Grange

Langthwaite Grange, Wakefield, West Yorkshire

How landscape quality and security improvements have been used to reduce crime and improve image

Langthwaite Grange is a 57 hectare industrial estate in Wakefield. The site and local communities were badly affected by economic crisis during the 1980's which led to disjointed development, instability, increasing crime and environmental problems. Businesses were leaving and new investment was deterred by crime and the negative image. Ad hoc attempts at regenerating the estate left businesses hostile and cynical.

In 2005 **first**, the development agency for Wakefield proposed the vision for **'a vibrant, environmentally attractive, crime free industrial estate providing jobs for local people and strengthening the local supply chain'**.

To facilitate this, a business plan was developed, resulting in securing of over £1.2 million funding for site improvements (including £90,000 committed by resident businesses).

Public meetings were held and a business association (LGBA) established to secure the long term engagement of businesses in the estate's future. A project manager was employed to facilitate communication between businesses and contractors. In addition, fly-tipping was cleared and a programme of planting and greening instigated. Crime prevention measures were implemented and improvements made to pedestrian and vehicular access routes, site boundaries and signage concentrated at the site entrance and main access routes.

Landscape quality improvements have helped transform the estate's image creating a safer, more cared for environment which has increased the quality of life for occupiers, their workforce and the local community alike. New and existing investors have demonstrated hugely increased confidence in the location as a result, with 16 new businesses moving in, bringing over £12m investment and creating 200 new jobs. Crime has fallen by 70% in 12 months and 68% of the occupying businesses became fee paying members of LGBA.

To be successful there should be a strategic approach to the creation of a site wide image and framework landscape developed through a coherent site masterplan. This is relevant to the refurbishment of old sites as well as new ones. This in turn should contribute to the area wide strategy. A design code should be put in place to ensure new developments contribute to the overall image and to avoid an ad hoc approach developing over time which will erode the sites coherent image. In particular long term, site wide, maintenance should be put in place which should include agreements for the ongoing maintenance of individual plots.

The landscape quality of the site is perceived by many occupiers as playing a role in staff and personal well-being. Apart from the obvious car access and parking requirements, the site should offer opportunities to be used at break times; providing places to sit and walk and relax and provide an attractive view from windows. Although many occupiers express doubts that their employees would use such facilities, the fact that they were provided is seen as desirable and contributes to a positive business image. A good view from a window and a cared for, attractively planted environment is believed to contribute to staff

happiness, promoting a feeling of well-being and even pride in the workplace. This and the impact that the external environment may have on staff well-being, resulting in higher productivity through reduced stress, fewer sick days, increased concentration and creativity, is an area which requires further research.

2.8 Landscape quality and site marketing

Landscape quality can play a valuable role in the marketing of sites, promoting a 'green' business image as well as providing an attractive environment for staff. This approach has been taken at Green Park in the UK where high specification offices are set in very high quality parkland, the creation of which was greatly influenced by the need for flood mitigation measures; a central lake is now the focus of the site. The aim of the Green Park developers was *"To create an environment that is both inspirational and stimulating which provides the perfect backdrop to suit a wide range of companies from the big multinational to the smaller emerging business needing space to grow."* Green Park promotional material emphasises the quality of the working environment and the 'natural beauty', of the site. Innovative ideas include a wind turbine, which has become a landmark in the local area and a visitor centre to provide information on energy conservation.

Case Study 4 - Green Park, Reading, UK

Green Park is a prestigious 80 hectare business park near the M4 within easy reach of London and Heathrow. Located on the floodplain of the River Kennet, the site was bought by developer PruPrim in 1985 after several unsuccessful planning applications for an industrial development by the previous owner. The planning process restarted in 1994 with a masterplan for a business park produced by Foster and Partners.

The landscape design responded to the sensitive ecological nature of the site - particularly flooding issues - and created a coherent identity for the business park by creating a large linear lake at the centre of the development with the buildings arranged along the water's edge creating a 'country' environment. The investment required was high and only a large developer like PruPrim could sustain such an expensive scheme with a long term prospect of recouping the cost.

Green Park has won several awards from landscape professional bodies (Wokingham Council biodiversity award 2005; Horticultural Week Awards 2006; Ground Maintenance BALI award 2006; highly commended by the Landscape Institute in the design category 2006). It is promoted on its 'green' credentials; the quality of working environment and its renewable energy, public transport and community initiatives. The development immediately attracted American companies searching for offices in the Heathrow airport area and also offers small spaces fort new businesses in a multi occupied building and scope for these companies to remain on site once they expand.

The high quality landscape of Green Park promotes the site above others in the same area and attracts companies seeking high quality working environments. Location and access however still have most influence on occupier choice. PruPrim has capitalised on the relatively high landscape investment by using Green Park as a 'flagship' site which has encouraged the local authorities in the Reading area to release more lands for new developments.

2.9 Summary

Those involved in investment decision making have a more simplistic perception of landscape quality than professionals, one that is influenced largely by visual elements. Landscape quality plays a major role in determining their perceived image of a location and this can influence their business confidence in it. In terms of investment decision making the greatest impact is seen at the regional level where landscape quality can help to create an attractive image thus contributing to regional competitiveness. Landscape quality at the setting and site level helps to create the 'right' business image, to meet business and staff needs and feel safe. A strategic approach is required to develop a unique regional image and landscape improvements at the local area, setting and site level should contribute to delivering this strategy through the use of site masterplan, design codes and a long term maintenance plans. Where budgets are limited, entrances and internal access roads, should be prioritised for the highest quality treatments and detractors removed or screened. Despite an expressed interest in higher quality and more sustainable landscape approaches occupiers currently have low expectations and limited knowledge of what is possible. Aspirations must be raised or incentives used to achieve the aspirations of planners and policy makers for higher quality, sustainable landscape settings. To be acceptable in the business setting these should either be designed to project the right business image or located away from entrances.

3. Effects of landscape quality on property and land values

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The CSI research actions related to land and property markets addressed the question: what is the impact of landscape quality on decisions and behaviours related to the redevelopment of brownfield sites for business use? The objective was to analyse whether landscape interventions can stimulate brownfield redevelopment projects. The following discussion is in two parts. The first considers the property development process and its market context, with particular attention given to the institutional structure of property markets and the way that this varies between countries. The second focuses on the relationships between landscape quality, market mechanisms and brownfield redevelopment. The main empirical results of the CSI research actions - relating to the preferences of occupiers and to the decision-making of investors and developers – are presented.

3.1 Property development and the property market

Property development involves increasing the value of property by investing capital in it. Actions may range from the minor refurbishment of an existing building to complex schemes of demolition and redevelopment. Projects may be pursued by a single developer or may be completed in stages by several different companies; sites may be assembled, prepared and serviced by one organisation and then sold on to another that constructs buildings on them.

It is important to differentiate brownfield, urban redevelopment from green field, out-of-town development. Greenfield development occurs on sites that have not previously been occupied for urban uses. Brownfield redevelopment occurs on sites previously occupied for urban uses. Brownfield sites may be affected by a range of development blockages: the problem of acquiring land in fragmented parcels; the difficulty of obtaining planning permission in densely occupied places; and the additional costs and technical risks caused by former urban uses (demolition, pollution, or protection of historic relics). Brownfield development blockages make it much simpler and more profitable to develop greenfield out-of-town sites. This circumstance is a factor contributing to urban sprawl, a major problem in Europe (European Environment Agency, 2006).

Land and property development is a complicated process. It involves the performance of a number of roles - individually or severally, in varying combinations - by a set of actors. The main roles are that of...

- **The landowner:** who owned the land prior to the commencement of the development and sells it when offered a sufficient price.
- **The developer:** the key actor who orchestrates the assembly of inputs (sites, finance, expertise, construction and so on).
- **The investor:** distinctions may be drawn between private actors providing short term finance for property development (e.g. banks) or supplying longer term investment finance for property ownership (e.g. insurance companies, pension funds) and public actors providing grants, loans and subsidies for similar purposes.
- **The building contractor:** who is responsible for the construction of the scheme.
- **The market intermediary:** who provides professional advice and services; for example, financial appraisal (surveyors), design (architects), legal guidance (solicitors), marketing (estate agents).
- **The occupier:** who will derive direct use and benefit from the completed development.
- **The regulator:** various public bodies regulate the development and use of land through the planning and building control system, other regulations, and via the provision of infrastructure and services and their involvement in land assembly and development.

A distinction needs to be made between the more significant and active roles in the development process - development, funding and occupation - and passive or supporting roles - landownership, construction, intermediation and regulation. The CSI research focused on the former roles and the actors who perform them. Considering these in more detail, we find the following.

The **occupier** derives a functional benefit from using a building. It is treated as one of the factors necessary for the production or delivery of the goods or services with which they are involved. The occupier's profits are derived from the sale of the goods or services and the building will be assessed according to the efficiency and effectiveness of its contribution to this wider aim. The better the building performs in this regard, the higher the **rent** it will command.

The **investor** derives a financial benefit from owning the building, in the form of rental income and capital appreciation. In order to determine a price for the building, the investor will identify an appropriate rate of return or, in property terms, a **yield**. Yields are determined by the investor's expectations of future returns from the property, the risk that these might not be achieved and the returns/risks of competing assets. The higher the quality of the property in these terms, the lower the yield and the higher the **capital value**
(roughly equivalent to price; see Fig 3.1).

The **developer** makes a profit by developing a building whose value or selling price, is greater than the costs of producing it. To do this they must design a scheme that meets the needs of the occupier and the investor – hence optimising rents, yields and capital values – and manage development costs such as those for land, finance and expertise. The development will proceed only if, in the developer's view, **the value is likely to exceed costs by an amount sufficient to compensate her/him for the risk and effort involved**.

Figure 3.1: The Estimation of Capital Value

An investor is considering the acquisition of an office building in the centre of a large city, occupied by the regional headquarters of an international firm. The tenant is paying an annual rent of £1m (€1.27m). The investor regards the building as a low risk investment because of its location and the quality of the tenant. Consequently, an initial return (yield) of 6% pa. is required. The capital value of the building is therefore estimated at £16.67m (€21.17m), using the following formula.

Capital Value = Rent/Yield = £1,000,000/0.06 = £16.67m.

If an identical building was in a poorer location it might command a lower rent from a less prestigious occupier – say £800,000 pa. paid for the headquarters of a regional firm. The investor would consider such a building to be a higher risk investment and would require a higher rate of return (yield) – say 7% pa. The capital value of the building would therefore be £11.43m (€14.51m).

Capital Value = Rent/Yield = £800,000/0.07 = £11.43m.

The property market portrayed thus far is one in which each actor performs a specific, discrete role. In these circumstances, an individual building must satisfy three sets of requirements. It must meet the long-term functional needs of the occupier (tenant); it must meet the long-term financial requirements of the investor (owner); and it must be a source of short-term profit for the developer (producer). Inevitably, tensions arise between these requirements - for example, between immediate development costs and long-term management costs or between a design tailored to the needs of the initial occupier and one that promotes easy re-letting, following a vacancy. Where actors perform more than one role, such conflicts are internalised. Owner-occupiers, by definition, benefit both functionally and financially from property use and ownership; and they can determine the balance between the two themselves. Developer-investors, who retain schemes once they are built and let, can trade off the short with the long term costs and benefits. And self-builders who incorporate all three roles can internalise all conflicts.

3.2 International variations in the institutional structure of the property market

As mentioned, the nature and the number of actors involved in land and property developments can be extremely varied. This is well illustrated by comparing the degree of involvement by public and private developers in the UK with that in continental Europe.

In the UK, most industrial development is privately driven. In contrast, in continental Europe, most industrial estates are developed by public organisations. In Wallonia, a partner region of the CSI project, the vast majority of estates are produced by regional development agencies such as SPI+. In North Rhine-Westphalia (NRW), another partner region of CSI, there is also a high level of public sector activity in the industrial property market. In NRW, commercial areas on former agricultural land are developed mainly by municipalities. This institutional market structure is also observed in France and in the Netherlands where the vast majority of the economic estates are supplied by municipalities (Demazière, 2002; Needham and Segeren, 2005).

In continental Europe, public organisations supply land for economic estates for a number of reasons. The first is to facilitate regional development and employment growth. Beyond this, French or German municipalities also supply land in order to attract economic activities in their areas, as their financial resources rely heavily on this tax base. Those motivations explain why public developers tend to offer commercial sites at low prices (made possible by subsidies or hidden transaction costs). As private actors have to follow the prices set by public organisations, the commercial land market is therefore very unattractive for companies seeking to derive a profit from property development. In fact, private initiatives are usually limited to the development of spatially intensive property products, like office parks.

In North Rhine-Westphalia and the Ruhr, the private sector is more active in brown field development. This usually involves large land owners - such as subsidiaries of coal and steel companies who do not have to pay for the land acquisition - as well as private companies buying, developing and selling / renting plots for specific uses. They are joined by semi-public developers (Landesentwicklungsgesellschaft (LEG)) that are owned by the state government but act like private enterprises. Many brownfield projects in the Ruhr are funded by the state government (and the EU). Indeed, the conjunction of low land values and high remediation costs render redevelopment uneconomic.

This differentiation between the UK and continental Europe is related to public policies of urban containment. In continental Europe, the intervention of public developers makes it easy and

cheap to locate on new economic estates developed on peri-urban, greenfield sites, whereas in the UK containment policies are very strict. As a result, it is more common for British firms to develop their activities on brownfield rather than greenfield sites.

Consequently, there are broad differences in the operation of the property market and policy regarding brownfield redevelopment between the UK, on the one hand, and continental Europe, on the other. One relates to the funding of land treatment and preparation for development, including the enhancement of landscape quality. In the UK, restrictions on the supply of land reinforce high property and land values. Thus private landowners and property owners and occupiers meet the costs of remediation and improvement works on most sites. Public grants are restricted to a small proportion of the most contaminated and/or undevelopable sites (Catney et al, 2006). The more relaxed supply conditions and lower property and land values on the continent (notably in Belgium and Germany) prevent the adoption of such an approach. Instead, wider application of public subsidy to land remediation and improvement reduces such costs, allowing redevelopment to occur.

Another difference between the UK and continental Europe relates to the market actors and their roles. In the UK, most new business property is privately developed for rent. This makes it necessary systematically to distinguish the three roles of investor, developer and occupier. This also means that occupiers have little direct influence over the location and design of accommodation because their requirements are second-guessed by developers and investors. The potential for misperception is significant. In Belgium and Germany, a much larger proportion of new business property is owner-occupied, and there is also a greater tendency for businesses to arrange for the construction of such property (self-provided developments). Consequently, occupiers have a much greater influence over the type of accommodation that is supplied, reducing conflicting requirements. Property design is more likely to acknowledge and meet their needs.

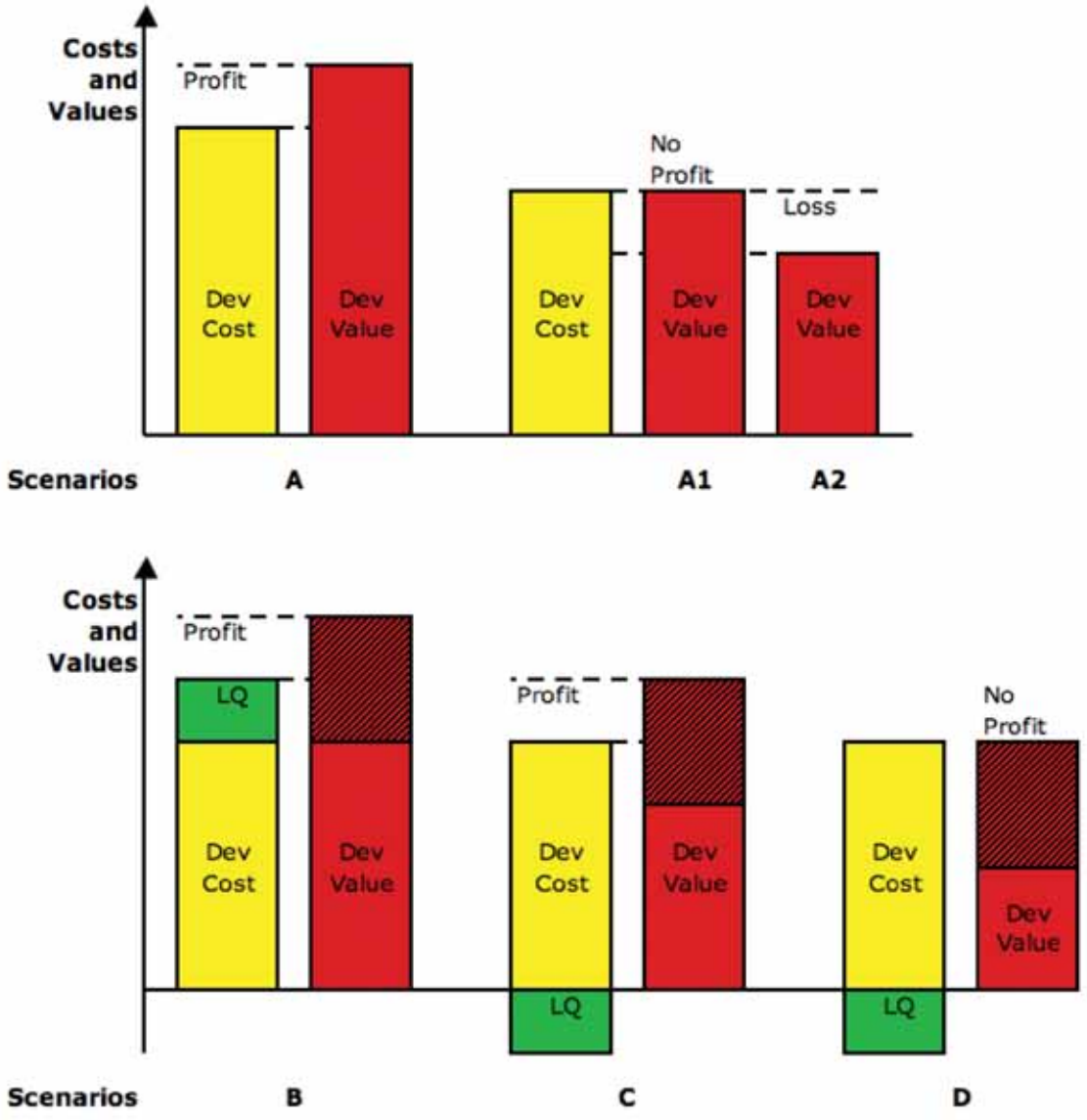
3.3. Landscape quality, market mechanisms and brown field redevelopment

The landscape leverage effect

How might higher quality landscape affect investment decisions and, hence, development potential? The principal relationships can be explored through a simple example (see Figure 3.2). The starting point is viable development in a strong property market. Here, demand for business accommodation from occupiers and investors is such that development values exceed development costs, so development is profitable and will occur (scenario A). However, the development of brownfield sites in weaker markets is not viable. Lower demand results in lower land and property values; but significant site treatment and preparation costs mean that overall development costs are high relative to development values. Consequently, development either makes insufficient or no profit (scenario A1) or a loss (scenario A2) and so does not occur.

In scenario B, the landscape quality (LQ) of the site and its surroundings is significantly enhanced by the developer. As a result, the development costs increase by 20%. The higher quality of the landscape increases occupiers' demand for space on the scheme. They are willing to pay an extra 20% in rent. At the same time, investors perceive that the higher landscape quality of the scheme is attracting better tenants who are able to pay higher rents. This increases the scheme's rental and capital growth potential, and reduces investment risk. The required rate of return - the yield - is reduced by 20% as a consequence. The increase in the value of the scheme (hashed in Figure 3.2) now makes development viable (see Table 3.1 for an illustrative calculation) and the developer decides to redevelop the brown field site.

Figure 3.2: The Landscape Leverage Effect



If the demand for business property is weak - as in many old industrial regions in Europe - then development values will be low (A2). The positive impact on the scheme's value of improvements in landscape quality will not be sufficient to make the development viable. In these circumstances, it would require the landscape improvements to be funded by the public sector in order to allow development to occur (scenario C). In declining areas of very weak demand, development values may be so low that landscape improvements - even when publicly funded - will still not result in a viable development (scenario D). In such a context, other important subsidies - possibly for site treatment and preparation works - may be necessary to allow redevelopment to occur. Such public intervention may be considered legitimate because the regeneration of industrial brownfield land is a key public objective for many authorities, particularly in regions marked by their industrial past.

Table 3.1: Illustration of the Landscape Leverage Effects in Scenario B

VARIABLE	ORIGINAL SCHEME (A1)	SCHEME WITH ENHANCED LANDSCAPE QUALITY (B)
Development cost	£10M (€12.7M)	£12M (€15.24M)
Rent per annum (R)	£0.8M (€1.02M)	£0.96M (€1.22M)
Yield (Y)	8%	6.4%
Capital Value (R/Y)	£10M (€12.7M)	£15M (€19.05M)
Profit: Absolute	£0 (€0)	£3M (€3.81M)
Profit: % of cost	0%	25%

3.4 Landscape Quality and Investment Decisions

The impact of improvements in landscape quality on property development described above depend upon occupiers, investors and developers perceiving the advantages of better landscapes and acting upon those perceptions. But do investors' decision-making processes incorporate consideration of landscape quality? And, if so, what weight is given to landscape quality, relative to other influences on investment?

To answer these questions, research was undertaken on relevant actors in Belgium, Germany and the UK covering both site/local and sub-regional/regional aspects of investment decisions. Work in the UK, involving in-depth interviews of investors, developers and occupiers, characterised their investment decision-making processes. These can be divided into two main parts. The first part relates the need to invest in, develop or occupy new business accommodation to the broader strategy of the company. This will also have a major influence over the regional location that is selected arising, for example from: the required geographical structure of a property investment portfolio; the regional pattern of a developer's previous activities; and the regional location of a company's existing estate. All of these embody the companies'/decision-makers' perceptions of the potential offered by relevant regions for successful property investment, development or occupier business activities. The second part of the decision-making process involves a progressively more detailed examination of a range of local and site-specific factors that are considered to affect property performance in investment, development or occupational terms (see Table 3.2). It is here that landscape quality may have an influence on decisions. The degree to which it does is considered for each type of decision-maker in turn.

Occupiers

Location is the factor that most influences the site selection decision for occupiers. Car parking, access and flexibility in rents and leases were also considered important. Occupiers place little emphasis on landscape quality in their decision-making. While formally it 'plays no role at all in decision-making', landscape quality may be considered 'as part of assessing the wider package of the site' and 'is important in contributing towards a high quality space'. This suggests that landscape quality 'could be considered a secondary issue'. It was felt that landscape quality might also be considered in a negative manner, 'if you take it away (or it malfunctions in some way), then people really do notice it'.

Table 3.2: Local and Site-specific Factors Influencing Decisions

INVESTOR	DEVELOPER	OCCUPIER
▸ Return/risk relative to the portfolio; return/risk of property in its own right (depending on nature of investment strategy ▸ Location of site ▸ Access to workforce/staff ▸ Accessibility of site - private transport (particularly car parking ratios) ▸ Building design ▸ Quality of tennant and potential for voids ▸ Physical environment and quality of external environment	▸ Location ▸ Return of the site in its own right and rent ▸ Private transport access and car parking ▸ Quality of tenants and potential for voids ▸ Building design ▸ Accessibility ▸ Physical environment ▸ Sustainability	▸ Location ▸ Car parking ▸ Access to public transport ▸ Flexible rent/lease terms ▸ Flexibility of space ▸ Building design and size ▸ Signage to site from main roads ▸ Access to suitably skilled workforce ▸ Opportunities for networking on site ▸ A good impression for visitors

Developers

Private developers do not consider landscape quality a priority in decision-making, either for themselves or for the occupiers for whom they are providing space. While developers emphasised the importance of the needs and priorities of the occupier in the development decision, none did so unprompted. Developers do not think that improving the quality of the external environment will generate more rent or more rental growth, although they feel that it will increases the attractiveness of a site, making it more desirable to potential tenants. Consequently, a site might let quicker and the improved landscaping might generate more demand for it. In addition, developers thought that a high quality external environment had the potential to attract higher quality tenants.

Investors

Discussions of occupiers' requirements highlighted two issues. First, investors are not interested in landscape quality and they believe that occupiers are also not interested in it. They do not think that occupiers will pay more rent for higher landscape quality, although such a feature could increase the liquidity and desirability of the asset. Second, investors view a scheme as a financial asset rather than as a physical site occupied by tenants. The only time that this might change is in a market downturn, where issues of occupier retention become increasingly important to investors. However this does not necessarily translate to a concern for landscape quality because investors perceive it to be extraneous to occupier requirements - a bonus factor only.

The research found that none of the actors, when questioned directly, placed any significant level of importance on landscape quality in their decisions to occupy, develop or invest in business accommodation. However, while no formal, explicit attention is given to landscape quality, it is incorporated indirectly into the consideration of the site, framework and setting of business parks. Developers acknowledge that the development and performance of some sites would be hindered by inappropriate landscape treatment. Also, there are aspects of landscape quality that are appreciated by occupiers but not by developers and investors; for example, the importance of outside space and amenities for employees (discussed in section 2 of the report). There is potential for the more 'removed' perspective of investors and developers to result in differences between their view of what occupiers want (and therefore what they provide) and what the occupier actually wants. Consequently, it is important to consider occupiers' preferences further.

3.5 Occupiers' views of landscape quality

To tackle this issue, empirical research was undertaken in Belgium and the UK into office occupiers' views of landscape quality. They were asked to indicate how landscape modifications would affect their willingness to pay for new office space that was otherwise identical. This was done by presenting them with visualisations of a scheme to which were attributed three levels of landscape quality (low, standard [the reference] and high), applied to two spatial levels (the immediate setting and the wider area; see Figure 3.3). A rent was quoted for the referent version of the scheme with standard landscape.

Figure 3.3: Willingness to Pay for Landscape Quality

Figure 3.3: (continued) Willingness to Pay for Landscape Quality

Table 3.3: The Variation of Proposed Rents with Landscape Quality

	IMMEDIATE SETTING HIGH QUALITY	IMMEDIATE SETTING LOW QUALITY	WIDER SETTING HIGH QUALITY	WIDER SETTING LOW QUALITY	NUMBER OF OBSERVATIONS
Belgium	4.8%	-7.8%	5.4%	-10.0%	26
UK	5.3%	-5.3%	5.4%	-12.2%	36

quality. The occupiers were asked how much more or less rent they would be willing to pay for space in the alternative versions of the scheme. Table 3.3 presents a summary of the results. (NB. This was not a formal willingness to pay experiment, as the number of cases was too low to produce results of any statistical validity).

The similarity of the responses in the two countries suggests that the relative impact of landscape quality is not dependent on absolute rental values. It is not surprising that some relation is apparent between accepted levels of landscape quality and the character of regional markets. In regions where rental levels are high (the South East of England or the main metropolitan areas of North-west Europe) the general expectations of levels of landscape quality are also high. Consequently, property values will cover the additional landscaping costs. In contrast, such costs would be more difficult to cover in less prosperous regions (for example, many traditional industrial regions) with lower property values and lower expectations regarding landscape quality.

Consequently there the level of economic development is lower, local market actors will be less accustomed to high landscape characteristics. Three observations may be made about occupiers' views on landscape quality as they were expressed through proposed rents. The first is that variation in landscape quality has a limited impact on proposed rents, ranging from +5.5% to -12.5%. The second is that occupiers placed more emphasis on discounting the effect of poor landscaping than on adding a premium for high quality landscaping. This reinforces occupiers' already stated views on the point (see above). The third is that occupiers' were more concerned about the landscape quality of the wider setting than of the immediate setting. This may be related to the importance they give to wider (regional) location factors, relative to site-specific factors.

Consideration of the differentiation between the immediate and wider settings leads us to the results of the survey at Seraing LD-Colard (one of the CSI demonstration sites in Belgium). Seraing is a major municipality of the Liège area, located in the region's main industrial valley. It has a poor social and environmental image resulting from the decline of the traditional steel industry. The 2 hectare site, previously occupied by steelworks, has now been regenerated and redeveloped as an economic estate by the development agency SPI+. The study of Seraing LD-Colard shows that an improvement of the site landscape quality (at the 2 hectares site scale) would not significantly improve its attractiveness. To do this, intervention would be necessary at an area scale. The ambitions of the Municipality of Seraing confirm this idea.
A transformation will take place over the coming years, with the implementation of the Master Plan for the Seraing valley; a programme of redevelopment of 800 hectares of land, creating a green network (See: www.eriges.be/).

Another problem for the LD-Colard site is the competition of more attractive economic estates. Situated on greenfield rather than brownfield land, those estates benefit from better road access - as well as a better image (more dynamic and more "green"). Indeed, a weaker supply of land in out-of-town locations could orientate more firms towards former brown field locations (Guilliams, 2007). However a cautious approach is recommended as too much restriction on land supply could hinder the development potential of land-intensive companies that genuinely need an out-of-town location to be competitive (Evans and Hartwich, 2007).

3.6 Site 'greening' and land values

While property investors and developers may explicitly report that landscape quality has no significant influence on their property decisions, some of their comments suggest that it may nevertheless affect those decisions. This possibility was examined. The focus of the work was the relationship between landscape quality and land values. As we have seen, property prices determine land prices, because land values are a residual after other development costs are subtracted from development values (Cheshire and Sheppard, 1989; Ball, 1996). Consequently, variations in land values incorporate the effects of changes in development

Figure 3.4: Brown and Green Hypothetical Sites:

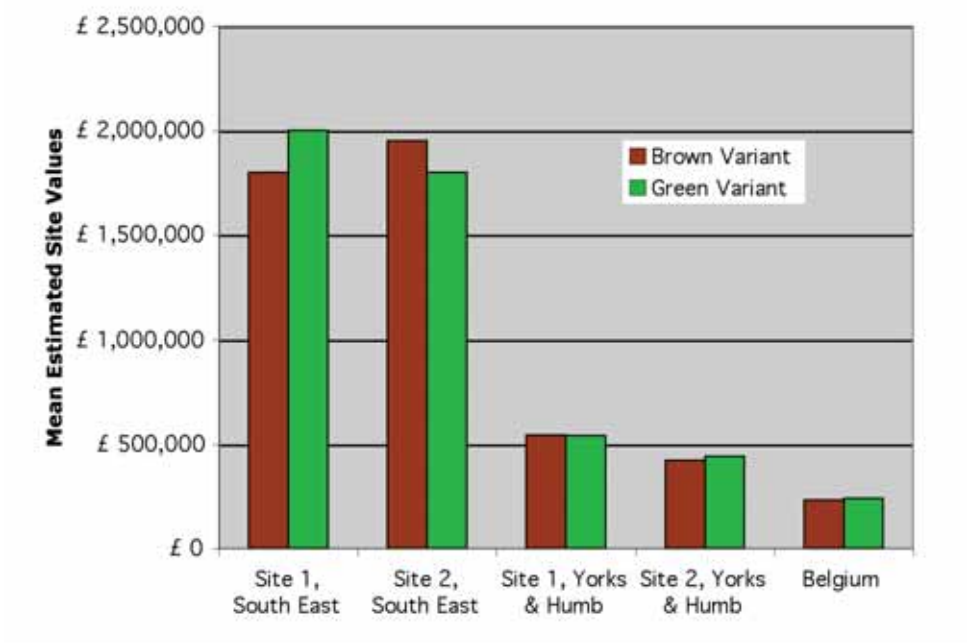
Site 1 Brown Variant

Site 2 Brown Variant

Site 1 Green Variant

Site 2 Green Variant

Figure 3.5: Estimated Mean Values of Brown and Green Sites



value and its constituents (rents resulting from occupiers' decisions and yields/capital values resulting from investors' decisions), and development costs (estimated/managed by developers in the light of their assessment of values). These relationships are formalised in professional valuation processes (Isaac, 1996; Havard, 2008). Thus, if landscape quality has a quantifiable impact on property development, it should be revealed in land values.

Using computer modified site images and descriptive text, professional land valuers in the UK and Belgium were presented with hypothetical sites to value. Using pairs of sites - an original, brownfield site and its 'greened' equivalent - the methodology allowed comparison of the values of the brown site and the green site (see Figure 3.4). All factors, with the exception of **the greening of the boundary of the site and the adjoining land**, remained constant, enabling the isolation of the impact of greening on land value. Consideration was limited to the setting rather than the site because if there are landscape features on the site then the developer will remove them, otherwise the features will restrict what can be developed on the site. Natural features protected by planning will be incorporated into a development, but developers prefer to add their own landscaping to maximise flexibility.

Hypothetical sites in a high and a mid-to-low demand region in each country were used: the South East and Walloon Brabant, and Yorkshire and Humberside and Liège, respectively. This provided evidence on whether greening has a different impact on land value in different types of market.

A comparison of the valuations for the green and brown versions of each site in each region in the UK shows that there was no clear, statistically significant relationship between landscape quality - as indicated by greening - and land value. Similarly, in Belgium there was no statistically significant difference in the value of the green and brown versions of the sites (see Table 3.3).

The findings lend no support to the hypothesis that for business parks, higher landscape quality - in the form of the greening of the boundary of the site and adjoining land - will be associated with higher land values. However, in a qualitative response, the majority of participating valuers in the UK and Belgium believed that landscape quality does have an impact on value, even though it may be modest. However, these opinions were not reflected in the estimates of the values of the green and brown sites described above. It may be that the rental increases are too small to have an effect on the valuation figures established by the participating valuers (see Table 3.3 Material relating to two pairs of brown and green sites was prepared. Respondents were presented with one of each kind in a random order. This allowed the testing of the greening to be undertaken independently of both the order in which the sites were evaluated and the nature of the site). This result is consistent with the retrospective analysis undertaken in the Rhur, where the landscape measures within brown field redevelopment projects did not result in higher land values.

3.7 Summary

The empirical results discussed in this chapter tend to show that the conceptualisation of the relationship between landscape quality and brownfield redevelopment is still too basic. It is unlikely that the regeneration of many brownfield sites will be achieved solely on the basis of improved landscape quality. No leverage effect could be observed for landscape treatment applied at the scale of individual brownfield redevelopment project. However, the importance of the landscape dimension in the context of a wider,strategic regeneration strategy needs to be stressed. Indeed, to improve the image and economic attractiveness of local areas or regions that are still marked by their industrial past, great emphasis needs to be placed on the physical dimension."

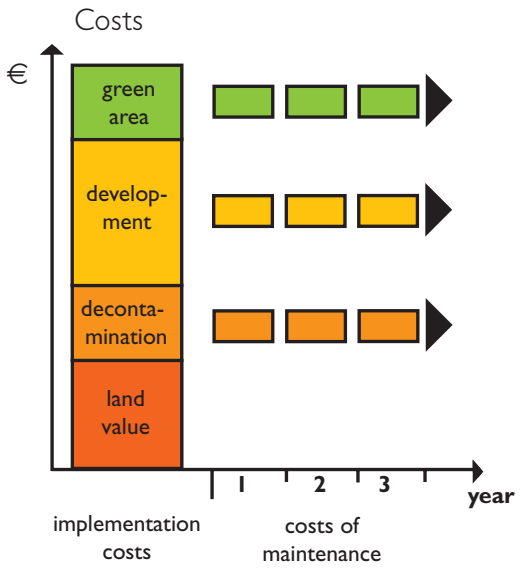
4. The costs and benefits of landscape quality enhancements on brownfield sites

Author: B. Mielke

4.1 Costs

The process of brownfield redevelopment entails many costs: initial land investment, land decontamination, development of infrastructure, implementation of landscape measures and ongoing costs for the maintenance of these investments. The CSI research action on Cost Benefit Analysis considered the costs involved in landscape quality implementation, using analysis of land values of commercial areas and the surrounding residential property in the Ruhr region over a 35 year period.

Figure 4.1: Types of maintenance costs



As costs for high landscape quality depend fundamentally on individual circumstances and the individual conceptual framework, it is impossible to generalize on this point, however a retrospective analysis of completed brownfield redevelopment projects with high landscape quality can provide useful pointers. Sites studied in the Ruhr area showed that the cost of landscape measures ranged from 4 to 10% of total investment costs; interviews with developers in this area drew the same conclusions. It is also evident that landscape measures can actively contribute to cost reductions, for example if contaminated soil is used within the landscape scheme on the site - for example to create feature mounds - instead of being expensively transported elsewhere for disposal.

Regions facing structural change often possess an excess supply of commercial areas. Given these circumstances, costs of landscape measures on brownfields cannot be refinanced by higher selling prices. Sites in a high quality setting are preferred by occupiers but landscape quality is seen as a bonus, not as a requirement.

A separation of the commercial area and the green spaces will often be more cost-effective than a mixture of buildings and landscape because less infrastructure is needed; green spaces in cities cause considerable maintenance costs. In the long run they can prove to be a bigger expense than the original investment, although this depends on the required quality level. Near-natural design - for example the "Industriewald" (woodland on former industrial areas) - is actually cost-saving whereas high maintenance areas such as flower beds are more expensive. These maintenance costs need to be considered at an early phase in a site master plan.

If there is no demand for business parks with high-quality landscape by companies in an area, it might be an alternative to develop a traditional industrial site and green spaces for the local community side by side. This is very site dependant and might be cost saving in some cases, while in others a joint development could be more effective.

4.2 Benefits

High landscape quality brings many benefits, both directly and indirectly:

- Direct benefits which accrue to the investor:
  - Sites with a high landscape quality are preferred by occupiers. This can give an advantage over comparable alternative locations.
  - Landscape measures can contribute to cost reductions, for example if contaminated soil is used to create the new landscape features instead of being dumped.
  - High landscape quality improves the community perception of the commercial development,

Figure 4.2 Woodland on former industrial area

Figure 4.3 An attractive environment for business

reduces the "nimby" (not in my backyard) factor and facilitates the project.

- Green spaces can be given "temporary status" with the potential to become economically used land if required. This flexibility is an important asset.
- If accessible to the public, the green spaces of business parks which are developed on brownfield land could be sold to the municipality. The revenue could contribute to the redevelopment costs.

- Indirect benefits that accrue to other groups, i.e. to the community:
- A green surrounding often increases the value of neighbouring residential property. This can also cause an increase of property tax revenue.
- High landscape quality in business parks can improve the local and regional economic performance by increasing confidence and attracting an influx of skilled labour.
- Green spaces can improve ecological values.

In some cases it is difficult to place a single financial value on the impact of the benefits. The economic valuation of the ecological assets of green spaces is highly speculative. Nevertheless these benefits should be accounted for in decision making

Figure 4.4 Hills constructed from contaminated soil

Figure 4.5 Business parks can reduce a deficit of green spaces

4.3 The impact of landscape quality on land values: an empirical analysis of the Ruhr

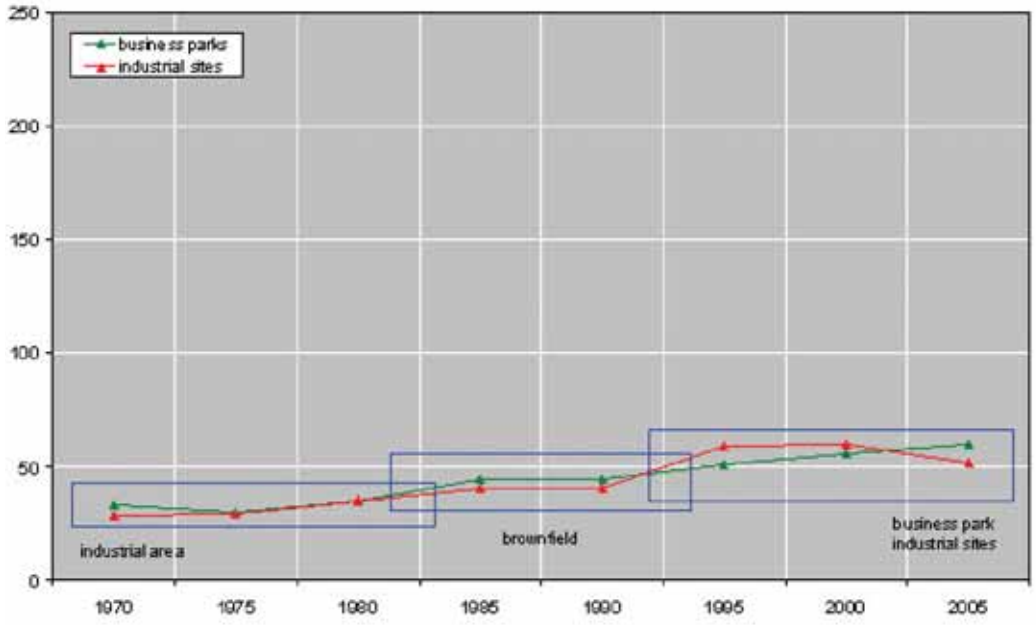
The land values of commercial areas and the surrounding residential property in the Ruhr region were analysed over a 35 year period with three main results:

- The initial hypothesis that landscape measures within brownfield redevelopment projects result in higher land values could not be confirmed through this research. Surveys with company owners and municipal development agencies came to the same result, namely that occupiers often favour landscape measures, but are not willing to pay higher prices for them. This may be due to a discrepancy between supply and demand for commercial areas in the Ruhr region. Competition between sites developed on agricultural land in the suburban municipalities has made it easy for companies to find convenient sites at low prices. Furthermore, in the Ruhr area, demand is largely derived from light industry which does not expect or necessarily place a lot of importance on sites with high landscape quality. Service companies tend to have a more positive attitude.

Further direct effects of a high landscape quality which could not be quantified in the study, should also be taken into account. The acceleration of the selling process, the gain in flexibility, cost reductions and the reduction of the nimby effect can be decisive advantages for the investor.

The hypothesis, that green spaces cause higher land values, is supported by the situation in the surrounding residential property: Corresponding with results of former studies (Halleux, 2005), the green spaces of the business parks counteract a substantial deficit of the Ruhr region and upgrade the attractiveness of the environment of the local neighbourhood. Redevelopment can convince the local community of an increase in the future

Figure 4.6 Development of land values of business parks and industrial sites on developed brownfields 1970 - 2005



prospects of their area, and thus encourage economic activities. The improvement of the environment is an important soft location factor and can help to attract skilled employees and enterprises from outside the region. Beyond that, suburbanisation may be caused by a lack of green spaces in cities, and the development of business parks with high landscape quality which the community can access can be an important contribution to counteract the effects of suburbanisation.

4.4 Limitations of Cost Benefit Analysis

The empirical analysis from the Ruhr example covered only part of the benefits of high landscape quality on commercial areas; a reliable estimate has not been possible in this case;

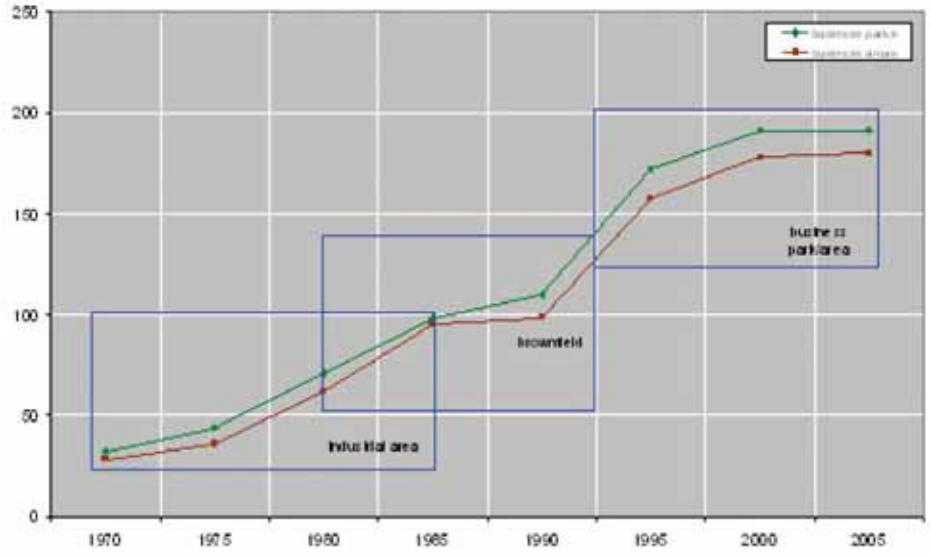
- Not all the effects are easy to quantify (i.e. ecological effects, the reduction of the nimby factor or improvement in regional image)
- There are several other factors that influence land values and regional development.
- The time lag between measures and effects further complicates matters: Brownfield redevelopment projects often need a decade to be finished, further time is needed for the planting to mature and the upgrading of the environment to become visible, and even more before an influence on the regional image or other indicators can be measured. This makes it difficult to prove that there is an interrelationship between landscape measures and its targets.

Ultimately, an exact quantification of the efficiency of landscape improvement measures on commercial areas is not possible. There is however evidence that:

- on the community scale, landscape quality lifts land values of the surrounding residential property and;
- on the regional scale, the case of the Ruhr region shows that the image of a region can be substantially improved by innovative landscape elements.

A single brownfield redevelopment with high-quality landscape might not make the difference; the measures need to be part of a long term, integrated regional strategy in order for landscape quality to make a major contribution to regional regeneration.

Figure 4.7 Development of residential land values in the neighbourhood of business parks and industrial sites on developed brownfields 1970 - 2005



Given the long-running nature of most redevelopment projects, and the intangibility of several effects, an exact estimation of the efficiency of high-quality landscape on commercial areas is not possible. Cost of landscape measures on brown fields will often exceed the measurable benefits, but the cost of doing nothing is greater still.

Figure 4.8 Time is needed for planting to mature

4.5 Summary

A direct relationship between high landscape quality and increased land values could not be shown in this study, however, the hypothesis that green spaces bring about higher land values was supported for surrounding residential property: The green spaces upgrade quality of life, which is required to attract skilled employees. It can improve the image and setting for investment as a soft location factor. This can encourage a community to tackle local potentials and face up to future demands, and helps to achieve economic and population stability, making high landscape quality profitable from a regional point of view.

A single brownfield redevelopment with high quality landscape will not make the difference. The measures should therefore be part of a regional strategy, addressing economic and social factors. Then landscape quality can be a major contribution to regional regeneration.

5. Landscape quality and the community context

Author: C. Ruelle

One of the key location factors for certain companies is the presence of a qualified workforce. This is true for research & development companies, technical services companies, and telecommunication & computer companies (Bachmann et al, 2003). This conclusion progressively reverses the traditional thinking that communities locate near big companies offering them employment. In this evolving context, landscape quality, along with other factors contributing to quality of life for communities, becomes increasingly a central issue.

A big challenge faced by post-industrial regions is attracting and keeping skilled and young workers in order to facilitate economic conversion. This is where community perceptions become important, and inter alias landscape quality perceptions. Attractiveness to communities plays a role at several spatial levels: at the level of a city region, but also at the level of particular neighbourhoods. CSI research on community perceptions revealed a relationship between the perceptions citizens have of their neighbourhood (pleasant, secure, dynamic authorities versus unpleasant, insecure, political inertia) and the fact that they plan (or not) to move elsewhere in the future. The main conscious landscape attractors were found to be the natural elements (trees, greening/planting) and the overall image and design. Several relevant studies have been conducted on the influence of trees and greener landscapes on residential property values, testifying how attractive natural landscape features are for communities (Halleux, 2002).

If landscape quality attracts communities, the opposite is also true. Bad-looking sites have a negative effect on communities. Vacancy, dereliction and inertia on a particular site waiting for investors can for instance be very damaging for the surrounding neighbourhood. Pricing studies found evidence that derelict brownfield sites have negative effects on nearby residential values (Letombe, Zuindeau, 2001). In two neighbourhoods visited for CSI research, housing a disused used former industrial site, recurrent community reactions were *'do something, anything, but don't leave it empty like this!'* Temporary uses and / or pre-greening of such sites should be further encouraged as a way to reduce this negative effect on whole neighbourhoods.

Lack of maintenance produces the same negative impact on communities' perceptions, and as a consequence, on a whole neighbourhood. At Courcelles, in Belgium, regeneration of a former brownfield site into a public accessible green space was first perceived as very positive by the local community. After several years, with little or no maintenance, most of the benefits had been lost.

The first inhabitants to leave an area perceived as "declining" are those for whom it is easier - the skilled workers - resulting in progressive social marginalisation of a neighbourhood. A vicious circle of bad reputation and physical degradation usually follows, as has happened in numerous European urban neighbourhoods formerly home to flourishing industrial activities. The link between dereliction and deprivation is well known. The best way to reverse a declining trend is less obvious; but it is clear that investing in environmental improvements is fundamental in helping a region or a neighbourhood re-enter a positive dynamic, create a sense of community pride and encourage investment.

5.1 Involving communities to ensure successful redevelopment

Today, the successful progression of a regeneration scheme requires a sufficient level of community acceptance. Community involvement in decision-making processes has been legally mandatory since the implementation of various EU initiatives (Aarhus convention, EA procedures, EU Landscape Convention), and local communities are increasingly taking the opportunity to express their opinions.

It is now commonplace to see a scheme stopped by a judicial recourse introduced by local committees or associations. The 'nimby' syndrome does not explain everything; broader public controversies are emerging with themes relating to symbolic values, heritage, or landscape. Citizens are progressively taking the place that EU legislation made for them in the land planning debate, and this is their right. In numerous local contexts, this still creates a stir because local public/private actors are not yet able to accept or manage this new participatory approach. It regularly leads to very long and expensive judicial conflicts, creating bitterness on all sides - public authorities, private developers and communities.

Community involvement is also important to ensure the long-term success of a scheme. Economic developments need to be socially integrated (creating the social setting for investment) otherwise the risk is high for a lack of "absorption" of the project by its neighbourhood, which can lead to low commercial success, vandalism and incivilities.

5.2 Using landscape quality for community acceptance

CSI promotes location of compatible economic activities on urban brownfield sites, as a way to reduce urban sprawl. This type of situation can also act as a means of social control from the local community onto the economic park (usually deserted outside working hours); an advantage compared to parks located outside the city. Another asset is a better accessibility by public transport, as well as a better accessibility for employees to local services, contributing to the redevelopment of the local urban economy and leading indirectly to job opportunities.

The idea of locating a new business park in a densely populated area can create fear among communities, due to the negative visual perception of 'standard' economic parks - often seen as ugly boxes in the middle of 'desert' plots, due to decades of low landscape quality. A working place can also be beautiful, but many companies and citizens still cannot imagine this possibility. During CSI community surveys, usual reactions to photos of a familiar economic park were: *"Well it's an economic park!"*… *"Of course it's ugly but they must work!"*… *"It's not attractive, but it's industrial buildings, it cannot be beautiful !"*… *"We need industries, so what?"*

However, when simulations of landscape improvements (see Fig 5.2), were then proposed to survey respondents, their reactions were very enthusiastic, providing evidence that better landscape quality in economic developments is likely to reduce negative community reactions.

Going a step further, providing public access to or through economic development sites, or even developing part of the site into a green area usable by both local communities and employees is a way of building more sustainable communities.

Accessible green spaces can also be a way of compensating for possible nuisances of economic developments (traffic, noise, pollution, etc) that are likely to alarm communities: it offers them outdoor spaces for various recreational activities, plus the wider benefits of increasing the number of green "patches" in the urban environment. These have been demonstrated by previous research projects (BUGS Project): improved air quality, lower noise levels, temperature regulation, economic gain and quality of life.

These greening measures represent marginal investments when compared to the total budget allocated to a comprehensive redevelopment scheme: what is the additional cost of extra planting, paths and benches likely to satisfy community's needs and expectations? Such environmental improvements may even be co-financed by the

Figure 5.1 Typical economic landscapes that contributed to create a negative mental image and fear of economic schemes in general.

Figure 5.2 Images that received positive reactions during community surveys.

public authorities, and can bring better public acceptance and a form of social control on a redeveloped site.

Company heads can be put off by the possible nuisances created by the presence of local communities (noise disturbing employees from their work for example), but good design can easily create a clear distinction between spaces to work and spaces for leisure. High landscape quality, delivered by experienced designers, can be a key tool in achieving synergy between businesses and communities, whose needs are after all complimentary - all stakeholders prefer neat, tidy and secure environments. An example of mixed use redevelopment can be found at Belle-Ile, Belgium, here business and commercial activities cohabit with public in well designed and agreeable green spaces without any problem.

Case Study 5 - Belle-Ile
Belle-Ile, Liege, Walloon Region, Belgium

Belle-Ile is a 13ha site of a former water pipelines industry, located in Liege city, on an island enclosed by a river and a canal. In the early eighties the industry stopped its activities, and the site became derelict.

Ten years later, Regional Authorities were developing a motorway link project in the vicinity of the site when a private developer expressed interest in the site. Its intention was to develop a shopping mall. Public authorities insisted that other economic activities were also located on the site and suggested the development of a business park next to the commercial scheme. Although first doubtful about the potential success of an office development in Liege, the developer finally accepted and started the construction of the shopping mall in 1994, followed by the eleven buildings of the business park between 1996 and 2003.

The private developer created a high quality landscape setting for the overall scheme, encouraged by the public authorities ensured that sufficient green spaces were planned, and that existing landscape features were conserved (existing plane trees along the river). The private developer financed all the road infrastructure for the site and built an access bridge over the river, linking the site to one of the main access roads to the city centre and to a residential neighbourhood. Regional Authorities developing the motorway link on the other side of the canal refurbished the canal banks into high quality green spaces, and built a footbridge linking Belle-Ile site to the residential neighbourhood on the other side of the canal. The total size of the private investment was €84.000.000, with investment related to green spaces only representing €20/m2, demonstrating that high landscape quality can be more of a question of will than a financial issue.

The occupation rate of the buildings has been at almost 100% since opening, and the local community, whose perceptions have been recently explored via a survey, appreciate the commercial facilities, the general image of the site and the surrounding green spaces. The Belle-Ile redevelopment scheme is an excellent example of a 'win-win' collaboration between all the key players, leading to the development of a high landscape quality place, and one of the most successful in Liege.

5.3 Connecting economic parks with the sense of place

"Townscape is formed by buildings, with trees and green spaces providing important accents" CEC Green paper on Urban Environment

Attaching new economic parks to local identity, using local architectural characteristics and renovating historic buildings can improve social acceptance and help achieve landscape integration in a scheme. Architecture is a key part of urban landscape quality. Architectural quality should therefore be encouraged in economic parks, especially when they are located in the vicinity of inhabited neighbourhoods. In the long run, architectural quality can also create economic value.

CSI promotes regeneration of former industrial sites into new economic parks. In this context, industrial heritage can be a key component of the landscape setting offered to investors and local community, creating a unique sense of place. This is why a period of reflection is recommended following the cessation of industrial activity, to decide, in collaboration with communities, which aspects of industrial heritage should be conserved. This reflection is very important since communities need time to consider the value of industrial remains (historical, cultural, identity, landscape and economic values). Fig 5.3 shows that interviewees living in the vicinity of working industrial machines have difficulty in appreciating these values because they are suffering from the immediate detrimental effects of industry, such as pollution.

Decision makers are offered much scope for local integration by conserving industrial features, which should always be considered as a possible element in a new scheme. Industrial landscapes are actually very strong, and to replace them with poor architecture and/or public spaces could be as harmful for the attractiveness of a place as doing nothing! Turning derelict industrial sites into golf courses or car parks can become like putting "lipstick on a pig" as said famous American landscape designer Julie Bargmann (McKnight,2007), who places great importance on the enhancement of cultural and environmental history in the redevelopment of former industrial sites.

Figure 5.3 Research action 4.6 - Exploring perceptions of industrial landscapes.

Duisburg landscaape park

460 people in 6 Walloon neighbourhoods were asked to choose their preferred site from images of 6 redeveloped sites (former industrial brownfields). About 20% of respondents in 4 of the neighbourhoods chose the Duisburg landscape park (see images on the left), however, these images were clearly rejected in the 2 neighbourhoods which are still suffering from industrial pollution: Seraing (7%) and Trooz (2%).

Additional results obtained in these 2 neighbourhoods provided further evidence that people still feeling the effects of industry only make negative associations with industrial landscapes, and are unable to discuss the heritage dimension or aesthetic value of industrial landscapes as long as plants are working.

People who chose the Duisburg landscape are interestingly younger and better skilled than the whole sample (460 respondents), they are more often single and without children, and they are more often creative and knowledge workers. This profile can reasonably be considered a "designing the future trend", which shows that these industrial 'machines' still have a cultural and heritage role. Traditionally there would be conflict between a desire to create a green environment and preservation of industrial relics but those who chose the Duisburg landscape saw the co-existence of a green, naturalized environment and conservation of the heritage as both possible and desirable

Figure 5.4 Erin economic park in Castrop-Rauxel (Ruhr area), developed on a former industrial site: a few historical remains have been conserved and cohabit with new business buildings, characterised by daring architecture.

Industrial heritage can also generate economic value as it is a powerful attractor for parts of the community, particularly young and skilled people. The potential of 'heritage' for economic growth has been much emphasised by recent studies (Jonas, 2006) and in this context, enhanced industrial landscapes have real economic value. The industrial aesthetic attracts potential tenants - evidenced by the trend for converting former industrial buildings into offices in many cities - and it is also a great asset for economic redeployment of a whole region. Evidence of this can be seen in the Ruhr area, which managed to enhance and transform the perception of its industrial heritage (Holden, 1995) through its integration and reuse in the context of new activities held in new, avant-garde places; public parks, cultural events, sport facilities, restaurants, tourist industrial heritage trails and so on. Today, the Ruhr area attracts millions of tourists and is once again a competitive region (www.projectruhr.de).

5.4 When and how to involve the community, and is it cost-effective?

Financial benefits of public involvement are hard to measure, and are better expressed as a way to avoid long delays, to ensure long-term success of a scheme (in many cases related to community acceptance), and to reduce the risk of vandalism and incivilities.

Financial costs of public involvement are important, and it is important to define the scope and scale of community involvement for each project. Helpful tools and proven methods for community engagement during the design process are available such as the RESCUE toolkit (Rescue 2004), which compiles methods applicable for brownfield regeneration. It is important that the approach chosen suits the specific context; if there risk of stirring controversy by proposing demolition of a local landmark for example, decision-makers would be wise to carry out a comprehensive public consultation. The cost of this process may be significant, but certainly far less than the cost of the project being blocked in a court. The "rules of the game" of the community involvement should also be clearly defined to avoid any misunderstanding, ie. how much weight is given to community opinions and how involved are they in the actual decision making process?

The use of independent professionals for facilitating community involvement is highly recommended. An independent actor is more likely to be welcomed and trusted by the community than someone associated with the developer or Public Authorities. They will also have the expertise to understand a local community's specificities and major concerns and interpret results of the exercise.

Communities should be engaged early in the development process before any definite conclusions or commitments have been made and at an early strategic stage where there are wider issues such as developing policy for a region-wide redeployment. When involving communities, decision-makers and developers must agree with "bottom-up" approaches; acknowledge that community involvement will influence the course of the project. If a project has already been well defined, public involvement can be counter-productive and likely to raise conflict.

A common frustration with community involvement is that arising data includes "everything and its contrary", so any decision taken will be unsatisfactory to some. However, the local community is simply one "category" of actors, like the group of people representing the Local Authority, or a private developer company, or any other stakeholder. As such, citizens enter the debate with their own interests, needs, requirements, backgrounds, information, expertise and contradictions. This heterogeneous information is likely to feed and enrich the debate, and therefore improve the quality of the final scheme but in itself will not provide a final solution.

Community participation is too often treated as a one-off 'box-ticking' exercise. There is far more value in pursuing a programme of participation throughout the process of the scheme. Post-project implementation evaluations involving the community are helpful, rapid ways of highlighting and resolving problems. If this had occurred in the case of the Courcelles site highlighted earlier, the problems created by lack of maintenance could have been addressed before the complete decline of the site. It could also provide a way of engaging the community in the ongoing management of the outdoor spaces (Greenscom project).

Image, visualisation, information and communication are very important. Even more important is that the information provided and approach to communication is appropriate. Inappropriately presented information can create barriers and engender fear amongst the community. The use of visuals is strongly recommended because it helps the public to demystify or even support a project. Visualisations of familiar places engage local people and facilitate debate as people feel competent to react to familiar images, comment on them and make suggestions.

5.5 Summary

Communities do pay attention to the quality of their local environment, and inter alia to its landscape quality. When they have the opportunity to choose, they will prefer high quality settings for living and working. There is thus a clear interest to investigate communities preferences regarding landscape quality, in order to increase the quality of life offered by some territories. Landscape quality should be a key objective for Public Authorities, especially in former industrial areas where dereliction and neglected landscapes are likely to foster social and economic marginalisation.

In the context of brownfield site redevelopment into new economic settings, better landscape quality is likely to increase local community acceptance towards this kind of redevelopment, and improve the image attached to "economic landscapes" in general. Creating common accessible green spaces between redeveloped economic parks and residential neighbourhoods is also a means to better

reconnect these two worlds. Landscape quality involves a wide range of issues, including aspects of heritage or local architectural and landscape specifities. Taking these into consideration for the design of economic parks is a further way to connect them to their surroundings, and to create a unique sense of place. Therefore, community landscape perceptions need to be investigated locally and innovative landscape solutions need to be designed for this local level.

6. CSI in action: An overview of investment sites

Author: M. Wilding

The CSI investment sites were chosen to illustrate sustainable approaches to regeneration and investments have been targeted at creating attractive places for business and investment through a variety of delivery mechanisms. Together they constitute a broad range of case studies demonstrating good practice.

Nearly 7 million euros of this 10 million euro project have been spent on landscaping and environmental improvements at brownfield sites, in the public realm, at gateway locations and in business clusters or parks in the United Kingdom, Belgium and Germany. CSI has directly contributed to the regeneration of over 200 hectares of land on nineteen separate sites, listed and described table 6.1.

All the investment sites are in areas previously defined by heavy industry and left vacant or in need of restoration by the decline of the coal and steel industries of the regions. The sites are on ex-coal tips and /or adjacent to emerging housing or industrial areas, they range in size from 0.25 to over 60 hectare. The investment sites represent a significant output of the project in itself not to mention their valuable contribution to the work of the research partners and a lasting green legacy to the regions participating in the project. More detailed information on each investment site can be found on the CSI website www.environment-investment.com

6.1 Successful partnerships

In many of the CSI investment projects the diversity of partners and funding regimes have been instrumental in their success, having a lasting impact on their surroundings and the communities living around the sites.

In Belgium, investments were carried out by, the development agency for the province of Liege, on land owned both by the Municipality and themselves. Work focussed on 3 sites, each with very different characteristics and remits. As far as possible the schemes responded directly to local needs and community wishes which has led to some interesting outcomes:

The work at **Trooz** has shown how landscape improvements can be achieved with a relatively small budget, but can still contribute to the image of an industrial park and the resident companies, whilst improving the outlook for the surrounding communitites by enhancing the site entrance and ensuring a coherent image for the site.

Ans Business Park provided vital new experiences in community engagement, with positive outcomes. As the site is directly adjacent to houses and sited within the community, work was undertaken to landscape the existing water basin area to provide recreation for the local community with natural buffer zones between the public and industrial areas which house small industrial units. Work at Ans has informed the development of the local draft plan.

Seraing LD & Colard sites have given important lessons in how to work effectively in partnership with private companies, mediated by landscape designers and architects. The challenge here was to prepare for the progressive dismantling of Arcelor industries in the Liège area and particulary in Seraing, through the greening of a test site that could be expanded to the entire zone. Project elements were designed to fit with the very specific industrial image of Seraing with the aim of creating better connections between sites and their natural environment and integrating the sites with a unique network characterized by a single 'green image'.

Each of the Belgian sites has acted as a catalyst for longer term, durable impacts, with funding through the CSI project enabling further funding to be drawn down from the municipality and private firms associated with the sites concerned.

Figure 6.1 Landscaping at Seraing.

In Germany, funding for the investment sites was through a private company, RAG Montan Immobilien in partnership with the local municipalities of each site.

The investment at a city quarter park at **Gneisenau** to the north of a large industrial and commercial development has brought significant benefits through excellent design. The former brownfield site is now open to the public, generating connections over it and providing identification with the industrial history through view corridors to and from the two existing pit shafts. The park, though small has helped to reduce the lack of high quality green spaces in the area. It has enhanced the urban quality of the district centre and its surroundings and enlivened the urban quarter. The development has led to a recovery of local peoples trust in and enjoyment of the area as a good environment for living.

In contrast, at **Ewald,** CSI investment went towards improving the landscape quality and enhance marketability of industrial plots on an ex-colliery site. The site was developed by RAG Montan Immobilien in partnership with the City of Herten, who agreed on a joint approach and purpose, with a project office on site to aid decision making and ensure efficient realization of the project. The concept included a mixture of reusing historic buildings and creating new structures, the whole having a clear green image in order to realise a high-quality commercial area. Visitors and prospective investors alike commend the clear structure of the urban planning, the amount of green space and the blue band of water running through the site.

ERDF/CSI funding for investment sites in the UK has ranged from €75,000 to €450,000 and has involved partnerships with local authorities, government bodies and not for profit organisations. Availability of funding through the CSI project has acted as a catalyst for drawing down further funds for many of the sites.

At several of the UK sites **(Brookfield Park, Cudworth Common, Brodsworth and Hickleton)** funding has gone into community woodland projects on ex coal tip sites adjacent to new industrial development and near local communities. The funding, which has enabled access improvements, community art and landscape improvement measures aims to connect the nearby communities with the sites and surrounding new development, allowing better access to the sites and encouraging appropriate and positive usage by all sectors of the local communities.

Figure 6.2 Panorama of Ewald Colliery site

At Parkwood Springs, a proposed district park surrounded by a mix of light industry, manufacturing fabrication units, proposed new industrial estates, recreation facilities and housing, the project focused around the creation of high quality 'gateways' to the site. Using public sculpture to create an 'artistic' gateway and upgrading other entrances to the site has acted as a catalyst to positively engage the business and local community. Infrastructure works have been accompanied by a programme of events with the aim of changing perceptions and increasing ownership of the site.

Stocksbridge and Wincobank, both part of the South Yorkshire gateways and corridors group of investments have highlighted the major changes even a small amount of funding can make to quality of life for communities living in and around large industrial areas in decline. At Wincobank, the rejuvenation of a derelict park has increased social cohesion and engendered a renewed sense of community, while at Stocksbridge, work has focused on opening up access for users of all abilities in an area overlooking a major new development, and has been undertaken by a community organisation in conjunction with local landowners.

Sheffield Central Riverside Project lies at the heart of Sheffield's urban regeneration programme. The exemplary project, part funded by CSI, involves implementing riverside environmental enhancements and establishing a self supporting stewardship scheme and has led to the formation of a 'River

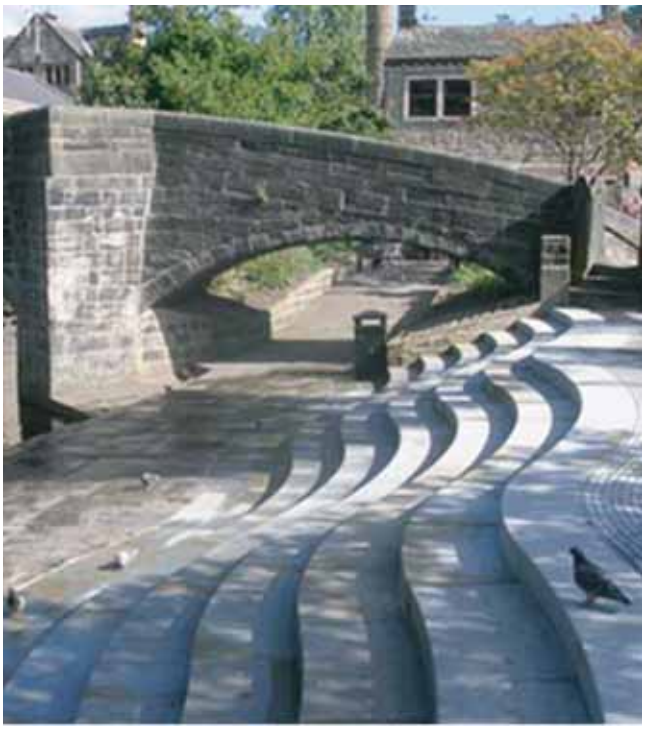
Figure 3.3 Beacons event at Parkwood Springs

Stewardship Company', (a Social Enterprise aiming to protect and improve the waterside environment in Sheffield), and the employment of Stewards to maintain the area and engage businesses and public in the care of their riverside areas. The project has and will continue to provide lessons on innovative ways of engaging businesses.

In the centre of **Hebden Bridge**, a West Yorkshire market town, CSI has supported a project to environmentally enhance the public realm, removing traffic and creating a safe and attractive pedestrian area in the commercial heart of the town square. Improvements have increased trader and investor confidence in the town and assisted in its renaissance by enhancing the environmental appeal of the town, improving the riverside walk and publicly accessible areas adjacent to the river.

The UK investments centred around improving industrial/business parks provide a marked contrast, at **Dinnington** in Rotherham the creation of a high quality entrance to the front of a new industrial park on an ex-coalfield site, allied with habitat works to the watercourse at the opposite side of the park, has helped in the marketing of the new plots and has connected the site with its history. At **Langthwaite Grange** landscaping and infrastructure works on an existing but run down business park in West Yorkshire were part of a package of actions put in place by the local development agency in order to sustain and regenerate the estate; the vision being to create 'a vibrant , environmentally attractive, crime free industrial estate providing jobs for local people'. The comprehensive works undertaken, together with measures such a as the development of a design code to guide future development and the creation of an association involving local businesses have played a major role in transforming the image and success of the site.

Figure 6.4 Wave steps at Hebden Bridge



6.2 Maintenance of green spaces

Investment sites within the CSI project have illustrated several novel maintenance possibilities which have potential for replication or further pilots in neighbouring regions and countries.
Prior agreements with the municipalities involved with RAG Montan Immobilien in developing the sites at Gneisenau and Ewald mean that after the landscaping works are completed the public landscaped areas of the sites will be transferred into the ownership of the municipalities who will then maintain them. All designs and planting schemes were agreed between the site partners and have been designed to keep maintenance requirements as low as possible. Landscape measures on individually owned plots will be maintained by the plot owners.

The sites in the UK highlight a variety of maintenance regimes: three of the larger community woodlands sites, have been passed over to the Land Restoration Trust (LRT) after restoration by the regional development agency, Yorkshire Forward. LRT was created by a

partnership comprising English Partnerships, Groundwork, the Forestry Commission and the Environment Agency and maintains sites in perpetuity on payment of a dowry, helping to deliver a better quality of life by providing land for public amenity in line with important government policy objectives.

Of the remaining sites, several will remain in local authority control, with some being maintained in partnership with the local community through steering groups and local friends groups (Wincobank, Parkwood Springs) The Stocksbridge project will be maintained by the Steel Valley Project, a community organisation who work closely with the landowner Corus.

Part of the regeneration of the Langthwaite Grange site included the creation of a Business Association (LGBA) set up to engage with businesses, and gain their support and confidence by involving them in a meaningful way, to secure long term management of the improvements.

SPI+, as developers of the three Belgian sites has negotiated an agreement with the occupiers of the site at Trooz to maintain the measures that have been implemented, while at Ans it is likely that the site will be converted into divided co-ownership. The open spaces will constitute the common parts of the co-ownership and the maintenance of those spaces will be chargeable to the co-ownership. On the Seraing sites as much of the investment has been on publically owned land, the municipality will take on responsibility for maintenance.

Table 6.1 Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
Brookfield Park (UK)	225,000	60 ha	Former colliery workings and tip developed by Rotherham Borough Council (Local Authority) as part of large scale and long term regeneration of a series of linked coalfield sites in South Yorkshire. The Brookfield Park site now comprises a 60 ha community woodland with open access as a backdrop to the adjacent large scale industrial units. CSI landscape measures included infrastructure and access works to the community woodland aspect of the development. The New woodland links with other public spaces, habitats and developments in the valley, and will provide a valuable green asset to the business and residential communities in the area.

Table 6.1 (continued) Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
Hebden Bridge Public Realm improvements (UK)	150,000	1.5 ha	Environmental enhancements to the public realm in Hebden Bridge, creating a safe and attractive pedestrian area in the commercial heart of the town to increase trader and investor confidence in the town and assist in its renaissance. The project is grounded in extensive community consultation and has already increased footfall and created business opportunities. Winner of the BSCS National Town Centre Environment Award 2007. CSI funded measures include carved bollards to create links with town history, seating and planting along the riverbank, and a sundial in the centre of the square.
Dinnington Colliery (UK)	150,000	12 ha	Ex colliery site, now an industrial estate, developed by the Regional development agency for Yorkshire. CSI works comprised extensive planting and landscaping of the entrance to the site to create a sense of history and link the site to the local community as well as habitat improvements to a banked water catchment area to the rear of the industrial buildings that will benefit local wildlife and create a natural outlook for the occupiers.
Sheffield Riverside (UK)	120,000	10 ha	Riverside area of Sheffield, formerly occupied by steelworks and heavy industry, now a variety of smaller industrial units backing onto or associated with the river. Ground breaking Riverside Stewardship Scheme to encourage businesses and communities to take action to maintain and pay for the upkeep of the river, providing access and information. CSI funding included aspects of Stewardship scheme and allied major tree planting works in Riverside area.
Langthwaite Grange (UK)	150,000	57 ha	Run down industrial estate in West Yorkshire, revitalised by local development agency with help from CSI funding. Works undertaken to improve security and signage and open access were complimented by the formation of a business association to secure the long term engagement of the businesses in the estates future management. Measures have resulted in increased confidence in the location, new businesses moving in and a 70% reduction in crime.

Table 6.1 (continued) Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
Seraing LD & Colard (Be)	140,000	16.5 ha	Two linked former industrial sites in the urban core of Seraing, an area still suffering from the decline of the steel and coal industry. The challenge on this site was to trigger a greening process to progressively spread to further areas of Seraing as they became available for new developments, to change the image of the area and act as a catalyst for further works. Investments were designed to fit in with the sustainable development masterplan for the Seraing Valley, and have included works to entrances and roadways within and around the developments.
Prayon Trooz (Be)	60,000	11 ha	Run down industrial estate, (formerly a zinc processing factory). The site constituted an eyesore at the entrance to the municipality, close to residential areas, with no vegetation and a high crime rate. A new landscape design was instituted with the help of CSI funding to change the image of the place and help improve the quality of life of people living nearby as well as giving the economic development of the area a kick start. Works included, security aspects, greening of entrances and around plots and new signage.
Ans Business Park (Be)	300,000	6 ha	Small industrial park, close to residential and other small industrial areas. The greening project implemented with the help of CSI funding aimed to integrate the park within it's context by promoting mixed functions, opening the site to the public and creating a green community space from the former water basin at the site, and creating an attractive and distinctive investment site. The challenge being to integrate the two aspects through the high quality design of it's landscape elements.

Table 6.1 (continued) Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
Gneisenau Colliery (D)	140,000	56 ha	Creation of a city quarter park on a mixed development of a former coal field site in Dortmund. The park, adjacent to a shopping centre and service facilities has created much needed public green space in the area, opening it to the public and generating connections to the industrial history of the site through view corridors to and from existing pit shafts. The park has enhanced the image of the urban quarter and had positive effects on the marketing of the commercial aspects of the new development site as well as nearby existing facilities that were struggling. It has helped to restore people's faith in an area in decline since the closure of the coal industry.
Hickleton Colliery (UK)	69,412	66 ha	Former colliery tip restored by the development agency for Yorkshire and now managed by the Forestry Commission on behalf of a trust set up by the government to manage a suite of former coalfield sites (the Land Restoration Trust, LRT). The site is surrounded by new and emerging industrial facilities, and lacked a sense of connection with the local communities. Works included benches and sculpture by local artists working with surrounding communities, as well as signage and planting works at main entrances to create a welcoming aspect and a cared for appearance.
Doncaster Lakeside (UK)	127,672	3.4 ha	Green amphitheatre and open space adjacent sporting facilities as part of a large development by Doncaster Metropolitan Borough Council. The development, on a former aerodrome and domestic refuse tip to the North of the Town Centre has included residential, leisure and commercial facilities surrounding a man made lake in a high quality landscape setting. The CSI element, the amphitheatre and green space has created a focal point for the development , enhancing views from commercial and residential properties surrounding the lake, and creating a much needed public space to compliment former phases of the project.

Table 6.1 (continued) Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
Rotherham Gateway Improvements (UK)	132,382	2 ha	Enhancement of a major Gateway into Rotherham, integrating features with aspects of the Town Centre Renaissance scheme. Planting and soft landscaping works along a stretch of roadway leading from the Motorway (M1), into the Town Centre.
SY Gateways - Wincobank (UK)	77,433	0 .5 ha	CSI funding has enabled the transformation of this derelict and disused community park in a residential area of Sheffield, directly adjacent former heavy industrial areas and now a mixture of small industrial and retail units. CSI funding enabled the clearing of overgrown vegetation, new planting, installing pathways and seating decorated with mosaics created by local children. The success of the first phase enabled the local council and communities to draw down further funding and enhance the scheme, installing play equipment and further planting and path works. The project won a national community award.
SY Gateways – Cudworth Common (UK)	71,470	60 ha	Former colliery tip backing onto residential areas and overlooking further development on coalfield sites in an area heavily affected by the decline of the coal industry, containing some of the most deprived communities in South Yorkshire. Community involvement works, access improvements, signage and education facilities funded through the CSI project have helped to engender a sense of ownership in the site and will undoubtedly help in reducing unwelcome behaviour in the future.
SY Gateways – Stocksbridge (UK)	72,234	5 ha	This scheme has been implemented by a local community conservation organisation that will continue to manage it on behalf of the local landowner and steel manufacturer, and has comprised a viewing platform and access works to open up an area of scrub land overlooking a part of the steelworks to be developed for housing and light industrial facilities.

Table 6.1 (continued) Demonstration sites

Demonstration site	ERDF Funding	Size	Site summary and landscape measures
SY Gateways – Parkwood Springs (UK)	84,803	144 ha	Enhancement of two main access routes into this highly visible park on the periphery of Sheffield Centre, surrounded by residential and business developments. Works have centred on a programme of physical improvements allied with business and community engagement events to encourage both communities to use and care for the site.
Brodsworth Colliery (UK)	177,907	99 ha	The third of the UK sites to be managed by the LRT, this site has suffered severe vandalism in the past. CSI funding has enabled education, community involvement and access programmes to be put in place alongside physical site improvements and signage.
Ewald 1/2/7 (Herten) (D)	210,000	53 ha	Unusually, the redevelopment of the Ewald site started before the closedown of the colliery and coking plant on the site. The landowner RAG Montan Immobilien, and the city of Herten entered a public private partnership to jointly decide on planning, development and landscape issues. CSI elements to the project were centred around a marketplace connecting the landscaped industrial plots and historic buildings with the restored former colliery tip, well used as a public open space and local landmark.

Figure 6.5 Tree planting at Brookfield Park and community artwork on new woodland sites

6.3 Summary

The CSI suite of investments have between them shown that improving the landscape and environment surrounding new development can contribute to the acceptance of the community, quality of investment and quality of life for those living and working in an area.

The studies, results and experiences generated through the project point the way forward for improving the quality of landscaping on and around our investment/development sites. There are many aspects of the work undertaken in each of the partner countries that we can learn from and that can be replicated and adapted for different situations in countries across the North West Europe region.

Figure 6.6 Sheffield Central Riverside planting

7. Summary and Recommendations

Authors: C. Swanwick, R. Walker

7.1 Aims of the project

The CSI project set out to examine, by packages of research, and to demonstrate, through practical projects, the links between landscape quality and economic investment decisions. In doing so it sought to address the lack of real evidence on this topic, despite many claims in the professional literature about the importance of the link. The project had the following more detailed objectives:

- to quantify the impact of 'greening' on the value of out-of-town brownfield sites designated for business park development in the UK and in Belgium;
- to identify the impact of landscape quality in and around former brownfield sites previously improved as part of the 'Working in the Park' regeneration concept in the Ruhr region;
- to increase knowledge of how and which aspects of landscape quality affect investor, developer and occupier location choices in the UK and Belgium;
- to examine how environmental conditions have affected the regional image and influenced occupier decisions in the Ruhr 'Working in the Park' areas;
- to gain understanding of how local communities in Belgium perceive the effect of landscape quality (on commercial sites) on their quality of life and to explore best practices for meaningful community involvement throughout the process of site development;
- to use case studies, including demonstration projects to identify the role landscape quality plays in positive economic and social development.

The project has been operating in a difficult arena bridging between the world of landscape architects, planners and regeneration professionals and researchers on one hand, and the world of investment decision makers, developers and commercial businesses on the other. Not surprisingly some difficulties have arisen in terms of levels of engagement of the business world in the work and of difficulties in achieving mutual understanding of the language and concepts used by the different groups. This may be one of the reasons why evidence has previously proved elusive.

This study does not provide definitive answers about the links between landscape quality and economic investment decisions but it does go a considerable way towards illuminating the issues and providing some hard evidence relating to the specific objectives listed above.

7.2 Summary of research findings

The research findings reported in the individual sections of this report suggest that those involved in investment decision making have a more simplistic perception of landscape quality than professionals, one that is influenced largely by visual elements. Landscape quality plays a major role in determining their perceived image of a location and this can influence their business confidence in it. In terms of investment decision making the greatest impact is seen at the regional level where landscape quality can help to create an attractive image thus contributing to regional competitiveness.

Landscape quality at the setting and site level helps to create the 'right' business image, to meet business and staff needs and to help people feel safe. A strategic approach is, however, required to develop a unique regional image and landscape improvements at the local area, setting and site level should contribute to delivering this strategy through the use of site masterplans, design codes and a long term maintenance plans.

Despite an expressed interest in higher quality and more sustainable landscape approaches occupiers currently have low expectations and limited knowledge of what is possible. Aspirations must be raised or incentives used to achieve the aspirations

of planners and policy makers for higher quality, sustainable landscape settings. To be acceptable in the business setting these should either be designed to project the right business image or located away from entrances.

The empirical results discussed in chapter 3 tend to show that the conceptualisation of the relationship between landscape quality and brownfield redevelopment is still too basic. It is unlikely that the regeneration of many brownfield sites will be achieved solely on the basis of improved landscape quality. No leverage effect could be observed for landscape treatment applied at the scale of individual brownfield redevelopment project. However, the importance of the landscape dimension in the context of a wider,strategic regeneration strategy needs to be stressed. Indeed, to improve the image and economic attractiveness of local areas or regions that are still marked by their industrial past, great emphasis needs to be placed on the physical dimension."

A direct relationship between high landscape quality and increased land values could not be shown by the retrospective cost benefit analysis in the Ruhr region. The hypothesis that green spaces bring about higher land values was, however, supported for surrounding residential property. The green spaces upgrade quality of life, which is required to attract skilled employees. It can improve the image and setting for investment as a soft location factor. This can encourage a community to tackle local potentials and face up to future demands, and helps to achieve economic and population stability, making high landscape quality profitable from a regional point of view. A single brown field redevelopment with high quality landscape will not make the difference. The measures therefore need to be part of a regional strategy, addressing economic and social factors. Then landscape quality can make a major contribution to regional regeneration.

CSI research on community perceptions revealed that communities do pay attention to the quality of their local environment, and to its landscape quality. When they have a choice, they prefer high quality settings for living and working. There is a clear interest to investigate communities preferences regarding landscape quality, in order to increase the quality of life offered by some regions. Landscape quality should be a key objective for Public Authorities, especially in former industrial areas where dereliction and neglected landscapes are likely to foster social and economic marginalisation.

In the context of brownfield site redevelopment into new economic settings, better landscape quality is likely to increase local community acceptance towards this kind of redevelopment, and improve the image attached to "economic landscapes" in general. Creating common accessible green spaces between redeveloped economic parks and residential neighbourhoods is also a means to better reconnect the two worlds (i.e. working and living). Landscape quality involves a wide range of issues, including some pieces of heritage or local architectural and landscape specifities. Taking these into consideration for the design of economic parks is a further way to connect them to their surroundings, and to create a unique sense of place. Therefore, community landscape perceptions need to be investigated locally and innovative landscape solutions need to be designed for this local level.

7.3 Conclusions and recommendations

In this final section these findings are developed further and recommendations made for practical actions that could be taken to maximise regional and local area landscape quality, and to reap the wider benefits of such improvements in terms of increased competitiveness and enhanced economic progress. The conclusions should be of particular relevance to development agencies and regional policy makers, environmental agencies and others involved in planning and implementing landscape enhancement programmes. They will also be useful

to private sector land owners and developers, project managers, estate surveyors and fund managers, local planning authorities, and local, regional and national politicians.

Together the conclusion and recommendations suggest possible 'pathways' to investment using landscape quality as an economic asset - a series of strategies and processes which the research and demonstration projects suggest may offer best practice in creating settings for investment. These 'pathways' indicate ways of successfully marrying economic development with landscape quality improvements, helping to target resources to the best effect, and achieve value for money and a return on investment in environmental regeneration. The conclusions and the recommendations are grouped together into six separate themes.

Theme 1 - The 'Landscape Quality Effect': promoting a regional identity

CSI found that the perception of a strong regional image is a highly influential factor in the complex location decision-making processes of knowledge-based industries. Whilst landscape improvements carried out in isolation around one or two brownfield development sites will not significantly impact on the economic growth of the region or property markets, where improvements have been carried out systematically as part of a regional strategy - as in the Ruhr area of Germany 0 an economic sea change has taken place.

Landscape quality is a primary influence on peoples' perceptions of particular regions; development schemes designed to enhance regional image and identity - including the industrial heritage - and associated quality of life, can effectively attract and keep the skilled employees, who are vital to knowledge-based and indeed other industries. A programme of work to achieve comprehensive physical improvements should be a core part of a strategy.

Recommendation 1

To maximize the competitiveness of cities and regions, regional governments, development agencies, local authorities and development organisations, private landowners and developers should deliver strategies for regional or area-based landscape enhancement.

Such strategies should seek to enhance regional image and identity and provide high-quality places for living and working through targeted actions that will maximise both wider regional and local economic and social benefits. In parts of Europe where land for development is abundant, brownfield regeneration is not always prioritised; in these regions approaches to managing land supply that will favour brownfield development should be considered.

Recommendation 2

Regional strategies incorporating landscape quality improvements should be linked to a marketing strategy aimed at projecting the image of an improved landscape and improved quality of life.

The positive image projected by high quality landscape treatments also plays a major role in increasing business confidence. Business occupiers identify certain specific attractors and detractors that most influence their perception of an area and which are relevant at the site, setting, local area and regional level. Factors such as the cared-for appearance, the quality and quantity of tree planting and whether the landscape is easy to access, with facilities and amenities, act as attractors in occupiers' decision-making. Uncared-for landscapes and derelict land as 'detractors' on occupiers' perceptions. They are also influenced by what can be seen from major transport routes and by representations of the region in the media.

Recommendation 3

Regional and sub regional strategies and action plans should seek to reinforce those features

that act as attractors in economic investment and seek to remove or screen detractors, particularly along transport corridors and views from key gateways and economic centres.

Theme 2 - Local area initiatives: first impressions count

At the local scale, landscape quality influences an occupier's perception of an area as a suitable location for their business; an area with higher landscape quality is perceived as more affluent, safer and more welcoming to staff and visitors. However certain elements are consistently ranked above others. First impressions count - accordingly the most significant impact will come through ensuring high quality landscape treatments at entrances and along access road as these help the occupier achieve a positive business image. Where budgets are limited, entrances and internal access roads, should be prioritised for the highest quality treatments and detractors removed or screened.

Vehicle access is a locator priority and the landscape quality of elements in the local area associated with this are ranked highest. The quality of local amenities is also rated as important in providing for both staff and business needs. Elements further away from the site such as public open space are recognised as contributing to the overall quality and image of the area and should be considered within the scope of an area wide strategy in order to improve the community perception of a development, reduce the 'nimby' reaction and facilitate progression of the development.

Recommendation 4

Local authorities should co-ordinate the implementation of individual landscape quality improvements and new developments within a strategic area-wide approach that will create a unique, coherent, marketable identity - which also contributes to the vision for a new regional image. To maximise the positive impact of landscape treatments on occupiers, staff and visitors, priority should be given to access roads and entrances where high landscape quality will create a good first impression.

Economic developments need to be socially integrated; where communities do not value a development, it is likely to be subject to vandalism and will have low commercial success. Developers and local authorities should consider ways of engaging the local community to ensure the long term success of a scheme.

Theme 3 - Action at the site level

CSI found that occupiers use landscape quality to differentiate between sites and that high landscape quality can give one site the advantage over comparable alternatives where other location factors such as land prices, parking, transport links, proximity to markets and skilled workers are equal. In the UK, Belgium and Germany, occupiers consistently prefer to locate to a site that is in a high quality setting rather than one in a low quality setting. This is particularly true of knowledge based industries.

Recommendation 5

To maximize occupancy levels developers should invest in higher quality landscape development of sites and their immediate settings in order to create an appropriate quality of image for the types of businesses they wish to attract.

Recommendation 6

Developers should work with designers to prepare a masterplan that enables a strategic approach to the creation of a site identity, including high quality landscape, and addresses ongoing maintenance, reflecting and contributing to any local area initiatives and regional strategy. This applies to the refurbishment of existing commercial sites as well as new developments.

Landscape quality at site level must firstly meet minimal functional requirements (car parking and vehicle access) and must also project the right business image. Occupiers link an attractive setting with customers' and employees' perceptions of the success of their companies. Unkempt areas around a site may lead to higher levels of vacancies, or a lower turn-around in occupation; where occupancy levels are very low, the lack of informal supervision by occupiers can encourage vandalism and undesirable behaviour.

Occupiers generally see the quality and quantity of planting (particularly appropriate use of trees) as one of the principle factors contributing to a positive image and the increase of confidence. There is a gap between the occupiers' [relatively low] expectations of landscape quality and that of designers, planners or policy makers. However, when given information about the landscape possibilities, occupiers show preferences for design approaches that go beyond the 'standard'.

Developers believe that improving the external environment can make a site more desirable to potential tenants, increase the attractiveness of a site and potentially generate more demand so that it might be let more quickly. However, their approach to landscape design is conservative; in order to move beyond a 'standard' approach they require leadership and guidance from local and regional authorities.

Recommendation 7

Planners should work with developers to agree flexible design guidelines to ensure that new developments contribute to the local area and regional image and maximize economic competitiveness. The planning application process should promote these guidelines, and raise developers aspirations for landscape quality; where appropriate by attaching conditions to planning permissions.

Two attributes are especially important in creating high-quality environments for successful business development: significant amounts of appropriate and well-designed planting, particularly trees, and proper provision for good standards of long-term maintenance. Both should be positively addressed in planning and designing new schemes.

Recommendation 8

Schemes that contribute to an overall enhancement of landscape quality, particularly through development of brownfield sites and incorporation of significant well-designed tree planting, should be particularly encouraged. Elected representatives should support planners in seeking to raise quality aspirations even in areas where job creation is the priority.

Landscape treatments should not be standardised; each should have it's own character responding to the needs of the site, its context and the local communities.

Appropriate high quality design on prominent parts of the site (access points) may have cost implications for developers but cost saving low maintenance design can be considered for the less prominent parts. Where local communities will directly benefit from landscape quality measures, opportunities for public funding should be investigated. Landscape designers should use their expertise and share knowledge of best practice/case studies such as those from the CSI project to encourage developers to aim for higher standards and for environmentally sustainable designs.

Theme 4 - Getting the maintenance right

A low level of site maintenance and the presence of degraded or derelict areas nearby create a negative image and lower confidence - significant detractors to potential occupiers. CSI research and demonstration sites show that landscape improvements can help break negative cycles of

neglect, poor landscape quality and anti-social behaviour where these have been allowed to develop. Landscape quality improvements appear to be particularly effective in this regard when coupled with a comprehensive programme of security improvements, stewardship and the engagement of local businesses and communities. Provision for good standards of long-term maintenance requires new thinking about mechanisms for achieving this and lessons need to be learnt from the experience of others.

Recommendation 9

Actors should work together to ensure that appropriate measures are put in place to address maintenance and security needs. Any existing developments suffering from poor maintenance and security problems should be targeted with collaborative initiatives designed to provide visible improvements in the quality of the environment. New commercial development schemes should be required to put measures in place to ensure a good standard of maintenance and management in the long-term.

There are a number of different mechanisms by which this might be achieved including, for example: conditions attached to planning permissions; inclusion of a management charge in lease or tenancy agreements for occupiers; and establishment of collaborative management partnerships between sites occupiers.

Recommendation 10

Developers and occupiers should give careful consideration to who will carry out maintenance work to an acceptable standard, especially if this requires innovative management (for example of Sustainable Urban Drainage systems or natural vegetation areas).

There are private companies who specialise in maintenance for commercial and industrial properties, as well as examples of both voluntary and private sector organisations establishing specialist companies to undertake such work in other sectors. Lessons might be drawn from UK examples such as: the Green Belt Company, who take over management of housing landscapes after development; and Green Estate Ltd in Sheffield, which was set up by Sheffield Wildlife Trust and Manor & Castle Development Trust to turn the neglected open spaces of a deprived housing estate into useful places that maximise social, environmental and economic benefits for the neighbourhood. Similar approaches could apply to commercial developments.

Theme 5 - Maximising commercial opportunities

The landscape quality of both the immediate and wider setting of a business park may increase the rents occupiers are willing to pay. Some occupiers value landscape quality more highly than others and state that they are prepared to pay a higher than average rent for premises located in an area of high landscape quality. Others, although they would not pay more for higher quality, definitely expect to pay less for premises in a low quality setting. Occupiers also believe that higher landscape quality has a positive affect on employees, improving staff contentment with knock on effects for productivity. Higher landscape quality can help to make sites and premises easier to sell or let and help retain occupiers.

The impact of such landscape quality improvements on rental values could enhance the capital value of a development site over the long term. Where the potential increase in capital value is greater than the cost of the landscape improvement then it is clearly worth the developer investing in improvements. Most improvements to the immediate setting and the wider area are usually out of the developer's

direct control, although contributions to costs may be both possible and worthwhile. In areas of low demand and excess supply, the cost of improving

brownfield land to higher landscape quality may exceed the measurable benefits, but for the wider economy and local communities the cost of doing nothing is greater still. This effect, of constraining capital values in the lower quality settings, suggests that it may be in the developer's best interest to either locate in an area which already has the attributes of high landscape quality (though land may cost more) or to promote and establish landscape quality of an area, even if public agencies have to take the lead in achieving this.

These interrelationships are complex and the impact of landscape quality on land values reflects this. Although land valuers expected that enhanced landscape quality of brownfield development sites for business parks would increase land values, the quantitative research did not show such an increase in their actual valuations. This suggests either that the formal valuation process does not allow proper account to be taken of the impact of such enhancements or that the impact is too small in relation to the other factors that are considered to make a significant difference to assessed land values. There are, as explained earlier, undoubtedly wider regional economic benefits that are derived from the increased confidence and improved perceptions of former industrial regions which flow from improvements in landscape quality.

Developments with high quality landscapes improve the setting for investment as a 'soft' location factor, but especially significant is the immediate, positive impact that the new high quality landscapes can have on the housing market in the surrounding area. Thus instead of a downward spiral of decline there is an upward spiral of improved image and quality of life which profits the entire region.

Recommendation 11

Property developers should consider enhanced investment in higher landscape quality measures at site level to maximise the immediate opportunity for improving rental incomes and to realise the longer term opportunity to increase land value.

Recommendation 12

Developers should work with planners and communities to establish an impetus for improvements to landscape quality beyond the site level and into the local area and the wider region. This might include financial contributions where the market is such that improvements may result in enhanced capital values.

Recommendation 13

Public authorities should recognise that landscape quality improvements do not necessarily bring direct or immediate economic benefit to private sector developers, especially in former industrial areas. Therefore public investment is needed to improve the image and quality of the local area and the region, to improve image and raise confidence.

Theme 6 - Involving local communities

Community involvement in the regeneration process is vital - both in terms of delivering more acceptable and durable developments, and to meet relevant statutory obligations on public participation in planning.

As demonstrated by the 'Working in the Park' concept in the Ruhr, commercial sites with high landscape quality can have a positive affect on nearby house prices. Investing in landscape quality improvements is thus profitable for communities when taken as a whole. However communities close to brownfield sites destined to be developed

for commercial purposes are sensitive to the way that this is done and the impact that it may have on them.

The work of CSI provides detailed examples of how to generate workable contributions of ideas and perspectives from communities that can help deliver better quality developments; in particular visual representations of potential scenarios for redevelopment have been found extremely helpful aids to improve the outcomes of community engagement.

Recommendation 14

Planning authorities and developers must recognise the importance of engaging with local communities close to development areas at the earliest possible opportunity. This is not only to meet statutory requirements but also to contribute to successful and high-quality schemes that contribute to the well-being of communities and neighbourhoods.

Specialist practitioners should be engaged to design and deliver a programme of community consultation throughout the process of the scheme. Maximum use should be made of techniques such as visualisations of proposals to illustrate possible outcomes and engage people in debate. Such consultation should be meaningful and those responsible should ensure that they take community views seriously in finalising proposals.

It is important to balance community desires for amenity benefits, for example through open space and access provision, with developer and occupier concerns about image and security. There are many examples from CSI to show that this balance can successfully be achieved. It is also helpful to carry out post project implementation evaluations involving the community. This is a rapid way to highlight and resolve problems and can also be a tool for engaging the community in the ongoing management of the green spaces.

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References

Bachmann, M. et al. (2003) *Enquiry of enterprises*. COMET project, European 5th Framework Programme, WP6 deliverable n°7; http://www.comet.ac.at/;

Ball, M. (1996) *Investing in New Housing*. Bristol: The Policy Press.

BUGS project (Benefits of Urban Green Space), European 5th Framework Programme: www.vito.be/bugs/

Catney, P., Henneberry, J., Meadowcroft, J. and Eiser, J.R. (2006) Dealing with Contaminated Land in the UK through 'Development Managerialism', *Journal of Environmental Policy and Planning*, 8(4), 331-356.

Cheshire, P. and Sheppard, S. (1989) British planning policy and access to housing: some empirical estimates, *Urban Studies*, 26, 469-485.

Demazière, C. (2002) L'action économique locale et l'environnement. Les collectivités locales prennent-elles en compte les contraintes et opportunités qu'offrent les ressources naturelles pour l'économie d'un territoire ?, *Développement durable et territoires*, Dossier 1 : Approches territoriales du développement durable, 15 p.

European Environment Agency (2006) *Urban sprawl in Europe*. The ignored challenge, EEA report n°10/2006, Copenhagen.

Evans A.W. and Hartwich O.M. (2007) *The best laid plans. How planning prevents economic growth*, London, Policy Exchange.

Florida, R. (2005) *The Flight of the Creative Class: The New Global Competition for Talent*. Collins, London.

Guilliams P. (2007) La réaffectation des friches d'activité dans les régions de tradition industrielle. Comparaison entre l'agglomération de Liège et le district de Sheffield, Mémoire présenté pour l'obtention du titre de licencié en Sciences géographiques, Université de Liège, unpublished.

Halleux, J-M. (2002) Valuing the green structures – Commented bibliography on the use of hedonic models to asses green structures influences on residential property values, Working document for *COST C11 - Green Structure and Urban Planning*, WG 1B : Human Performances.

Halleux, Jean-Marie (2005):Valuing green structures. The use of hedonic models to assess the influence of green structure on residential property prices », *Green Structure and Urban Planning*, COST Action C11, European Science Foundation, Brussels, pp. 267-273

Havard, T (2008) *Contemporary Property Development*. London : RIBA Publishing, (2nd Edition).
Isaac, D (1996) *Property Development: Appraisal and Finance*, Basingstoke: Palgrave Macmillan.

Holden, R. (1995) Post-industrial landscapes: London and the Aesthetics of Current British Urban Planning, *Built Environment* 21, Number 1. Theme: Planning with landscape, pp35-44

Jonas D. (2006). Heritage works - the use of historical buildings in regeneration, a toolkit of good practice. English Heritage, British Property Federation and RICS. March 2006. Available at www.eukn.org/eukn/

Letombe, G. et Zuindeau, B. (2001), L'impact des friches industrielles sur les valeurs immobilières : une application de la méthode des prix hédoniques à l'arrondissement de Lens (Nord - Pas de Calais) , *Revue d'économie régionale et urbaine*, n°4, 605-624.

McKnight J.M. (2007) The landscape healer - *GreenSource magazine*. http://greensource.construction.com/ (www.dirtstudio.com/)

Needham, B. and Segeren, A. (2005) *An institutional analysis of land markets*, 45th Congress of the European Regional Science Association, unpublished.

Rescue (2004) *Methodological guide - Best Practices in Citizen Participation for Brownfield Regeneration* , WP5, Deliverable 5-1, RESCUE project (Regeneration of European Sites in Cities and Urban Environments), European 5th Framework Programme, www.rescue-europe.com/

http://www.projektruhr.de/index.php?mapid=116, http://www.rvr-online.de/publikationen/wirtschaftsfoerderung/archiv/touris_0506.php

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