Best Practice Guidance for Sustainable Brownfield Regeneration

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Regeneration of European Sites in Cities and Urban Environments

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FOREWORD

The regeneration of brownfield sites and their return to beneficial use has gained particular significance in the European Union over the past 10 years. Despite the presence of such sites in often inner city locations, the consumption of valuable open space resources by means of greenfield development could not be decreased. Quite the opposite, the recent enlargement which built the Europe of 25 has further aggravated the brownfield problem.

In consideration of this situation, many research projects and networks have been launched to facilitate brownfield regeneration. However, RESCUE is the first project which was designed to integrate the diverse disciplines and stakeholders which are involved in brownfield regeneration in order to satisfy both the demands of sustainable development and the different socio-economic, legal and political conditions in its participating countries. The concrete and substantial result of this research project is the Manual.

To meet this holistic approach, 14 partners representing brownfield regeneration practice, research and regulation established the RESCUE consortium. The overall objective of the project was to learn from current practice in the participating countries, all of which boast long years of experience in regenerating brownfield sites, in order to develop an integrated approach for the sustainable regeneration of brownfield sites in Europe.

The Manual gives the flavour of all the substantial tools that RESCUE has produced:

- The RESCUE Sustainability Assessment Tool (RESCUE-SAT) which provides a methodology for a site specific ex ante evaluation of intended brownfield projects in terms of sustainability which should be used as a precondition for planning permissions and public funding;
- Administrative Tools and Incentives for sustainable brownfield regeneration which suggest a framework to support sustainable brownfield regeneration;
- End-user tools for sustainable brownfield regeneration which enlarge the practical toolbox to support (more) sustainable outcomes;
- VTC Virtual Training Centre which provides web based training resources for sustainable brownfield regeneration.

Representing the project's final result, the Manual at hand is for the first time presented to the public at the RESCUE International Conference – Sustainable Brownfield Regeneration in Europe, at the Academy Mont-Cenis in Herne, Germany on May 11, 2005.

We thank the European Commission for supporting RESCUE within the 5th Framework Research Programme and thus essentially contributing to the project's success.

Jürgen Brüggemann

on behalf of the RESCUE Steering Committee
April 2005

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From program kick-off to the Manual: RESCUE 2002-2005

"And it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. The innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new"

- Machiavelli,1505 -

This Manual is the final and **one of the major deliverables of the R.E.S.C.U.E.** project (Regeneration of European Sites in Cities and Urban Environments), which commenced 1st March 2002. It is a 36-month research project part-financed by the European Community; within Key Action IV **"The City of Tomorrow and Cultural Heritage"**, part of the 5th Framework Programme of research, technological development and demonstration. RESCUE's major goal was to develop and test a **systematic holistic approach for sustainable regeneration of European industrial brownfields.**

The project, coordinated by Montan-Grundstückgesellschaft mbH (MGG), is a collaboration **between fourteen partner organisations from France, Germany, Poland and the United Kingdom:**

- Bureau de Recherches Géologiques et Minières (BRGM), France
- Centre National de la Recherche Scientifique (CNRS), France
- Central Mining Institute (CMI), Poland
- Montan Grundstücksgesellschaft mbH (MGG), Germany
- exSite Research, United Kingdom
- Mission Bassin Minier Nord-Pas de Calais, France
- Municipalities of Bytom and Sosnowiec, Poland
- Projektgruppe Stadt + Entwicklung, Ferber, Graumann und Partner, Germany
- Umweltbundesamt (UBA), Germany
- Université des Sciences et Technologies de Lille 1, France
- University of Nottingham, United Kingdom
- University of Wales, Cardiff, United Kingdom
- Ruhr-Universität Bochum, Germany

Eight case studies were initially selected to analyse current practice:

- Loisinord and « Les Tertiales », Nord-Pas de Calais, France
- Radbod, Ruhr and Espenhain, South of Leipzig, Germany
- Dolomites Sports Valley, Bytom and Sosnowiec Coal Mine, Sosnowiec, Poland
- Markham Vale, Derbyshire and Gateshead Quays, Tyne and Wear, United Kingdom

Further case studies were selected and undertaken to supplement best practices during the course of the project.

An interdisciplinary and holistic approach is integrated into this Manual. It provides both **scientific and practically tested guidance** for the formulation of European policy and for the work of **real estate owners, planners, architects and engineers, public bodies, project managers and others involved in the complex process of derelict land recycling**. It is a substantial decision making tool for stakeholders, public administration and financial funding bodies, throughout the current and future European Community.

All work has been **tested and validated by a group of stakeholders** who have been involved in the project since it started. It is with grateful thanks that they are all acknowledged in Table 0.1.

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Table 0.1 :
Stakeholders and Validation team

INTRODUCTION TO THE TOPIC

What is sustainable brownfield regeneration?

'Sustainable brownfield regeneration is the management, rehabilitation and return to beneficial use of the brownfield land resource base in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations in environmentally non-degrading, economically viable, institutionally robust and socially acceptable ways'

RESCUE 2002

What do we mean by sustainable brownfield regeneration best practice?

Best practice refers to intervention measures that successfully address brownfield regeneration sustainability objectives.

What is the purpose of the manual?

The manual provides guidance for implementing sustainable brownfield regeneration as defined. Across Europe, regeneration projects are demonstrating elements of sustainability that could, and ought to be, more widely adopted. The manual identifies and describes such transferable best practice approaches with the hope that it will inspire others to adopt, and improve upon, such examples.

"When a finger points at the moon, an imbecile looks at the finger".

- Confucius -

Why is the guidance needed?

Sustainability principles are at the core of many EU and Member State policies and the combined effect of new Directives, Regulations, Laws and Statutes is creating a demand for more sustainable approaches to deliver compliance. It is clear that the post-industrial era in Europe has resulted in an enormous legacy of vacant, derelict or underused brownfield sites. With the expansion of the EU from 15 to 25 Member States in 2004, this legacy has expanded substantially.

Dealing with these sites in a sustainable way is a significant challenge that has social, economic, environmental and institutional aspects. **RESCUE is the first project to propose how this challenge might be met by:**

- **Defining sustainability objectives and indicators**
- **Identifying and evaluating** sustainable brownfield redevelopment practices
- **Elaborating/presenting** tools to enable the practices to be adopted
- **Researching and highlighting examples of best practice in case-study projects** that can be readily adopted elsewhere.

We must overcome the notion that we must be normal. This robs us of the chance to be extraordinary and leads us to the mediocre.

- Uta Hagen -

Who should use it?

Guidance has been prepared for use by all parties involved in the brownfield redevelopment process.

Project managers	**Chapter 1**
Landowners, Developers, Planners	**Chapter 2**
Citizens and citizen groups, Policy makers, Regulators	**Chapter 3**
Designers, Contractors, professional advisors	**Chapter 4**
Funders and proposal evaluators	**Chapter 5**
All interested parties	**Chapter 6**

It has been **concluded that without inclusive and active engagement of all parties**, sustainable project outcomes are unlikely. In Chapters 2, 3 and 4 these parties have been grouped to reflect the fact that their sustainability objectives should be the same as the others within their group. This recognition is the first integrative step in the sustainable brownfield regeneration process.

How should it be used?

The guidance is not prescriptive. Sustainable brownfield redevelopment is inevitably the result of compromise, as social, economic, environmental and institutional priorities will rarely harmonise naturally. It is, therefore vital that conflicts between priorities are managed. This will enable the creation of ***more*** sustainable outcomes, determined by the stakeholders, within project-specific constraints. This can be achieved with the help of **customised tools** such as the SAT (Sustainability Assessment Tool – Chapter 6) developed by RESCUE specifically for this purpose, within a **project roadmap** that highlights the relationship between phases, activities and stakeholders (**Fig 0.1**).

How is quality defined and monitored?

A complete list of RESCUE's **sustainability objectives and the respective stakeholders** who, in the opinion of the authors of the various Manual chapters, have some level of 'ownership' of individual objectives are illustrated in **Table 0.1**. The identified objectives have been carried over to chapters 2, 3 and 4 and have been linked to sustainability indicators.
A selection of **Best Practices** is also presented in each of these chapters to establish the linkages between defined objectives and the indicators of the delivery of the objectives.

How has Best Practice been established?

Three basic questions were asked regarding each identified practice:

- **Is this practice effective – does it deliver/help to deliver RESCUES objectives?**
- **Is it economically viable – can we afford it?**
- **Is it acceptable – would we be allowed to use it?**

For established practices, if the answer to any of these questions was no, it was considered that the practice would have difficulty in being adopted by a brownfield regeneration industry that is focused on sustainable outcomes. If the answer to all three questions was yes, it was clear that the practice was sustainable in the country in which it had been used and evaluated.

Furthermore, if the practice had been considered in a UK/Germany/Poland/France context and the answers were still yes, it was referred to the RESCUE Stakeholder and Validation Team (SVT). The SVT considered practices from a pan-European perspective and, if validated, the practice was considered to be European best practice for sustainable brownfield regeneration. Such a practice would be transferable throughout the EU.

Certain innovative practices were regarded by the RESCUE partners, including the SVT, as so promising – albeit unverified due to their novelty – that they were termed 'promising best practice'. These practices all possessed similar characteristics in that they all delivered RESCUE objectives, they were all currently or potentially affordable and the only constraint on their adoption was the regulatory process. In such cases, RESCUE made proposals to modify the regulatory process to accommodate the practices at the EU level – see Chapter 5.

What are the benefits?

Apart from the general and obvious long-term benefits that arise from adopting the principles of sustainability, the parties to redevelopment projects can achieve specific but less obvious advantages:

Landowners, developers and local authorities can realise lower whole life costs, better relationships with citizens and a more efficient redevelopment process.

Designers, contractors and advisors can attract and retain clients who are increasingly asking for more sustainable and socially responsible approaches, create more satisfying projects, enhance their own market appeal and attract and retain the best employees.

Regulators can have confidence that common goals are being pursued with the enhanced standards and efficiencies that this creates.

Policy makers can incorporate bottom-up guidance in their regeneration planning to drive more sustainable redevelopment schemes.

Citizens can positively contribute to redevelopment of their living, working and leisure space. They can help themselves benefit by experiencing less traffic, cleaner air and fewer disruptive project activities.

Funders can target their economic support towards projects designed for sustainable outcomes. Private sector funders can enhance their reputations and secure their investments. Public sector funders can more accurately align their incentives with citizens' needs.

Terms and terminology

Whilst the RESCUE partners have been significantly challenged by the scope and variety of the project tasks, no challenge has been greater than that posed by the **differences in language and culture between the partner nations**. With the common working language being English there has been, inevitably, a convergence on the English understanding of terms and terminology throughout the project's duration. In most cases this has not been

problematic, but in some cases it has led to a lack of clarity that has provoked lengthy debate that has attempted to find common ground, sometimes without complete success. This has dictated a need to prepare definitions of common terms and terminology which are summarised in **Table 0.2**. When using this table it is necessary to bear in mind that certain terms are more inclusive than they appear.

Landowner
The interests of the landowner are often synonymous with the interests of financial institutions. These common interests can be due to a mortgage or charge on the specific land in question, or it can be due to corporate investment in the landowning company by, for example, a pension fund.

Project manager
The Project manager can be from the private or public sector. He/she can (preferably) be involved in the project from the 'vision' phase through to project closure. Alternatively, different project managers can be responsible for overlapping project phases, sometimes reporting to the same overall project manager.

Contractor
This term can cover any party who works on the project under the terms of a contract. In reality, the meaning of the term with respect to brownfield regeneration is any party who carries out work that is either technical or physical, onsite or offsite, temporary or permanent, below ground or above ground that contributes to completion of the project.

Designer
This term can cover any party who works on the project in a creative role. The scope of the term is wide but this is beneficial, the more creative input to the brownfield regeneration process, the better the chances of sustainable outcomes. Parties with a creative input are – potentially – Project Managers, Architects, Engineers, Planners etc.

Term	RESCUE definition
Objective	Aim or goal intended to be attained.
Indicator	Factor or variable that provides a simple and reliable basis for assessing achievement of objectives.
Practice	The manner of doing something as an application of knowledge.
Landowner	A holder or proprietor of land.
Project manager	Manager who leads and/or steers a project, with specific programme, financial, personnel, technical, and institutional responsibilities.
Developer	One who transforms land into improved property by the use of human, physical and financial resources, and entrepreneurial efforts.
Planner	One who can identify stakeholder needs, define desired outcomes and create scenarios for future land use.
Policy maker	One who creates plans pursued by governments or other responsible organisations.
Regulator	One who is officially responsible for control and supervision of a particular activity or area of public interest, safety or wellbeing.
Citizen	A native or naturalized member of a state or nation who owes allegiance to its government and is entitled to its protection.
Contractor	One who is responsible for having all the work described in a contract carried out, including having all appropriate insurances, paying suppliers and workers, and for supervising the quality of all work performed.
Designer	A person who arranges materials, textures, colours, lines, levels and scale in pursuit of aesthetic, technical and functional needs.
Advisor	An expert who gives advice to others.

Table 0.1b : Definitions of terms

RESCUE SUSTAINABILITY OBJECTIVES

		Responsibility for objective										
		Pr. Managers	Landowners	Developers	Planners	Policymakers	Regulators	Citizens	Contractors	Designers	Advisors
1	To reduce negative environmental impacts on the site and on the neighbourhood including human health risks								X		
2	To minimise waste and maximise recycling and reuse of soil and debris								X		
3	To ensure cost-effectiveness and technical feasibility of the management of risk from contamination and the reuse of soil and debris.									X	
4	To improve social acceptance through identification and engagement of all stakeholders.	X									
5	To retain buildings and infrastructures on brownfield sites				X						
6	To reuse existing buildings and infrastructures, or components thereof, on brownfield sites.									X	
7	To recycle materials of existing buildings and infrastructures on brownfield sites									X	
8	To minimise energy demand and produce renewable energy on the site									X	
9	To minimise water demand and reduce waste water production									X	
10	To promote land use functions that match socio-economic demands and needs.				X						
11	To integrate the reuse of brownfield sites into regional land management				X						
12	To integrate the reuse of brownfield sites into urban development				X						
13	To achieve benefits for and prevent adverse impacts on the local neighbourhood.				X						
14	To generate and safeguard employment and economic development.			X							
15	To promote land use functions that suit the natural and man-made environment of the site and its neighbourhood.				X						
16	To save resources.									X	
17	To increase the possibility of the public traversing former brownfield sites.				X						
18	To provide adequate access.				X						
19	To achieve high urban design quality.									X	
20	To create and maintain flexibility and flexible urban design.									X	
21	To obtain a better quality of the information itself.	X									
22	To obtain a better quality of the information flow in the decision-making process and a more efficient information use.	X									
23	To have a fair discussion process and a better resolution of conflicts.	X									
24	To increase the legitimacy of the decision-making process.					X					
25	To improve the efficiency of the process in terms of duration and cost.	X									
26	To empower citizens, especially those representing non-organised interests.					X					
27	To delegate responsibility to lower decision levels and to stimulate a sense of ownership.	X									
28	To adopt an interdisciplinary project team approach.	X									
29	To facilitate efficient project delivery.	X									
30	To promote and manage stakeholder participation.	X									
31	To provide a framework for transparency in decisions, flow of information and improved communication structures.	X									
32	To protect human health and safety and the environment during site operations.	X									
33	To adopt an approach that integrates social, economic and environmental aspects.	X									

Table 0.2 : RESCUE Sustainability objectives and responsible parties. Many objectives are shared by stakeholders, but the principle responsible party is highlighted thus X

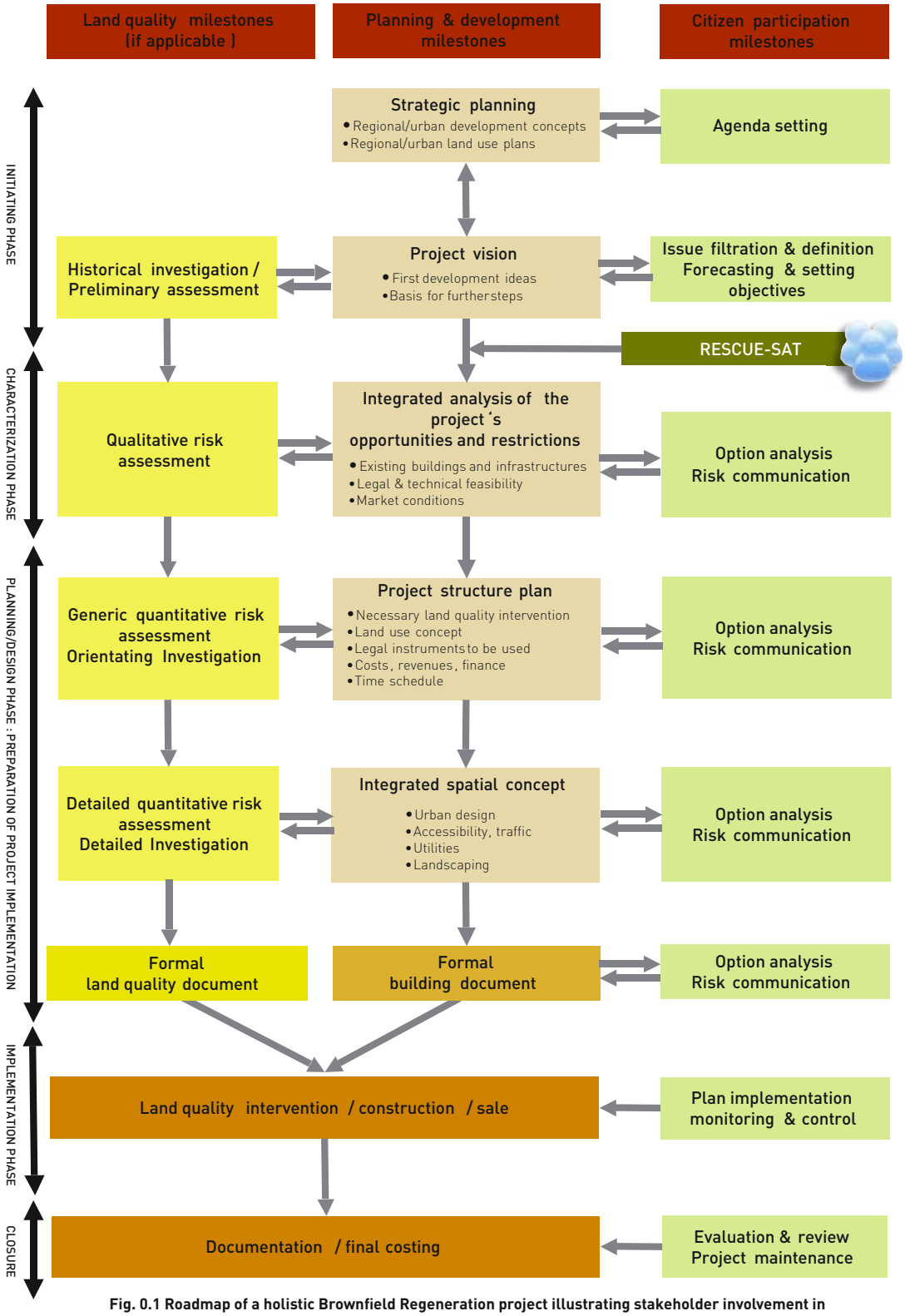


Fig. 0.1 Roadmap of a holistic Brownfield Regeneration project illustrating stakeholder involvement in the various project phases.

CHAPTER 1

Best Practice Guidance for Project Managers

"Project management is the planning, control and co-ordination of all aspects of a project, and the motivation of those involved in it, in order to achieve the project's objectives, within the framework of time. Time is simply nature's way of avoiding everything happening simultaneously".

- Anon -

→ The management of Sustainable Brownfield Regeneration projects clearly requires a holistic, systematic and integrated approach.

1.1 | What is the role of the Manager of Sustainable Brownfield Regeneration Projects?

1 Representing the interests of the landowner, developer or investor who pays the project management fees, **including :**

- Providing a framework for transparency in decisions, flow of information and improved communications.

2 Managing the duration, cost and quality of the project, **including :**

- Adopting an interdisciplinary project team approach.
- Adopting an approach that integrates social, economic and environmental aspects.

3 Being the interface between the project and interested external parties and bodies, **including :**

- Promoting and managing stakeholders' participation.

It is clear that there are some projects in Europe that demonstrate visionary approaches to dealing with brownfield challenges. In all cases, these exemplars aspire to be sustainable from the concept stage. In instances where sustainability is retro-fitted onto routine design concepts, projects tend to aim for satisfaction of economic progress, along with minimised negative social and environmental impact. However, in the visionary examples, projects are aiming for a lot more than this. They aim to generate positive social and environmental outcomes, without compromising project economics. High quality project management is pivotal to the success of such projects.

→ Sustainability can be at the core of a brownfield regeneration project without compromising commercial performance.

"If you want to manage somebody, manage yourself. Do it well and you will soon be ready to stop managing and start leading."

- Anon -

1.2 | Holistic and systematic approach for the management of Sustainable Brownfield Projects.

→ It is not unusual for the Project Manager's involvement to endure for the entire project timescale from concept to closure.

Chapters 2, 3 and 4 of this manual give guidance to all participants in the Brownfield Regeneration process. It is the Project Manager's task to co-ordinate and control the overall process to satisfy the participants' prioritised needs.

The guidance in this manual includes linkages to practices and tools for use by the participants in the process including the Project Manager. These have been validated by representatives of seven EU Member States. The Project Manager is encouraged to become acquainted with the other participants' practices and tools, as well as his/her own, in order that he/she can advise on their appropriateness and use.

→ Generic challenges need visionary solutions

If sustainable outcomes are the aim, the Project Manager must introduce the concept of 'sustainability by design' from inception of the project – the 'vision' phase. One of the best practice examples cited in this chapter – Markham Vale (UK) – is illustrative of the power of this concept, particularly in terms of an integrated and holistic vision at significant spatial scale and the following extract gives a flavour of the style of Project Management necessary to deliver it.

BEST PRACTICE
Case study 1

Markham Vale
Sustainability by design

The 360 Ha Markham Vale development is situated on land which includes the typical features of a large redundant coal mine. These include over 10 million cubic metres of surface deposits of chemically unstable and eroding mining waste. The site owner, Derbyshire County Council, has approached the resolution of site deficiencies by seeking solutions that are sustainable. This follows the motto of the Council, "Sustainability in all we do". The project manager has actively pursued this approach and consequently enabled significant achievements on the site.

Long-term solution for mining waste

The landowner has elected to adapt the mining waste for a sustainable purpose. The opportunity to transform the waste tip(s) into biomass plantations was provided in 2001 with the publication of the "Marginal Land Scoping Study and Information Review" http://www.lqm.co.uk/publications/index.html that called for a large demonstration project to prove the concept of combining organic waste recycling to form new soil horizons, biomass production for renewable energy production and contamination management by phytostabilisation. This potential solution was viewed as attractive by the landowner and was adopted within design of the Markham Vale development following preparation of a waste/biomass/phytostabilisation Masterplan in 2004. The first plantation of 15 Ha was planted in 2004, with future plantings (45 Ha) scheduled in three tranches over the following three years.

Awareness of the opportunity to replicate

Derbyshire County Council owns 2000 Ha of minespoil heaps. The intention is to replicate the plantation on other sites to create a critical mass that can simultaneously service a viable sub-regional biomass energy sector, consume

recycled organic waste and manage contamination and erosion. The project manager has identified four other sites in the sub-region where the project could simultaneously replicated.

Integration of the mining waste heaps into the design and function of the overall development

In the Markham Vale Masterplan, the mining waste heaps are integrated into the overall development in four ways.

- The design integrates the development into the local landscape.
- The surface of the heaps will receive substantial volumes of recycled organic waste materials generated elsewhere on the development.
- The chemical and physical stability of the heaps are assured by the plantation design.
- The biomass will provide fuel for boilers on the commercial part of the development.

Significantly, the approach taken on the Markham mining waste heaps actually adds value to the adjacent commercial development land.

→ Decisions that impact on sustainable outcomes are made by investors. If the economic cost is not proportionate to the benefits, the investments are unlikely.

Significantly, sustainable Project Management opportunities are not limited to the 'big-picture'. There are single elements of projects that, if managed in a particular manner, can transform a project's overall sustainability performance. There are several best practice examples of this related to reuse of buildings, spatial planning and citizen participation, but perhaps the most vivid example relates to reuse of soil, the CLUSTER project (UK). This project is new – 2005 - and is currently being commercialised in response to the impact of the Landfill Directive which threatens the viability of many projects in the UK that have hitherto relied on landfill disposal to resolve their soil contamination problems.

BEST PRACTICE Case study 2 — CLUSTER Using economic of scale

The term "CLUSTER" describes a group of sites undergoing remediation where the material from one or more of the sites is fed to a soil treatment facility on a "hub" site. After treatment on the hub site, some or all of the material may be suitable for use on either the originating site or on other sites. Key components of the CLUSTER concept are that the establishment of the hub site takes place with a view to dealing with an initially identified group of potential feeder sites and the hub site may only be in operation for a short time period.

Clusters fit within a range of options for dealing with problem material from brownfield sites. The current options can be categorised as "on site" methods – ie using remediation technologies or other means of management of the material, such as containment, on the site undergoing remediation – or "off site" disposal to landfill.

The aim of a Cluster is to provide an off site option which enables treatment of the material, maximising the recovery of material suitable for use on sites and minimising waste material. It would not replace waste minimisation on the originating site, but would allow for a second round of waste minimisation to take place. Nor would it entirely eliminate requirements for transport or ultimate disposal of material, but it would substantially reduce the degree and potential

impact of both of these. The concept is illustrated with 4 sites in Figure 1.1. There are 3 feeder sites which provide and use material sequentially from the hub site (site 4). In this case the hub site is not generating or using material.

The creation of the concept originated from the identification of an urgent need for an alternative set of logistics to deal with sites that had insufficient tonnage of contaminated soil to economically justify the employment of decontamination technologies. Such sites, unless a solution was found, would eternally be condemned to dispose of their contaminated soil to landfill. The integration of the multitude of aspects required to develop this solution was the task of a Project Manager. It is a powerful example of how sustainable solutions can be generated by a need to end unsustainable practices. The translation of the problem into a solution is, however, a difficult task that requires the ability to co-ordinate multiple functions, interests and regulatory constraints.

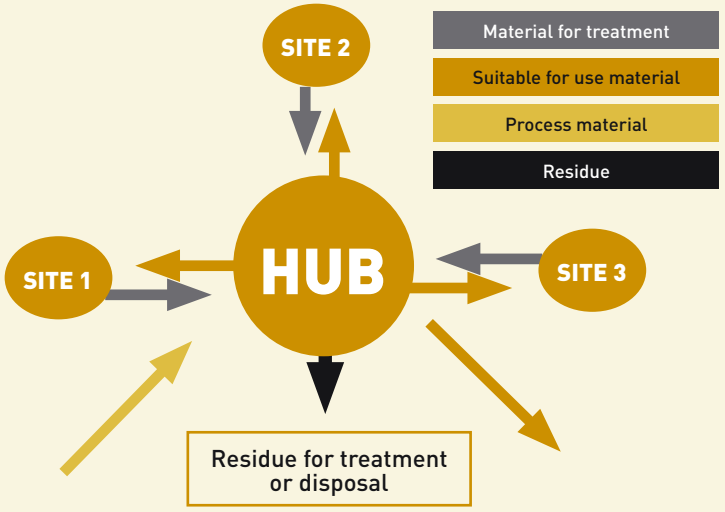


Fig 1.1 :
CLUSTER schematic - © exSite Research Limited 2005

Beyond the holistic principles that are embodied in the concept of Sustainable Brownfield Regeneration, there are significant practical challenges for a Project Manager.

Project Management consists of **decision-making and of informing the decision-making process; making decisions that encompass the potential to profoundly affect project outcomes and informing those who provide economic investments regarding the choices that are available and the potential consequences of those choices.**

Such outcomes and consequences are paramount when sustainability is the aim, whereas traditional 'output'-led regeneration strategies are invariably biased towards numerical achievement of employment, business start-up and land reclamation targets which do not necessarily deliver sustainable local outcomes.

Organisational structures can, in themselves, contribute to creating the conditions in which sustainable brownfield regeneration can develop. The RESCUE case study at Radbod, Germany, employed the structure known as 'Project Development Companies' to create such conditions.

BEST PRACTICE Case study 3 — Project Development Companies Organisational structures

The quality of redevelopment projects depends on the co-operation of many different parties. In these circumstances it is clear that not every single interest and need can be completely satisfied. To deal with this issue efficiently, quality management can be used as an instrument to solve such potential disharmony. Project Development Companies have proved successful in providing such quality management. This organisational form brings together the main decision makers (e.g. owner, developer, municipality, project manager) in one small team, in one office and on-site. Decision lines are very short thus facilitating efficiency, communication and co-operation. 'External relationships' (construction companies, citizens, authorities, etc) are also supported since competencies are clearly allocated. Interfaces and responsibilities are also clearly defined. The team is the "one" to contact. The team is established exclusively for the specific project and works together from commencement until completion.

Virtually under 'one roof' a small interdisciplinary and cross sectional team combines:

- Project leadership (responsibility for achievement of overall project goals/ decision making)
- Project supervision (for adherence to defined quality, quantity, dates and costs)
- Information / public relations
- Marketing.

Fig 1.2 :
Example of possible composition of a team and possible interactions - © RESCUE 2005

In the Radbod case study the Project Development Company consisted of 4 members (owners, developers, municipality, and project manager) and a secretary. It was established according to a partnership contract at the start of the project following approval of funding. It was present on the site in its own office, facilitating short and efficient communication lines to external parties. As a partner in the team, a representative of the city of Hamm provided direct contact to the city and permitting authorities. From inception, creating such an organisational structure and defining the responsible team was agreed as the major step for successful project delivery. Both 'internally' (within the 'project development company') and 'externally' these arrangements led to general satisfaction with the project.

"If you always do what you did, you will always get what you got, which is fine if that's what you want, but isn't if it's not."
- Anon -

1.3 | Integrated approach

→ Each Member State has unique cultural, economic and regulatory constraints that can affect the 'usability' of practices and tools. A local perspective is essential.

The structure of the RESCUE project was designed along mainly functional, project-focused lines. However, significant initial work was necessary to establish the parameters within which sustainability could be integrated into the delivery of brownfield regeneration projects. This work resulted in the development of an Analytical Sustainability Framework and the selection of case studies in the four RESCUE partner countries Germany, France, Poland and United Kingdom. The Analytical Sustainability Framework provided the detailed information necessary to understand the political, social, economic and legal background within which each case study project was carried out. This understanding informed the evaluation of practices which were appraised on the basis of their practical performance, economic viability and regulatory acceptability, the success of all of which being fundamental to practical adoption. Furthermore, the Framework acted as the focus for defining the sustainability objectives and indicators that enabled evaluation of the practices which were adopted in the case studies and in further supplementary projects that were also analysed.

The functional lines along which the RESCUE work was organised were:

- Management of contamination and reuse of soil and debris
- Management of existing buildings and infrastructures
- Sustainable land use and urban design on brownfield sites
- Sustainable planning processes and methods for citizen participation

"There are no good Project Managers, only lucky ones. However, it is remarkable that the more you plan, the luckier you seem to get."
- Adapted from Gary Player -

→ All of the guidance in this chapter supplements the professional expertise of Project Managers. It does not replace it.

→ All of it is intended to help to improve the quality of projects where this is the will of the investor(s).

The wide range of professional disciplines that these topics embrace is probably unmatched by any other industry. Traditional project management structures, programmes and techniques can be employed to manage each discipline within a complex team matrix. Achieving best practice is the task of the Project Manager who is in a unique position to integrate the expertise of the team to employ best practices and deliver the sustainability objectives.

In each of the chapters of this manual, the Project Manager will find best practice examples that can be considered for adoption in his/her project(s), together with specific guidance for managing each function. Tools are also described that can be used to implement the selected practices. However, the supplementary guidance given in these chapters is not written as a 'painting by numbers' exercise. It is not subjective; it must be used as part of an objective approach that seeks to establish a solution that is acceptable to all stakeholders, arrived at by understanding opportunities and constraints in each aspect. For this purpose, an integrative tool is valuable. The Sustainability Assessment Tool (SAT) - developed within the RESCUE project - is designed for this purpose.

Currently, this tool is a prototype and it is undergoing an evaluation period following retrospective use in Germany and pre-project use in Poland. Early results are positive and further refinement work will be done. It is intended that the SAT will, following refinement, be adopted for use on projects in France, Germany, the Netherlands and

the United Kingdom in full field trials. Even in its current prototype form, this tool can be readily adopted within the normal decision making process (Figure 1.2 Decision Chart) to manage aspirations, avoid conflicts and assist in the delivery of sustainable outcomes.

The use of the SAT is not recommended unless a commitment to a sustainable project is forthcoming from those who are investing in it economically. Without such support, sustainability assessment is pointless and will consume project resources to no real advantage.

An up-to-date version of the SAT can be downloaded at ***www.rescue-europe.com***

"The nice thing about not planning is that failure comes as a complete surprise rather than being preceded by a period of worry and depression."

- Anon -

1.4 | Quality criteria

	Sustainability objective	Sustainability indicators
1	To adopt an interdisciplinary project team approach	Existence of a quality assurance and quality control system to ensure that standards and procedures in planning, assessment, reporting etc are effective and compliant.
2	To facilitate efficient project delivery	Existence of appropriate skills in the Project Manager's profile.
		Existence of a Project Management plan, updated on a regular basis.
		Existence of a marketing strategy and related documents.
3	To promote and manage stakeholder participation	Existence of a stakeholder Information and Participation plan.
4	To provide a framework for transparency in decisions, flow of information and improved communication structures	Existence of documents recording the decision-making process.
5	To protect human health and safety during field work	Existence and use of a health and safety plan.
6	To adopt an approach that integrates social, economic and environmental aspects	Cost benefit tools

Table 1.1
Sustainability objectives and indicators for Project Management of brownfield regeneration.

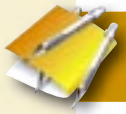
"We trained hard, but it seemed that every time we were beginning to form up into teams we would be reorganised.
I was to learn later in life that we meet any new situation by reorganising, and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency and demoralisation"

- Petronius Arbiter - 210 BC

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com



TOOLS for RESCUE Objective 1 — To adopt an interdisciplinary project team approach

Tool 1.1 - ISO management systems integrated into a harmonised management plan

Developing an overarching management system that: integrates existing ISO management standards - to set up practices, procedures, documentation on a common basis - to carry out certification processes at the same time.

Get the tool at http://www.isca.org.uk/18001/overview.htm#Annex%20A

Tool 1.2 - Global project management competency standards

Performance based competency standards describe what people can be expected to do in their working roles, as well as the knowledge and understanding of their occupation that is needed to underpin their roles at a specific level of competence.

Get the tool via e-mail: info@aipm.com.au

Tool 1.3 - Checklist - Quality management

Quality management requirements	Yes	No
Has an integrated, clear and usable system been prepared for planning, quality control, assessment, improvement and reporting?		
Has an analysis of potential risks and failures during all project phases been done?		
Is there a documented strategy for resolving disputes regarding the quality requirements, procedures, assessment, and corrective actions?		
Is there a documented, integrated and standardised system of planning, quality control, assessment, improvement and reporting?		
Is there a document detailing staff organisation and responsibilities?		
Can updating of the QA/QC documents be verified?		
Is there evidence of routine and ad-hoc quality inspection?		
Does the quality system include data validation and reporting procedure compliance verification?		
Are quality management results and actions disseminated to the entire management team.		

Tools

TOOLS for RESCUE Objective 2

To facilitate efficient project delivery

Tool 1.4 - Opportunity plan

Methodology for putting a brownfield site into the context of the local community.
Get the tool via e-mail: kate.millar@nottingham.ac.uk

Tool 1.5 - PluSS planning and steering system

Software for planning and steering of complex projects.
Get the tool at www.mgg.de

Note: A licence fee applies. Costs dependant on the number of users. e.g. 1 user: approx. 2.500 €, 20 Users: approx. 20 x 1.700 €

Tool 1.6 - Standardised activities related to contaminated sites

Definition of the services required for activities related to contaminated sites (consulting, engineering, site clean-up and pollution remediation).
Get the tool at www.afnor.fr

Tool 1.7 - Cost structures in brownfield redevelopment

Guidebook for providing satisfactory cost reference systems and better techniques for determining costs and benefits. The methodology is specifically adapted to the problems involved in brownfield redevelopment to provide better cost transparency and security to support efficient project delivery.
Get the tool at www.itv-altlasten.de

Tool 1.8 - KONUS: Costing for site preparation

Computer aided support tool/data bank system + technical report (project number: FKZ 200 77 252) for providing satisfactory cost reference systems and better techniques for determining costs and benefits.
Get the tool at http://www.umweltbundesamt.de/altlast/web1/deutsch/news.htm

Tool 1.9 - Checklist - Marketing strategy

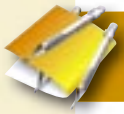
Marketing strategy requirements	Yes	No
Has a documented marketing strategy been prepared?		
Are the quality, clarity and usability of the documents adequate? Is the wording adapted to target groups?		
Have sufficient personnel and an adequate budget been allocated to put the strategy into effect?		
Is there a strategy to respond to deviations? Will written evidence of any corrective actions be prepared?		

Tools

Tool 1.10 - Checklist - Project management plan

Marketing strategy requirements	Yes	No
Has each project phase been fully described (objectives, tasks, personnel, equipment, programme, budget)?		
Have all of the project risk categories been considered and documented (technologies, time, contractors, safety, environment, regulation, cost, public involvement?		
Is there a strategy to respond to negative deviations from the plan?		
Has an emergency response plan been prepared?		
Are all documents supporting the plan of high quality, clear and usable?		
Is the planning/programme approach standardised?		
Will an initial risk analysis be carried out as part of the project management process?		
Will plan reviews and changes be disseminated to the project team?		
Will plan revisions be documented?		
Will standard activity and programme bar charts be used? Will revisions be documented?		
Will milestones be used in the plan? Will progress against milestones be documented?		
Will an efficiency assessment be prepared comparing the initial plan to the final realisation?		
Will cost calculation tools be employed?		

Tools



TOOLS for RESCUE Objective 3

To promote and manage stakeholder participation

Tool 1.11* - Guidance for implementing public involvement

This guidance is to help EPA staff and managers in implementing seven basic steps for effective public involvement. For each step, EPA gives a check-list of recommended actions and methods/ tools.

Get the tool at http://www.epa.gov/policy2003/policy2003.pdf

Tool 1.12 - Checklist - Stakeholder information and participation plan

Stakeholder information/participation plan requirements	Yes	No
Is stakeholder participation integrated into the project management quality plan?		
Is the documentation (public notices, letters, meeting leaflets, video/OHP presentations) of high quality, clear and usable?		
Will records of all received comments be maintained?		
Will records of all issued information be maintained?		
Is the stakeholder identification method transparent?		
Will records of meetings be disseminated to attendees and the wider public?		
Will individual observations and requests for information receive individual responses?		
Will a record of all issues raised be maintained (what, where, when, by whom).		
Will external experts (eg psychologist, anthropologist) be employed on a temporary basis?		
Will a public exhibition be held?		
Will information boards be provided in the site environs?		

* see also TOOL 3.1

Tools

TOOLS for RESCUE Objective 4

To provide a framework for transparency in decisions, flow of information and improved communication structures

Tool 1.13 - Public relations tools

Toolbox – compilation of existing PR tools. A combination of tools has proven to be the most successful method

Activities/Events:

- personal discussions
- special events for particular target groups, e.g. journalists, children
- workshops
- open-days
- ground-breaking ceremony
- mid-term celebration of the construction phase
- guided construction site visits

Self-presentation:

- 'planning and information centre' on site; Liaison office
- signboards about building activities
- leaflets
- brochures
- advertisement in specialised press
- Email distribution list
- video presentations

Press/media:

- newsletters
- regular articles in the newspaper
- information through the local radio program
- interim reports

Tool 1.14* - Global information and communications plan

A list of potential tools that a project developer can implement from the early stages of project to enhance communication and information flow throughout the different phases of the project.

- Information desk at the local market
- Information placed on municipal notice boards.
- Information can be placed on lampposts, walls etc in the neighbourhood.
- A Visitor Information Centre
- Booklet: Booklets can help to inform citizens about the situation and to exchange information with other projects.
- **CD-Rom:** CD-Roms can help to inform citizens about the situation and to exchange information with other projects.
- **Newsletters**
- **A free phone number**

*** see also TOOL 3.5**

Tools

- **Forum theatre performances** as an interactive and spontaneous vehicle for working on conflicts in situ in a playful atmosphere
- **A practical toolkit**
- **Regular public relations work:** Use of local and regional newspapers, radio and television, teletext.
- **Website:** Websites can be used for the presentation of information and for the discussion between the different users of the page. Concerning brownfield regeneration, internet-pages cannot be considered as the unique solution to transfer information and establish a dialogue with inhabitants. They are meaningful if they are involved in a diversified range of tools and if municipalities make an effort in implementing internet training and free self-services computers. Moreover, in order to involve inhabitants, local authorities have to combine "real places" (public meetings where people can discuss together) and more virtual ones.
- **An e-citizenship intranet system:** chat rooms, on-line publications and progress reports of public meetings, on-line services
- **A City Council Information System**
- **Community-based GIS** as a potential for visualizing issues, generating debate, building consensus and solving conflicts (not adapted to small community-based agencies)

Tool 1.15 - Checklist - Record of decisions

Record of decisions requirements	Yes	No
Will a record of citizen participation documents exist?		
Will the documents be clear?		
Will records be adapted to stakeholder diversity?		
Will feedback be recorded, will comments be reviewed?		
Will meetings be held on a regular basis?		
Will records be integrated into the marketing strategy?		

Tools

TOOLS for RESCUE Objective 5

To protect human health and safety during field work

Tool 1.16* - Guide to safe working on contaminated sites

To describe what activities can be safely undertaken on contaminated sites by non specialists or where specialist advisors are required. Covers Legislation, Hazards, Assessment, Planning and Management. Chapters on Site Facilities, Personal Protective Equipment, Health Surveillance. Includes voluminous detail in Appendices, Checklists and Tabulated Data.
Get the tool at www.ciria.org.uk/publications

Tool 1.17 - Health Protection and Safety Particular Plan (PPSPS)

Health and Safety Guidance for project managers and companies managers.
Get the tool at http://www.fasp.info/OutilsMethodologiques/OMChimie/LiseteGenerale.htm

Tool 1.18 - Construction Design Management (CDM) training pack for designers

Takes two authoritative publications on the Construction Design Management Regulations (CIRIA R145 & R166), and allows a Facilitator to instruct a Team in the requirements.
Get the tool at www.ciria.org.uk/publications

Tool 1.19** - Health and safety measures for work on contaminated areas for the investigation and remediation of derelict sites

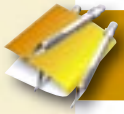
Guidance for operational procedures during site remediation and or decontamination
Get the tool at http://www.mlur.brandenburg.de/oe_a/labo_nr5.pdf

Tool 1.20 - Checklist - Health and safety plan

Health and safety plan requirements	Yes	No
Do active and responsive health and safety plans exist for the whole site?		
Will health and safety measures be considered during the planning/design phase (for integration into bids)?		
Will the measures be disseminated to all employees?		
Will neighbourhood impacts be considered, monitored and updated?		
Will accidents be recorded?		
Will the plans include – - A hazard communication plan for key personnel? - Health and safety risk analyses? - Employee training programme? - Medical surveillance? - Personal protective equipment? - Air and personnel monitoring? - Site control measures? - Decontamination procedures? A contingency plan (in particular to protect the community in the event of an accident?		

*** see also TOOL 3.8**
**** see also TOOL 3.7**

Tools



TOOLS for RESCUE Objective 6

To adopt an approach that integrates social, economic, environmental aspects

Tool 1.21 - The Land/Soil Value Balance
Decision support tool for sustainable land management.
Get the tool at
http://www.umweltbundesamt.de/altlast/web1/berichte/pdf/land_value_balance.pdf

Tool 1.22 - Modelling the financial risk of remediation
Analytical approach and methodology based on stochastic modelling for translation of technical risks of remediation into monetary expressions of risk
Get this tool :
Published in NATO Committee on Challenges to Modern Society: NATO/CCMS Pilot Study Evaluation of Demonstrated and Emerging Technologies for the Treatment and Clean up of contaminated land and groundwater. Phase III 2000 Special Session Decision Support

Tool 1.23 - Cost-benefit analysis of remediation of contaminated land
Technical guidance for assessment of the costs and benefits of two or more remedial options for a given site.
Get this tool :
EA Technical Record No P316, ISBN 1 85705 209 9, Price (Sterling) £30. Copies of the report are available from: WRc plc., Frankland Road,
Blagrove, Swindon SN5 8YF Tel: +441793 865138, Fax: +441793 514562

Tool 1.24 - Strategic model for planning of brownfield redevelopment
Methodology and practical guidance for strategic planning of brownfield redevelopment
Get this tool via e-mail : sixarb@gig.katowice.pl

Tool 1.25 - Project cycle management
A set of project design and management tools based on the Logical Framework method of analysis.
Get this tool at
http://europa.eu.int/comm/europeaid/qsm/documents/pcm manual 2004 en.pdf

Tool 1.26 - Check list – land recycling
Checklists to bring attention to the complexity of brownfield projects, overview all relevant issues and identify deficiencies in planning and implementation.
Get this tool at www.clarinet.at/library/brownfield.pdf

→ Recommendations

Recommendations for the Management of Sustainable Brownfield Projects

"I love deadlines. I like the whooshing noise they make as they pass by"

- Douglas Adams -

- Learn from the experience of others, you are not the only creative card in the deck.
- Sometimes the complicated plan is not the right one. Often the simplest plan is the most elegant and effective.
- Most learning experiences are the result of things going wrong, not right. If the mistakes that individuals make can inform many others, this is good value overall. Communicate widely. Find out what can go wrong. Admit your mistakes. Sustainability is not competitive, it is a shared goal.
- Think big, aspire to significant achievement. It is easier to make money than to make a difference.
- Go further than thinking 'outside the box'. Ask 'which box?'
- Don't just manage, you should lead and inspire. You are in the unique position of having highly skilled people in your team who will contribute high quality input to your integrated vision. Give them a star to congregate around.

"If you don't design your own plan, chances are you will fall into someone else's plan. And guess what they will have planned for you? Not much!"

- Jim Rohn -

- Establish which sustainability objectives are desirable and achievable.
- Establish which practices can be employed to deliver the desirable and achievable objectives.
- Prioritise, for and with the other stakeholders, the objectives and practices.
- Establish a comprehensive agreement to guide and monitor the overall process.
- Keep stakeholders informed. They are all partners in the project with potential losses and gains. You are in a position of trust in a situation where you can make the difference between success and failure.
- Bear in mind that if just one stakeholder group judges the project a failure, then it is a failure as far as positive sustainable outcomes are concerned.

CHAPTER 2

Best Practice Guidance for Landowners, Developers and Planners

"Planning is bringing the future into the present so that you can do something about it now"

- Alan Lakein -

2.1 | Why is sustainable brownfield regeneration important for Landowners, Developers and Planners?

Many old industrial regions throughout Europe share common basic conditions: weak business activities, modified methods of production, use of greenfield sites in the fringes of cities and conurbations and demographic trends characterised by ageing populations and outward migration. These trends result in modified growth cycles: From prosperous cities of the past to often shrinking cities of the present.

In this context, the reintegration of brownfield sites into spatial and economic structures is one of the essential elements of sustainable urban development. Sustainable brownfield regeneration contributes to an efficient use of space, a healthy environment and a good quality of urban life.

Moreover, sustainable brownfield regeneration has commercial implications by generating jobs, stimulating inward investment and raising land values. Brownfield regeneration thereby contributes to the creation of more vibrant communities, generates higher incomes per capita and triggers higher demand for goods and services. Conclusively, brownfield regeneration contributes to stimulating regional economies including regional property markets.

With the positive social, environmental and economic impacts that it generates, sustainable brownfield regeneration is a central element of regional and urban development, and it is therefore important to anybody interested in and affected by it.

Of course, the topic's significance for landowners, developers and planners goes further:

Landowners

→ *Saving costs and generating income*

Owning idle and unproductive brownfield sites is expensive: Property taxes have to be paid and measures that eliminate site related risks are obligatory. Under the pressure of globalised markets, institutional landowners, in particular, increasingly try to optimise and utilise their land portfolios by means of Corporate Real Estate Management (CREM) strategies. Consequently, landowners have a direct commercial interest in either disposing of or developing their brownfield properties to save costs and generate income.

→ *Increasing land values*

In addition to directly benefiting from regenerating their own brownfield sites, landowners indirectly benefit from regeneration activities in the neighbourhoods of their sites. Such projects improve the quality of urban life, raise the profile of the affected urban quarters and as a result, trigger off rising land values.

→ *Socially responsible*

During the prosperous phases of industrial production, the brownfield sites of today contributed to the profits of industrial entrepreneurs. As the current landowners are often the succession institutions to the industrial entrepreneurs, they bear a social responsibility to make good and efficient use of their land and to support processes of structural change.

Developers

→ *Often the only development potential*

In many regions throughout Europe, brownfield sites represent the only land which is available for development within inner cities. If developers want to be active in the urban property market, dealing with brownfield sites is inevitable.

→ *Market opportunities*

Regions that suffer from large amounts of brownfield sites are characterised by weak property markets. An often decreasing population, a low regional income and high unemployment rates, together with a poor quality of urban life and a low overall profile of the affected areas lead to a weak demand for development land. These factors represent problematic market environments for developers. Brownfield regeneration projects however can contribute to improve this situation by enhancing the quality of life, creating jobs and stimulating further investment. By triggering development, brownfield regeneration conclusively enhances regional profiles and market conditions and thus generates potential for further development.

→ *Competitive advantages*

Post-industrial societies are characterised by an increasing environmental awareness. Products which have not been produced at the expense of the environment may therefore be in increasing demand or realise higher prices. Related to real estate projects as development products, an explicit dedication to sustainable brownfield regeneration can raise market opportunities and generate competitive advantages.

→ *Recruitment of key employees*

In addition, developers who contribute to a better society and a cleaner environment will be more attractive to high-potential key employees and thus may need to rely less on financial incentives within their recruitment strategies.

→ *Reduction of development risks*

Finally, carrying out brownfield regeneration projects in a structured and sustainable way contributes to minimising the specific financial risks of such projects.

Planners

With (spatial) *planning* being defined by the Association of Collegiate Schools of Planning (2004) as a systematic and creative way to influence the future of neighbourhoods, cities, regions, countries and the world, urban and regional planners use their professional skills to assist communities to respond to social, economic,

environmental and cultural challenges by

- Preserving and enhancing their quality of life
- Protecting the natural and built environment
- Promoting equity and equality
- Improving services to disadvantaged communities, and
- Dealing effectively with growth and development of all kinds.

This means that sustainable brownfield regeneration directly relates to the planning profession's responsibility for public wellbeing.

→ Professional responsibility for public wellbeing

2.2 | What is their respective role in the process?

The linking element between landowners, developers and planners is their common interest in land and its use. Without this group of stakeholders, no brownfield regeneration is possible.

Landowners

The role of landowners in sustainable brownfield regeneration is to provide sites in order to support the regeneration process. However, as regeneration cannot happen without their consent, the landowners need to be given the opportunity to benefit from this process. Moreover, the landowners should understand the general context of brownfield regeneration and be open to innovative solutions.

→ Provision of land

Developers

The developers' role in sustainable brownfield regeneration is entrepreneurial: Based on their specific expertise and market conditions, they have to identify development opportunities and to deliver projects which meet the requirements of sustainability. This means taking the project from its early visionary stages through to marketing. Developers are caretakers of projects and as such they are in charge of taking their projects forward. They are responsible for defining the project aims according to sustainability requirements, analysing and characterising the site, getting the planning and design done, acquiring all necessary approvals and consents, organising the finance and marketing the finalised product. For this, developers have to establish teams that meet the requirements of specific projects. Therefore, developers might assign planners, project managers, building contractors or other service providers and consultants.

→ Project delivery

Planners

In terms of the planning profession, three groups of planners are differentiated.

The first group of planners works on behalf of developers to provide e.g. land use concepts, urban and landscape designs or traffic and utilities concepts for development projects. Their tasks might encompass the analysis of the sites' potentials and restrictions and the translation of the results of this analysis, market demands, environmental requirements and social needs in combination with the developers' input into spatial plans for the project. For this, the sustainability objectives which have been developed in RESCUE provide guidance as they represent parameters and criteria which must be taken into account in order to achieve sustainable outcomes. The planners' role demands a high degree of inspiration, imagination and vision to appropriately deal with the specific characteristics of brownfield sites and come up with innovative schemes and designs.

→ Provision of ideas for the sites; translation into spatial designs

The second group of planners represents those working for public planning

→ *Provision of the public planning framework*

authorities. Their task is to provide the regulatory framework in terms of strategic planning, e.g. by means of formal and informal building and development plans. In strategic planning, the planners should provide a supportive context for brownfield regeneration by restricting competition from greenfield sites.

→ *Advice on CREM*

The third group of planners works on behalf of landowners and provides advice concerning portfolio management and CREM activities. Such advice might comprise decisions for the development or disposal of certain sites. By means of this, these planners draw on the input from the development planners of group one and the framework defined by the public planners of group two.

"A good plan today is better than a perfect plan tomorrow."

- George S Patton -

2.3 | What is sustainable brownfield regeneration for Landowners, Developers and Planners?

→ *Sustainable is not synonymous with green!*

Sustainable is not synonymous with green. The regeneration of a brownfield site can cause negative environmental impacts and yet yield a sustainable outcome. This happens when either the positive effects in the economic, social or institutional dimensions of sustainability outweigh the negative ecological ones or the negative impacts on the site are balanced on the urban/regional scale. An industrial development on a brownfield site (despite its unavoidable negative environmental impacts) can be more sustainable than a public park on the same site, as it helps to preserve alternative greenfield sites. In addition, the proposed development could generate jobs resulting in positive effects in the social and economic dimensions. Increases in local municipality income could be allocated to environmental improvements in the surrounding area. This means a brownfield project that does not cause any negative environmental impacts overall is not necessarily more sustainable than a "dirty" industrial development where potential wealth generating activities and development in the broader regional context are more sustainable. Finally, sustainable brownfield regeneration by necessity refers to projects which are economically viable for their developers. This might include public funding.

→ *Sustainability objectives and indicators for land owners, developers and planners*

RESCUE's definition of sustainable regeneration is not meant to imply that sustainable development should be regarded as a situation that can be achieved or a destination that can be reached at some time in the future. Rather it is a road map through the ever-competing economic, environmental, social and institutional interests, that seeks to optimise the impacts and benefits while preserving freedom of action and range of options for future generations. The focus should not be on situations regarded as optimal from today's perspective, but on the potential flexibility of the instruments used to approach sustainable development. Therefore, sustainability is not an achievable situation, but a set of guiding principles to ensure long term viability of the components of the three dimensions.

From the sustainability objectives which have been defined by RESCUE as guiding principles for sustainable brownfield regeneration, the following particularly refer to the activities of landowners, developers and planners:

Objectives	Indicators
To retain buildings and infrastructures on brownfield sites	• Conservation of industrial monuments • Solutions to comply with health and safety regulations • Guideline use • Studies realised • Financing and taxation approaches
To promote land use functions that match regional socio-economic demands and needs	• Integration of the intended land use into the objectives of the regional development strategy • Proof of a sufficient demand
To integrate the reuse of brownfield sites into a regional land management	• Integration of the site development into a regional land management • Percentage of all regional development sites that have been taken from the regional land management pool
To integrate the reuse of brownfield sites into the urban development	• Accordance of the site development to the urban development strategy • Creating mixed structures
To achieve benefits for and prevent adverse impacts on the local neighbourhood	• Support for the project: Initiatives for or against the project / Critical suggestions within the formal planning process
To generate and safeguard employment and economic development	• Number of created (long-term) jobs resp. job intensity on the site • Job structure on the site • Generation of employment and development off the site
To promote land use functions that suit the natural and man-made environment of the site and its neighbourhood	• Compatibility of the intended land use function with the natural and anthropogenic conditions of the site and its surroundings
To save resources	• Ratio of surface sealing • Valuable biotopes destroyed / developed • Saving water, energy, building material by urban design
To increase the possibility of the public to traverse former brownfield sites	• Connections across the brownfield site, according to the demand
To provide adequate access	• Ratio of site users within the analysed region typically used catchment area of a public transport stop • Modal split for the site • Whether an integrated traffic concept for the site development has been adopted
To achieve high urban design quality	• Whether the urban design concept has been developed by calling in different expert opinions

To create and maintain flexibility and flexible urban design	• Whether the urban design concept allows secondary or even third uses of buildings and building plots • Whether a step by step-realization of the project is possible
To obtain a better quality of information itself	• Equal access to information • Information management • Publicity and documentation of debates and (intermediate) results

Table 2.1:
RESCUE sustainability objectives and indicators for Landowners, Developers and Planners

"Suburbia is where developers bulldoze trees and then name streets after them"

- Bill Vaughan -

2.4 | How can this be achieved?

Sustainable planning and development process

The main difference of brownfield regeneration projects compared to other real estate developments is the higher grade of complexity in the technical (e.g. contamination, existing buildings and infrastructures), legal (e.g. monument protection) and financial (e.g. contamination risks) dimensions. This complexity causes risks of delays, additional costs or even a complete failure of the planning process.

→ Road map for sustainable planning and development process

To cope with this complexity, RESCUE has developed a road map for a sustainable brownfield regeneration process. This road map structures the planning and development process for sustainable brownfield regeneration by defining key milestones to provide orientation.

The following figure illustrates the adaptation of the overall RESCUE road map for sustainable brownfield regeneration for landowners, developers and planners. It indicates responsibilities for the respective milestones and links to other stakeholder groups which must be taken into account. It inevitably, however, requires adaptation for the specific conditions and requirements of individual projects.

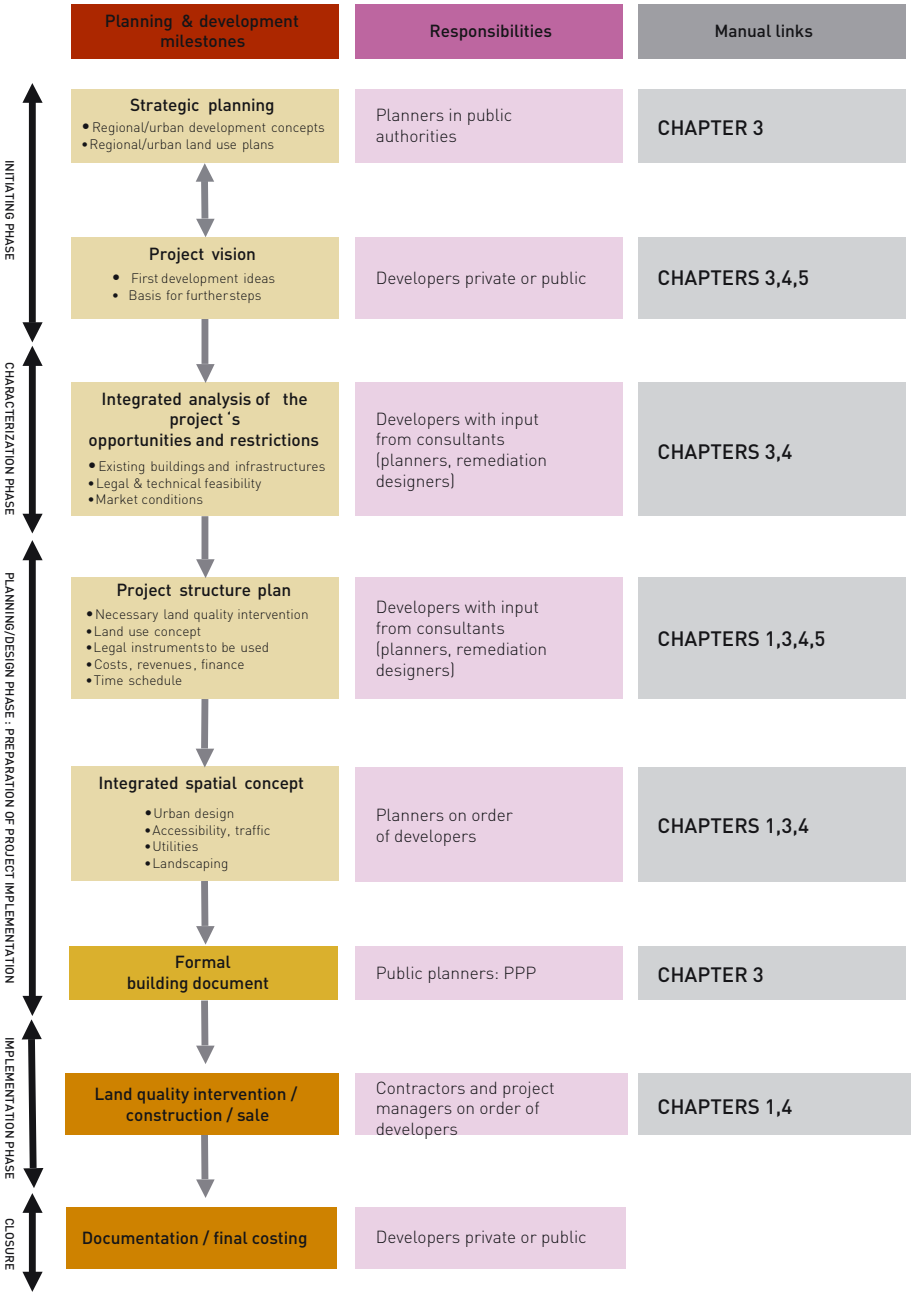


Fig. 2.1:
Sustainable brownfield regeneration for land owners, developers and planners

The following milestones have been identified in RESCUE to be particularly important in terms of planning and developing sustainable brownfield projects:

Project Vision

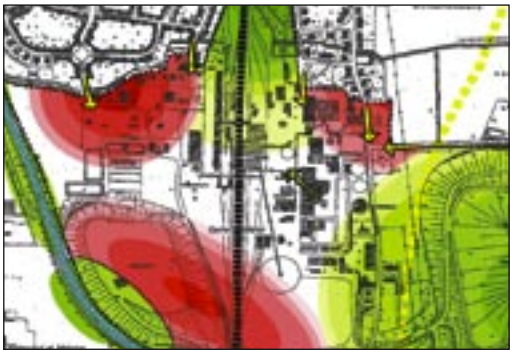


Fig. 2.2:
Project vision for the coal mine site "Westfalen 1/2", Ahlen, Germany. MGG, Essen.

The project vision is the very first concept with ideas of the possible follow-up use and reflects the planning objectives for the development of a site. It should be either derived from existing regional strategies and land-use plans, or it should be checked against the contents of these documents. The method in which the project vision is developed depends on the intentions of the developers. For this, the implementation of a workshop is a common method. Since a variety of decisive factors have to be respected within the development of the project vision, it is recommended that actors, stakeholders, experts etc. from all concerned disciplines are involved.

The project vision defines the basic framework for the redevelopment of a site and, simultaneously determines future preconditions for the development of land values, the extent of necessary remediation measures, job creation, open space etc. Furthermore, the future use that is outlined in the project vision might decide whether public funding is available or not. The project vision should present the basic data and information about the site and include a record of the available information on the past and current use of the site and already existing studies on contamination, foundations etc. (preliminary assessment). This is required to define the working programme for site analysis. As the project vision sets the overall aims of the project ("Where do we want to go to?"), it necessarily includes statements regarding costs, finance and future revenues. The project vision should be a brief document that creates a starting point and the information-basis for discussion of the project internally within the developer's institution and externally between the developer and the public institutions that should be involved at this early stage, e.g. the local planning department.

"I am looking for a lot of men who have an infinite capacity for not knowing what can't be done."

- Henry Ford -

Integrated analysis of the project's restrictions and potentials

Brownfield redevelopment requires an intensive record of the site conditions. An integrated record of the technical and legal features is the main working basis for the development and land use concept and particularly for the land use and remediation variants to be worked out. If there is suspected contamination, additional investigation steps are necessary. Indeed, contamination have to be, together with other restrictions, described as aspects to be considered in the planning process, as they can lead to possible land use restrictions. The record should be updated

Fig. 2.3:
Schwerin 1 / 2, Castrop-Rauxel, Germany: Integrated potential- and restriction analysis; MGG, Essen

during the project process and adapted to specific new findings. A record, which is clearly divided into plans and text and is readable and understandable for all stakeholders involved, is the main working basis for the spatial concepts (cf. ITVA – Ingenieur-technischer Verband Altlasten e.V. (1998): Flächenrecycling. Arbeitshilfe C 5 – 1. Berlin).

Project Structure Plan

Fig. 2.4:
Land use concept for the development of the former "Sosnowiec" coal mine. Municipality of Sosnowiec, Planning and Urban Office.

The project structure plan is an integrated concept that covers spatial, economic, legal, environmental and strategic aspects of the brownfield regeneration project. The project structure plan reinforces the project vision in the form of a land use concept, which defines the framework for the urban design.

It defines the land uses for all parts of the site, sets links to the surrounding areas, makes statements on the access to the site and on the major environmental aspects of the project, defines the tasks of the remedial investigations and therefore prepares the remediation concept. Moreover, the project structure plan designs the planning process and defines the planning instruments and legal procedures that are to be used, defines the stakeholders and their roles within the project, schedules the time dimension of the project and defines development stages. Finally, it makes statements on financial aspects (financing, costs and revenues) and analyses potential sources of (public) funding. In summary, the project structure plan is at the same time a conceptual plan and a project management instrument / a meta-plan, covering all aspects of the process.

Integrated Spatial Concept

The integrated spatial concept for a brownfield site finalises the iterative adjustment of the land use and urban design with the remediation and sets the stages for the use-related remediation concept as well as for the formal planning and possible

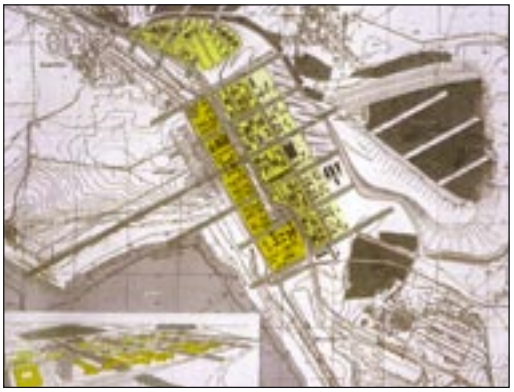


Fig. 2.5:
Urban design concept Espenhain, Germany; Gemeinde Espenhain / Gemeinde Mölbis (Hg.) (1997): „Städtebaulicher Realisierungswettbewerb. Entwicklung Gewerbe- und Dienstleistungsstandort Espenhain-Mölbis. Ergebnisse der 2. Wettbewerbsstufe." Espenhain.

contractual arrangements between developer and municipality on the project design and its implementation.

The integrated spatial concept therefore finalises the informal planning and defines the project ready for implementation. It includes and integrates: the urban design concept, that defines function, position and dimension of buildings, roads, public spaces etc. and especially the sites integration into the urban fabric; the landscape concept, that defines the qualities and connections of green spaces; the integrated traffic concept and the utilities concept, that define the dimension and technical standards for the infrastructure (roads, water supply, sewerage system etc.).

The integrated spatial concept should include a cost-calculation for the measures described. The concept must cover the whole brownfield site and should include those surrounding areas that are most affected by the development. This takes into account, the fact that a brownfield site cannot be regarded or developed in isolation, but is generally closely interlinked with its surrounding environment, both physically and historically. Being the basis for the necessary formal planning and legal procedures, the integrated spatial concept should be elaborated in close cooperation between the developer and local authority. It might make sense to agree on the concept at the local level democratically. Community involvement and citizen participation should have been undertaken from the outset, well before the finalization of the integrated spatial concept, so that the results can be integrated into the concept.

Strategic land management

One major obstacle for brownfield regeneration characterises the situation in most old industrial regions throughout Europe: A large amount of (greenfield) sites available for development in weak market environments. To solve this problem and create a more supportive environment, brownfield regeneration needs to be embedded in strategic land management on the regional level.

Strategic regional land management (SRLM) touches the interests of both public planners and (institutional) land owners with a large portfolio of brownfield sites. By connecting a sound conceptual basis for regional development with regional co-operation and the translation into action, it goes far beyond traditional land use planning. This targets to avoid negative impacts of an isolated "planning by projects": the loss of a holistic regional development perspective, a dangerous intra-regional competition of similar projects etc. On the other hand it tackles deficits in the implementation of regional plans.

SRLM follows the strategy of regionalisation, the co-operation of municipalities and concentration of public tasks on the level of a region / city-region. The approach for land management developed by the German Bundesamt für Bauwesen und Raumordnung

includes the following steps (cf. BUNDESAMT FÜR BAUWESEN UND RAUMORDNUNG (2003): Modellvorhaben der Raumordnung. Regionales Flächenmanagement. www.bbr.bund.de/moro/index.html?/moro/archiv/005_flaechenmanagement.html

- institutional regionalisation,
- regional site / land monitoring
- Regional Planning / Agreement on common targets of spatial regional development – regional settlement concept
- Agreement on implementation – contracts, binding plans, binding resolutions
- Initiatives for implementation – e.g. site pools, regional development agencies
- establishing regional decision making / consultation procedures on local projects
- regional information, monitoring and controlling systems.

When oriented on the reduction of greenfield consumption, SRLM focuses on greenfield protection, space saving urban design, unsealing-measures within the built environment and soil management to support inner urban development on brownfield sites. On the whole, brownfield redevelopment is the key factor for a closed cycle economy of space.

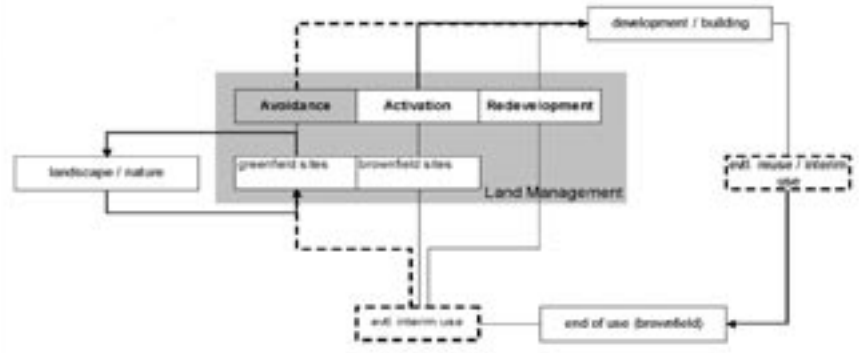


Fig. 2.6: Land Management in the Land Use Cycle Cycle – based on: Sächsisches Landesamt für Umwelt und Geologie (Hg.) – Bearbeitung Projektgruppe Stadt+Entwicklung (2004): „Reduzierung des Flächenverbrauchs. Studie: Kommunales Flächenmanagement in sächsischen Verdichtungsregionen." Freiberg.

BEST PRACTICE N° 1 in Strategic Regional Land Management

RESCUE has identified the following components of SRLM as best practices:

The National Brownfield Strategy in England;

The national brownfield strategy, which is being developed in the UK, combines strategic key elements of brownfield related land management (land monitoring, site pools, development strategies, implementation strategies etc.)
http://www.englishpartnerships.co.uk/nbfs.htm

Land register for the industrial and commercial sites of the Eastern Ruhr Area, Germany

The idea of the practice was to regard the spatial development of the region as a common task of the region itself and its municipalities. For this purpose, the private and public sectors collaborated in elaborating a list of all industrial and commercial development sites within the region in order to co-ordinate their

marketing. The result was a regional land register which included all relevant data which was necessary for the region to decide on regeneration priorities and for potential investors to choose a site which matches their individual requirements.

The National Land Use Database (NLUD)

Land management requires a valid and relevant data-base on spatial development and potentials. The data should be updated regularly and be usable as a basis for planning land marketing and controlling of spatial regional development. Therefore the land / site monitoring should explicitly include specific information on brownfield sites that could be combined into some kind of site-passport.
Valid information on the extent of brownfields – as a necessary basis for spatial development concepts on any level – are not available in many municipalities and regions. The NLUD-project in England focuses this aspect of land monitoring on a national level:
The National Land Use Database (NLUD) of previously developed land in England collects data on vacant and derelict sites and other previously developed land and buildings that may be available for redevelopment. The project is managed by a partnership of governmental institutions and English Partnerships (Improvement and Development Agency). Local authorities across England are requested to make annual returns of the extent of previously developed land that may be available for development.
http://www.nlud.org.uk/ and http://www.englishpartnerships.co.uk/nlud.htm

The UK National target of at least 60 % of new housing on previously developed land

Housing requirements need long-term environmentally sensitive solutions. According to this, the UK government has set up a national target, whereby 60 % of new housing are to be built on previously developed land and by the conversion of existing buildings over the next 10 years ("Planning for the Communities of the Future", February 1998). This target is also one of the government's sustainability key indicators. The paper includes also recommendations as:

- Household growth forecasts are to be treated as advisory, not compulsory targets,
- Regional Planning Conferences to have enhanced role, including setting regional targets for housing, targets for construction on recycled land, deciding on how best to meet community needs,
- Emphasis on increasing density, conversions, urban design, mixture of housing, urban villages: bringing best of village life to the urban environment,
- English partnerships are asked to identify new sites for urban villages,
- The NLUD National Database on Land Use.

Recent discussions in the UK (early 2005) consider modifying the rigid 60 % target in order to be more representative of specific regional conditions in terms of regional needs and brownfield supply. These flexible targets are discussed to be included in the regional action plans. Moreover, it is discussed to expand the target from 'housing only' to other land uses such as industry, commerce etc.
http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606125.hcsp

Regional site pools: The Grundstücksfond North-Rhine Westphalia (Brownfield Site Fund NRW)

In 1980, the federal state government of North Rhine-Westphalia (NRW) founded the "Grundstücksfonds Ruhr", which was enlarged four years later to the Grundstücksfonds NRW. This is a pool of sites which are purchased by the federal

state. Most of these sites are large and important brownfield sites and/or could not be redeveloped profitably by the private sector.
The necessary means for the purchase and the redevelopment process are taken from the budget and different support programmes of NRW. The Landesentwicklungsgesellschaft (LEG) NRW, the regional development company, is responsible for the execution of the whole brownfield redevelopment process. The applied sites are taken from the brownfield status to the disposal of old infrastructures and buildings, the preparation of the land for building and the clean-up of former waste deposits up to the marketing. The sites are sold to investors after redevelopment. The revenue goes back to the fund and is again used for the redevelopment of different sites. However, as the redevelopment costs exceed the revenues, the fund requires support by the Federal State NRW.
http://www.leg-nrw.dekeln/index.php

Reserve site strategies / interim land use: Brownfield management in Lorraine (France) and Saxony (Germany)

Regional brownfield strategies should classify brownfield sites in terms of their market potential. This is determined by the reclamation costs and the future land values. Sites with high reclamation costs, but low future land values, only have slight development potentials. These sites, which will not be redeveloped without public intervention, occur especially in traditional industrial regions and / or in shrinking regions. If centrally located, these sites might have a strong negative impact on the surrounding urban areas, so that public intervention is required, even if there is no sufficient demand for an immediate new use and not enough public money for a complete remediation.
In these cases it is a promising approach, not to implement a complete remediation and redevelopment, but to focus on the elimination of the sites negative impacts. Such a reserve-site approach might include:
- The dismantling or safeguarding of existing buildings,
- The clean-up of the most dangerous contamination,
- Interim design / landscaping and interim uses.

Moreover, the interim use of such brownfield sites might not only create / safeguard jobs, but also generate interest for the particular brownfield and work as a tool to lead private investment to the site.
RESCUE has identified two best practices in this respect:

Pilot Projects in Saxony:
In Saxony (like in many parts of East Germany), a large supply of brownfield sites (approx. 18.000 ha) is combined with a shrinking population and a weak property demand. Therefore, the current Saxonian Integrated Brownfield Programme includes pilot projects for a reserve-site preparation. Further information to be found at http://www.stadtnetz-sachsen.de.

Brownfield Management Lorraine:
The Lorraine had to deal with 3.150 ha of brownfield between 1987 and 1998. As it was clear from the beginning that it would not be possible to find immediate new uses for all of these sites, the regional brownfield strategy that was implemented by a "contrat de plan", concentrated on the rapid improvement of the ecological situation and the regional image by large-scale landscape treatment.

Brownfield related economic strategies

Creating benefits for local and regional economic development is a major issue for brownfield regeneration. Especially in old industrial regions, the negative visual impact

of brownfield sites is usually accompanied by high unemployment rates in regional and especially urban quarter contexts. As brownfield sites in many regions are the main spatial resources for development, they represent important potentials for structural change.

Generating and safeguarding employment and economic development has obviously special relevance for business and industrial land uses of brownfield sites. However, also other land uses have direct and indirect economic effects. Moreover, many former industrially used brownfield sites are not suitable for industrial re-use especially due to legal requirements (e.g. protection of neighbouring property against negative impacts) and changed demands for (car) access.

Economic effects of brownfield regeneration projects might include:

– direct and indirect creation / safeguarding of jobs by the remediation process with a relatively high regional multiplier effect of the investment (cf. NATIONAL ROUND TABLE ON THE ENVIRONMENT AND THE ECONOMY (2003): Cleaning up the Past, Building the Future. A National Brownfield Redevelopment Strategy for Canada. Ottawa),
– direct creation / safeguarding of jobs by the settlement of companies on the site,
– indirect creation / safeguarding of jobs by multiplier effects of these new settlements,
– indirect creation / safeguarding of jobs by increasing the attractiveness of the urban quarter / city / region,
– direct and indirect economic effects for the public budgets by creation of tax revenues and cost savings on infrastructures.

To maximise the positive economic effects of brownfield regeneration, such projects should match the regional economic development concepts and prevent the parallel development of competing projects for the same purpose (especially for highly specialized land uses like retail or leisure industry) within the same region.

RESCUE has identified *brownfield related economic strategies* as a promising planning instrument for this purpose. Such strategies combine

• *regional economic strategies* (which analyse the competitiveness of regional economies, regional location factors/potential for economic development, identify promising economic clusters, centres of excellence and growth and derive strategic targets, instruments and initiatives for structural policy and economic promotion in order to achieve a sustainable economic profile for the region) with

• *brownfield based spatial development concepts* (that analyse spatial resources within the region and define main development areas). Growth sectors can then be assigned to main development areas, giving a special focus on internal spatial development i.e. on brownfield sites. This clarifies the potential function of particular brownfield sites for regional economic development and contributes to the definition of an economically viable and effective land use perspective for these sites.

BEST PRACTICE N° 2 for brownfield related economic strategies

The Dortmund Project

In 1999, after the closure of the ThyssenKrupp steel production facilities within the city, the city of Dortmund, its businesses (including the ThyssenKrupp AG) and its scientific community established the Dortmund project (http://www.

dortmund-project.com), an initiative unique in Germany. The Dortmund Project links all economic forces to work as an engine for structural change. The aim is to turn Dortmund into a modern business metropolis with attractive quality in housing and recreational facilities. In this respect, the Dortmund Project aims at generating 70.000 new jobs by 2010.
The initiative has defined software development, electronic and mobile commerce, information technologies, electronic logistics and micro-electro-mechanical systems as the new key economic clusters of Dortmund. The Dortmund Project combines its economic development concept with urban development in terms of space by allocating these economic growth sectors on particular former steel industry brownfield sites within the city.
Moreover, the Dortmund Project is active in expanding training and qualification programmes and developing attractive residential areas and recreational, athletics and cultural facilities.

Urban regeneration companies in the UK

Urban Regeneration Companies (URCs, http://www.urcs-online.co.uk/companies) are new (1999) independent companies promoted by the government and established by the relevant local authorities and regional development agencies, as well as English Partnerships, the private sector and other key partners in order to achieve a focused, integrated regeneration strategy for key towns and cities.
The first URC, Liverpool Vision, was established by English Partnerships together with Liverpool City Council and the North West Development Agency in early 1999, allowing it to be launched immediately after the publication of Lord Rogers' Urban Task Force Report, which enthusiastically endorsed the URC concept. A total of three URCs were set up in 1999:
Liverpool Vision, New East Manchester, and Sheffield One.
These three "pilot" URCs were in operation when the Urban White Paper of November 2000 announced that a further 12 URCs would be formed before 2003/04, with a good regional spread. The primary role of the URC is to address significant latent development opportunities by developing and managing the implementation of a plan to realise the vision for the future of the area. The URC seek to raise investor confidence to a level that prompts private sector investment, with the aim that physical and economic regeneration becomes self sustaining. The areas covered by the URC are large enough to offer development opportunities that will have wider impacts and importance to the city, sub-region or region as a whole.

The significance of integrating brownfield regeneration into strategic regional approaches underlines that the micro-economic generation of benefits on the project level, which is necessary to make projects economically viable for the developer, has to be brought in line with the local and regional macro-economic perspective. The creation of a maximum number of jobs on a particular brownfield site does not necessarily mean the creation of a maximum number of jobs on the local or regional scale. Large retail parks for example which represent a frequent follow-up use for brownfields can, if successfully implemented, create a high number of jobs on site. But at the same time such developments can also lead to the loss of jobs in existing shopping facilities and as such eventually even to the creation of new brownfield sites.

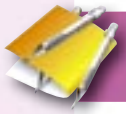
"Nothing is as strong as an idea for which the time has come."

- Victor Hugo -

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com



TOOLS for RESCUE Objective 5 — To retain buildings and infrastructures on brownfield sites

Tool 2.1 - Check list - Quick building appraisal

Checklist of technical and legal features to be considered when checking the opportunities for maintaining existing buildings. To be used in early stages of a project to acquire basic information (e.g. for the project vision).

Construction status / floor layout	
Size	Social rooms, toilets
Previous use	Staircases
Static	Sanitary equipment
Windows, light exposure	Electrical equipment
Type and degree of building and land use	
Current planning law	Type of building coverage
Binding land-use plan	Condition of building fabric
Preparatory land-use plan	Building specification
Monument protection	Secondary buildings
Demolition needed	Company-owned apartments
Year of construction	Outside facilities, parking
Remaining life span	
Restrictions	
Defects or deficiencies in the construction	References
Specifics	Site occupancy index
Fixtures like cranes	Floor space index
Space and dimensions data	Gross volume
Use and re-use options	
Industry and trade	Possibility of segmentation
Offices	Room layout
Housing	Structural enlargement
After-use requirements	
Truckage companies: - Planar access, ramp	Offices: - Parking, environment, windows, social rooms
Industry: - Noise allowance, access	Housing: - Parking, layout, electric equipment, heating
Retail: - Access, parking	
Future operating costs	
Heating, insulation	Maintenance
Building constraints	
Fire protection	Social rooms, toilets
Employment protection	

Tools

Tool 2.2 - Vereinigung der Landesdenkmalpfleger (c/o Landesamt für Denkmalpflege Hessen), Wiesbaden: Worksheets for handling of protected monument buildings.
The guidelines may help to find solutions to cope with regulations concerning fire protection, heat protection and technical infrastructure that help to protect heritage buildings and that show (possible) requirements from (German) monument authorities.

Want the tool?
- No. 08: Treatment of historic windows in monuments (Hinweise für die Behandlung historischer Fenster bei Baudenkmälern, 1991); http://www.denkmalpflege-forum.de/Download/Nr08.pdf
- No. 12: Design and installation of technical infrastructure in monuments (Haustechnische Anlagen. Grundsätze für Planung und Einbau in Baudenkmälern 1995); http://www.denkmalpflege-forum.de/Download/Nr12.pdf
- No. 13: Fire protection in monuments (Brandschutz bei Baudenkmälern, 1997); http://www.denkmalpflege-forum.de/Download/Nr13.pdf

TOOLS for RESCUE Objective 10

To promote land use functions that match the regional socio-economic demands and needs

Tool 2.3 - Check list - Topics for regional planning documents
This –basic- checklist includes topics that should be addressed in regional planning documents and/or be checked in terms of the admissibility of an intended land use within the regional context. Planning documents which do not include all criteria from this checklist may nevertheless deliver valuable statements for brownfield regeneration projects. However, the checklist indicates RESCUE's view on the items to be included.

Analysis of the region
- Population structure / Population development
- Spatial structure
- Transport infrastructures
- Cultural and social infrastructure
- Retail
- Focal points for the development of industry
- Protection of open-spaces
- Structurally lagging areas
- Economic data (purchasing power, quota of sectors e.g. retail, endogenous potentials)
- Employment / labour market / qualification
- Quality of environment

Development strategy of the region – covering the development of housing, industry, traffic, social and cultural infrastructures, environment, retail and leisure
- Development perspectives
- Overall concepts, visions, objectives

Tools

- Description of the development objectives (main topics, competences of the region, visualisation)
- Derivation of an implementation strategy (instruments, measures, actors...)

Fields of action and major projects
- Prior projects for the development
- Interrelation of projects and regional development strategy
- Description of expected benefits for region / population
- Statements on problem related proposals (project ideas)
- Weighting of possible resource saving alternatives

Organisation of the regional development
- Structure of implementation phase, time management
- Structure of involved actors, partnerships, coordination of the projects
- Evaluation of the economical capacity of the projects

Tool 2.4 - Use related Check list

This –basic- checklist gives an overview of location factors that should be considered in connection with the development of different projects (e.g. residential areas, commercial projects). It helps to consider necessary preconditions, e.g. for commercial projects, such as potential customers within the catchment area of the location or restrictions from a legal perspective. This way required preconditions can be integrated into the planning process. The checklist can be regarded as a supportive tool for the elaboration of the project vision and the project structure plan. Looking at the project phases, the use related checklist will be especially useful to gather information in connection with the integrated potential and restriction analysis and the definition of the project structure plan for the site. Since the intended type of use is discussed and evaluated within these phases, the checklist can support the developer etc. in terms of thinking about the particular location factors.

Tools

Residential developments	
Planning law / contamination	Neighbourhood / surroundings
Land values and rental fees	Attractive green spaces, areas for recreation
Usability of the existing structures	Distance to schools, kindergartens
Connection to the regional road network	Distance to retail shops for daily consumer goods
Connection to the public transport network	Distance to sports facilities, playgrounds
Parking spaces	Cultural / entertainment facilities
Image of the city quarter	Network of foot- and bicycle paths
Commercial and industrial land use	
Planning law / contamination	Market situation, competing companies
Land values and rental fees	Site shape for the plot layout
Usability of the existing structures	Land use in the surroundings (sensible uses, potential synergies etc.)
Connection to regional / national road network	Research and development facilities nearby
Connection to the railway network	Availability of storage possibilities
Parking spaces	Environmental obligations & technical requirements
Taxes, subsidies	Availability of qualified employees
Image of the site	Energy and water supply
Possibilities for extensions	Taxes
Retail trade and service industry	
Planning law / contamination	Image of the site
Land values and rental fees	Market situation
Usability of the existing structures	Location in relation to urban centre
Connection to the road network	Surroundings of the site / agglomeration effects
Connection to the public transport network	Proximity to or accessibility for customers
Parking spaces	Possibility of extension
Taxes	
Recreational facilities	
Planning law / contamination	Development of the site
Connection to the road network	Network of foot- and bicycle paths
Connection to the public transport network	Attractive green spaces
Parking spaces	Cultural offerings / entertainment
Market situation; potential users within catchment area	Sports facilities available
Areas for recreation	Accommodation opportunities

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

TOOLS for RESCUE Objective 11

To integrate the reuse of brownfield sites into a regional land management

Tool 2.5 - Flächenpass / Land Condition Passport

The Land Condition Passport is designed to provide a structure to assemble all relevant data about a site in just one document. It is intended to provide transparency about the site and with this to increase reliability in planning and investment decisions, to make possible risks more calculable resp. to minimise investment risks. All in all, the Land Conditions Passport helps to reduce marketing problems of brownfield sites. By means of this, the Land Conditions Passport serves as a marketing instrument for brownfield sites, but it can also be used for regional land monitoring and management.

Want the tool?

Source: Anforderungen an die Flächenqualität nach Abschluss einer Brachflächenaufbereitung und Monitoringkonzepte für deren Folgenutzung auf vormals altlastenrelevanten Standorten, Final Report of the research project, Förderkennzeichen 201 77 248, Cornelius Christoph, Scheidt Markus, Simon Paul-Gerd, Brüggemann Jürgen, Glöckner Susanne, Klapperich Herbert, Otparlik René, Trost Beate, Hanke Michael, sponsored by Umweltbundesamt / Federal Environmental Agency, Germany

- To be ordered at: Umweltbundesamt, Postfach 14 06, 06813 Dessau, http://www.umweltbundesamt.de

TOOLS for RESCUE Objective 12

To integrate the reuse of brownfield sites into the urban development

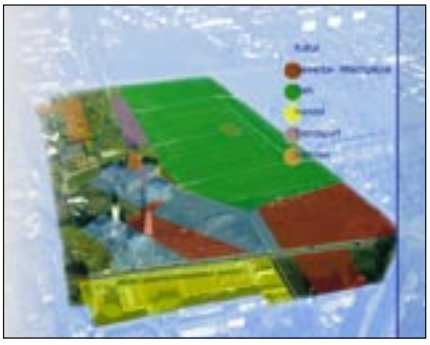


Fig. 2.7: Consolidation 3/4/9, Gelsenkirchen, Germany: Land use concept. MGG, Essen.

Tool 2.6 - Land use concept

The land use concept represents the spatial part of the integrated project structure plan as described above. By allocating the envisaged land uses for the different parts of the site, it helps to integrate the project into the desired spatial, economic and social urban development and the urban fabric. The land use concept should be the basis for the remedial investigations. As land use and remediation have to be coordinated (use-related remediation), the land use concept might have to be repeatedly revised due to the results of the remedial investigations. The flexibility of the land use concept is a precondition for an iterative redevelopment process.

Want the tool?

- "Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com

Tools

TOOLS for RESCUE Objective 13

To achieve benefits for and prevent adverse impacts on the local neighbourhood

Tool 2.7* - Check list of potential benefits, synergies and adverse impacts

The purpose of this checklist is to give guidance concerning topics that need consideration when wanting to identify potential benefits, synergies and adverse impacts of brownfield projects. Early and clear identification of stakeholders is required to incorporate their needs into the next steps of project. The results of this analysis are to be included into the integrated potential and restriction analysis. The checklist needs to be applied in an appropriate area, as direct positive and negative impacts may be diffuse. Equally, the checklist topics are not exhaustive and sometimes contradictory as impacts and concerns differ from area to area. Therefore, the checklist needs to be understood as a flexible tool.

Potential benefits (to be created on-site) and synergies (generated by off-site facilities)	
Health and recreation facilities (hospitals, surgeries, public parks and green areas, playgrounds etc.)	Increase of property values (higher profile of the neighbourhood, better quality of life)
Sports facilities (e.g. sports fields, fitness centres, horse/bike/hiking trails etc.)	Security, reduced crime (e.g. street lighting, avoiding dark spaces, increased social control)
Leisure and entertainment facilities (e.g. restaurants, pubs, cinemas etc.)	Identity (e.g. preserving and reusing historical buildings, use of local languages/religion)
Educational and social infrastructure (e.g. schools, universities, nurseries, youth centres, sports clubs)	Increased number of inhabitants (as a synergy effect for neighbouring uses like commercial or industrial areas, housing demand)
Retailing and services infrastructure (shops, banks, personal services etc.)	
Adverse impacts to be avoided / reduced	
Noise	Smell
Traffic	Aesthetics / perceived visual pollution
Services supply interruption (water supply, electricity...)	Damage to the natural environment
Dust	Blighting effect (i.e. perception of devaluation of buildings due to new infrastructures)
Vibrations (lorry traffic during field works)	Decrease of property values
Fumes	Increase of rents / social displacement
Potential contamination/ transportation of contaminants	New competitors for existing companies

* see also TOOL 3.10

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

TOOLS for RESCUE Objective 14

To generate and safeguard employment and economic development

Tool 2.8 - Qualification initiatives as accompanying measures in brownfield projects

The appearance of brownfield sites is in most cases accompanied by the loss of numerous jobs. Moreover, brownfields as the visible signs of structural change are often located in quarters with a high level of unemployment. Therefore, employment programmes and measures of professional training / qualification measures are often necessary in the surrounding of brownfield sites and funds for this might be available. The idea behind this is to interlink qualification schemes with the brownfield redevelopment process. This can e.g. be done by

- locating training / qualification activities as pilot uses on the regeneration site;
- orientation of the targets of training / qualification to the requirements of the businesses / industries to be located on the regenerated site;
- making brownfield regeneration a target of professional training and implementing brownfield redevelopment or quarter development activities in public interest by using the labour force of the trained persons;
- integrating the training / qualification measures into a local-economy approach / economic strategy on the level of the urban quarter;
- the institution in charge of the training / qualification activities might be organised in form of a public or public-private company.

Want further information?

- http://www.gib.nrw.de/de/job/stadtteilprojekte.htm?id=12432

TOOLS for RESCUE Objective 15

To promote land use functions that suit the natural and man-made environment of the site and its neighbourhood

Tool 2.9 - Site analysis – checklist of components

Representing a crucial step in the process, the site analysis generates information for the 'Integrated Analysis of the Project's Restrictions and Potentials'. The site analysis appears as a tool both for the project rationalisation and negotiation between the stakeholders. It is more a prospective step than a description of the site which means that the developers should analyse with the intention to plan.

The following diagram suggests topics to be addressed by the site analysis.

Tools

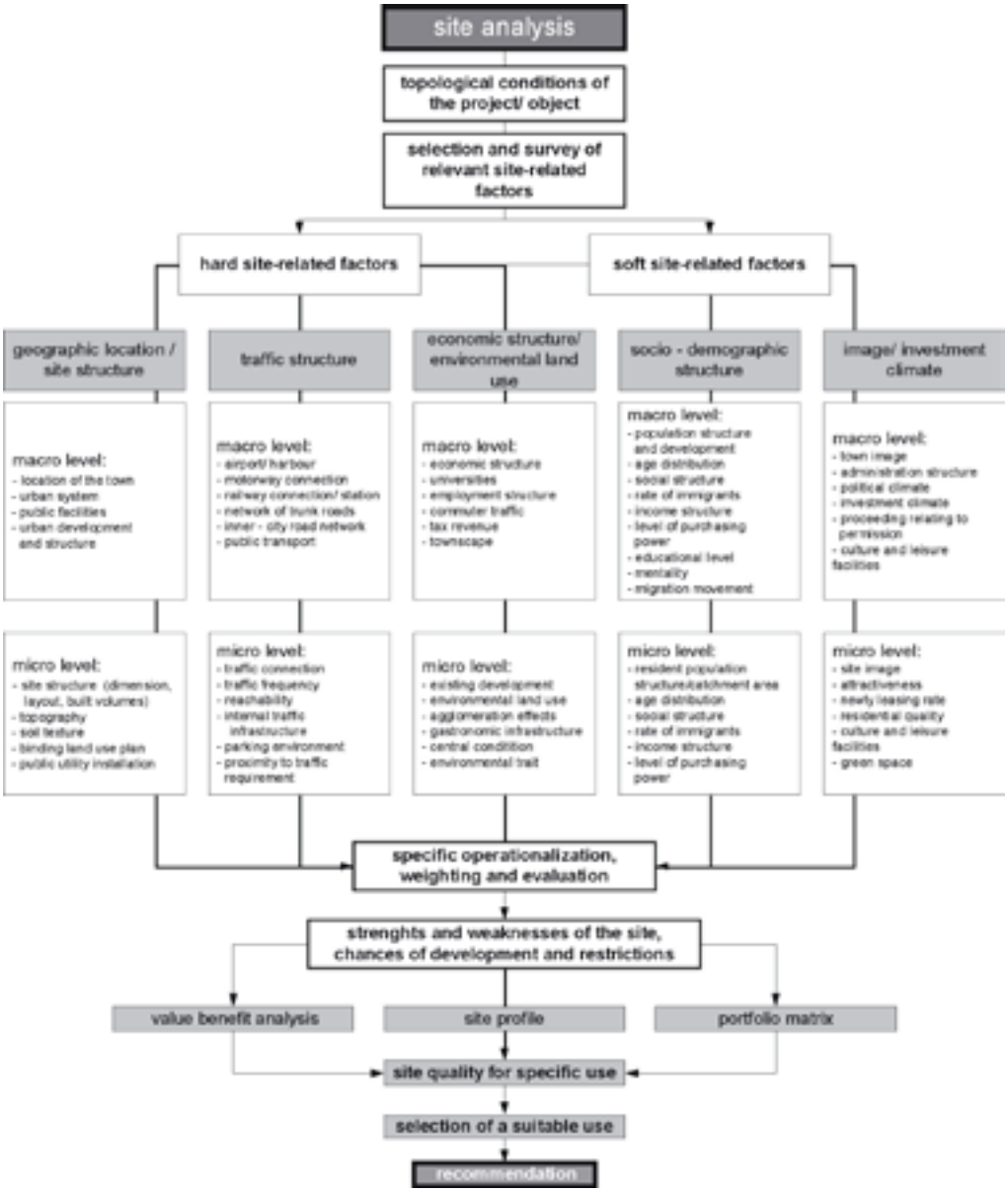


Fig. 2.8: Adapted from: Muncke, G.; Walther, M.; Schwarte, M. (2000): Jede Kuh im Dorf wird erfasst, aber nicht die Zahl der Bürobeschäftigten im Raum Frankfurt. In: Immobilienzeitung. IZ – Tutorial: Standort- und Marktanalyse. Nr. 19, S. 10

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

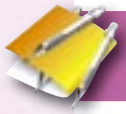
Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

Tool 2.10 - Guideline "Flächenrecycling" / "Site Recycling"

Brownfield redevelopment requires an intensive record of the site conditions. In this context, the German ITVA guideline "Flächenrecycling" provides a checklist of topics to be addressed by a site inventory. A record of natural and anthropogenic features of the site and its surroundings represents an essential element of the 'Integrated Analysis of the Project's Restrictions and Potentials'.

Want the tool?
ITVA – Ingenieurtechnischer Verband Altlasten e.V. (1998): Flächenrecycling. Arbeitshilfe C 5 – 1. Berlin. (in German)

- To be ordered at: Ingenieurtechnischer Verband Altlasten e.V. (ITVA), Pestalozzistrasse 5-8, 13187 Berlin, Germany, Tel.: +49 (0)30 / 48 63 82 80, Fax: +49 (0)30 / 48 63 87 46
  info@itv-altlasten.de; http://www.itv-altlasten.de



TOOLS for RESCUE Objective 16 — To save resources

Tool 2.11 - Techniques for saving water

The treatment of water for human consumption is expensive and resource intensive, and water consumption in the UK and other EU countries has risen by up to 70% over the past 30 years. Water should therefore be conserved and recycled whenever practicable, and buildings should be individually metered to make the monitoring of water consumption straight forward.

References:

- South East Development Agency (SEEDA) Sustainability Checklist (http://www.sustainability-checklist.co.uk).
- National State of Environment Reports (http://countries.eea.eu.int/SERIS)
- OFWAT – Office of water services (http://www.ofwat.gov.uk/)
- European Environment Agency - European Topic Centre on Inland Waters (http://www.eea.eu.int)
- Envirowise (formerly the Environmental Technology Best Practice Programme) (http://www.envirowise.gov.uk)

Tool 2.12 - Techniques for saving land and building resources

Land consumption and new building materials are expensive and resource intensive. Land and building materials should therefore be conserved and recycled whenever practicable, using the following methods:

- Reuse or recycle building material – Transporting reclaimed materials long distances increases their environmental impact, yet it is surprising how far an item can be carried and still be better environmentally than its new alternative.

Tools

- Build higher density housing schemes – Save land resources by building higher density housing schemes in new brownfield developments; but this requires the development to respond positively to the character of the existing area.
- Build more space efficient workspace – Decrease the amount of space required per job (i.e. increase job density) in new developments. This means that land as well as energy is being saved.

	Housing density in dwellings per ha
individual detached houses	< 25
semi detached / duplex houses	15-50
terraced houses / town houses	25-75
multiple dwelling	75-250*

* There are developments in excess of 450 dwellings per hectare in London, Paris and other large compact cities.

Table 2.3: Typical ranges in EU housing density by housing type; (Various sources including ODPM, Royal Institute of Chartered surveyors, Greater London authority, German spatial planning policies, French spatial planning policies)

	Job density (m^2 per job)
Office developments	14-50
Business developments	60-200
Industrial developments	115-350

Table 2.4: Typical ranges in EU job density by business type; (Various sources including Office of the Deputy Prime Minister, Helsinki Metropolitan Area Council, Capital Economics, Royal Institute of Chartered surveyors, Roger Tym & Partners, German spatial planning policies, French spatial planning policies)

References:

- South East Development Agency (SEEDA) Sustainability Checklist (http://www.sustainability-checklist.co.uk).
- Royal Institute of Chartered surveyors (http://www.rics.org/).
- Greater London authority (http://www.london.gov.uk/)
- Roger Tym and Partners Ltd (http://www.tymconsult.com/news_pages/index.html)
- Capital Economics Ltd (http://www.capitaleconomics.com/)
- Planning Policy Guidance 3: Housing (2000), Office of the Deputy Prime Minister (http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606933.hcsp)
- Helsinki Metropolitan Area Council (http://www.hel.fi/english/).

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

Tool 2.13 - Techniques for saving energy resources

According to EUROSTAT Annual Energy Balance figures, space heating accounts for most energy consumption per dwelling in the EU (69 %), followed by water heating (15 %), electrical appliances and lightning (11 %) and cooking (5 %).

a) Saving energy by using innovative design

Many aspects of innovative design have little or no capital cost implication, but there has often been the perception that they are more expensive to install and maintain. Some attributes that should be considered for low-energy design buildings are:

- Building form / structure should prevent large temperature swings
- Utilise natural ventilation (using improved window systems)
- Install efficient heating and cooling facilities
- Use well insulated building fabric
- Avoid excessive artificial lighting by maximising daylighting in design

b) Saving energy by using more efficient devices

The slightly more expensive capital cost of using energy efficient devices is often easily offset by the low running cost, resulting in a very short 'pay back' period. Some devices that should be considered for energy efficiency in new homes / offices are:

- Using combination boilers for space heating and hot water supply
- Install low energy and /or 'intelligent' (timed / motion activated) lighting systems
- Utilise 'A' rated* household appliances (like dishwashers, washing machines, fridges)
- Utilise photoelectric sensors / or solar powered lights for external lighting

* The Energy Savings Trust manages the labelling scheme for products. They show estimated fuel consumption with a grading from A to G, where an A rated appliance uses half as much energy as a G rated one (http://www.saveenergy.co.uk).

c) Saving energy by using renewable energy sources

In order to achieve sustainability, a greater proportion of the energy consumed needs to be generated by renewable resources. So called 'green electricity' sources include:

- Hydro-electric power stations
- Wind turbines and wind farms (both on shore and off shore installations)
- Wave and tidal power stations
- Solar photovoltaic electric systems
- Energy from waste burning
- Geothermal power stations

References:

- South East Development Agency (SEEDA) Sustainability Checklist (http://www.sustainability-checklist.co.uk).
- European Environment Agency Data warehouse (EUROSTAT) (http://europa.eu.int/comm/eurostat/).
- Housing Energy Efficiency Best Practice Programme (HEEBP) Good practice guide 155, 'Energy Efficient refurbishment of existing housing' (http://www.est.org.uk/bestpractice)
- Department of Environment, Transport and the Regions (DETR) Good Practice Guide 274, 'Environmentally smart buildings' (http://www.actionenergy.org.uk)

Tools

- Climate Action Network Europe (http://www.climnet.org/publicawareness/renewable%20facts.htm#renfc)
- The Royal Academy of Engineering (http://www.raeng.org.uk/news/temp/cost_generation_report.pdf)
- European Environment Agency (http://www.eea.eu.int)
- British wind energy association (http://www.bwea.com)

Tool 2.14 - Guideline for sustainable construction / Leitfaden Nachhaltiges Bauen

This non-brownfield specific tool provides guidance for sustainable planning / architecture / construction on state owned real estate. Its checklist for sustainability aspects of construction involves procedures, technical guidance, orientation values for space and resource saving on the level of site and building.

Want the tool?

Source: Bundesministerium für Verkehr, Bau- und Wohnungswesen (2001): Leitfaden Nachhaltiges Bauen; German Federal Ministry for Traffic, Construction and Housing (2001): Guideline for sustainable construction

- **Contact: Bundesministerium für Verkehr, Bau- und Wohnungswesen, Referat B 11, Krausenstraße 17-20, 10 117 Berlin, Germany; to be downloaded from http://www.bmvbw.de/Leitfaden-nachhaltiges-Bauen-5.htm**

Tool 2.15 - Ecohomes: The environmental rating for homes

Developers face the often conflicting demands of providing large numbers of new homes whilst minimising adverse environmental effects. They must address this issue if they are to avoid increasing problems with planning, legislation, public disapproval, and resistance from investors and customers. EcoHomes the environmental rating for homes rewards those developers who improve environmental performance through good design. This is not costly and significant improvements in the environmental performance of homes can be achieved simply and at minimal cost.
The issues assessed are grouped into seven categories:

- **Energy**: operational energy and carbon dioxide emissions
- **Transport**: location issues related to transport
- **Pollution**: air and water pollution (excluding carbon dioxide)
- **Materials**: environmental implications of materials selection, recyclable materials
- **Water**: consumption issues
- **Ecology and land use**: ecological value of the site, greenfield and brownfield issues
- **Health and well-being**: internal and external issues relating to health and comfort

Many of the issues are optional, ensuring EcoHomes is flexible enough to be tailored to a particular development or market.

Want the tool?

- **ECOHOMES: The environmental rating for homes', Revised October 2003, BRE Report 389, ISBN: 1860813755.**

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

TOOLS for RESCUE Objective 17 — To increase the possibility of the public to traverse former brownfield sites

Tool 2.16 - Green Belt tool-plan - A regional connection and landscaping concept

As brownfield sites were often 'forbidden land' and not accessible to the public, they were barriers between urban districts for a long time. In order to solve this urban problem, the site should be accessible for the public and neighbouring city districts should be connected. The green belt tool-plan has been elaborated by the Mission Bassin Minier Nord-Pas de Calais with collaboration of the Regional Council Nord-Pas de Calais, French State Authority, Departments of Nord and Pas-de-Calais, Agglomerations of the Coal Basin area, Scarpe-Escaut Regional Park Authority and Etablissement Public Foncier (regional land planning and development agency).

References:

- "White Book" of the permanent conference of the Nord-Pas de Calais Coal Basin area.
  Contacts : Mission Bassin Minier: Fosse 9 / 9 bis, Rue du Tordoir, BP 16, 62590 Oignies, France,
- ZAC BALSAN project (Ile de France), a brownfield site example integrated with a green belt plan: http://perso.wanadoo.fr/chateauroux45-2000/logement/zones%20amenagement/Zone%20Balsan.htm

Want the tool?

- „Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com

TOOLS for RESCUE Objective 18 — To provide adequate access

Tool 2.17 - Integrated traffic concept

Regenerated sites should be accessible for all means of transport in adequate measure (car, public transport, bike, foot, etc.) in order to open the intended land use for all population groups and abilities.

This tool comprises two parts:

- Integrated traffic concept on the municipal level
- integrated traffic concept on the site specific level

The integrated traffic concept on the municipal level is a holistic concept for the whole municipality or for a specific city quarter. Worked out by the public authorities, this concept considers all transport modes, instead of concentrating on only one, which is in most cases the car use. Integrated transport concepts often intend to minimise the dependence on the private car and to reduce the negative impacts of transport on the environment and the community.

The integrated traffic concept on the site specific level is to be derived from the content of the transport concept on the municipal level. It gives guidelines and recommendations how the redeveloped site can be accessed with the different transport modes.

Tools

The integrated traffic concept on the site specific level often also includes the utilities concept, which comprises the technical connection of the new land use to the supply and return system for water, power and energy, telecommunication, etc.
The integrated concept on the site specific level comprises the following aspects:
- Consideration of all traffic modes
- Intelligent interconnection between the different modes of transport
- Design of the transport systems according to land-use demands
- Dimensioning, technical specification, cost-calculation for the measures

No specific references available; the following reference gives an examples:
- Local Transport Plan for Tyne and Wear 2001-2006; http://www.gateshead.gov.uk/develandent/transport.htm

Want the tool?
- "Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com

TOOLS for RESCUE Objective 19

To achieve high urban design quality

Tool 2.18 - Multidisciplinary workshops and competitions

It is not easy to define or measure something like "high urban design quality" as this strongly depends on personal tastes. However, one can speak of architecture, urban and landscape design fitting into existing urban structures, having regard to saving the environment, building a convenient neighbourhood, keeping resp. fostering identity and saving the cultural heritage. As a part of sustainable brownfield regeneration, this does not only refer to saving and conserving existing urban structures. It particularly and necessarily includes change and the task to create new suitable urban structures with a high quality of design.
As high quality design is hard to define, design processes which involve a wide range of different experts' opinions promise to produce suitable outputs: The collaboration with planners, architects, engineers and other experts should happen early in the design process.
Multidisciplinary workshops and competitions are common and fruitful practices to achieve high quality urban design.
References:
- German regulation and guideline for competitions:in the fields of spatial planning, urban design and architecture: "Grundsätze und Richtlinien für Wettbewerbe auf den Gebietern der Raumplanung, des Städtebaus und des Bauwesens – GRW 1995" – see e.g.: http://www.aksachsen.org/html/body_grw_95.html
- http://www.polsl.pl/
- http://sarp.org.pl/

Tool 2.19 - Urban design concept

The urban design concept is part of the integrated spatial concept and substantiates the land use concept for the site. Therefore, the urban design concepts on a smaller scale visualises the development of buildings, streets, foot- and bicycle-paths, open- and green-spaces, plantings,

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

Fig. 2.9:
Grimberg 3 / 4, Bergkamen, Germany, Urban design concept; MGG, Essen.

parking spaces etc. Depending on the degree of specification, the urban design concept also gives more detailed information on forms of roofs, heights of buildings etc. The urban design concept helps to give people an impression of the planned measures. This should help also laymen to get quick access to the concept. The urban design concept is – in combination with the other elements of the integrated spatial concept – the conceptual basis for the formal planning procedures (building plan, planning permission...).

Want the tool?

- **„Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com**

Tool 2.20 - Urban design check list

The following check list intends to give an overview of factors that need consideration within urban design concepts in order to increase the urban design quality and meet the demands of future users as well as ecological and social needs. The high design quality of open or public spaces can also contribute to a more stable situation of a site. This way, a long term functionality of the redevelopment project can be established.

Urban design checklist			
Local public infrastructure		**Yes**	**No**
Dimensioning of the streets	Dimension of streets is full-scale, corresponds to the volume of traffic, safety, crossings		
Planting vegetation	Planting vegetation along streets and on parking spaces		
Parking spaces	Existing, sufficient		
Accessibility for disabled persons	Possible / warranted		
Public spaces			
Planting vegetation	Trees, bushes, etc.		

Tools

Quality, possibility of habitation, furniture	E.g. places for meeting, benches, shelter/refuge, noise, broad footways, meeting points		
Cleanliness	E.g. trash-cans, continuous cleaning		
Spaces for waste recycling containers	Existing		
Flexible offers	Variably useable areas		
Structure and use of public spaces	Attractive offerings, accessible, attractive design		
Concept of illumination	Existing, areas that cause fear, dark areas		
Subways, trees or buildings dropping shadow	Areas that cause fear, dark areas		
Artistic objects, installations	Existing		
Playgrounds	Existing		
Artistic water elements	Existing		
Topography	Used for creative purposes		
Orientation	Clear differentiation between public and private, edges of buildings		
(Micro-)climate, sun exposure	Climatic conditions considered, solar energy made use of		
Development			
Reference to surrounding areas	Connections to surrounding areas considered (e.g. foot- or bicycle paths)		
Use of buildings			
Cut of plots	Flexible, possibility of extensions		
Creation of identity	Historical buildings integrated, elements that apply to the view of the place exist		
Visibility connections	Existing		
Design of the facades	Existing		

Want the tool?
„Guidance on sustainable land use and urban design on brownfield sites“, available from http://www.rescue-europe.com

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

Tool 2.21 - Landscape concept

The landscape concept goes with and reinforces the urban design concept of a site. Generally, the landscape concept contributes to stage all types of external space - large or small, urban or rural, and with 'hard' or 'soft' materials. Moreover, It deals with location, scenic, ecological and recreational aspects of urban land use. In an urban background. The following components have to be treated:

1) The features which are to be removed/retained/enhanced:
   - Physical structures (dwellings, fences, surfaces treatments such as paving).
   - Vegetation (trees, urban bush land, shrubs, groundcovers, noxious weeds areas).
   - Natural features (rock outcrops, cliffs and water courses).
2) The extent of earthworks, identifying cut and fills proposals).
3) Design principles, roles and functions for each proposed open space.
4) Proposed planting location, areas, dimensions, species types, numbers to be used and procurement size.
5) Location, functions and dimensions of proposed physical structures, including watering system.
6) Protection of significant trees and other features, including method for protection.
7) Location for temporary storage of demolition and construction materials (rubble, topsoil, timber) and site facilities (toilets, lunch sheds).

The most valuable contribution of the landscape concept is often made at the earliest stage of a project in generating ideas and bringing creativity to the use of space. Therefore it can contribute to the overall concept and prepare an initial master plan, from which detailed designs can subsequently be prepared.

References:

- Marsh, W. (1983): Landscape planning. Reading
- Steiner, F. (1991): The living landscape. New York
- Van Schayck (1996): Ökologisch orientierter Städtebau. Düsseldorf
- Keller, H. (1985): Darstellung in der Freiraumplanung. Berlin
- Gälzer, R. (2001): Grünplanung für Städte. Stuttgart.

Want the tool?

„Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com

Tool 2.22 - A methodology for sustainable landscape (SULIS)

The Sustainable Urban Landscape Information Series (SULIS) web site provides a conceptualisation of the sustainable landscape to be applied to brownfield projects (focussed on the plantation aspect). There are five considerations in designing a sustainable landscape:

- **Visually pleasing**. It is what we all strive for. The consideration of functionality, maintainability, environmental soundness and cost effectiveness provide the framework needed to create a visually pleasing landscape. Designing a sustainable landscape requires the integration of more variables but should not affect the aesthetic value of the landscape.

Tools

- **Cost effective**. In a sustainable landscape design, the consideration of cost effectiveness is impacted by the processes, plants and hard goods used in the implementation of that landscape, and by the quality of each. Cost should not dictate whether the landscape is functional, maintainable, or environmentally sound. A simple low cost landscape should be as an extensive high cost landscape. In many cases, the installation of cost of sustainable landscape may be less.
- **Functional**. The functional and maintainable considerations are closely related. A functional design has more to do with the users of the landscape while a landscape is maintainable is easier for landscape managers to take care of. In other words, a landscape should be functional from both a use and maintenance standpoint.
- **Maintainable**. A maintainable landscape provides for reduced maintenance at a particular maintenance level or condition. This lowers labour costs and makes maintenance operations easier.
- **Environmentally sound**. An environmental sound landscape design must first be functional and maintainable. In addition, the proper design of plants and related hardscaping greatly affects the quality of the landscape over its entire life. For example, a philosophy of "right plant right place" as well as "right plant right purpose" can dictate the amount of environmental disease and insect stress that a plant can tolerate.

Want the tool?
- Information available from http://www.sustland.umn.edu/design/index.html

TOOLS for RESCUE Objective 20

To create and maintain flexibility and flexible urban design

Tool 2.23 - Phasing concept

Many brownfield projects are large scale and long term projects that cannot be realized in one step but need to be structured in development stages because of costs, demand or technical reasons. This phasing should be targeted at an early stage of the project as one major aspect of the Project Structure Plan.

The "phasing concept" should structure the project by taking into account
- financial aspects: revenues from the first development stages might be used to finance the following stages
- technical aspects: the road system and servicing have to work for the site as a whole, but also for the individual stages / modules.
- strategic urban and site development: the possible negative impacts and images of the brownfield should be eliminated, positive effects in the surrounding, that might also serve the development opportunities of the site created as early as possible.

Each phase / module of the project should be viable / fully functional on its own and should not produce "dead zones". At the same time it must not aggravate the realization of the following stages. Therefore, the phasing concept formulates major requirements for the spatial concept.

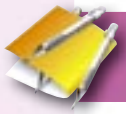
Reference:
- Based on practices (e.g. RESCUE case study Espenhain, Germany)

Want the tool? "Guidance on sustainable land use and urban design on brownfield sites", available from http://www.rescue-europe.com

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com



TOOLS for RESCUE Objective 21

To obtain a better quality of the information itself

Tool 2.24 - A visitor centre

During its work, RESCUE experienced two valuable examples of visitor centres related to brownfield regeneration projects:

The **Cardiff Bay Visitor Centre** is connected to a global regeneration project. This tool provides information about redevelopment plans and activities which took place and will take place on the site. Supporting equal access to information to all citizens is crucial to obtain social acceptance.

The **Gateshead Visitor Centre** illustrates another valuable step forward in the sustainability process because a follow-up use of the centre is planned: indeed the Visitor Center (based on the regeneration project) is likely to be transformed into a tourism office, which shows a successful evolution of all the regenerated area which becomes more and more attractive. The initial investment (buying the old church and turning it into a visitor center) will be economically viable by the new use of the building.

References:

- http://www.spirit-of-cardiff.com/centre/
- http://www.gateshead-quays.com/visitor.htm

Want the tool?

- "Methodological Guide: Best Practices in Citizen Participation for Brownfield Regeneration", available from http://www.rescue-europe.com

Tool 2.25 - An e-citizenship intranet system

Developed by the **Municipality of Valenciennes,** the e-citizenship intranet system is a tool of e-democracy:

- It helps to achieve a real and lasting improvement in the quality and accessibility of information on many fields of intervention, on precise contacts and references on municipal initiatives supporting local democracy and urban and social regeneration;
- It helps to improve the quality and accessibility of public services;
- It improves economic competitiveness;
- It develops interactive forms of dialogue with citizens

References:

- 'Anneau Citoyen Valenciennois': http://www.ville-valenciennes.fr

Want the tool?

- "Methodological Guide: Best Practices in Citizen Participation for Brownfield Regeneration", available from http://www.rescue-europe.com

→ Recommendations

Recommendations for Landowners, Developers and Planners

"The ancient Romans had a tradition. Whenever one of their engineers built an arch, as the keystone was hoisted into place the engineer assumed accountability for his work in the most profound way possible: he stood under the arch."

- Michael Armstrong -

To the project manager from the perspective of Landowners, Developers and Planners:

- Generate an integrated view on the planning and remediation activities? Both aspects need to be dealt with in an iterative process with one influencing the other.
- Focus on the organisation and management of the project, without interfering too much with the technical planning issues?

"To receive appreciation, each problem has to pass through three stages: In the first it is ridiculed, in the second it is combated and in the third it is taken for granted."

- Arthur Schopenhauer -

To Landowners, Developers and Planners

Landowners:

- Understand the costs and opportunities linked to your land. Regard them as assets, not only for yourself, but also for the public wellbeing.

Planners:

- Sustainable brownfield regeneration needs comprehensive strategies and collaboration on the regional level. You should therefore -
  - Integrate brownfield regeneration into strategic land management and cooperation on the regional level.
  - Integrate *spatial* and *economic* development concepts, with brownfield regeneration as a major topic.
- Brownfield regeneration projects can be initiated either by deriving possible land uses and project ideas from a regional and urban planning perspective (top-down) or by defining them from the perspective of the individual site (bottom up). In both cases, the consideration of the respective counterpart is nevertheless essential. The future land use must not be defined without regard to both views. Therefore, within the projects' initiation phase, regional development plans, concepts and strategies should be checked for relevant information:
  - Spatial integration (regional green areas, development areas etc.)
  - Ecological integration (energy-saving concepts etc.)
  - Economic integration (branches, employment etc.)
  - Social integration (social infrastructure, population development etc.)
  - Regional land management

→ Recommendations

Recommendations for Landowners, Developers and Planners

The consideration of these plans and strategies helps to avoid developments which are not used at all or under-used. Besides, by this method such a project can achieve benefits for the whole region.

- Apply a use-related approach when working out the traffic and utilities concept for providing necessary access. The needs of the possible users of the site (employees, customers, inhabitants, etc.) are crucial for the concept. Nevertheless, it is important to provide access for an adequate mix of transport options.
- Make the site accessible for all population groups and abilities (also barrier-free access for disabled persons).
- Constitute local advisory councils of external experts from the fields of architecture and urban design to give advice on the quality of the urban design of a certain city quarter or a given site.

Developers:

- Consider whether the intended land use matches the demands and needs of the respective region.
- Check whether a regional land management system or elements of such a system exist in your region and if they make relevant statements for your project.
- Brownfield regeneration projects can be initiated either by deriving possible land uses and project ideas from a regional and urban planning perspective (top-down) or by defining them from the perspective of the individual site (bottom up). In both cases, the consideration of the respective counterpart is nevertheless essential. The future land use must not be defined without regard to both views. Therefore, within the projects' initiation phase, regional development plans, concepts and strategies should be checked for relevant information:
  - Spatial integration (regional green areas, development areas etc.)
  - Ecological integration (energy-saving concepts etc.)
  - Economic integration (branches, employment etc.)
  - Social integration (social infrastructure, population development etc.)
  - Regional land management

  The consideration of these plans and strategies helps to avoid developments which are not used at all or under-used. Besides, by this method such a project can achieve benefits for the whole region.
- Adopt the RESCUE process approach for sustainable brownfield regeneration to cope with the complex tasks of the project.
- Ensure that the intended land use meets the targets of the urban development documentation. Derive the intended follow-up uses for the site from existing urban development strategies / plans.
- Consider the local neighbourhood and the potential impacts of the project when deciding upon the intended land use and urban design for a brownfield site. This is especially important, because brownfield sites are often historically closely interlinked to their neighbourhoods and located in dense urban quarters. Sustainability in this context means to define suitable land uses and urban designs, that enable social, economic and ecological benefits and synergies both for the sites themselves and

→ Recommendations

Recommendations for Landowners, Developers and Planners

the local neighbourhoods and prevent, minimize or compensate for adverse impacts. These targets especially refer to a participatory planning process that discovers and integrates the interests, ideas and concerns of the neighbouring population. This also contributes to a high acceptance for the project, which might be crucial for its realisation. Recommended actions therefore are to:

- Analyse the historic and actual meaning of the site for the urban quarter / neighbourhood / surrounding area and to use that knowledge in the creation of the project vision
- Create benefits and prevent, minimize or compensate for adverse impacts on the neighbourhood
- Analyse and document the economic, environmental, social, cultural and aesthetic impacts of the project on the neighbourhood
- Assess cumulative impacts, provide an assessment of alternatives and consider trans-boundary issues
- Inform and involve the neighbouring population at an early stage of the planning process and integrate ideas and concerns into the development process as a result of this
- Continue to engage with the local population throughout the project, maintain dialogue so that the local population have some ownership of the process
- Derive ideas for urban design and landscaping from the surrounding urban fabric and the local culture
- Include those parts of the neighbourhood, that are most affected by the project in the urban design / integrated spatial concept
- Carry out a detailed record of natural and anthropogenic features of the site and its surroundings
- Identify and evaluate all the legal restrictions and regulatory controls relevant to the process
- Identify possible benefits for and adverse impacts on the local neighbourhood, caused by the project in terms of economic, social, environmental issues potentially associated with the development
- Identify and integrate the local / regional character of urban design, aspects of culture and landscaping concepts into the development process

■ The objective of generating and safeguarding employment and economic development has special relevance for business and industrial land uses of brownfield sites, but also other land uses have direct and indirect economic effects.

- Consider regional and local (economic) strategies as guidance for branches / industries as possible land uses on the brownfield site.
- Estimate the direct and indirect economic and employment effects of the intended project within the urban and regional context.
- Analyse competitors for the project in regional context.
- Consider the possibility to maintain jobs that still exist on the brownfield site.
- Consider the project's effects on existing businesses and jobs in the surrounding of the site.
- Consider the qualification skills of the neighbouring population as possible labour force of future businesses on site.

→ Recommendations

Recommendations for Landowners, Developers and Planners

- Check the possibility of interlinking the brownfield regeneration project with measures for qualification / professional training of the neighbouring population.

- Brownfield regeneration projects have to be integrated into regional or local economic strategies that target the development of economic clusters and growth sectors. The economic effects of the projects can be maximised by contributing to the creation of a sustainable regional or local economic profile and prevention of parallel development of competing projects for the same purpose (especially for highly specialized land uses like retail or leisure industry) within the same region.
  - Check whether these strategies, if existing, explicitly or implicitly give guidance for the future use of the site
- Carry out a thorough assessment of the site:
  - Conditions concerning properties
  - Conditions of the surroundings
  - Physical investigation of the site
- Develop and apply an integrated land use and remediation concept whereby the land use concept considers the requirements of the contamination conditions and the remediation concept takes into account the requirements of the land use and urban design concept.
- Consider resource-saving aspects in the spatial concept in terms of water, land and energy.
- Analyse existing and potential connections across the site, with regard to sources and destinations in the surrounding areas. These connections of sources and destinations should later on be considered in the integrated spatial concept.
- Apply a use-related approach when working out the traffic and utilities concept to provide necessary access. The needs of possible users of the site (employees, customers, inhabitants, etc.) are crucial for the concept. Nevertheless, it is important to provide access for an adequate mix of transport options.
- Make the site accessible for all population groups and abilities (also barrier-free access for disabled persons)
- Use open planning and architectural competitions or open multidisciplinary workshops (with engineers, landscape and urban planners, architects, and also citizens, etc.) to elaborate the urban design concept (depending on the size of the project).
- Provide flexible plot layouts in the urban design concept and develop the project in construction phases, considering possible follow-up uses after the intended land use and possible changing market conditions appearing during the project process.
- Consider aspects of equal access to information (existence of a project communication plan; budget for communication and information; usage of media and communication tools; contact person for the project), information management (information accessible and understandable for lay persons), and documentation and publicity of debates and (intermediate) results.
- Reserve a specific budget for the purposes of information, communication and documentation.
- Make information accessible, using different kinds of media and information and communication tools.
- Communicate responsibilities for the different steps of the project.

CHAPTER 3

Best Practice Guidance for Citizens, Policy-makers and Regulators

"All of us basically want the same things: opportunity for our children and prosperity for our families and communities".

- Christine Gregoire -

This chapter focuses on the specific roles **citizens, policy-makers and regulators** play in this process and identifies a number of tools and recommendations which can help to integrate the different stakeholders' interests while preserving efficient management of the project.

An *institutionally robust and socially well-balanced planning process*, offering participation opportunities for all parties concerned, provides the necessary conditions for sustainability standards and is prerequisite for each brownfield project.

3.1 | Why is sustainable brownfield regeneration important for Citizens, Policy-makers and Regulators?

Brownfield regeneration is a complex matter with many actors and stakeholders often pursuing contrasting aims that influence the decision-making process. In practice, conflicts often stem from a lack of integrated approach between the environmental, economic and social spheres of sustainability. **Commercial benefits may clash with social benefits in many fields**[1], **for instance:**

- Looking for low cost methods can lead to demolition of remarkable buildings, symbols of industrial cultural heritage;
- Regeneration can increase prices for housing in the local neighbourhood and provoke movement of social population to other city-quarters;
- Financial goals can be preferred to non-commercial land uses (public parks, public amenities, cultural uses);
- Brownfield practitioners across Europe have a poor understanding of Citizen Participation and both authorities and developers often consider "CP" processes as

[1] *CABERNET www.cabernet.org.uk position paper WG2, "Policy-makers and Regulators" 02/11/2004 draft*

time-consuming, inefficient and unproductive. In many countries, anything beyond the "standard" legal requirement of informing the public is taken on voluntarily by project developers.

→ *What is governance? "- the different ways of how individuals and institutions, public and private, manage their common affairs. - A continuing process through which conflicting or different interests may be accommodated to take cooperative action. - It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest."*

Christophe BAIL Environmental Governance: reducing risks in democratic societies, Introduction paper EEC, Future Studies Unit, 1996

Sustainable brownfield regeneration is important for **citizens, policy-makers and regulators** because it corresponds to the evolution of democratic societies which are too complex to be framed within a "command and control" culture. **Traditional "top-down" forms of power** are increasingly rejected because they can lead to a lack of legitimacy. Citizens are unwilling or unable to take part in decision-making (participation in elections is declining worldwide). This gap between citizens and decision-makers is widened by the **fragmentation of the public sector** in horizontal terms (e.g. policy sectors/procedures) as well as in vertical terms (national and inferior planning levels). This fragmentation is also reflected in the status of citizens whose role is **"split"** into different functions: tax-payer, voter, consumer, client etc., with no holistic view of their rights and duties.

The growing awareness over the past 15 years of this "snow-ball effect" has contributed strongly to the need for cooperation and coordination between the various actors employing multidisciplinary approaches.

New approaches of **better governance** have been developed to combine the *subsidiarity* principle with the notion of "shared" responsibilities and duties: commitment for (re)development is highly dependent on the extent of people's involvement in decision-making.

New governance approaches reinforce democratic practices and citizens' involvement in public life which should be organized from the beginning of the project and pervade each step of the decision making process. This can be possible if the **institutional design is "robust"** enough to cope with short (elections for instance), medium and long term interests and provide tools for **mediation** between the different sustainability dimensions.

Sustainable brownfield regeneration is important... because it ensures the social acceptability of projects

1 *[...] A brownfield regeneration process is socially acceptable when **it meets the actual as well as the known and expected future needs of the communities** in the region. It must also maintain or increase development opportunities for future generations[2].[...]*

2 **The social acceptability of results in a decision-making process is linked to the way the different stakeholders perceive it:** if they feel the process is adequate and equal, they will find it legitimate. Thus the Citizen Participation technique or method needs to be adapted to the context and be understood/accepted by the different actors who are involved.

3 In the context of brownfield regeneration, social acceptability is strongly related to the manner in which **risks to public health** (exposure to chemical contamination, dust and noise etc) or negative impacts of technological choices (effective or potential) on the environment are **presented, interpreted** and **the level of trust** that the public places in the project actors. Risk is not an easy concept to understand and education and involvement of the public are of paramount importance for acceptance of site cleanup and reuse plans. Acceptance of risk depends on many factors, and risk assessment has inherent limitations such as remaining uncertainties. Bridging the gap between experts and the public is a main objective of risk communication (voluntary or involuntary exposure to risks, cost-benefit appraisal, etc.).

[2] *RESCUE WP1 (2002): Development of an Analytical Sustainability Framework for the Context of Brownfield Regeneration in France, Germany, Poland and the United Kingdom ; § 1.5.8 p.153 ; www.rescue-europe.com*

In a nutshell, why is sustainable brownfield regeneration important for citizens/ policy-makers/regulators?

1 Sustainable brownfield regeneration corresponds to a democratic right

Our systems of government and legal frameworks give citizens the right to have a voice in all matters of public policy, including planning.

2 It adds value to regeneration projects

• Local policy-makers and professional planners should collect and use comments and ideas from those who know the community best: people who live and work there. Citizens should be involved in the collection and production of the information needed to develop, maintain, and carry out an effective comprehensive plan.

• Local policy-makers should get to know the local situation and any detailed problem structure. This fosters the development of appropriate solutions. They can then reduce cost and energy input by avoiding promoting unpopular or unacceptable projects against the opposition of the citizen majority and by early re-design of projects (this is also the case for a private company).

3 It leads to better local management

• Local policy-makers increase the legitimacy of decisions affecting local development and the transparency of the decision-making process. It can be a guarantee of political continuity: a socially-accepted choice may not be contested and challenged systematically even in the case of elections.

• Policy-makers can improve their strategic ability in defining issues, enlarging possible choices, grasping stakeholders' different standpoints, finding satisfying solutions and compromises. This leads to fewer conflicts (complaints or legal cases) and less litigation, which finally reduces costs for re-planning and conflict resolution and leads to a greater acceptance of results.

• For planners, developers and investors, citizen participation increases planning security, offers an additional opportunity to promote the project and enables an imporvment of the the project approach according to local needs. It reduces the risk of delay or total failure of the project, which saves money. The implementation phase can be kept leaner and more target orientated.

4 It creates sustainable communities

• Citizen involvement educates the public about planning and land use. It creates an informed community, which in turn leads to better planning.

• Members of the community are given a sense of ownership of the plan. This fosters cooperation among citizens and between them and their government.

• Citizen involvement is an important means of enforcing land use laws. Having citizens informed about planning laws and giving them access to the planning process ensure that the laws are applied properly.

3.2 | Citizens, Policy-makers and Regulators: what is their respective role in the process?

Citizens

The following diagram presents the role of the citizen in the decision-making process[3], **this role depends on the levels of participation** that RESCUE identified in a previous phase[4]. The most active form of participation, the citizen as decision-maker, requires a significant commitment of time and resources by both the planner and the participating stakeholders. The opposite end of the spectrum, voters, suggests that public information is available, and that citizens are satisfied with electing decisionmakers who will represent their views.

To make democracy work, we must be a nation of participants, not simply observers.

- Louis L'Amour -

[3] *Awakening Participation, Building Capacity for Public Participation in Environmental Decision making, Public Participation Training Module, Participant Workbook, Szentendre, December 1996, edited and adapted by RESCUE*

[4] *See RESCUE (2004): Methodological Guide - Best Practices in Citizen Participation for Brownfield Regeneration - Work Package 5 – Deliverable 5-1 – p.32 Annexes www.rescue-europe.com*

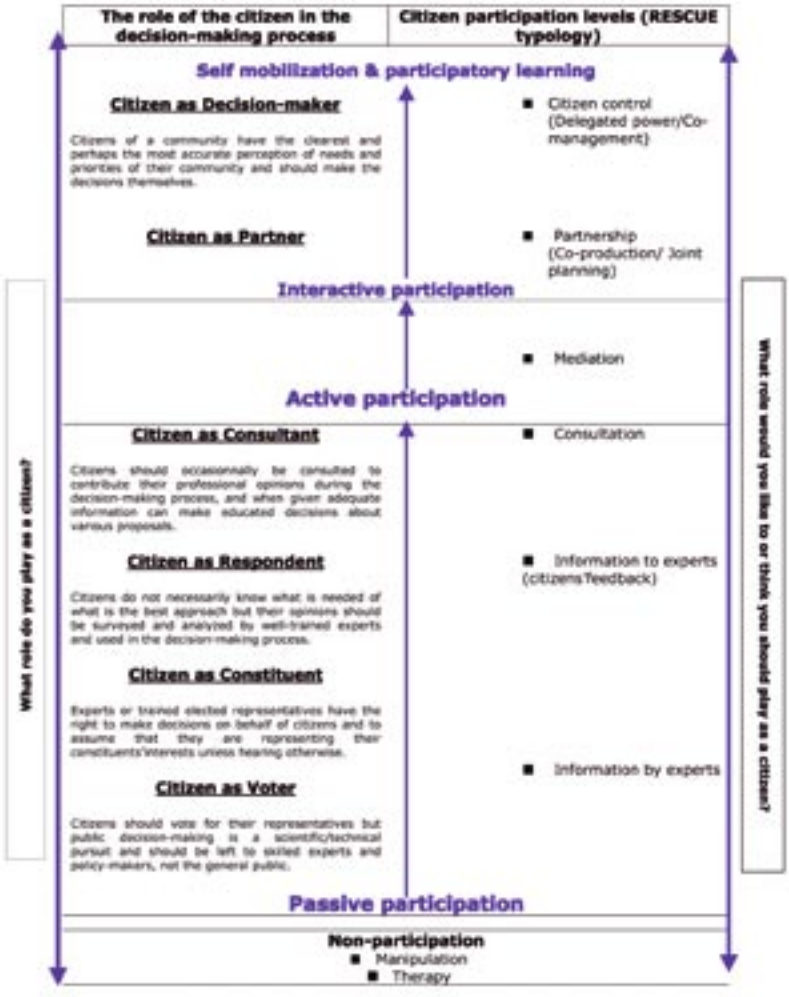


Fig 3.1 : The role of the citizens

Policy-makers

For the past 15 years, the traditional pattern of "overwhelming" local communities (or State) has been disturbed. **Local policy-makers' roles have had to evolve in order to cope with two major issues:**

- How to deal with "non-organized" citizens: traditionally policy-makers address and involve organized citizens who are part of the information network, and who often have to be heard by law. But in the context of brownfields, a critical eye should be kept on the way local governance structures are constituted because paradoxically, the effort to integrate citizens into the decision-making process and increase legitimacy can miss its target: indeed, those processes cannot "touch" the people (unemployed, women and children, ethnic minorities) who are the most concerned because they reject traditional forms of organization (they feel their everyday life matters are not listened to) or because the chosen "CP" method is not adapted to them (time and meeting places, language for instance). Hence, Policy-makers should develop pro-active methods in order to identify and select all relevant stakeholders and involve them properly.

- How to deal and cooperate with new key-actors in local life: some associations, private investors and companies - are increasingly involved and play an important role, which endows them with more power even if they are not democratically legitimate. In this context, elected representatives are no more the *"designers"* or *"controllers"* of development processes, but they *"regulate"* or *"repair"* negative impacts caused by decisions of others. The activities of associations, private investors and companies need to be regulated on the basis of a commonly accepted scale in order to create sustainable development processes. Ensuring maximum organization and efficiency needs **a new deal of power between the social and the political sphere**, *at the most meaningful level for inhabitants, in order to be able to guarantee conditions for an active and participative citizenship.*

The main issues of the debate are **decentralisation** and **subsidiarity**[5], **concertation** and **negotiation**, **confrontation** of different points of view and logics, delineating of respective responsibilities and risks. This "art" of regulation does not aim to create discordance but enhances diversities in the process of collective enrichment and encouragement of local experiences.

Regulators

This category is complex: across Europe, there are **regulators at multiple levels** (European/federal/national/regional/local/municipal etc) and in the **multiple fields** relating to brownfield redevelopment: building-planning-environmental/public and private laws, International Conventions (e.g. the UN/ECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters: the "Aarhus convention"). Brownfield[6] related policies vary not only among, but also within the different countries, as they have to take account of regional conditions, especially the specific types and extent of brownfield and specific market conditions. Especially in regions with a large stock of highly contaminated brownfields and / or a weak real estate market (shrinking population...) brownfield generation requires a higher level of incentives.

On the whole, the **available financial and legal incentives**[7] do not encourage spatial development enough on the potentials of internal development – especially brownfield sites. Low restrictions on the ready availability of Greenfield sites and financial incentives for Greenfield projects, being competitors to brownfield regeneration, contribute to a lack of brownfield regeneration. Existing incentives and initiatives may often provide the 'starting point', but actual redevelopment depends on attracting (additional) private investment on brownfield sites.

[5] *The subsidiarity principle and the prominent position of local government in the implementation of local sustainable development activities, was an important result of the World Summit in Rio (1992) followed by Johannesburg (2002). At a policy and administrative level which is closest to citizens, communities play a decisive role in informing and mobilising the public and in their sensitising for sustainable development (global success of Local Agendas 21).*

[6] *RESCUE (2004): Administrative tools and incentives for sustainable brownfield regeneration, Deliverable D 2-5.2. www.rescue-europe.com*

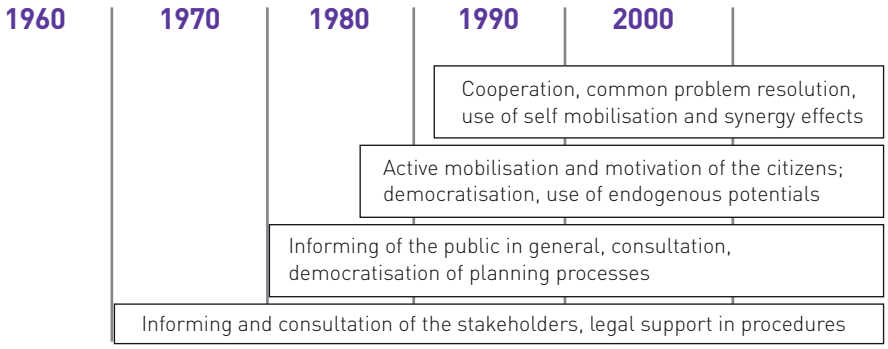
[7] *see also chapter 5*

For all these reasons, improving the existing regulatory framework and better regulation is one of the priorities within the scope of modernising and reforming the public sector.[8] [...] "The European Commission and several national or regional governments have introduced the use of instruments such as *regulatory impact analysis* to improve the quality and the effectiveness of new legislations and policies. At the same time, a revision of existing legislation and rules is being carried out.

Unintended impacts on brownfield regeneration caused by new legislation or new policies will affect in a negative way the competitiveness of European cities and should be therefore avoided."[...]

Last but not least, it is clear that the citizens who take part in participatory processes are those who are capable of articulating their interests and who are not daunted by **formal procedures**. For genuine citizen participation to happen there is a need to go beyond this self-selection procedure. **A task of developers and authorities is to simplify the procedures, to facilitate processes that guide citizens through the administrative and regulatory "jungle", to popularize technical or procedural information,** not only to invite them but also to approach them actively.

[8] *CABERNET www.cabernet.org.uk position paper WG2, "Policy-makers and Regulators" 02/11/2004 draft*



[9] *Source: Selle, Klaus (ed.) (1996): Planung und Kommunikation. Gestaltung von Planungsprozessen in Quartier, Stadt und Landschaft. Wiesbaden, Berlin; p 69., edited by RESCUE*

The understanding and the degree of desired and allowed citizen participation have evolved for several decades.

Fig. 3.2 : Development of participation-understanding[9]

3.3 | What represents sustainable brownfield regeneration for these stakeholders?

From the sustainability objectives which have been defined by RESCUE as guiding principles for sustainable brownfield regeneration, the following particularly refer to the activities of **citizens, policy-makers and regulators**.

For this group of stakeholders, sustainable brownfield regeneration is a process in which...

1. **Citizens are informed and involved in each step of the regeneration process**
2. **Negative environmental impacts on the neighbourhood are reduced and human health protected**
3. **Social benefits are reached and social demand integrated in land use functions**
4. **Institutional learning is developed and administrative structures are robust**

1 Citizens are informed and involved in each step of the regeneration process	
Objectives	Indicators
To provide a framework for transparency in decisions, flow of information and improved communication structures	Integration of stakeholders into all steps of the process
	Equal access to (critical) information
	Information management
To obtain a better quality of the information itself &	Two-way information flow
	Publicity and documentation of process and (intermediate) results
	A Documented strategy
To obtain a better quality of the information flow in the decision-making process and a more efficient use of information	Existence of a stakeholder Information and Participation Plan
	Record of decisions: existence of documents on the decision-making process

2 Negative environmental impacts on the neighbourhood are reduced and human health protected	
Objectives	Indicators
To reduce negative environmental impacts on the site and on the neighbourhood including human health risks	Solutions to comply with health and safety regulations
To protect human health and safety during field work	Existence and use of a Health & Safety Plan
	Pressure on neighbourhood: Number of complaints and incidents per year
	Ambient noise level: Time percentage of excessive noise
To achieve benefits and prevent adverse impacts on the local neighbourhood	Dust and air quality impact: Number of complaints during characterisation and remediation of the site

3 Social benefits are reached and social demand integrated in land use functions	
Objectives	Indicators
To retain buildings and infrastructures as much as possible	Conservation of industrial monuments
To achieve high design quality	Whether the urban design concept has been developed using different expert opinions
To promote land use functions that match regional socio-economic demands and needs	Job structure on the site
To generate and safeguard employment and economic development	Generation of employment and development off the site
	Number of created (long-term) jobs/ job intensity on the site

To provide adequate access for all population groups (including disabled persons) and all means of transport (car, public transport, bike, foot, air, ferry, etc.)	Compatibility of the intended land use function with the natural and anthropogenic conditions of the site and its surroundings
	Connections across the brownfield site, according to the demand
	Ratio of site users within the analysed region typically used catchment area of a public transport stop
To have a fairer discussion process and a better resolution of conflicts	Support for the project: Initiatives for or against the project / Critical suggestions within the formal planning process
	Satisfaction / contestation of results

4 Institutional learning is developed and administrative structures are robust	
Objectives	Indicators
To empower citizens, especially those representing non-organised interests	Emergence of structures and institutional learning
To delegate responsibility to lower decision levels and stimulate a sense of ownership	Influence on decisions, procedures and process evolution
To improve the efficiency of the process in terms of duration and costs	Budget allocated for participation

3.4 | How can sustainable brownfield regeneration be achieved?

The project "Road map"

The "RESCUE Road Map" is a project phase model which can be adapted to the steps of citizen participation in decision-making processes. This dimension is crucial because associating citizens with the steps of the **decision-making process** is a solution for the avoidance of conflicts. For the analysis of participation processes, a suitable set of **seven stages** has been identified, this selection being based on David Dolowitz[10] who says that the process (cycle) of policy making is composed of anywhere between five and nine stages.

[10] David Dolowitz (n.y): Policy transfer: a new framework of policy analysis. In: Dolowitz: Policy transfer and British social policy – learning from the USA?

1- Agenda setting (deciding to decide)

This stage depends on the political program of the local community and, during this step, councillors define their fields and modes of intervention. Political decision-makers can decide to involve citizens from the very early stages of the project and install a community oriented process.

2- Issue filtration (deciding how to decide) & issue definition

This stage comprises a selection of topics to be dealt with in a participation process and their precise explanation. It is important to develop a consensus on process procedures as well as a common understanding of issues by means of a direct communication process.

3- Forecasting & setting objectives

The stage of forecasting and setting of objectives comprises the development of common objectives on the different working levels in the participation process and appropriate action planning to achieve these objectives.

4- Option analysis and risk communication

Different project options or ways to reach the goals are assessed against each other. Criteria like costs, health risks, or legal aspects need to be tailored for the specific cases which enable the participants to make founded decisions for one or other of the options.

The proposition of solutions *can be the result of concerted debates with the population. For instance, some extra-municipal commissions can test potential choices before the local community take decisions or re-orientate the project.*

5- Plan implementation, monitoring and control

The stage of implementation, monitoring and control in policy transfer comprises the installation of institutions required for a functioning participation process and for the execution of participatory projects. Further, this stage includes the development and application of mechanisms for monitoring and control of process outputs.

The implementation of programs *relies on technical advisors/municipal or local government staffs controlled by elected councillors.*

6- Evaluation and review

The stage of evaluation and review of a participation process has the precondition that either participatory projects have been finished or the whole participation process has come to an end. It is an important stage with regard to allowing institutions to learn from experiences, and to adapt the institutional setting accordingly.

The Evaluation step *can include citizens, which enables not only to validate or invalidate on-going programs but also prepare future programs.*

7- Project maintenance, succession and termination

The stage of project maintenance, succession and termination includes the formal institutionalisation of the participation process in the local policy environment. It can also comprise the evolution of the participation process into mainstream policy in the sense that the consideration of participatory process principles is an integral part of all local development planning. *Contrary to the project phase model, this stage doesn't mean that the citizen participation process should end with the "project closure": it should go on after this.*

As the project phases (defined by time periods), each stage of the decision-making process is a part of an iterative process containing interlinked steps towards the project realisation. **But these stages also correspond to a strategic plan for policy-makers** combining continuous activities as information and communication (citizens need to be informed about the project since the initiation phase) and more targeted CP tools and techniques in order to fulfil their objectives.

The **design of each stage** always depends on the project specific conditions and has to integrate a certain **number of variables**[11]:

- Type of site (is it an A or B or C site?

CABERNET **www.cabernet.org.uk** has adapted an easy to follow A, B and C site model.

A sites have strong market forces surrounding them: CP processes are protected by legal requirements (in particular by public enquiries for large or contentious projects).

B sites are marginally viable, with a more or less 'break even' profit margin, as opposed to C sites, which have more deep seated difficulties with regards to regeneration.

C sites are generally located in socially weak areas, are not subject to time constraints and are potentially favourable to extensive CP.

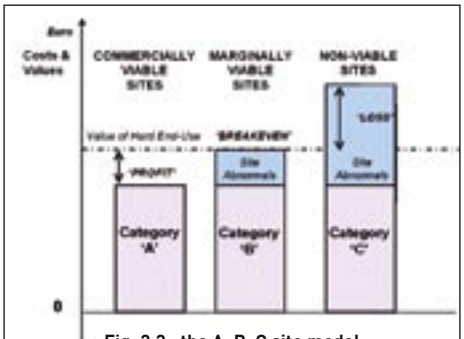


Fig. 3.3 : the A, B, C site model

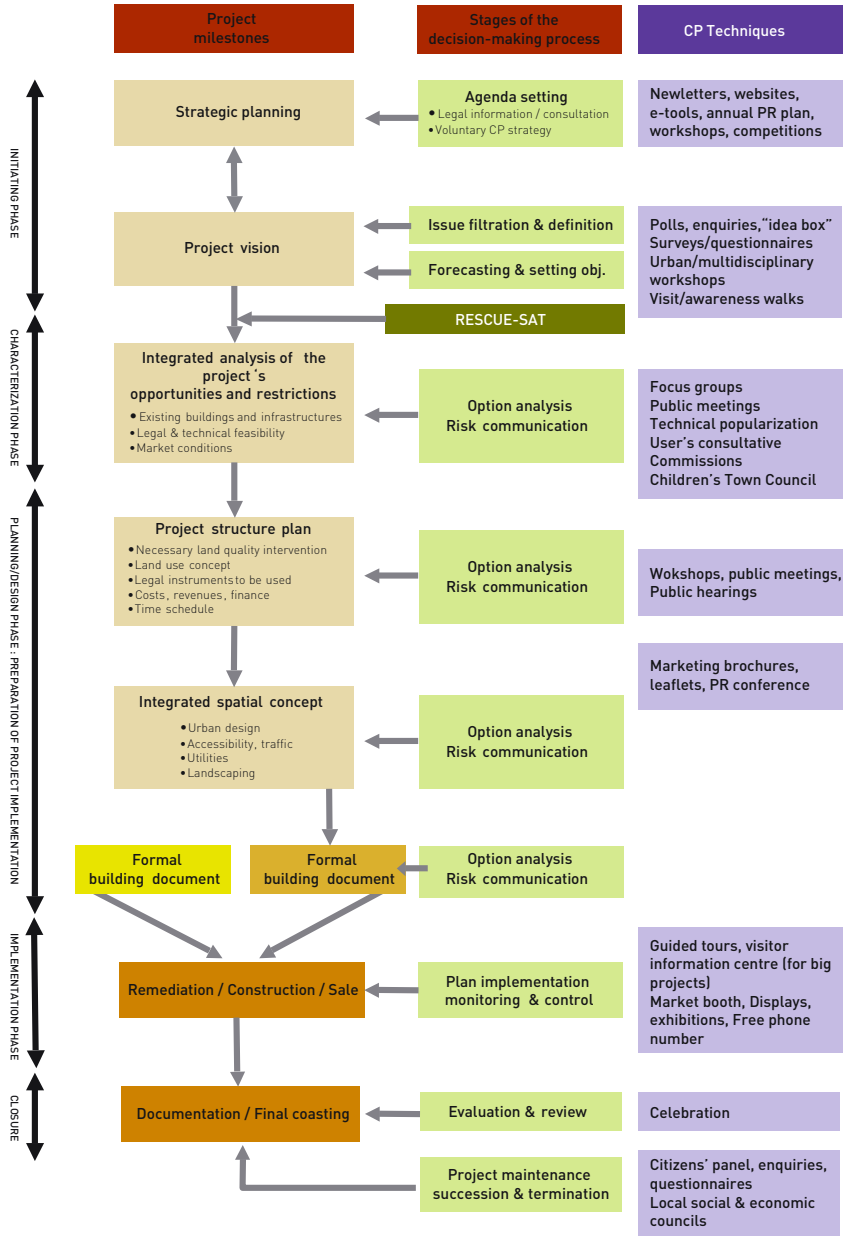
Based on: DENNISON, Mark S. (1998): Brownfield Redevelopment: Programs and Strategies for Rehabilitating Contaminated Real Estate; Rockville

[11] *RESCUE Citizen participation guidelines in Brownfield regeneration – „P6 Public Participation Promotes Projects for People and Places"*

- **site location** (is it city/countryside, residential/commercial)
- **ownership** (private, municipal, orphaned)
- **size** (small – large scale)
- **likely end/former use** (residential, commercial, industrial, environmental, recreational), and relevant accompanying political/economic interests
- **timescale** (months - years)
- **available budget**
- **nature of CP process** (formal/informal, structured/unstructured)
- **motivation for CP** (legal requirements etc)
- **relevant stakeholders**

"In a democracy everyone has the right to be represented, even the jerks".

- Chris Patten -



BEST PRACTICE N°1 Citizens are informed and involved in each step of the regeneration process

More details are available on the RESCUE website www.rescue-europe.com

• Youth participation in the planning of sport facilities: Gelsenkirchen-Bismarck Zeche Consolidation, Ruhr, Germany

In February 2004 in Gelsenkirchen-Bismarck, multi-function trend sports facilities were opened on the site of the former mine Consolidation. The objective of the redevelopment project was not primarily to build trend sport facilities: there was simply a need for a place where young people could meet. The conception of these facilities have been based on the benefits of the citizen participation process which had been implemented within the three-year program "youth with future" in co-operation with the city sport federation "GelsenSport" and the youth centre Julius B.

During this program a series of workshops with teenagers from Bismarck and also from other parts of the city of Gelsenkirchen were organized to define the most adapted sports facilities to the needs of this target group, (particularly skateboarding facilities). This participation process was original because a separate questioning of girls was organised in order to prevent a boys-domination of the process. The separate questioning of girls resulted in the need for an inline-skating range, which was integrated in the project: a runway will be built around the other sport facilities for the inline skater with special floor covering.

This best practice shows the necessity to involve target groups of a project and to care for a diversity of stakeholders in the participation process. Furthermore, this experience of citizen participation was also a good market research.

Report Reference and Web(sites)

Austermann, Klaus; Ruiz, Marcelo; Sauter, Matthias 2003: Gelsenkirchen – Bismarck/Schalke-Nord;
http://www.sozialestadt.de/veroeffentlichungen/arbeitspapiere/zwischenbilanzkongress/2-gelsenkirchen-english.shtml
http://www.stadt-t-raeume.nrw.de/projekt_14.htm

• Diverse media and a market booth for publicity and publication: Recklinghausen Hochlarmark, Ruhr, Germany

Since the middle of the 1990th, the redevelopment of the former mine Recklinghausen II in the suburb Hochlarmark/Recklinghausen has included the use of diverse media for the publicity and documentation of the different planning processes and the quarter-program as a whole:

- *Information desk on the weekly market:* during the project, citizens were informed about it and asked about their opinions through an information desk on the weekly market. This information desk was also used for the consultation of citizens. In some cases the desk was placed directly near the different project sites to get the contact to the neighbourhood.
- *Website* of the quarter management which was used to inform citizens and to discuss in an online-forum: www.recklinghausen-hochlarmark.de
- *Regular public relations work*
- *Minutes of the different working groups* (2 institutional groups) *were scientifically evaluated.* Discussions with citizens took mostly place in the "Active

Quarterround" ('Aktive Stadtteilrunde').
- *Booklet & CD-Rom* to present the results of the quarter-program as a whole - scientifically and technically popularized

Report Reference and Web(sites)
SLOTA, Marion; Staubermann, Andrea 2003: Recklinghausen Hochlarmark;
http://www.soziale-stadt.nrw.de/stadtteile/profil_recklinghausen_ho.html
Website:www.recklinghausen-hochlarmark.de

• A continuous Community consultation exercise: the Taff Bargoed Community Park, UK

Taff Bargoed Community park is one of the 21 sites in England and Wales **supported by Changing Places**, a national programme delivered by a broad range of partner organisations which applied the community-led and ecologically-informed approach to the regeneration of sites (in total around 1,000 hectares of derelict or under-used land have been transformed into new community facilities).

The regeneration of Taff Bargoed into a community park is the result of a **holistic and continuous community consultation exercise** which started at the earliest stage of the process and is still going on in order to help to establish the future uses of the 3 former colliery sites and contribute to the regeneration of the valleys. Groundwork Trust has acted as a central player in the regeneration partnership leading on community engagement and project development over the past ten years. The range of participatory techniques which have been used is wide: planning for real "the shopping list approach"; participatory appraisals (listening/learning/facilitating); workshops with people (planning & designing/ decision-making with people) bringing other partners on board with the Community consultation (showing good practice and promoting the importance of the community-led approach); regular meetings with agencies and communities; exhibitions etc

Report Reference and Web(sites)
www.indoorclimbingwalls.co.uk
www.Ecoregen.com : Groundwork UK 2000
http://www.groundworkmerthyrrct.org.uk/

BEST PRACTICE N°2

Negative environmental impacts on the neighbourhood are reduced and human health protected

• Influence of all stakeholders in a consultative process - Construction of a New Landfill for Municipal Waste in Tychy, Silesia, Poland

The purpose of the participation exercise was to collect public opinion on the siting of a new ecological landfill installation for municipal waste in the Urbanowice district of Tychy city. The proposal included a new landfill of 4.8 ha in size with the closure and reclamation of the existing landfill site of 2.9 ha. Around 4 ha of land had to be purchased from private owners for the new site and 300 m buffer zone around the new land fill has been created.

A public awareness-raising campaign was started to stimulate the local community's interest in the scheme. At two monthly intervals, sometimes more frequently, a group of officials (The City Council Chairman, councillors from the district etc) went to the Urbanowice district and met with the residents. Between 100-150 residents came to each meeting.

At the first meeting, the City Executive Board presented the concept of the new ecological landfill. During the meeting, it was clear that the local community was divided into two groups. The residents living close to the proposed landfill (which was proposed to be sited beside the existing landfill) opposed the location, while the other group, living at the other sites, did not express any view.

In order to gain approval of the location by residents, **various educational activities were undertaken, e.g. a "driving wave" campaign, topic campaigns** and school youth awareness campaigns. In the course of the "driving wave" campaign, environmental problems were presented to all of the local community. At the subsequent meeting, the local community accepted the location of the landfill installation as proposed by the "sender group".

Stage(s) at which public participated in the process
- Consultation at the conception phase – about one year
- Consultation continued until the construction permit was given – about half a year
- Consultation at the stage of defining the buffer zone around the land fill and the method of the old land fill reclamation

Who participated? The residents of the district, representatives of the City Board, councilors of the City Council, representatives of the Green Party, members of an environmental club and school youth as observers.

During the consultation the following information was presented:
- the technological process of the new land fill construction
- degasification project for the old land fill
- the ways the leachates from the new and old land fills will be monitored
- the methods the waste brought to the land fill will be controlled
- in addition, information was presented on the cost of the new landfill construction and its financing.
- Some of the funds were guaranteed from the municipal budget and some came from the Provincial Fund of Environmental Protection and Water Management.

What was the outcome of the public participation exercise? At the end of the consultation:
- the municipality got the public consent for the construction of the landfill and setting up the buffer zone;
- private owners sold the necessary land for the landfill construction;

After the construction permit was issued, nobody appealed against the decision. During the construction phase, the residents watched each process very closely and called the Department of Environmental Protection and Agriculture or the Department of Public Utilities and City Investments to give their comments. As a result, we had a very good public supervision over the land fill construction process.

Comments of participants in the process
- High involvement of the district residents in the consultation
- Good preparedness of the negotiating team (headed by the Mayor of the City)
- High involvement of the councilors of the City Council in the consultation

- During the consultation, efforts were made to provide factual responses to the questions posed. The answers provided were backed up by the research data
- An important role in the consultation was played by the extensive information plan (developed by the consultation team) in the form of brochures, articles in the local press, and a telephone number which the residents could call and get answers to their questions
- The consultation ended up with a full success thanks to concessions made by both sides: residents and the consultation team. A part of the demands were met. The landfill accepts 100-250 tons of municipal and municipal-like waste daily. The plan is binding until 31st Dec. 1999.

Report Reference and Web(sites)

Department of the Environment, Transport and the Regions (2000): "Public Participation in Making Local Environmental Decisions, The Aarhus Convention Newcastle Workshop, Good Practice Handbook – Appendix III", London.
Aarhus Convention Newcastle Workshop:
http://www.unece.org/env/pp/ecases/po_06.pdf

BEST PRACTICE N°3 Social benefits are reached and social demand integrated in land use functions

• Gateshead Local Agenda 21, UK

Integration all existing local policies, strategies and programs within a framework of Local Agenda 21 process is one of the best examples of sustainable development on local level. The Council in Gateshead developed a Local Agenda 21 Strategy aiming at making Gateshead an environmentally sustainable community within a framework of social inclusion and sound economic development. The main purpose of the strategy was to set in place a framework for the future as well as introducing the principles of sustainable development into a day-to-day working of the Council and its partner organizations. Local Agenda 21 is placed in the context of existing strategies and initiatives aimed at improving the overall quality of life of Gateshead residents. In particular, Local Agenda 21 links up with the Council s Beyond 2000 policy document and the Gateshead Strategic Partnership launched in September 1999.

In developing this strategy, the Council has consulted the people of Gateshead in 3 stages:

- An initial consultation exercise was undertaken to ascertain the views of residents on what should go into a LA 21 strategy for Gateshead,
- A focus group was held to consult on the key issues and decide on a working title for the strategy,
- Wide ranging consultation was held on the draft LA 21 strategy Here today HERE TOMORROW including a questionnaire in Council News, an extensive roadshow, two focus groups and circulation of the draft strategy to over one thousand individuals and organizations.

The Gateshead Quay project followed almost all the actions suggested by the strategy:

- Introduce policies that take more account of land resources, population changes and the interests of local people.

- Control development to support the sustainable use of land and restrict the transfer of green space to other uses.
- Plan urban settlements to reduce the environmental impacts of transport.
- Reduce the need to travel and create better accessibility to places of work, etc.
- Encourage new developments in locations where there is a choice of transport modes.
- Investigate alternative methods to additional road capacity in providing for transport requirements.
- Encourage sustainable communities and ways of living.
- Encourage the active participation of affected groups in decision-making.

Report Reference and Web(sites)
BEYOND 2000 Gateshead Council s policies and Service Principles
Here Today here tomorrow - Local Agenda 21 Strategy - Working for a Greener Gateshead: http://www.gateshead.gov.uk/la21/
ICLEI Local Agenda 21: www.iclei.org/iclei/la21.htmToronto
Second Local Agenda 21 Survey - Background Paper No 15 submitted by the ICLE
Cotter, B. and Hannan, K. (Environs Australia) (1999), Our Community Our Future: A Guide to Local Agenda 21, Commonwealth of Australia, Cranberra: http://www.deh.gov.au/esd/la21/manual/pubs/manual.pdf

• A Virtual Centre for training and job creation for the local population, Lille, Nord-Pas de Calais, France

Started in 1999 during the planning land use phase, this project aims at developing a tertiary centre specialized in communication technology activities (TIC) in a former textile brownfield building, located between le Marais District (Lomme) and Bois Blanc district (Lille). The creation of a virtual centre should provide three kinds of jobs:

- First of all, direct jobs due to the internal activity of the virtual centre (finished by the end of 2004),
- Secondly, indirect jobs by creating new firms having professional links with the virtual centre.,
- Finally, jobs created by the settlement of restoration or cleaning services of the site.

The project managers expect to develop 5.000 jobs until 2015. Nevertheless, the stakeholders involved in the project expect this centre to have a strong impact on the creation of jobs within the broader metropolitan area of Lille. Indeed, the virtual centre will not only be attractive for economic activities but also will train the local working population in the field of communication technologies. In the meantime, some training structures have already started to work.

This practice shows the benefits the local population can draw from a brownfield regeneration project in terms of job creation and training: indeed the involved stakeholders focused on the necessary training that inhabitants should be provided with in the field of new technologies. In partnership with the X2000 Association (virtual and processing training), 8 "cybercentres" have been set up around the Municipality in order to offer a free initiation to data processing and a free access to internet. Computers were put at the disposal of the inhabitants, which reinforced the initiative of the Municipality of Bois-Blanc, which already proposes an access to internet.

Report Reference and Web(sites)
http://www.x2000.org/1_2activities/index.php3

BEST PRACTICE N°4

Institutional learning is developed and administrative structures are robust

• Implementation of citizen participation in all steps of the process through a Quarter Management: Gelsenkirchen-Bismarck Zeche Consolidation, Ruhr, Germany

In Gelsenkirchen/Bismarck, **the key actor** in the redevelopment of the mining site Consolidation is the **Bismarck/Schalke-Nord Quarter Management Office**. It was founded in May 1995 as the local contact point and coordinating office for the decentralised project management. The local planning authority gave its Quarter Management Office enough autonomy to allow projects and ideas to be realised independently and in the short term and to integrate stakeholders in each step of the process. In comparison with similar institutions, this Quarter Management Office has a comprehensive understanding of district management: Apart from its functions in networking local actors and involving residents (it chairs a Working group of local stakeholders), it also works on programme planning, project development and coordination, and handles public grants. Thanks to this citizen participation process, a broad spectrum of uses was planned for the mining site: housing construction, recreational amenities (sports facilities, quarter park), commerce, a specialized discount store and a supermarket, a mosque, and various cultural and culture industry uses. Some industrial heritage buildings like the Shaft 9 tower and the pithead are preserved. The old buildings are reused as theatre, a local music band's rehearsal and rooms for exhibitions and galleries. Quarter Management is more adapted to big-scale projects because it requires relatively high financial and human resources.

Report Reference and Web(sites)

Austermann, Klaus; Ruiz, Marcelo; Sauter, Matthias 2003: Gelsenkirchen – Bismarck/Schalke-Nord;
http://www.sozialestadt.de/veroeffentlichungen/arbeitspapiere/zwischenbilanzkongress/2-gelsenkirchen-english.shtml

See also: http://www.soziale-stadt.de/en/veroenffenlichtungen/endbericht/

• The Grande-Synthe Urban Workshop, Nord-Pas de Calais France

Urban Workshops (widely used in France) **belong to the "toolbox" of participative methods** which gathers all the local councillors, inhabitants and technical advisors who volunteer to adopt a new and collective way of making urban planning ("faire la ville ensemble"). Mostly adapted to a city-quarter scale, it is a decision-making tool which aims at building a collective and corporate vision of urban planning: every partner's competences are closely intertwined. This collective work results in proposing alternative solutions and then "preventing mistakes" in urban planning, which save costs and avoid frustrations. Citizens are treated like real partners; they are informed all along the process and consulted on each step of the project; they are educated to democratic debate and can give new orientations to urban projects when they understand and learn how an urban project is conceived (contacts with architects, land-planners, landscapers, councillors etc); these orientations are presented to the Municipal Board. They can even control a posteriori if the schedule of conditions was respected.

The "Atelier de Travail Urbain" (1995-2001) **of Grande-Synthe** (25 000 inhabitants)

is a representative example of Urban Workshops in the Nord-Pas de Calais region. In Grande-Synthe, the range of practices and tools was very diversified but a specific "know-how" concerning public meetings (thematic workshops for adults and children, plenum meetings, technical presentations ...) was developed. The choice of a well-trained coordinator of public meetings was identified as a key-factor of the legitimacy of the process.

It also required good planning to organize meetings and get as many representative citizens as possible (mailing list). It was also demanding for the Municipality technical departments who had to devote time (meetings) and budget to it: for **dissemination/education tools** for instance: a newsletter summing up the debates of the Urban Workshop concerning projects and presenting the content and agenda of the meetings, reports in the Municipal newspaper and on local TV, local technical tours of similar urban projects, Project specification sheets.

Report Reference and Web(sites)

Livret "le réseau de capacitation citoyenne" première synthèse, Patrick BODART, Pierre MAHEY, Collection Arpenteurs, 2000.
www.adels.org

Tools

Tools for the Management of Sustainable Brownfield Projects allocated to RESCUE sustainability objectives

Name, brief descriptions and locations of tools. More details are available on www.rescue-europe.com

1 Citizens are informed and involved in each step of the regeneration process

TOOLS for RESCUE Objective 31

To provide a framework for transparency in decisions, flow of information and improved communication structures

Tool 3.1* - How to identify the public affected by the regeneration process and integrate relevant stakeholders

RESCUE compiled two complementary approaches:

1 - A useful checklist of recommended actions to be used by local authorities, national agencies staff: it helps to identify groups or members of the public who may express an interest or be affected by the regeneration process in order to take public viewpoints into consideration when making decisions and encourage early discussions in differences among affected public.

2 - A toolkit offering a practical compilation and analysis of techniques (Actors or Stakeholders analysis table; relationship diagram) that coordinators can use in order to: identify missing actors that are important for the process, get a clear picture about the relationships between the different stakeholders, investigate different perceptions of the relative importance of the different stakeholders, discern the interdependency of various stakeholders and identify/ anticipate conflicts.

Get the tool at:

1 - checklist: http://www.epa.gov/policy2003/policy2003.pdf

2 - toolkit: RESCUE (2004): Methodological Guide - Best Practices in Citizen Participation for Brownfield Regeneration, WP5 - Deliverable 5-1. www.rescue-europe.com

Tool 3.2 - Guidance on a mediator/coordinator's necessary skills and knowledge

This checklist defines and classifies the coordinator's required skills into three categories - organisational, analytical and cognitive, and inter-personal. This tool aims to be useful to **project managers** who wish to hire a mediator/coordinator in their team and who can use this checklist as a basis for a questionnaire to screen candidates in a job interview, to **workshop coordinators** as a guideline, and to **training providers** who have to teach management soft skills and give practical advice to future coordinators.

Get the tool at :

Office of the Deputy Prime Minister (ODPM) (2003): "Participatory planning for sustainable communities, Online in the internet:
http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/pdf/odpm_plan_pdf_023784.pdf [downloaded: 25.05.2004]

* see also TOOL 1.11

Tools

Tool 3.3 - Best Practice Guidelines on Public Engagement for the Waste

The core message of these Guidelines is that each public engagement process is unique. This makes advancing 'good practice' difficult, but there are principles that should underlie all engagement processes, and stages of planning that all such processes should go through. The principles include inclusiveness, transparency, independence and accountability, underpinned by commitment, accessibility, proper resourcing and productivity.

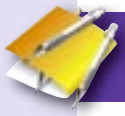
The Guidelines outline the major engagement techniques and their uses.

Get the tool at The Environment Council Tel: 020 7836 2626
info@envcouncil.org.uk
www.the-environment-council.org.uk

Tool 3.4 - Guideline on Community Consultation and Risk Communication

This Guideline provides a systematic approach to effective community consultation and risk communication in relation to the assessment of site contamination. It is not prescriptive but aims to be used as a tool for effective consultation by consultants and regulators and to provide a useful reference for all stakeholders including industry, government, landholders and the wider community.

Get the tool at :
Environment Protection and Heritage Council Secretariat National Environment Protection Council Service Corporation// Level 5, 81 Flinders Street, Adelaide, South Australia 5000
Telephone: (08) 8419 1200 Fax: (08) 8224 0912 - e-mail: exec@ephc.gov.au - www.ephc.gov.au
Document : http://ephc.gov.au/pdf/cs/cs_08_community_consult.pdf



TOOLS for RESCUE Objective 21

To obtain a better quality of the information itself

Tool 3.5* - An Information and Communication Plan

RESCUE selected 4 tools:

1 - The first practical checklist aims at giving a project developer the scope of potential tools he/she can use for publicity, discussion and documentation of the different planning processes from the early stages of the project. The choice and use of tools depend on a global strategy and on the available budget and time for the project.

2 - This checklist can be completed by another **RESCUE easy-to-use tool** called **"P6"** gathering practical tables of participatory techniques, information and communication tools which are classified with regard to the different levels of citizen participation and the stages of the project.

3 - The ECOREGEN – "Toolkit for community-led regeneration of derelict land": a comprehensive information resource and practical guide available free on the internet or as a hard copy printed version. explanatory and contextual information: it includes check lists, references, details of other relevant organisations, case studies, details of specific techniques and, on the website, downloadable documents and an interactive forum. It can be used by a wide range of groups and individuals, from landscape and regeneration **professionals** to **community groups** wishing to renew a plot of land in their neighbourhood.

*** see also TOOL 1.14**

Tools

4 - A checklist of unconventional approaches for information, discussion and mediation, based on case studies: in certain cases some proactive techniques are necessary to involve all interested and affected stakeholders (especially non-organized stakeholders or those cut off from brownfield regeneration projects) and increase the legitimacy of process outcomes.

Get the tool at :

1 - RESCUE (Regeneration of European Sites in Cities and Urban Environments) (2004): Methodological Guide - Best Practices in Citizen Participation for Brownfield Regeneration - Work Package 5 – Deliverable 5-1 www.rescue-europe.com

2 - RESCUE Citizen participation guidelines in Brownfield regeneration – "P6 Public Participation Promotes Projects for People and Places" www.rescue-europe.com

3 - Ecoregen Toolkit www.ecoregen.com (accessible in a number of European languages) ecoregen@groundwork.org.uk

4 - Office of the Deputy Prime Minister (ODPM) - 2003: "Particpatory planning for sustainable communities" : http://www.opdm.gov.uk/stellent/groups/odpm_planning/documents/pdf_023784.pdf

UK Dept. of the Environment, Transport and the Regions "Public Participation in making local environmental decisions"; Aarhus Convention Newscastle workshop; Good Practice Handbook (2000). http://www.unece.org/env/pp/ecases/handbook.pdf ; RESCUE's case studies in WP5 - Deliverable 5-1. www.rescue-europe.com

TOOLS for RESCUE Objective 22

To obtain a better quality of the information flow in the decision-making process and a more efficient use of information

Tool 3.6 - the UNCE "environmental democracy" Clearing House

A new "environmental democracy" Clearing House has been launched by the United Nations Economic Commission for Europe (UNECE) to highlight and promote awareness of issues covered by the "Aarhus Convention". The clearing house showcases good practices in citizens' environmental rights and is expected to make implementation of the Convention more effective.

The Clearing House provides a forum for the collection, dissemination and exchange of information on laws, policies and good practices **relevant to the rights of public access to information, public participation in environmental decision-making and public access to justice on environmental issues.** In addition to information related to the Aarhus Convention, the Clearing House also contains other information relevant to the implementation of principle 10 of the Rio Declaration on Environment and Development, adopted at the Earth Summit in 1992. It, therefore, has the potential to become a leading global repository of information on this theme.

The Clearing House will help the Convention's compliance mechanism by providing ready access to information on national implementing legislation and practices. Information gathered through the reporting requirements under the Aarhus Convention will be available through the clearing house.

Non-governmental organizations may also submit information to the clearing house.

Get the tool at http://aarhusclearinghouse.unece.org

Tools

2 Negative environmental impacts on the neighbourhood are reduced and human health protected

TOOLS for RESCUE Objective 32

To protect human health and safety during field work

Tool 3.7* - Health and Safety measures for work on contaminated areas at the investigation and remediation of derelict sites

This tool gives an overview of the essential points of the thematic; to enable the responsible authorities to take into account since the planning phase and during execution the requirements of occupational health and safety for investigation and remediation measures of contaminated sites which are often insufficiently considered. Especially geared to the sequence of operations and possible risks; protection measures are introduced as well as all relevant information in this context.

Get the tool at:
Environmental Agency of Brandenburg (LUA Landesumweltamt Brandenburg
Berliner Str. 1-25, 14467 Potsdam; Tel.: +49 (0331) 23 23 259, Fax: +49 (0331) 29 21 08.
e-mail: infoline@lua.brandenburg.de
Free download: http://www.mlur.brandenburg.de/oe_a/lua_bd11.pdf
overview of available documents:
http://www.mlur.brandenburg.de/cms/detail.php?id=111478&_sieid=17

Tool 3.8 - A Guide to Safe Working Practice on Contaminated Sites**

This tool describes which activities can be safely undertaken on contaminated sites by non-specialists or where specialist advisors are required. Covers Legislation, Hazards, Assessment, Planning and Management. Chapters on Site Facilities, Personal Protective Equipment, Health Surveillance. Includes voluminous detail in Appendices, Checklists and Tabulated Data.

Get the tool at : CIRIA Publications, London. £ 80. Report R132 – ISBN 086017 4514
CIRIA at Classic House, 174-180 Old Street, LONDON EC1V 9BR. Tel: +44(0)207 549 3300
Fax: +44(0)207 253 0523

*** see also TOOL 1.19**
**** see also TOOL 1.16**

Tools

3 Social benefits are reached and social demand integrated in land use functions

TOOLS for RESCUE Objective 15

To promote land use functions that match regional socio-economic demands and needs

Tool 3.9 - European Awareness Scenario Workshops

Launched by the E. C. DG XIII D in 1994, this pilot action aims to explore new possible actions and social experiments for the promotion of a social environment favouring innovation in Europe. The initiative focuses on two particular fields of action which should benefit the most from the introduction of the European dimension:

Assessing the transferability of best practices between different cultural and political contexts, including identification of conditions for success.

Identification and further development of instruments and tools to support the know-how transfer processes.

Get the **tool at : European Commission - http://www.cordis.lu/easw/home.html**

Tool 3.10* - Checklist of benefits, synergies and adverse impacts for the local neighbourhood

This checklist has been developed in order to provide a record, benchmark flexible and evaluative tool that captures the nature and type of impacts that a project has on the neighbourhood. These impacts can be **positive** (eg facilities to improve health and recreation, Sports facilities, Educational and social infrastructure, Family- and child-friendly environment

Short distances to supply with goods and services/ access to countryside, preservation of cultural identity etc) or **negative** (eg noise, traffic, water and electricity supply interruption dust, vibrations, fumes (health issue), potential contamination/ transportation of contaminants, smell etc)

This tool can help to inform and design a development process that balances needs, reduces risk and for developers/landowners/municipalities.

Get the tool at :
RESCUE (2004): Methodological Guide - Sustainable land use and urban design on brownfield sites - Work Package 4 – Deliverable 4-1 www.rescue-europe.com

TOOLS for RESCUE Objective 23

To have a fairer discussion process and a better resolution of conflicts

Tool 3.11 - Community-based Geographical information System

Different land use options can be discussed and negotiated on the basis of the existing development plans. **Geographical information systems** (GIS) facilitate the visualisation of different plans and of statistical data expressed in thematical maps. Thus, conflicting use options become visible in the early planning stages. There is a body of European and American experience in its use in

*** see also TOOL 2.7**

Tools

participatory projects where communities have been able to use 'expert techniques' like GIS in a bottom-up way that allow residents to characterize their local environments - using it to acquire and communicate residents' perceptions, rather than only 'objective facts'.

The use of GIS emphasizes the need for proper resources and to ensure that the technical sophistication that it offers does not exclude less-technically minded people or close ears to arguments presented in more traditional ways. A GIS used in participatory planning must be sufficiently flexible to include diverse and unexpected forms of community information, such as narratives, citizen reports, digital photographs, and to model scenarios that may diverge from local government priorities in a planning process.

Get the tool at: Office of the Deputy Prime Minister (ODPM) (2003): „Participatory planning for sustainable communities, Online in the internet: URL: http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/pdf/odpm_plan_pdf_023784.pdf [downloaded: 25.05.2004] ; p. 32-33 and p. 54 – 55.
Milwaukee: http://www.milwaukee.gov/gis/default.htm

4 Institutional learning is developped and administrative structures are robust

TOOLS for RESCUE Objective 26

To empower citizens, especially those representing non-organised interests

Tool 3.12 - Trusts in brownfield regeneration,as intermediate and independent institution coordinating the interests of all actors in a brownfield regeneration process.

Brownfields redevelopment is more than just land acquisition, planning, and real estate financing - it's also about people and their sense of community. Successful efforts to clean and reuse abandoned properties require strong community leadership and meaningful citizen involvement. **Trusts can be a useful structures to empower communities** so they can reclaim derelict lands in their neighbourhoods.

Trusts:

- are independent, which means they can act from a neutral position – and not only along municipal policies. They are in a position to encourage people to do things that are not necessarily exactly in line with political party driven politics.
- assist in identifying formal problems and administrative obstacles, and in overcoming them. This can happen in two ways, either know how transfer to the citizens, or eliminating the obstacles in order to smoothen the process and have future processes done easier.
- co-ordinate the information flow, and they also generate the information required for decision making in the brownfield context. They have a close communication with the citizens and other actors – they 'speak their language'.
- have an own budget at their disposal, especially for the co-ordination of the participation process.

Britain's Groundwork Trust offers a good illustration of this role: it is a non-profit or charitable organization dedicated to the economic, social, and environmental regeneration of communities

devastated by the restructuring of the United Kingdom's industrial economy. Groundwork works closely with local government authorities, national agencies, and private companies to generate the resources and necessary support for its nationwide programs and regional initiatives. Groundwork Trust's mission is to empower communities to achieve economic, social, and environmental regeneration. Groundwork began as a pilot project in one region. Today 25% of the UK population lives in an area served by one of the individual trusts operating throughout the country.

The applicability at a European level is limited due to the fact that the trust-legislation in different European countries is different. However, with relatively small changes Groundwork is applicable to other European countries. The existence of a number of Groundwork projects in Eastern Europe confirms this assumption. The Groundwork approach has also been adopted in Japan and the USA where the National Park Service is supporting a growing number of Trusts.

Get the tool at :
http://www.groundwork.org.uk/
http://www.changingplaces.org.uk/
http://www.epa.gov/international/urban/brownfields/groundwork.html

Tool 3.13 - Participatory Budgets

This toolkit aims to give an overview of participatory budget approaches: if the Porto Alegre sophisticated model of urban governance seems difficult to replicate, the ideas and tools developed in this genuine "laboratory" of citizen participation have given food for thought for alternative budgets worldwide: citizens' and NGO's empowerment, transparency and accountability can improve the effectiveness and efficiency of public expenditures.

1 - Best practice case study: the participatory budget process developed in Porto Alegre since 1989

2 - How to implement alternative budgetary approaches: the Porto Alegre process gave birth to multiple experiments (across Brazil and the world) which took various shapes and developed a need for tools to implement alternative budgeting. **The International Budget Project** - a project of the Centre on Budget and Policy Priorities in Washington. D.C. founded in 1981 – can be a useful resource base.

3 - Citizens' tools to control over resources and budget. ("Rules of the Participatory Budget" and the "Investments register")

4 - The experimental alternative budgets in the Ruhr and in France.

Get the tool at:
RESCUE (Regeneration of European Sites in Cities and Urban Environments) (2004): Methodological Guide - Best Practices in Citizen Participation for Brownfield Regeneration - Work Package 5 – Deliverable 5-1 www.rescue-europe.com

Tools

TOOLS for RESCUE Objective 27

To delagate responsability to lower decision levels and stimulate a sense of ownership

Tool 3.14 - Quarter Management or Neighbourhood management

A Quarter management is a deregulated political and administrative structure "on site". Flexible and cooperative, this local institution can improve the implementation of sustainable brownfield redevelopment which requires local development coordination and mobilisation of inhabitants. A Quarter working group is a very good tool to implement citizen participation permanently. **The supporting institution for neighbourhood management** can theoretically be the municipality itself, redevelopers, housing companies, university institutes, planning offices, NGOs or social institutions.

Get the tool at :

u Franke, Thomas; Löhr, Rolf-Peter: Neighbourhood Management - A Key Instrument in Integrative Urban District Development; Paper delivered at the EURA-Conference "Area-based initiatives in contemporary urban policy - innovations in city governance", Copenhagen, 17-19 May 2001; Online in the Internet: http://www.difu.de/english/occasional/neighbourhood-management.shtml

→ Recommendations

Recommendations for Citizens[12]

[12] According to the integrated approach of the Manual, the key-recommendations for Policy-makers and regulators can be found on pages 137-138 «Summary and Key -conclusions».

This checklist of recommendations aims to raise **citizens**' awareness of the potential role and influence they can play in the process and to assess if they are involved in a genuinely participatory process or not. This can be the basis for their asking the project manager and the local authority for improving the process and for resources to enable them to become actors in the regeneration project.

How to get involved in a participatory process

- Are you willing to participate?
- Do you wish to receive information all along the project and/or do you want to get involved in the process (attend meetings etc)?
- How much time do you have/are you ready to devote for it?
- Do you belong to an association or to an organization?
- Do you plan to create an association?
- Do you feel critical to the process?
- Will you be affected, both directly and indirectly by the project? How?
- Do you have an interest?
- What is your level of knowledge of the project?
- Has the project manager asked you to participate? If not, is there a contact point?
- Do you know if the project is in its initialisation phase? Or in its implementation stage?
- Do you know if other important groups could be affected by the project? Where can they be contacted? (local childcare centres, churches, commercial facilities etc)

How to check the quality of information

A - Quality of information

- Do you consider you are well informed about the project?
- Do you think that information match local needs?
- Is the project manager transparent about his sources of information?
- Do you think that information is correct, easily understandable for all stakeholders? Or do you think it is incomplete? Too selective? Too technical?

B - Equal access to information

- How have you heard about the project for the first time? By the press? By public notice?
- Do you have full access to information (is it easy, allowed, free of charge, in time, frequent)?
- Do you have a limited access to planning documents? Are there bureaucratic obstacles?
- Is there a big delay in obtaining information?
- Does the Local Authority make efforts to simplify the access to information?

C - Choice of local and regional media

- Are mass media used to inform citizens?
- What kind of information tools (newsletter, Internet forums ...) does the project manager use? Are they varied? Do you think they are adapted to the public and spread enough?
- Do you think other and innovative forms of information transfer, (e.g. radio, street theatre, individual meetings, web, etc.) could be better or necessary?

→ Recommendations

Recommendations for Citizens

D - Control over use of information

- Is critical information (e.g. adverse impacts of the project on the local neighbourhood) and / or contradictory expertise available?
- Is there a budget for alternative expertise you could ask for?
- Did you have a feed-back on the use of information you provided the project manager?
- Is there a book available to record your potential complaints on dust and noise?
- Do the Local Authority and project managers make efforts to popularise scientific, technical or procedural information about contamination issues, Health and Safety regulation?

E - Do you think publicity and documentation of the process are efficient or not?

- Are agendas and meeting dates documented and made accessible?
- Is it planned that responsible actors are documented, and are their names made accessible for the public?
- Is it planned that debates, agendas, meeting dates, drafts, resolutions, and responsible actors are documented and published in the local, regional, and national press?

F - How would you describe the information flow?

- Is it one way: from experts to you?
- Or one way: from you to the project manager?
- Or two ways: mutual information on certain steps?
- Or two ways: permanent and transparent information process? Is there a systematic feed-back?

How to improve management of the CP process (consultation; mediation; partnership)

A - Organisation

- Have you started to be consulted very early in the process?
- Did the project manager consult the Living Memories or reminiscence groups to evaluate the historical, social and heritage background of an existing industrial building and infrastructure?
- Does the chosen participatory technique fit your expectancies?
- Do you have a clear and realistic timetable of the process based on the project steps? Have you asked for one?
- Are planned timing, location and schedules suitable to involve a broad variety of actors?
- Do you think the process suffers from a "meeting overload"?
- Are the planned methods and procedures transparent and accepted?
- Do you consider that there is a sufficient or representative diversity of participants (old and young people, single parents, women, area residents, environmental activists, ethnic groups, unemployed, disabled etc)?

B - Management attitudes

- Do you feel the coordinator knows how to create an encouraging and motivating process atmosphere?

→ Recommendations

Recommendations for Citizens

- Are responsibilities, rights and duties clearly defined and handed over to the participants? Did the coordinator set clear rules at the beginning of the process? Does he observe them?
- Do you understand your role in the process?
- Do you think that debates during public meetings/working groups are well managed? Are debates and exchanges of view constructive?
- Does the project manager clearly express and explain the key-issues and resolutions?
- Does he take on board your suggestions and how does he deal with requests?
- Do you trust him? Do you find him credible and independent?
- Do you identify yourself with the process and its results?
- Do you think that a local person or an external expert (e. g. psychologist, sociologist, etc.) should assist the project manager?

C - Satisfaction/contestation of results

- Do you think you have/had no influence at all on decisions, procedures and process evolution? Weak or indirect? Real? Strong?
- Is there a consensus? On problems? On solutions?
- Are you (still) opposed to the project?
- Why have you changed your mind?
- Have your complaints/suggestions been listened to? If they haven't, did you receive a quick response and explanation about the reasons why they were totally/partially taken on board?

How to empower citizens? Conclusion

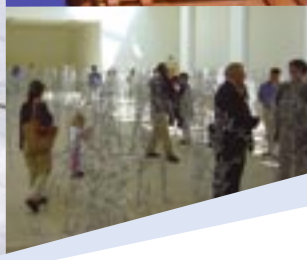
This issue does not only rely on the citizens' good will to get involved in participatory processes and to be educated to planning issues; indeed, this notion of empowerment suggests that **municipalities and local/regional/national authorities** take the initiative to launch specific information and communication tools, training and education programmes (e.g. free internet training and self-service computers), which requires a clearly defined budget and time.

RESCUE tools enlighten the **necessary educational role** played by different structures which are involved in a holistic process.

Municipalities, institutional structures (e.g. Groundwork in U.K, Quarter Management in the Ruhr) implement **diversified information and training tools** and **education programmes** to raise citizens' awareness and skills in all fields:
- urban planning
- culture and art
- administrative procedures and public finance etc.

"Democracy is a device that ensures we shall be governed no better than we deserve. "

- George Bernard Shaw -



CHAPTER 4

Best Practice Guidance for Designers, Professional Advisors & Contractors

"There is no 'I' in team"

4.1 | Sustainable regeneration is a team effort

This chapter considers the role of three types of specialist members of the brownfield regeneration process team – the designers, the contractors and the professional advisors.

CABERNET **(www.cabernet.org.uk)** has recognised the role of multi disciplinary teams in successful delivery of sustainable urban regeneration. Its work has identified the need for an overall Brownfield Regeneration Process Manager (BRPM) who is able to lead a team of specialists, engage with a wide spectrum of stakeholders, specifically, identify and respect where possible local residents wishes and move projects from vision to reality. Above all the BRPM has to ensure the site is placed in its economic, social and environmental regional setting so that the regeneration is appropriate to that setting. In the latter stages of regeneration conventional project management skills come to the fore. However in the earlier conceptualisation stages, the BPM needs to apply skills in diplomacy, visioneering, creativity, and leadership as the form of regeneration is refined and taken through conceptualisation to the initiation phase.

Smit (2002) describes the early stages of the process for the transformation of a small disused quarry in Cornwall, an Objective 1 Region in South West England, into the Eden Project (www.edenproject.com). Eden's mission is *"To promote the understanding and responsible management of the vital relationship between plants, people and resources leading to a sustainable future for all"*. Smit's visionary skills and tenacity, ability to enthuse others and to greater or lesser degree let them make their own decisions were central to getting the Eden project going and sustaining it during what we would call the Project Vision and Strategic Planning stages. Other financial, legal and project management skills – embodies in others – came to the fore in the latter stages.

Private sector initiative and funding has also revitalised a former dolomite mine in the Polish Municipality of Bytom. The abandoned workings have been converted into a year round leisure and recreation centre featuring a dry ski slope and other facilities **(www.dsd.pl)**

Fig. 4.1 : Dolomity Sportowa Dolina – during regeneration and current www homepage (www.dsd.pl)

Many analogies have been used to illustrate the role of each member of a multi disciplinary team and the interaction between individual members:

- Members of a relay team with the project as baton
- Cogs in a well oiled engine
- Bricks in a wall
- Links in a chain

All the above illustrate that no discipline more important than any other – although individual projects may require more emphasis to be given to one or other set of issues. Indeed problems often arise where one domain is 'forgotten' and does not receive the attention it warrants – it becomes the weakest link and the chain breaks, the cogs seize up or the baton is dropped.

Contracts formalise the relationship between client, funders, advisors, designers and contractors. Careful consideration of these is needed BEFORE they are signed to make sure each party is clear about what is required of them and what their remuneration will be. Contract evaluation is a combination of legal interpretation and organisational *modus operandi*.

4.2 | Designers

"The only thing we know about the future is that it will be different".

- Peter F Drucker -

Designers come in many guises: Artists, contractors, planners, architects, and many professional advisors play a design function. They express creativity to varying degrees! They influence if not dictate the sustainability of a project as no other stakeholder can.

Design involves the creation of something in the 'mind' and then go on to plan out that 'something' in graphic form so that it can be understood by others. In the brownfield regeneration context, it involves a balanced combination of artistic flair and an appreciation of the social, environmental, economic and engineering constraints. Designers produce the 'guide' that contractors will follow to make that conceptualisation into reality.

"Always design a thing by considering it in its next larger context - a chair in a room, a room in a house, a house in an environment, an environment in a city plan".

- Eliel Saarinen, "Time", July 2, 1956 -

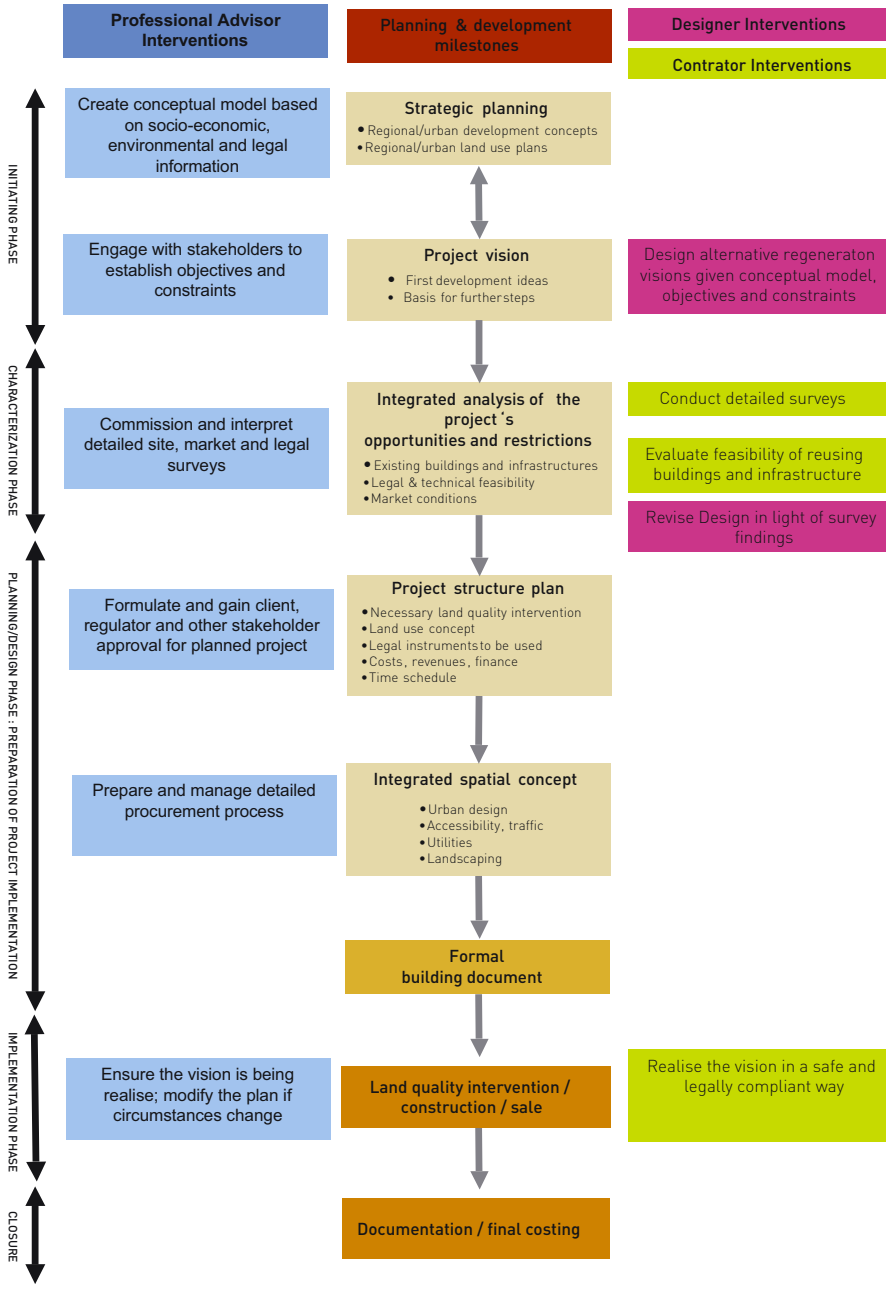


Fig. 4.2 : Involvement of designers, contractors and professional advisors in holistic Brownfield Regeneration projects

→ Good design is a form of respect - on the part of the producer for the person who will eventually spend hard-earned cash on the product, use the product, own the product.

David Brown

→ Design is directed toward human beings. To design is to solve human problems by identifying them and executing the best solution.

Ivan Chermayeff

Much sustainable brownfield regeneration (SBR) involves reinventing the identity and redefining the role or function of a site, neighbourhood or region. Designers have a large part to play in that reinvention. Their role includes developing:

- Conceptualisation of site layout
- Look and feel of new buildings
- Layout of land uses
- Look and feel of soft landscaping areas
- Integrating the individual components of a project into a coherent consistent whole
- Consciously integrating the project into the surroundings or explicitly seeking to separate the project from its environs

Experience has shown that the built form can change perceptions of local residents and work either as a magnet or barrier. The incorporation of public spaces in new University and College buildings at Nottingham and Dublin for example has resulted in local residents entering new structures and for the first time realising that further education is an option for them as well.

"Creativity is allowing oneself to make mistakes. Art is knowing which ones to keep".

- Scott Adams, the Dilbert Principle -

SBR offers both a restriction and a liberation for designers. If past land uses are to be preserved and echoed in the new land use, then elements of the design will need to reflect history. Local construction materials and methods can be used; key structures – such as retained winding gear on coal mining sites or converting, rather than demolishing, warehouses. Where past history is not to be preserved, for aesthetic or ethical reasons, designers have the freedom to create a new narrative – to tell a new story.

The Ark, designed by British architect Ralph Erskine in the late 1980's, is one of the most architecturally striking buildings in London. The Ark's West London setting has little architectural merit. Its designer decided to abandon attempts to create a building in keeping with its surroundings and instead concentrated on creating a new focus to detract the eye from the neighbouring structures. Completed in 1992, the Ark pioneered the concept of "the office as a community". A self-contained building in Hammersmith, the Ark has an interior that encourages teamwork and open communication.

http://www.thelondonark.co.uk

Fig. 4.3 : Markham Willows regeneration project - the vision

Markham Willows on the other hand has sought to integrate a pre-existing coal mine spoil tip into its plans for short rotation coppice and to blend the spoil tip into the surrounding landscape. Markham willows is a project within Markham Employment Growth Zone (MEGZ) designed to utilise the North Tip of the former Markham colliery to grow primarily willow as short rotation coppice (SRC) to be used as a renewable energy resource. The SRC will be used to generate biomass to fuel boilers providing heat to industrial units within MEGZ. The North Tip falls away steeply on all sides consequently water availability for the willow crop is a key issue. Sewage cake is being applied as

a soil conditioner to improve soil moisture and nutrient content, to the benefit of both the crop and beneficial soil microorganisms. To visually integrate the north tip into the surrounding landscape hedgerows will planted emulating the surrounding field patterns. A 3D visualisations has shown that using hedgerows to section the tip longitudinally will reduce the perceived height of the tip to the viewer.
http://www.rescue-europe.com/html/uk.html

Designers have the opportunity to support sustainability principles or to hinder them. By specifying local materials they reduce transport impacts and encourage local industry. For example the magnificent St Pancras station in London has been likened by many to a Cathedral. Its landmark bright red brick façade will soon welcome passengers alighting from the Eurostar. Yet when originally constructed, the materials were sourced from suppliers along the route of the railway line St Pancras was the terminus of. Indeed the internal iron girders are placed an exact multiple of 'Burton barrels' apart – Burton being the home of many famous breweries of the warm, only slightly effervescent beer beloved of English connoisseurs.

"The [St Pancras Station] train shed, by the engineer William Henry Barlow in conjunction with R.M. Ordish, is the largest and most spectacular of the High Victorian period, being a single span of 74 m (243 ft), rising 30 m (100 ft) high in a slightly pointed wrought-iron arch. The total length is 213 m (700 ft). "

- Sir Banister Fletcher. A History of Architecture. p1122, 1126 -

4.3 | Contractors

Contractors build things. This simple statement hides increasing diversity in the role of contractors, the extent of responsibility for what they build, rather than how they build it and the degree of risk, and concomitant reward, the contractor takes on.

Contractor roles include:
- Site preparation works
  - Demolishing existing buildings and infrastructure
  - Removing debris and other unwanted materials
  - Implementing remedial action to reduce unacceptable risks
- Construction works
  - Installing infra structure
  - Constructing new buildings
  - Renovating or converting existing buildings
  - Modifying existing or creating new landscape
- Operation and maintenance services

Depending on the nature of the contract or agreement between contractor, designer and client, contractors will have more or less freedom in what to build, how to build it and what to build it with. Moves towards construction material recycling, tax on primary aggregates, incentives to use non fossil fuel sources of energy and to reduce waste (heat, water, solid) provide opportunities for contractors to implement their corporate social responsibility policy.

Why should SBR be important to Contractors and what role do they play in it?

The Confederation of International Contractors' Association (2000) reported that "In every country in the world, the built environment normally constitutes more than half of total

national capital investment, and construction represents as much as 10% of GNP. Precise statistics about the size and importance of this sector do not really exist, but it is widely recognised today, with its estimated 111 million employees, as being the world's largest industrial employer, accounting for approximately 28% of all industrial employment. "

SBR offers contractors the opportunity to apply skills in complex project execution and use their specialist knowledge – eg controlled demolitions, reuse of materials, confined space working, health & safety management and meeting tight time and budget targets.

In addition as land use management moves from a once off consumption of land to a life cycle approach, contractors can expect to be invited to redevelop a site at the end of its next life span. Those contractors with good corporate memory and record keeping will be better placed to win the work for the next land use ... and the use after that *ad infinitum*.

This life cycle approach could be extended by contractors who can offer turnkey facilities management as well as renovation and redevelopment services, thereby cementing their relationship with the site owner/ investor and ensuring long term work flow.

What is SBR for contractors?

"If we [the construction community] are talking about sustainability in the built environment, we at best talk about pollution and waste issues, where the Rio agenda, confirmed in the Johannesburg agenda whatever the title will be, also talks about social and economic sustainability."

- Wim Bakens, Secretary General of the International Council for Research and Innovation in Building (CIB) -

SBR offers contractors an opportunity to apply their unique skills in matching materials, equipment and people to the optimal way to achieve predefined objectives. Performance based contracts allow flexibility and can result in better results from a quality, cost and time-to-completion perspective.

The way contractors go about their business can benefit from conscious adherence to the principles of sustainability. Rather than importing the entire workforce local residents could be trained and employed on their own doorstep. Local construction materials can be chosen to resonate with past practices. Using local suppliers ensures some of the economic benefits of regeneration can begin to be felt locally.

How can this be achieved?

Contractors can be encouraged to adopt practices that respect the principles of sustainability through shareholder pressure, procurement rules, legislation and compulsory or voluntary codes of practice. Due to the highly competitive nature of contracting, the form of contract however is the main determinand on how sustainable a contractor's practices are able to be.

In a risk sharing form of contract, contractors are incentivised to achieve the desired outcome within time and financial constraints. By tying contractors into having a stake in the success of the overall project the 'them-and-us' confrontational attitude is replaced with a 'we're in this together' attitude. This way contractors' ingenuity, flexibility and problem solving skills can be brought to bear on delivering the project.

Less intensive approaches can be adopted where time and space permits. For example pre-existing foundations can be reused rather than being ignored or withdrawn.

The Confederation of International Contractors Associations **(www.cica.net)** identifies nine main issues addressed by the construction sector – including sustainable development. However several of the other issues (environment, employment, ethics,

→ *If it be the design of Providence to extirpate these savages in order to make room for the cultivation of the earth, it seems not improbable that rum may be the appointed means.*

Benjamin Franklin

public-private finance) could arguably be seen to be components – or parts – of sustainable development, while others (procurement, arbitration, prequalification) are about the business climate and the ninth – research – is about developing and bringing to the market new tools. The RESCUE SAT is one way of helping the construction industry and other contractor organisations determine if their practices with respect to environment, economic aspects and social (including employee welfare) aspects are likely to contribute to or detract from sustainable development.

As Nathanail et al. (2003) pointed out to the geotechnical community, engineers in general and contractors in particular have an unique position in that if they refused to work on projects that failed to meet the principles of sustainable development, then only sustainable (or none at all) development could take place. However, this is only currently possible in the privately owned business sector. In publicly quoted companies, the Directors only have legally binding obligations to their shareholders and the law. In such a restrictive and prescriptive position, it may be helpful if Codes of Practice were developed that enabled all contractors to have a shared understanding of what is expected of them by their peers. This would help to create a uniform performance platform that would add to, not detract from, proposals for further prescription made in Chapter 5 – Incentives.

Transferable practices

Europe's labour and procurement legislation has gone a long way to ensuring that practices are being transferred. The challenge is to foster and encourage those practices that are contributing to sustainability and move away from those that do not.

National procurement and EU competition policies are not necessarily contributing to sustainable development and it is not clear how the potential conflict between the principles of subsidiarity and sustainability will be resolved in the medium term.

Initiatives such as networks (eg CABERNET) and training activities (eg LEPOP) can do much to diffuse awareness and understanding of practices in various parts of Europe developed or identified by projects such as RESCUE or REVIT. In this way, and voluntarily, the client, advisor and contractor families adopt ways likely to contribute to sustainability objectives.

Available tools (to illustrate 'how')

The RESCUE VTC provides designers, contractors and professional advisors the opportunity to become familiar with the reasoning and practices of a wide range of professionals. Such familiarity should result in increased mutual respect and an enhanced understanding of why 'Rome was not built in a day'.

The RESCUE SAT provides one way of deciding on a project by project basis what constitutes sustainable regeneration and therefore which practices to encourage.

4.4 | Professional Advisors

A consultant is defined as an 'expert who gives advice' **(www.hyperdictionary.com)**. It could be argued that in a multi-disciplinary complex field such as brownfield regeneration the concept of the expert is a false one. Indeed the recognition and clear statement of one's limits – what one does not know – may be a better indication of competence.

"My greatest strength as a consultant is to be ignorant and ask a few questions".

- Peter F. Drucker -

An advisor may be thought of as a consultant. In certain circumstances advisors may be thought of as having less liability than consultants but this distinction is not pursued in what follows.

A professional is someone engaged in the learned professions (eg law, engineering, sciences, medicine). A professional advisor may be thought of as someone who claims a degree of expertise and offers advice in exchange for payment. However in regeneration the role is broader than that. Professional advisors also provide confidence to their clients and other stakeholders and thereby allow a project to proceed. For example the environmental consultant will assess the risks posed by a site and back up his opinion and advice with professional indemnity insurance and possibly a collateral warranty.

Why should SBR be important to Professional Advisors and what role do they play in it?

Most professional bodies have a code of conduct or ethics with a general aim of enhancing quality of life or protecting the environment as appropriate. The move towards sustainable forms of development and to sustainable brownfield regeneration offers an opportunity for professional advisors to implement a long term, visionary and ethical approach to their work.

Paradoxically the move to more sustainable projects is likely to help professional advisors secure more commercial work and therefore benefit them as well as their clients.

What is SBR for professional advisors?

Professional advisors have a key role in ensuring the project is designed and implemented in accordance with the principles of sustainability. Clients engage professional advisors for a range of reasons. These can include transfer of liability, legal compunction or regulatory requirements. However they also employ professionals for their specialist knowledge and skills. Advisors therefore have an inherent duty to update their knowledge and skills on a regular basis and to change their practices when they no longer serve society's best interests.

This places a heavy ethical burden on the professions just at a time when society is questioning the very basis of professionalism.

"I am the wisest man alive, for I know one thing, and that is that I know nothing".

- Socrates -

How can this be achieved?

Delivering sustainability requires a holistic view of a project and not a piecemeal approach. The overall question of 'is this project sustainable' needs to be addressed. Specific domains may not of themselves be.

Such a holistic approach requires an abandonment of partial concepts such as economic sustainability or environmental sustainability. Only by considering the way a particular regeneration project changes the whole social-environmental-economic system can that project's sustainability be ascertained (Nathanail 2005).

Once the sustainability or otherwise of a project has been evaluated, the professional advisor has to display 'moral courage' in working towards the sustainable option and preventing unsustainable ones. This requires a conscious consideration of the short term commercial realities of survival in a competitive market against the long term aspects of professional ethics.

Transferable practices

There are many audit or monitoring approaches available that aim to support an evaluation of project sustainability. The RESCUE SAT offers one such approach to evaluating in what way a project meets or fails to meet sustainability criteria agreed on by relevant stakeholders.

The SAT was specifically designed to assess the sustainability of proposed brownfield regeneration projects by considering the variable parameters and conflicting priorities of brownfield regeneration projects (Chapter 6). The three steps to assessing sustainability are listed below and expanded in Chapter 6:

- **Actor collaboration to set priorities.**
- **Funding application by the project developer.**
- **Quantified assessment model (QAM) for decision making.**

Individual professions provide guidance to support their members in their daily work and to arm them in any conflicts between professions. Codes of practice and international standards are ways the professional community can help itself – and promote its usefulness to society at large – by raising professional standards. Such codes and standards however could – and indeed should – be reviewed against the principles of sustainability before they are adopted and promulgated. This requires a long term perspective on the consequences of professional advice and an ability to think laterally about perhaps unintended consequences of such advice.

Long term indemnities are one way clients try and force their advisors to consider the long term impacts of their advice. But these hammer-like devices treat all project related liability as nails and may not deliver the confidence the client expects.

→ It seems to me that there must be an ecological limit to the number of paper pushers the earth can sustain, and that human civilization will collapse when the number of, say, tax lawyers exceeds the world's total population of farmers, weavers, fisherpersons, and paediatric nurses.

Barbara Ehrenreich

→ Recommendations

Recommendations for the Management of Sustainable Brownfield Projects

For Designers

Designers seeking sustainability should listen to every voice. Design charettes (Macourt 2005) for the end-users (neighbourhood residents or office employers) should become standard practice as part of this listening phase. Early consultation with systems consultants, engineers and other experts should happen.

Designers should anticipate – if not drive - the fast moving developments in urban design and architecture. Land use needs change over time and with spatial, social, economic and ecological conditions. Flexible forms of design and construction for buildings that keeps their decommissioning or renovation into a new future use in mind are needed. Energy consumption needs to be minimised, maintenance should be optimised and the use of renewable solar heat and light should be maximised. Cultural shifts – such as the Japanese premier's edict that his ministers will shed their jackets and ties to reduce the need for air conditioning – can be encouraged by relevant forms of design.

For Contractors

Contractors have unique skills in making things happen, responding to changes and solving problems. The long periods of close collaboration involved in many projects result in intense loyalty and a desire for the individual not to let the side down. This attitude needs to extend to the broader team – including consultants and clients, future occupiers of and future neighbours to regenerated sites.

For Professional Advisors

The way consultancy firms develop, motivate and encourage their staff is a good indicator of where such organisations stand in the knowledge economy. In the UK the SILC **(www.silc.org.uk)** professional accreditation system is seeing a raising of client expectations.

Professional advisors have a duty to both ensure that they are delivering high quality advice and that they are able to work within a multi disciplinary context with other professionals, other organisations and other business, commercial or social cultures. In this way regulators will be faced with consistent and policy compliant proposals and will be better placed to provide the consistent regulatory response RESCUE identified advisors desire.

The availability of and access to information is increasing. Professional advisors therefore have the opportunity to exploit this explosion in information and to suffer if they are not au fait with current developments, emerging practice and forthcoming regulations. In short advisors are in a never-ending race to stay ahead of the competition and their clients in their stock, and use, of intellectual capital.

For Clients (Landowners/developers etc)

Clients should be aware that they require professional advisors with both in depth knowledge of their area of expertise as well as an understanding of how that expertise fits into the overall project execution process.

Clients need to realise that true expertise is much sought after, does not come cheap and is in limited supply. Developing long term relationships with key professional advisors,

→ Recommendations

Recommendations for the Management of Sustainable Brownfield Projects

rather than putting every small item of work out to tender, is likely to result in better advice and overall lower costs.

Clients should see their contractors as specialists with much expertise to bring to a project who deserve respect and the chance to make a profit from their efforts.

Clients should seek to incentivise contractors to achieve their goals in a sustainable way. Clients should see beyond the horizon of their own project and see each project as an opportunity to invest in the human, technical and institutional capital contractors bring to bear.

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CHAPTER 5

Best Practice Guidance for the use of Incentives and Economic Tools/ Funding Criteria

What do we mean by these terms in the context of promoting sustainable brownfield regeneration?

Incentives

Financial or legal mechanisms that -

- Motivate, underpin or compel sustainable practices

  Or -

- Inhibit, restrain or eliminate unsustainable practices

Economic tools/ Funding criteria

"If the only tool that you possess is a hammer, every problem you try to resolve will tend to resemble a nail"

- Anon -

Financial or legal instruments, together with quantitative and/or qualitative standards or principles that –

- Reward sustainable practices by enabling evaluators of funding proposals to target economic support on sustainable projects and practices

  Or -

- Penalise unsustainable practices by denying economic support for unsustainable projects and practices

How can the use of Incentives, Economic Tools and Funding Criteria support sustainable brownfield regeneration?

Incentives

Appropriate incentives represent the most powerful means by which policymakers can promote their visions at the national, regional, sub-regional, local or project level. Incentives can steer the entire brownfield regeneration market towards achievement of the visions without being either over-prescriptive or distortional.

The brownfield market is at least as competitive as any other market. It is cost and value driven, risk-averse and conservative. It is also unreceptive to social and environmental aspirations unless they are demonstrably achievable and do not compromise economic performance.

Incentives, therefore must be -

- Applied uniformly – to create a level playing field and avoid competitive distortion

  And -

- Reliable in terms of their capacity to deliver. This means that they must be effective and sufficient to facilitate achievement of the objectives they are designed to incentivise.

If sustainable brownfield outcomes represent the policy makers' goal, incentives can provide the most effective financial and legal infrastructure to support their delivery.

Economic tool/ Funding criteria

If appropriate incentives are established, they need to be administered to deliver sustainable projects in the field. If the standards and principles embedded in the evaluation process are focused on sustainable brownfield regeneration objectives, sustainable outcomes can be achieved. If they are not embedded, sustainable outcomes are highly unlikely. In fact, unsustainable outcomes are highly likely in these circumstances.

What Incentives, Economic Tools and Funding Criteria are used currently?

A multitude of incentives, economic tools and funding criteria are used currently at the European, Member State, and Regional/Sub-regional level. A selection is presented in the following Incentive Summary Tables and a full list is available on the RESCUE website **www.rescue-europe.com** – Deliverable D2-5.2 -, together with a comprehensive analysis of how relevant each incentive could be in terms of assisting in promoting RESCUE objectives, what the spatial impact could be etc.

EU level Financial Incentives Summary

Structural policy	Public credit	Research	Tax Incentives
- European Regional Development Fund - *ERDF*, - European Social Fund - *ESF*, - URBAN, - INTERREG, - PHARE - ISPA	- European Bank for Reconstruction and Development	- LIFE, - 6th Framework Programme	

EU level Legal Incentives Summary

Bans	Obligations	Guidelines/principles
- Landfill Directive	- The UN/ECE Convention on Access to Information, - Landfill Directive	Handbook on Environmental Assessment of Regional Development Plans and EU Structural Fund Programmes

National level Financial Incentives Summary

Structural policy	Public credit	Research	Tax incentives
France			
- **VAT reductions** - Subsidies for the improving of the habitat (**ANAH**) - Premiums and subsidies for the ecological and economical technologies **ADEME** - National Development Plan-subsidies : **FNADT** - **National fund for the territory** land-planning and development - **Urban and Social Development Funding** - Funding for the preservation of historical monuments (**ZPPAUP**) - **ADEME** subsidies			- **Tax credits for** ✚ Renewable energy production equipment. ✚ Heating regulating devices ✚ Development of ecological and economical technologies - (**TDENS**) to preserve the quality of natural estate and landscapes. - **Taxe Spéciale d'Equipement** - **Article 1609 A** of the General Tax Code

Structural policy	Public credit	Research	Tax incentives
Germany			
- **GA** (German Economic Promotion Fund) - Release of remediation responsibility (**Altlastenfreistellung neue Länder**) - Urban development promotion (**Städt ebauförderung**) - Employment programmes (**ABM**) - Monument protection funds (**Denkmalförderung**)	- **KfW and DtA** Environmental Programmes and Regional Programmes	- **Deutsche Bundes-stiftung** Umwelt German Environmental Foundation	- **Denkmalabs chreibung** tax incentive for protection of historic monuments
Poland			
- National Fund for Environmental Protection and Water Management	- Preferential loans for environmental projects	- Grants of State Scientific Research Committee	
United Kingdom			
- National Coalfields Programme - Urban Regeneration Companies - Millennium Communities Programme - English Cities Fund - Partnership support for regeneration schemes - Dereliction Aid Scheme - Historic environment regeneration scheme - Speculative/non-speculative gap funding - New deal for communities - Single Pot - Land stabilisation programme - Approved development Programme - Land Restoration Trust - National Lottery *(Community Fund, New Opportunities Fund, Millennium Awards Scheme, Heritage Lottery Fund)*	- Coalfields Enterprise Fund	- Waste Recycling Action Programme - English Partnerships Research Group	- Landfill Tax Exemption - 150 % Corporation Tax relief - Capital allowance - Stamp duty exemption - VAT reductions

National level Legal Incentives Summary

Ban	Obligation	Guidelines/ principles
France		
- **Environment code:** 1992. Fixed at 2002, the deadline limiting the access to landfills to waste that cannot be recycled or reused.	• **ICPE law** 1976 The future use of a place determines the depollution threshold. • **Mining Code**: obligation for remediation, reuse of materials, existing buildings and infrastructures • **ZPPAUP** (Zones of protection of the architectural, urban and landscape heritage) 1983 • **National planning code**: 2000, Gayssot law or "SRU law" • **National/Regional Development Plan**: 1982, known as "Law Deferre" • **National mining code**: 1970 • 1985, **Espace Naturel Sensible law**. • 1983 « **Bouchardeau**[1] » • **Reform of public enquiries** - 1999 "**Orientations for Sustainable Land-Planning and Development**" - 2000 « **Solidarity/Urban Regeneration** » • Extension of public enquiries to all urbanism documents (**Plan local d'urbanisme and Schéma de Cohérence Territorial**) • L 06/02/1992 "**Administration Territoriale de la République**" • L.02/02/1995 « **Loi Barnier** »	
Germany		
- **Soil Protection Act**: Deterioration of soil quality - **Mining law**	- **Soil Protection Act**: Obligation for remediation - **Mining law**: Obligation for recultivation	- **Soil protection clause** / national sustainability strategy of the federal government
Poland		
	- **Environmental Protection Law** – 2001	- **Poland 2025**: Strategy for durable and sustainable development - **State Ecological Policy** - **National strategy for Regional Development**

[1] Loi relative à la démocratisation de l'enquête publique et à la protection de l'environnement

Ban	Obligation	Guidelines/ principles
United Kingdom		
- Presumption against development in "Green Belt"	- Citizen's Charter: 1991 - "Modern Local Government: In Touch with the People" 1998 - Guidance on Enhancing Public Participation in Local Government – UK 1998 - Local Government Act 1999 - Local Government Act 2000 - White paper "Strong Local Leadership Quality Public Services" 2001 - The Local Government Act 1972 - The Freedom of Information Act 2000 - Town and Country Planning Act 1990	- Sustainable Communities Plan - Public Service Agreement 2000 - Comprehensive National Brownfield Strategy (in preparation)

Regional/sub-regional level Financial Incentives Summary

Structural policy	Public credit	Research	Tax incentives
France			
- Regional Development Plan-subsidies : FNADT			- Departmental councils levy a specific tax (**TDENS**) to preserve the quality of natural estate and landscapes. - Council Tax (**Taxe d'habitation**) - Local Tax on businesses (**Taxe professionnelle**) - **Local Property Tax relief** issued by Municipalities to support development.
Germany			
	- Regional Programmes of **KfW and DtA**		
Poland			
- Voivodeship Fund for Environmental Protection and Water Management - Poviat (county) Funds for Environmental Protection and Water Management			

Structural policy	Public credit	Research	Tax incentives
United Kingdom			
- Grants from Regional Development Agencies - Grants from Strategic sub-regional partnerships - The New Deal for Communities (NDC) and Local Strategic Partnership (LSP) - Coalfields Regeneration Trust - City Growth Fund (Scotland)			

Regional/sub-regional level Legal Incentives

Bans	Obligations	Guidelines/principles
France		
	- Reform of the Regional Land-Planning and Development Conference (**CRADT**) - **Conseils de développement** (Consultative Intercommunal Councils) - L.27/02/2002 « local community democracy » (**Loi "Vaillant"**) - **Conseils de quartier** compulsory for towns (+ 80000 inhabitants.) - Creation of the **"people's initiative"**	
Germany		
Poland		
		- Regional Development strategies - Regional Environmental Protection strategies
United Kingdom		
	- Regional Brownfield Action Plans	- Regional Economic Strategies - Regional Housing strategies

How useful are current Incentives, Economic Tools and Funding criteria in terms of delivering sustainable brownfield regeneration?

A deficit analysis was carried out on all of the incentives for brownfield regeneration. It posed the following simple questions -

- Are currently available incentives effective and sufficient for promoting sustainable brownfield regeneration
- Do currently available incentives enable or impede the implementation of sustainable brownfield regeneration
- Do the currently available incentives facilitate the implementation of sustainable brownfield regeneration

All in terms of;

- Soil and waste reuse?
- Retention of buildings and infrastructures?
- Reuse of construction components of buildings and infrastructures?
- Recycling of materials of buildings and infrastructures?
- Saving resources and reducing their consumption (energy and water)?
- Appropriate sustainable land use on particular brownfield sites?
- Urban design?
- Leading spatial development into brownfield instead of Greenfield land?
- Leading participatory regeneration projects?
- Integrating and evaluating the interests of all stakeholders?
- Participatory regeneration processes which don't increase the duration of projects and their costs?
- Citizen participation?

Activities that take place on the most significant brownfield regeneration projects in Europe are supported by the European Commission through the application of Structural Funding support. For Western European Member States, this is heading towards being history as new Member States compete for economic support for their regeneration needs and qualify for such support. Wherever they are applied, Structural Funds are allocated at the point of delivery on a competitive basis. Successful proposals are evaluated in terms of their potential to deliver more "outputs" than unsuccessful proposals. "Outputs" are measured numerically and comprise, typically, number of jobs created, area of land reclaimed etc. No consideration is made of the methods used to create these "outputs", or of the "outcomes" that may accrue. In terms of proposals that, for example, promote sustainable brownfield soil and waste reuse, such proposals would not be differentiated from proposals that include unsustainable land reclamation methods. The same situation applies regarding retention of buildings, sustainable land use planning and citizen participation. The only differentiation may be that if the sustainable methods were more expensive, no matter how marginal, the unsustainable method would normally be selected. This is clearly untenable in an era when all policy is being driven by sustainable development principles. For new Member States, there is now an opportunity to explicitly integrate sustainability into their regeneration efforts.

"Motivation is what gets you started, Habit is what keeps you going"

- Jim Ryun -

RESCUE category	Number of incentives	Number of effective incentives	Number of sufficient incentives	Number of enabling incentives	Number of facilitative incentives
EU					
Reuse of soil and construction related waste	10	0	0	0	0
Retention and reuse of buildings and infrastructures	10	0	0	0	0
Sustainable land use and urban design	10	0	0	0	0
Citizen participation	10	0	0	0	0
France					
Reuse of soil and construction related waste	8	0	0	0	0
Retention and reuse of buildings and infrastructures	12	0	0	0	0
Sustainable land use and urban design	20	0	0	0	0
Citizen participation	8	0	0	0	0
Germany					
Reuse of soil and construction related waste	8	2	2	2	2
Retention and reuse of buildings and infrastructures	8	3	3	3	3
Sustainable land use and urban design	20	1	1	1	1
Citizen participation	10	4	4	4	4
Poland					
Reuse of soil and construction related waste	8	0	0	0	0
Retention and reuse of buildings and infrastructures	3	0	0	0	0
Sustainable land use and urban design	0	0	0	0	0
Citizen participation	0	0	0	0	0
United Kingdom					
Reuse of soil and construction related waste	9	0	0	0	0
Retention and reuse of buildings and infrastructures	5	5	5	5	5
Sustainable land use and urban design	22	3	3	3	3
Citizen participation	4	0	0	0	0

"I have not failed. I've just found 10,000 ways that don't work"

- Thomas Edison -

It is clear that in all four RESCUE partner countries that, although policies are in place to promote sustainable development, brownfield regeneration practices are not aligned to the principle. Only 19 incentives are delivering in accordance with RESCUE's sustainability objectives, although over 150 incentives are in operation in France, Germany, Poland and UK. This is a major issue and the RESCUE project has proposed in the next section how this might be resolved.

What can be done to improve the situation? What guidance is offered to those involved in defining proposal evaluation criteria or funding projects?

Problem-related proposals

The RESCUE partners have prepared a comprehensive set of proposals, designed to address the deficits in current incentive schemes that, if addressed, would enable incentives to support sustainable brownfield regeneration. These are specifically targeted at addressing deficits in public sector support, but are equally relevant to projects that are entirely funded by the private sector. These are tabled in the following summary.

SUMMARY: RESCUE problem-related proposals			
Ref	**Target**	**Field**	**Territory**
1	Introducing a set of sustainability criteria to guide funding towards sustainable brownfield projects.	Soil and waste reuse	Europe
2	Increasing the resources invested in research, technology development and demonstration.	Soil and waste reuse	Europe
3	Decoupling brownfield soil from waste legislation to streamline the process for reusing waste.	Soil and waste reuse	Europe
4	Recognising that a company is making efforts to promote sustainable development (eg by a Sustainability Label)	Soil and waste reuse	France
5	Including brownfield soil and waste recycling in regional waste management plans.	Soil and waste reuse	France
6	Facilitating corporate initiatives to promote recycling and reuse, including brownfield soils and wastes.	Soil and waste reuse	France
7	Ensuring that financial incentive(s) should avoid giving financial advantages indiscriminately to any remediation / redevelopment project	Soil and waste reuse	France
8	Issuing recycling permits to competent contractors.	Soil and waste reuse	Poland

Ref	Target	Field	Territory
9	Encouraging and assisting the development of local systems in order to re-use and recycle construction and demolition waste	Soil and waste reuse	Poland
10	Adapting and supplementing the rules for Structural Funding support for brownfield projects	Soil and waste reuse	United Kingdom
11	Focusing, co-ordinating and supporting research, technology development and demonstration activities.	Soil and waste reuse	United Kingdom
12	Phasing out the Landfill Tax Exemption scheme and increasing the Corporation Tax relief to compensate	Soil and waste reuse	United Kingdom
13	Preparation of and consultation on the "Comprehensive National Brownfield Strategy	Soil and waste reuse	United Kingdom
14	Preparation of – and consultation on – "The Regeneration Permit "	Soil and waste reuse	United Kingdom
15	Adapting and supplementing the rules for Structural Funding support for brownfield projects	Preservation of buildings and infrastructures	Europe
16	Encouraging the retention and refurbishment of existing buildings and infrastructures	Preservation of buildings and infrastructures	France
17	Introducing a new code for historic buildings	Preservation of buildings and infrastructures	France
18	Developing legal incentives and regulations that encourage the reuse of recycled demolition arisings	Preservation of buildings and infrastructures	France
19	Making sufficient financial support available for the retention of selected heritage buildings	Preservation of buildings and infrastructures	Germany
20	Making tax depreciation for building refurbishment applicable for buildings not listed as monuments	Preservation of buildings and infrastructures	Germany
21	Making thermal insulation activities eligible for funding	Preservation of buildings and infrastructures	Germany
22	Introducing funding on the model of the Foundation for the Preservation of Industrial Monuments and Historical Culture of North Rhine-Westphalia	Preservation of buildings and infrastructures	Germany
22a	Promoting the inclusion of industrial buildings in the listings of cultural heritage monuments	Preservation of buildings and infrastructures	EU

Ref	Target	Field	Territory
23	Introducing economic incentives that improve the competitiveness of reused and recycled materials. Developing regulations for reusing and recycling of building materials	Preservation of buildings and infrastructures	Germany, UK, Poland France
24	Increase public dissemination and promotion regarding energy conservation	Preservation of buildings and infrastructures	Germany
25	Creating an agency to regulate the energy market in order to accomplish Least-Cost-Planning (LCP) as a standard	Preservation of buildings and infrastructures	Germany
26	Replacing the existing national target for new homes on brownfield land with new regional targets	Preservation of buildings and infrastructures	United Kingdom
27	Introducing specific tax depreciation for sustainable brownfield regeneration, retention and reuse.	Preservation of buildings and infrastructures	United Kingdom
28	Setting up of a specific funding scheme and contemporaneously a public information campaign	Preservation of buildings and infrastructures	United Kingdom
29	Promoting the use of sustainable urban drainage systems	Preservation of buildings and infrastructures	United Kingdom
30	Resolving the current confusion concerning flood risk and brownfield redevelopment	Preservation of buildings and infrastructures	United Kingdom
31	Providing tax incentives that promote spatial development and private investment.	Sustainable land use and urban design	Germany
32	Abolishing the tax on purchase of land/ property at least for public purchasers on brownfield sites	Sustainable land use and urban design	Germany
33	Introducing land development licences that are tradable within the particular planning region among the municipalities as an additional steering instrument of regional planning	Sustainable land use and urban design	Germany
34	Introducing a tax on greenfield sealing, with the rate depending on the natural quality of the soil.	Sustainable land use and urban design	Germany
35	Establishing new public assistance programs at the national level	Sustainable land use and urban design	Poland
36	Creating new direct capital attraction incentives	Sustainable land use and urban design	Poland
37	Modifying property tax incentives	Sustainable land use and urban design	Poland

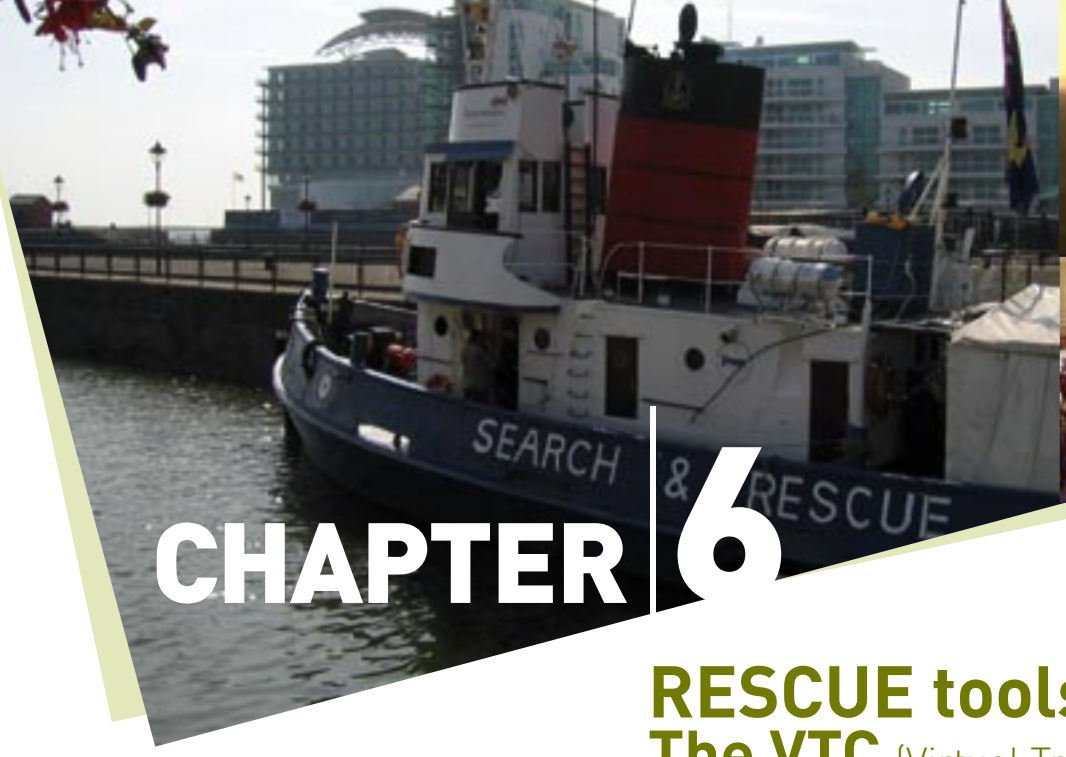
Ref	Target	Field	Territory
38	Introducing a range of legal and financial incentives in territories that need conversion efforts including a co-ordination structure.	Sustainable land use and urban design	France
39	Concentrating financial incentives on previously developed land in those regions that have a sufficient stock of brownfield land as a spatial basis for future economic development.	Sustainable land use and urban design	Germany
40	Creating a brownfields management system at the regional and national level	Sustainable land use and urban design	Poland
41	Focusing direct and indirect financial incentives at the regional scale (especially in areas that have large stocks of brownfield land)	Sustainable land use and urban design	United Kingdom
42	Obliging all industrial land users to build to build a financial reserve fund for remediation necessitated by the new site use.	Sustainable land use and urban design	Germany
43	Improving the legal conditions for interim uses of sites eg by introducing land use and construction permissions with temporary limits.	Sustainable land use and urban design	Germany
44	Facilitating interim green uses on brownfield sites by allowing the destruction of biotopes that have developed on brownfield sites in the interim period unless they possess examples of international significance.	Sustainable land use and urban design	Germany
45	Introducing ex ante sustainability assessment preconditions for direct public funding of brownfield projects	Sustainable land use and urban design	Germany
46	Introducing a set of sustainability criteria to guide funding towards sustainable brownfield projects.	Citizen participation	Europe
47	Developing a European model procedure for Citizen Participation	Citizen participation	Europe
48	Encouraging and supporting pilot projects	Citizen participation	Europe
49	Establishing a European local authority sustainable brownfield regeneration network	Citizen participation	Europe
50	Organising target group and joint conferences for all four interested groups (politicians, citizens, authorities and developers)	Citizen participation	Europe

Ref	Target	Field	Territory
51	Promoting and supporting training, dissemination, exchange of good practices	Citizen participation	France
52	Adapting French Trust legislation to allow the creation of environmental charities	Citizen participation	France
53	Comprehensively revising policy	Citizen participation	United Kingdom
54	Obliging developers to justify the quality of Citizen Participation	Citizen participation	Germany
55	Encouraging and supporting the formation of "Citizen Groups"	Citizen participation	Poland
56	Providing assistance and resources for "Citizen Groups"	Citizen participation	Poland
57	Providing assistance and resources for local authorities to build partnerships with Citizen Groups,	Citizen participation	Poland
58	Requiring local authorities to establish electronic environmental information systems	Citizen participation	Poland
59	Requiring advisory authorities, public financing organisations etc to appoint and maintain independent members	Citizen participation	Poland
60	Enabling NGO's to develop and execute selected projects in their specific domain of interest.	Citizen participation	Poland
61	Increasing the profile of ecological issues in educational programs.	Citizen participation	Poland

Sustainable Best Practices

There are no best practice examples of incentives in Europe for sustainable brownfield regeneration.

There should be.



CHAPTER 6

RESCUE tools : The VTC (Virtual Training Centre) and the SAT (Sustainability Assessment Tool)

Part A | Virtual training for sustainable brownfield regeneration

6.1 | The only thing i know...

- Sustainable brownfield regeneration is recognised as a complex process that requires multi-skilled people working in a multi-disciplinary team often without a clear set of rules or precedents. As experience accrues and projects reveal knew lessons, it is incumbent on all professionals involved in regeneration to update their knowledge, understanding and skills if they are to maintain their ability to contribute in an effective and efficient way.
- As such, ongoing learning needs to be a continuous process that results in many small incremental step changes in attitude and practices. A full working life precludes the luxury of many days away from work to acquire this training. Many professional bodies require evidence of continuous professional development in order for professional accreditation to be maintained. However these requirements are nowhere near enough to allow a wide range of topics to be covered in any one training year.

RESCUE has developed a virtual training centre (VTC) to allow newcomers to and practitioners in brownfield regeneration to acquire an awareness and understanding of the broad spectrum of topics considered by the Project. The RESCUE VTC consists

of 6 modules each of which comprises a series of lessons to achieve specific learning outcomes. The material has been designed to be accessible and understandable by someone going through it on their own without need to recourse to a teacher or trainer.

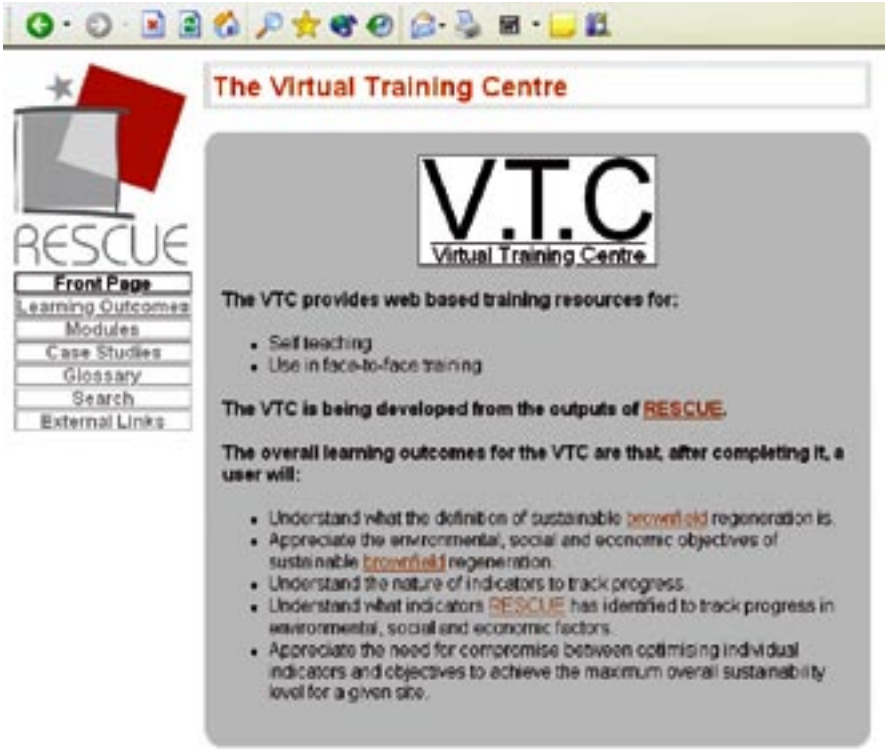


Fig. 6.1 : RESCUE Virtual Training Centre Front Page

The overall learning outcomes for the VTC are that, after completing it, a user will:

- Understand what the definition of sustainable brownfield regeneration is.
- Appreciate the environmental, social and economic objectives of sustainable brownfield regeneration.
- Understand the nature of indicators to track progress.
- Understand what indicators RESCUE has identified to track progress in environmental, social and economic factors.
- Appreciate the need for compromise between optimising individual indicators and objectives to achieve the maximum overall sustainability level for a given site.

The VTC is designed to offer easier access to RESCUE Project Findings than simply reading through the project's not inconsiderable outputs. Through guided reading, images, animations the self-learner gains an awareness of and understanding in a wide range of topics. The need for higher levels of learning, such as developing specific skills, will no doubt arise and it is hoped that self-learners will be inspired to deepen their skils base.

6.2 | Development of an analytical sustainability framework

RESCUE has developed an analytical sustainability framework. THE VTC material will develop the following knowledge and awareness about sustainability:

- Knowledge about evolution of sustainability concept.
- Knowledge about dimensions and scopes of sustainability.
- Knowledge about problems related to brownfield regeneration (complexity, interlinkages).
- Awareness about possible conflicting interests.
- Understanding of sustainability concept.
- Understanding of relevance of brownfield regeneration for sustainable urban and regional development.
- Understanding of need for context specific sustainability definition and objectives.

The Context within which regeneration takes place is a powerful influence on what type of regeneration is likely to last the test of time. The VTC material will develop the following knowledge and awareness about site context:

- Awareness of need to consider the local / regional context for brownfield regeneration.
- Understanding of legal and planning context.
- Understanding of historical and political development.
- Understanding of socio-economic situation.
- Understanding of environmental situation.

While it is impossible in the short or even medium term to determine whether a project is truly sustainable, a series of indicators have been determined which help diagnose circumstances likely to result in long term success. The VTC material will develop the following knowledge and awareness about indicators:

- Basic knowledge about purpose of indicators.
- Knowledge about different indicator frameworks.
- Understanding of context dependency of indicators (subjectivity).
- Understanding of the need for qualitative and quantitative, static and process oriented, and site specific and transferable (general) indicators.

6.3 | Management of contamination and reuse of soil and debris

It is widely accepted that not all brownfield sites are or are even perceived to be affected by contaminated. Nevertheless many former industrial sites have been contaminated and following the demise of their industry their regeneration requires the contaminated to be dealt with to ensure their fitness for the intended new land use.

The environmental context of a site will dictate what contamination related risks are present and how the contaminants will behave in the soil, water or air. The VTC material will develop the following knowledge and awareness about the environmental setting of a site:

- Awareness of the sources of contamination and potential impacts.
- Awareness of the natural environment.
- Awareness of the wastes disposal and reuse.
- Awareness of clean up techniques.
- Understanding of interaction soil, water, air.
- Understanding of chemical and biological impacts.

- Understanding of waste disposal technique.
- Understanding of clean up techniques.

The social acceptability of proposed works relating to the environmental context of a site will influence if not dictate the selection process. The VTC material will develop the following knowledge and awareness about the social acceptance of environmental aspects of a site's regeneration:

- Awareness of stakeholders concept.
- Awareness of social acceptance.
- Understanding of public communication and participation during site characterisation and remediation.
- Understanding of risk communication.

The economics of regeneration are influenced by the environmental context of a site. The VTC material will develop the following knowledge and awareness about the economic approaches to securing a site's regeneration:

- Awareness of economical parameters and constraints.
- Understanding of the economical constraints.

RESCUE has identified a large number of Decision Support Tools that may be of assistance in the Management of contamination and reuse of soil and debris. The VTC material will develop the following knowledge and awareness about these DSTs:

- Awareness of the existence of the different tools families and principles.
- Understanding of the application of decision tools during site characterisation and remediation.

6.4 | Management of existing buildings and infrastructures

The management, rather than demolition and replacement, of existing buildings and infrastructure can increase or at least make more likely the profitability of regeneration. The VTC material will develop the following knowledge and awareness about the reuse of existing buildings and infrastructure:

- Awareness of the need for renovating existing buildings
- Understanding of legal and land use context.
- Understanding of historical and social evolution of the site.
- Understanding of relevance of building regeneration for sustainable urban and socio-economic development.
- Understanding of need for preservation of historic buildings and reuse of existing buildings.

6.5 | Sustainable land use and urban design on brownfield sites

No land use function is per se more sustainable than another. The VTC material will develop the following knowledge and awareness about the inter relationship between urban design and whether or not a specific land use is likely to prove to be sustainable:

- Awareness of sustainability of land use as a site specific problem.
- Awareness of inter and intra-regional competition as a risk to and opportunity for brownfield redevelopment.
- Awareness of conflict between the stability of urban structures and the compatibility of uses within brownfield redevelopment (social, economical, cultural and architectural urban fabric).
- Awareness of the relation between brownfield site regeneration and regional economic development.

- Awareness of social, economic, environmental effects of brownfield projects on surrounding areas.
- Awareness of the ways brownfield redevelopment can generate employment.
- Awareness of how brownfields can act as barriers between urban districts.
- Awareness of the role of access as a spatial factor.
- Awareness of the natural and anthropogenic conditions of brownfield sites as constraints on for the reuse.
- Awareness of urban design as a means of saving resource
- Awareness of the significance of design quality for the sustainable success of brownfield projects.
- Understanding of strategic regional planning / regional land management as decision and management frameworks for brownfield redevelopment.
- Understanding of conflicts in the neighbourhood as a development risk for brownfield projects.
- Understanding of regional and local economic development strategies in their relation to spatial development and brownfield redevelopment.
- Understanding of integrated potential and restriction analysis as a tool to calibrate land uses in brownfield redevelopment.
- Understanding of the significance of flexibility and stepwise realisation for the stability / sustainability of brownfield projects.

6.6 | Sustainable planning processes and methods for citizen participation

Increasingly citizens expect and on occasions demand involvement in brownfield regeneration projects. The VTC material will develop the following knowledge and awareness about the nature and role of citizen participation:

- Awareness of what participation is
- Awareness of different participation levels
- Awareness of the Importance of a wide range of participants
- Understanding of the Importance and value of participation
- Understanding of how to identify stakeholders
- Awareness about relevance of legal conditions for citizen participation
- Understanding of how framing conditions influence the process of citizen participation

6.7 | Tools for the management of brownfield projects

Regeneration management involves the co-ordination and control of all measures necessary for the rehabilitation and return to beneficial use of sites. The VTC material will develop the following knowledge and awareness about the nature and role of project management:

- Awareness of the role a QA and QC plan.
- Awareness of the role of a project management plan.
- Awareness of the importance of the management of external flow of information
- Awareness of the role of the risk assessment methods in decision making
- Awareness of the cost benefit integrated approach.
- Awareness of the importance of the management of flow of information (internal).
- Understanding of the different phases of the project management plan.

6.8 | Using the VTC

The RESCUE VTC is a freely available on line learning resource. You simply need to visit **www.rescue-europe.com** and access the VTC page. You will be asked to register and can then proceed to the training material.

Part B | The Sustainability Assessment Tool (SAT)

6.9 | The need for the SAT

RESCUE's sustainability objectives are not equally relevant for all brownfield sites and locations. Their relative importance also varies from location to location and from stakeholder perspective to stakeholder perspective. A land use, design or construction methodology that proves to be sustainable at one site is not necessarily appropriate for another site, context, time or mix of stakeholders with different sets of priorities (FRANZ / PAHLEN 2005). Social acceptance is difficult to manage operationally as there are ethical issues related to the quality of life of affected individuals. These issues can only be addressed by the members of the community, (HABERMAS 1981; HABERMAS 1992).

Consequently, RESCUE rejected the concept of developing a fixed tool such as a checklist with quantitative indicators intended to be universally valid for all sites in all regions. Answers to such questions as "what kind of land use is appropriate or sustainable on a given site" depend on the spatial and socio-economic context of the site and also on the person answering the question. Sustainability cannot be defined generally for all brownfield projects. Questions have to be answered on a site by site basis including the views of relevant stakeholders.

RESCUE developed the Sustainability Assessment Tool to specifically assess the sustainability of future brownfield regeneration projects through a methodology that considers the variable parameters and conflicting priorities of brownfield regeneration projects.

6.10 | Using the SAT

There are three steps in assessing the sustainability;

• Actor collaboration to set priorities

The relative importance of the objectives has to be defined for each individual brownfield project – the actors set priorities on aspects of sustainability. This will happen by means of a workshop.

• Funding application by the project developer

On the basis of the weighed aspects of sustainability and all sustainability objectives the project developer elaborates a funding and/or planning application. These will be submitted to precisely the same agencies or departments as a normal application.

• Quantified assessment model (QAM) for decision making

The application will be assessed by a funding institution and/or a planning department. The EU/ funding agency/ planning department can evaluate how sustainable the project is and how public priorities were taken into account. (RESCUE 2004: 185). The three steps from actor collaboration to quantified assessment model can take - typically - one to two years.

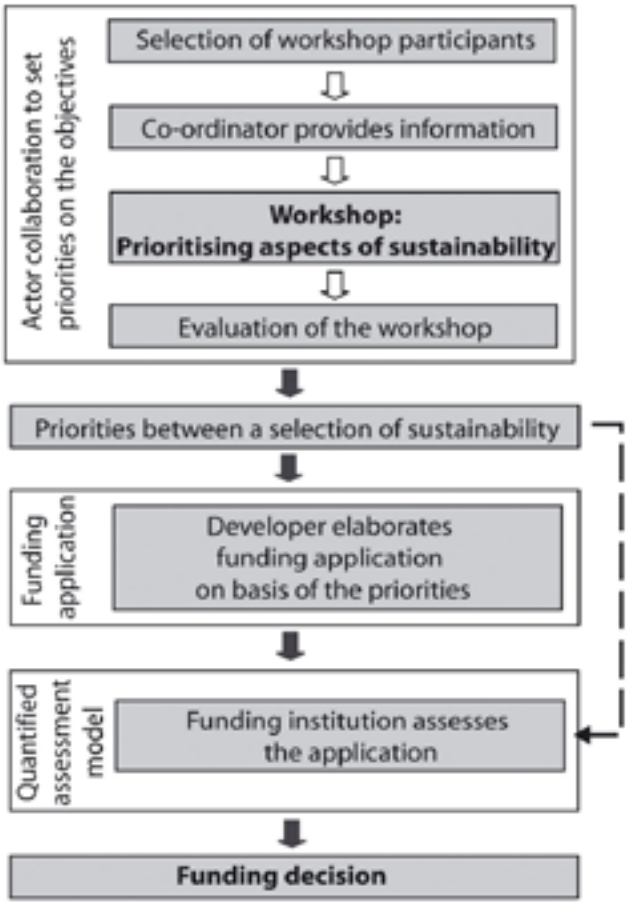


Fig. 6.2: Overview: The SAT-procedure (FRANZ / PAHLEN 2005)

→ The procedure is not limited to fundinf applications. Planning applications can also be assessed using the SAT procedures.

6.11 | Actor collaboration

In the use of the SAT different questionnaires are used. The first one is required to establish the priorities of the actors regarding aspects of sustainability, and is named Actor Collaboration Questionnaire. It includes weighting questions for the workshop participants with regard to infrastructure development and planning measures. The second questionnaire compiles all RESCUE sustainability objectives and / or indicators, which are addressed by the project developer in the form of statements, situation descriptions, and planned measures. The questionnaires are an integral part of the SAT. The order of events can be seen in Fig. 1.

6.12 | The co-ordinator

There is a need for neutral co-ordinators. The co-ordinators are responsible for controlling the composition of participants and for facilitating the prioritisation of objectives according to participation quality standards.

In additional to the core actors (owner of the site, investors, developer, etc), a diverse range of participants is needed for the workshop, recognizing that actors can be individuals, groups, or organizations. Actors set the priorities on sustainability

aspects. In consideration of the complexity of brownfield regeneration, a workshop with face-to-face communication can be regarded as an efficient approach, as the entire range of problems, solutions and ideas can be identified, discussed and shaped. In order to achieve sustainable results it is necessary to make different problem views and priorities clear to all parties. Only when the arguments and reasons for each others' choices are understood, can the search for appropriate local solutions that satisfy the different actors' interests be successful. The integration of participation in the funding decision process doesn't mean any loss of control for the relevant institutions; it simply differs from traditional decision making processes. (MAYNTZ 1997: 278 - 279).

6.13 | The workshop

The participants within the process should not discuss the detailed land use of the site – this would overload the workshop. They should consider the relevant sustainability objectives and those aspects of the objectives that are achievable on the site / in the quarter / in the city / in the region. This participatory process should take place in a workshop at an early stage in the project, e.g. when the first project ideas exist.

A workshop can be used to manage conflicts and prevent investors, developers and politicians from overlooking the local needs, opportunities and threats of the site development. It should also be considered that the risk of delay or total failure due to potential opposition to the project is reduced.

Other benefits for investors, planners and developers are:

- The possibility to confidently apply for public funding from certain programmes.
- Increased planning security.
- Increased project promotion opportunities.
- Improved local acceptance, saving time and money for marketing and conflict resolution.
- A leaner and more target-oriented implementation phase.

The tool also offers benefits for the citizens, because they have the possibility to influence the project from a very early stage of the project.

6.14 | Limitations

The SAT also has limits:

- To be effective, the SAT should be used in an early stage of the project.
- For the process to be genuinely inclusive, the project developer must respect the methodological approach proposed in the SAT. If he wishes to misuse the SAT, he can do so, i.e. by manipulating the selection of stakeholders so that only those stakeholders that are support his interests are included.
- Preparation and co-ordination of the SAT workshop incurs costs. These should be assessed carefully against the risks (and costs) of failure or delay, e.g. by ignoring citizen interests and provoking legal complaints. The costs to accomplish this additional task in the planning process will be compensated by a leaner and more target orientated implementation phase.
- As this procedure requires an amount of money, work and time, this tool is designed for brownfield regeneration projects of a minimum scale. Any decision to make the SAT obligatory should be linked to criteria set up by

the funding institution, e.g. a minimum funding amount.

- Not all sustainability objectives can be weighted, e.g.
- The objectives that apply to management of contamination and reuse of soil and debris cannot be weighted as they have to be achieved as an obligation (e.g. health and safety plan) and are regarded as a general quality standard for brownfield regeneration projects.
- The objectives concerning sustainable planning processes / methods for citizen participation / tools for the management of brownfield projects define the quality of the overall process in terms of sustainability.

Therefore, only the objectives concerning the management of existing buildings and infrastructure and sustainable land use and urban design on brownfield sites should be weighted (e.g. commercial use versus housing etc.).

6.15 | Prioritising

There are different levels of priorities that make sense for the participants of the workshop. For example in the weighting questions concerning land use and urban design, priorities of different objectives are important, but the allocation of points in checklists can also be valuable. A good example is Objective 4.4: «To achieve benefits for and prevent adverse impacts on the local neighbourhood.» For this objective, the Actor Collaboration Questionnaire includes a checklist. The participants allocate ten points to the offered benefits in the checklist. The participants are encouraged to highlight which benefits they regard as the most important for their local neighbourhood. Examples are jobs, facilities to improve health, well-being and recreation (e.g. small streets, land uses that cause only little traffic, low-emitting enterprises, green areas, medical infrastructure) and educational and social infrastructure (e.g. schools, kindergardens, centre for young people, doss houses).

It is important to understand the priorities of the participants of the workshop at this detailed level. If questions are only focused on the need for benefits everybody will agree, but in order to achieve usable results the benefits need to be specified. Consequently, checklists were developed for all of the objectives that need weighting. The workshop participants should prioritise the variables at this detailed level, objective by objective, to be effective in their role in the process.

The prioritising procedure in the workshop has different steps. Every group completes the questionnaire. Most of the weighting questions are designed as 'allocation questions': The stakeholder has to allocate points in order to weight the relevance of several given answers. This technique delivers data which can be easily analysed and transferred into results that are measurable. The prioritisation of aspects in the questionnaire is discussed until everyone within a particular stakeholder group is satisfied with the scoring. If this is not possible, they should vote and the average number is taken as the group points.

6.16 | Funding application

The project developer prepares the funding application on the basis of the weighted objectives. The funding application comprises statements and measures concerning all sustainability objectives, underpinned by the indicators. In addition, the developer has the opportunity to qualitatively explain the way that his project proposal implements the objectives.

6.17 | Assessing the funding application

The funding application for a brownfield project will be assessed by a funding institution. The third stage of the SAT, the Quantified Assessment Model to aid decision-making (QAM), takes the weightings and converts them into workable standardised data. The evaluator (working on behalf of the funding institution) weighs the various elements of the project according to the qualitative arguments and explanations provided by the project developer. The two sets of weightings (actors and evaluators) are then used to calculate the total project score. In this way it is possible to benchmark the sustainability of the project as a whole without generally benchmarking individual indicators.

RESCUE recommends that public funding for brownfield regeneration projects should be predicated upon a presumption that sustainability objectives will be adhered to. This would be a remarkable innovation and could contribute significantly to a more beneficial use of public money and to an improvement in the quality of brownfield regeneration projects. The Sustainability Assessment Tool (SAT) has been developed by RESCUE for this purpose.

Conclusions, Key Recommendations and Integrative Expectations

Conclusions

The clearest, starkest message that the reader may have absorbed from this document is that there are two chapters that are devoid of best practice – Chapter 4 (Designers, Contractors and Professional Advisors) and Chapter 5 (Incentives, Economic Tool and Funding Criteria). This concurrent deficiency is, perhaps, inevitable when the Designers, Contractors and Professional Advisors are dependent on those who define and administer the incentives that underpin most regeneration activity, the current criteria for which appear to have little potential to materially support, let alone deliver, sustainable brownfield regeneration activities.

Key Recommendations for Project Managers

"We are what we repeatedly do. Excellence, then, is not an act, but a habit."
- Aristotle -

- Think big, aspire to significant achievement. It is easier to make money than to make a difference.
- Don't just manage, you should lead and inspire. You are in the unique position of having highly skilled people in your team who will contribute high quality input to your integrated vision. Give them a star to congregate around.
- Focus on the organisation and management of the project, without interfering too much with the technical planning issues.
- Generate an integrated view on the planning and remediation activities. Both aspects need to be dealt with in an iterative process with one influencing the other.
- Keep stakeholders informed. They are all partners in the project with potential losses and gains. You are in a position of trust in a situation where you can make the difference between success and failure.

Integrative Expectations of Project Managers

• Of all stakeholders
A clear and durable commitment to mutually agreed, possibly evolving, objectives for the project.

• Of Landowners/Developers/Planners
Goals, timeframes and resources that underpin project delivery.

• Of Policymakers/Regulators/Citizens
Frameworks, regulations, incentives and administrations that are consistent, committed to regeneration principles, neither too broad nor too narrow to promote sustainable outcomes, and that enable and facilitate project delivery.

• Of Designers/Contractors/Advisors
Visions, plans, methodologies and 'products' that make the project desirable, affordable, deliverable and sustainable.

Key Recommendations for Landowners, Developers, Planners

"You can complain because roses have thorns, or you can rejoice because thorns have roses"

- Ziggy -

- Sustainable brownfield regeneration projects need:
  - a well structured development process with clearly defined project milestones (project vision, integrated analysis of the project's restrictions and potentials, project structure plan, integrated spatial concept).
  - collaboration with planners, architects, engineers and other experts to start early in the design process.
  - the involvement of a wide range of different experts' opinions in the development processes to produce suitable outputs
  - comprehensive spatial strategies and collaboration on the regional level.
  - integration into their specific regional, local and neighbourhood contexts.
  - an integrated view on planning and remediation activities.
  - to be embedded into regional or local economic strategies that target to develop economic clusters and growth sectors.
- Brownfield regeneration projects offer various opportunities to save land, water and energy. These issues need to be considered from the projects' initiation.
- Existing buildings should be considered as assets in brownfield regeneration projects and maintained as far as possible.
- Good communication and early citizen participation is a prerequisite for sustainability.
- Be aware that you need professional advisors with both in depth knowledge of their area of expertise as well as an understanding of how that expertise fits into the overall project execution process.
- True expertise is much sought after, does not come cheap and is in limited supply. Develop long term relationships with key professional advisors, rather than putting every small item of work out to tender. This is likely to result in better advice and overall lower costs.
- View contractors as specialists with much expertise to bring to a project who deserve respect and the chance to make a profit from their efforts.
- Incentivise contractors to achieve their goals in a sustainable way. See beyond the horizon of your own project and see each project as an opportunity to invest in the human, technical and institutional capital contractors bring to bear.

Integrative Expectations of Landowners, Developers, Planners

- **Of all stakeholders**

A clear and durable commitment to mutually agreed, possibly evolving, objectives for the project.

- **Of Project Managers**

A dedicated pursuit of the given goals and timeframes.

- **Of all Policymakers/Regulators/Citizens**

A clear understanding of the existing constraints in brownfield regeneration, resulting in the establishment of a supportive regulatory framework.

- **Of Designers/Contractors/Advisors**

Visions, plans, methodologies and 'products' that make the project desirable, affordable, deliverable and sustainable.

Key Recommendations for Policy-makers

"The one who adapts his policy to the times prospers, and likewise the one whose policy clashes with the demands of the times does not"

- Niccolo Machiavelli -

- Introduce a set of sustainability criteria to guide funding towards sustainable brownfield projects.
- Increase the resources invested in research, technology development and demonstration.
- Decouple brownfield soil from waste legislation to streamline the process for reusing waste.
- Recognise that a company is making efforts to promote sustainable development (eg by a Sustainability Label)
- Include brownfield soil and waste recycling in regional waste management plans.
- Facilitate corporate initiatives to promote recycling and reuse, including brownfield soils and wastes.
- Ensure that financial incentive(s) avoid giving financial advantages indiscriminately to any remediation / redevelopment project.
- Encourage and assist the development of local systems in order to re-use and recycle construction and demolition waste.
- Adapt and supplementing the rules for Structural Funding support for brownfield projects in the field of soil recycling/reuse, retention and refurbishment of existing buildings and infrastructures and citizen participation.
- Focus, co-ordinate and support research, technology development and demonstration activities.
- Promote the inclusion of industrial buildings in the listings of cultural heritage monuments.
- Introduce economic incentives that improve the competitiveness of reused and recycled materials.
- Promote the use of sustainable urban drainage systems.
- Introduce land development licences that are tradable within any particular planning region among the regional municipalities as an additional steering instrument of regional planning.
- Introduce a tax on Greenfield sealing, with the rate depending on the natural quality of the soil.
- Focus direct and indirect financial incentives at the regional scale (especially in areas that have large stocks of brownfield land).
- Improve the legal conditions for interim uses of sites eg by introducing land use and construction permissions with temporary limits.
- Develop a European model procedure for Citizen Participation.
- Establish a European local authority sustainable brownfield regeneration network.
- Oblige developers to justify the quality of Citizen Participation.
- Encourage and support the formation of "Citizen Groups"
- Providing assistance and resources for local authorities to build partnerships with Citizen Groups.

Integrative Expectations of Policy-makers

• Of all stakeholders

A transparent and durable commitment to legitimate and possibly evolving objectives

• Of Project Managers

Skills of information/discussion/mediation with the public, including risk communication

Justification of the quality of Citizen Participation

• Of all Regulators

An impact assessment on existing and future legal frameworks

Consistency between "horizontal" policy sectors/procedures and "vertical" national planning levels

A close cooperation to favour and innovation

Simplified procedures with citizens

• Of Citizens

An involvement in civic life (personal and collective)

Participation in NGOs or structured groups

A sense of ownership of the project

• Of Designers/Contractors/Advisors

A multidisciplinary expertise to enable a balanced decision-making process

Key Recommendations for Regulators

"One change always leaves the way open for the establishment of others."

- Niccolo Machiavelli -

- Decouple brownfield soil from waste legislation to streamline the process for reusing waste.
- Include brownfield soil and waste recycling in regional waste management plans.
- Facilitate corporate initiatives to promote recycling and reuse, including brownfield soils and wastes.
- Issue recycling permits to competent contractors.
- Encourage and assist the development of local systems in order to re-use and recycle construction and demolition waste.
- Focus, co-ordinate and support research, technology development and demonstration activities.
- Develop regulations for reusing and recycling of building materials.

Integrative Expectations of Regulators

• Of all stakeholders

A transparent and durable commitment to legitimate and possibly evolving objectives

• Of Project Managers

Strategies, plans, proposals and activities that are imaginative, environmentally and socially acceptable and that create a benefit to the site, neighbourhood and region.

A management process that includes sufficient consultation to develop optimal agreements.

• Of all Policymakers/Citizens

Frameworks and rules that are clear, effective, enforceable and which encourage sustainable practices/discourage sustainable practices either legally or financially.
Well organised and informed citizens who engage in the development process to create sustainable outcomes in a pro-active way and work 'with the grain' alongside other stakeholders.

• **Of Designers/Contractors/Advisors**
Visions, plans, methodologies and 'products' that make the project desirable, affordable, deliverable and sustainable.

Key Recommendation for Citizens

"He who asks a question may be a fool for five minutes, but he who never asks a question remains a fool for ever"

- Tom Connelly -

Get involved

- Be willing to be informed or to participate.
- Decide how much time you are you ready to devote.
- Join or create an association or organization.
- Establish the project contact point
- Find out if other important groups are likely to be affected by the project. Where can they be contacted? (local childcare centres, churches, commercial facilities etc)

Expect high quality information

- Be well informed about the project.
- Expect information to match local needs.
- Expect the project manager to be transparent about his sources of information.
- Expect the information to be correct and easily understandable for all stake-holders.
- Expect full access to information (available, free of charge, on time, frequent)

Control over use of information

- Is critical information (e.g. adverse impacts of the project on the local neighbourhood) and / or contradictory expertise available?
- Is there a budget for alternative expertise you could be entitled to?
- Is there a book available to record any potential complaints on dust and noise?
- Have/will the Local Authority and project managers make efforts to explain scientific, technical or procedural information about contamination issues, Health and Safety regulations etc?

Publicity and documentation

- Meeting dates and agendas should be publicised in the appropriate media.
- Responsible actors should be identified and their contact details made accessible for the public.

Information flow

- Expect it to be two ways, a continuous and transparent information process with systematic feed-back.

Integrative Expectations of Citizens

• Of all stakeholders

A transparent and durable commitment to legitimate and possibly evolving objectives

• Of Project Managers

An integration of citizen participation since the early steps of the project
Implementation of varied and adapted CP techniques

• Of all Policymakers/Regulators

A political will to encourage Citizen participation beyond legal requirements
A bottom-up guidance and local public management
Implementation of subsidiarity
Simplified procedures
Easy and free access to information
Popularization of technical and procedural information
Systematic feed-back
Resources for information/consultation/training/alternative expertise

•Of Designers/Contractors/Advisors

Integration of cultural heritage in urban design
Consultation of end-users (neighbourhood) since the early steps of the process (e.g. design charettes)

Key Recommendations for Contractors

"**it, - lets do it."** **- Australian proverb -**

• Contractors have unique skills in making things happen, responding to changes and solving problems. The long periods of close collaboration involved in many projects result in intense loyalty and a desire by individuals not to let the side down. This attitude needs to extend to the broader team – including consultants and clients, future occupiers of and future neighbours to regenerated sites.

Integrative Expectations of Contractors

• Of all stakeholders

A clear and durable commitment to mutually agreed, possibly evolving, objectives for the project.

• Of Project Managers

Seamless time, resource and stakeholder management that provides a solid foundation for contract delivery

• Of all Policymakers/Regulators/Citizens

Requirements that are practical, effective, and deliverable in commercial timeframes.

• Of Designers/Advisors

Products and services that satisfy all stakeholders

Key Recommendations for Designers

"Teamwork is the ability to work together towards a common vision and to direct individual accomplishments towards organisational objectives. It is the fuel that allows common people to attain uncommon results."

- Andrew Carnegie -

• Designers seeking sustainability should listen to every voice. Design charettes (Macourt 2005) for the end-users (neighbourhood residents or office employers) should become standard practice as part of this listening phase. Early consultation with systems consultants, engineers and other experts should happen.

• Designers should anticipate – if not drive - the fast moving developments in urban design and architecture. Land use needs change over time and with spatial, social, economic and ecological conditions. Flexible forms of design and construction for buildings that keeps their decommissioning or renovation into a new future use in mind are needed.

• Energy consumption needs to be minimised, maintenance should be optimised and the use of renewable solar heat and light should be maximised. Cultural shifts – such as the Japanese premier's edict that his ministers will shed their jackets and ties to reduce the need for air conditioning – can be encouraged by relevant forms of design.

Integrative Expectations of Designers

• Of all stakeholders

A clear and durable commitment to mutually agreed, possibly evolving, objectives for the project.

• Of Project Managers

Creating and maintaining clear communication lines between stakeholders to engender and reinforce harmony between project needs, design, delivery and outcomes.

• Of all Policymakers/Regulators/Citizens

Policies, regulations and actions that underpin project design to encourage delivery of sustainability objectives.

• Of Contractors/Advisors

Practical and informed operational and intellectual input that supports the development and implementation of sustainable practices.

Key Recommendations for Professionnal advisors

"Choose always the way that seems the best, however rough it may be. Custom will soon render it easy and agreeable."

- Pythagoras -

• The way consultancy firms develop, motivate and encourage their staff is a good indicator of where such organisations stand in the knowledge economy. In the UK the SILC (www.silc.org.uk) professional accreditation system is seeing a raising of client expectations.

• Professional advisors have a duty to both ensure that they are delivering high quality advice and that they are able to work within a multi disciplinary context with other professionals, other organisations and other business, commercial or social cultures. In this way regulators will be faced with consistent and policy compliant proposals and will be better placed to provide the consistent regulatory response which RESCUE identified that advisors desire.

• The availability of and access to information is increasing. Professional advisors therefore have the opportunity to exploit this explosion in information and to suffer if they are not au fait with current developments, emerging practice and forthcoming regulations. In short, advisors are in a never-ending race to stay ahead of the competition and their clients in their stock, and use, of intellectual capital.

Integrative Expectations of Professionnal advisors

• Of all stakeholders

A clear and durable commitment to mutually agreed, possibly evolving, objectives for the project.

• Of Project Managers

Creating and maintaining clear communication lines between stakeholders to engender and reinforce harmony between project needs, design, delivery and outcomes.

• Of all Policymakers/Regulators/Citizens

Policies, regulations and actions that underpin project design to encourage delivery of sustainability objectives.

• Of Designers/Contractors

Practical and informed operational, aesthetic and technical input that supports the creation, development and implementation of sustainable practices.

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Best Practice Guidance
for Sustainable Brownfield Regeneration

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The manual is presented by the authors on behalf of the RESCUE partners, in particular the members of the editorial board.

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