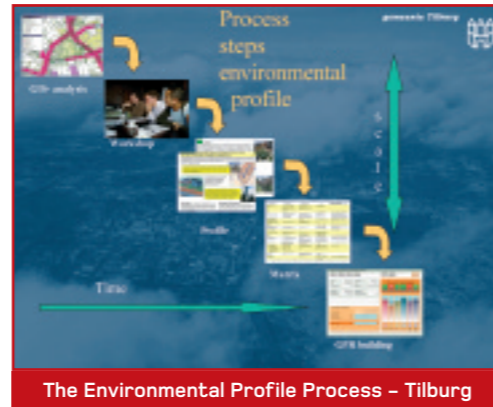


Sustainability

With the implementation of European legislation on Strategic Environmental Assessment [SEA] and Environmental Impact Assessment [EIA] the sustainable development agenda is growing in importance in respect of brownfield site redevelopment. In the UK it has become mandatory to undertake strategic environmental assessments for new developments. In the other partner countries there is recognition that inner urban development must be based on sustainable development principles.

During the early stages of the REVIT project there was an aspiration to have a common set of sustainable indicators and targets for use on all partner sites. Research was undertaken to examine the different legislative requirements for conducting sustainable development appraisals and how such indicators and their targets are used within each partner country. The REVIT project found, however, that there are a vast array of indicators, targets and ways of assessing and measuring sustainable development and that a common set would not be a useful tool for the assessment and redevelopment of brownfield sites. The partnership agreed that it is important to use appropriate indicators, through a process of involving key stakeholders and to work through an agreed framework of continual assessment, coupled with a management plan, in order to apply sustainable development principals on brownfield site development.

This participatory approach, which has been based on the Sustainable Assessment Tool from the RESCUE (FP5) project (www.rescue.europe.com), has had additional benefits: it has raised the awareness of sustainable issues amongst professionals, politicians, government employees, investors and the general public. In Medway, the publication of the Green Charter, a statement to raise environmental standards for new buildings, has had wide publicity and it now forms central policy for brownfield development in the Medway area.



The Environmental Profile Process - Tilburg



Sea transportation of sand: reducing environmental impact - Medway

During the REVIT project, different approaches have been developed to actively manage sustainable development elements on partner brownfield sites.

1. The first of these includes a sustainable assessment model for large scale remodelling of a site, based on the Rochester Riverside development. This project involved over 800,000 tons of fill to be transported to the site. An options appraisal was conducted, reviewing the feasibility for road or sea transportation of the sand to provide the required fill. The costs and benefits of both options were considered as well as the environmental and social impacts. A decision was made to use sea transport, based on costs but also showing wider sustainable advantages, such as saving lorry journeys that would have contributed to noise, pollution and congestion. Once this method was agreed, a management plan was developed and this formed part of the agreement with the Environment Agency and the Local Authority in terms of gaining legislative consent and planning permission, respectively.
2. Medway Renaissance has developed a Green Charter, as part of the REVIT project, to set targets and promote its sustainable development agenda. An important part of this process was the completion of the South-East England Development Agency [SEEDA] sustainability checklist: a pre-requirement for funding and a method of assessing the many aspects of sustainable development. The Green Charter was developed by agreeing a set of sustainable targets to be met in respect of new buildings on the Rochester Riverside site. These targets are higher than the national sustainable building standards known as the Building Research Establishment Environmental Assessment Method [BREEAM]. The aims of the Charter are to integrate, promote and ensure that a higher than average standard is achieved for this and other brownfield sites in respect of building standards. This was possible since the Council is in control of the site and has therefore had the opportunity to be innovative and aspirational. This Charter is now a requirement for developers, who will be supported with information on new technologies to reduce water, energy waste and materials in the planning and building on these sites. To assist with this information flow, Medway, like Stuttgart, is testing a tool developed by the Tilburg Partner.
3. Tilburg has developed three different tools that integrate environmental themes into spatial plans. These are: The Environmental Profile Process; the sustainable building tool (GPR); and the Industrial Estate Atlas. They are fully described in the Tilburg Area Report.
4. In Stuttgart, a Planning Workshop was used as a tool for public discussion and for the identification of site-specific objectives and indicators for sustainable development. This formed a part of the stakeholder engagement processes of urban development on the REVIT site. It was important to obtain political backing for the goals and contents of the workshop before it was carried out. Well-advanced development proposals were formulated before the workshop and local



Sustainable design



Sustainable building



Green Charter - Medway

council staff were involved in the engagement process to ensure that they would take the results of the workshop into account when refining their masterplan proposals. Three main phases have to be taken into consideration when undertaking this type of workshop: the preparation phase, the workshop phase itself and the follow-up phase.

- During the preparation phase in Stuttgart, an organisation team was set up. One of the preparatory meetings was used to compile objectives and indicators implied or explicitly stated in existing plans.
- The workshop itself was opened by keynote presentations, which described existing development goals; the project's importance and opportunities for urban development; the cornerstones for the development; and the functions and opportunities relating to objectives and indicators. Different working groups were then given time to discuss, modify and prioritise the objectives and indicators previously identified by the preparation team.
- The REVIT Planning Workshop was documented in detailed minutes. The administration is committed to take account of the workshop results in planning for the future development of the site. A policy paper on "modules for sustainable development" may be adopted by the local council to serve as a basis for urban-development and purchase contracts.

Apart from these specific approaches, the REVIT partnership has produced a sustainable development evaluation toolkit and process for brownfield site applications. This is based on the principle that redeveloping brownfield sites is an ever-changing process and the methodology needs to take account of this. The process is based on agreeing indicators and targets on three scales of development; for example, on the area plan level e.g. 1:10,000, or a masterplan level, e.g. 1:2,500, or for individual buildings e.g. 1:500. This allows for each site to be evaluated within its own context. Thus, indicators and targets are developed on a site-by-site basis taking into account local legislation requirements and local regeneration and sustainable development strategies. It is recognised that it is not possible to have a balanced sustainable development strategy on each site. Some sites may have an economic bias, others social and others may lean more towards the natural environment. The REVIT project has also determined that stakeholders should be involved when making decisions regarding the level of importance of different sustainable targets and issues and that this should be backed up with ensuring institutional support for the decision making process.



One of the ways of making brownfield sites more attractive to developers and end-users is to provide assurance that they provide a safe and good living and working environment. Working with sustainable development principals is a key way of achieving this. Setting higher environmental performance standards gives added value to a site and can contribute to the remediation costs where high land values are realised.

The REVIT project has shown that it is necessary to gain consensus on sustainable development issues, including indicators and targets, and that this is best achieved on a site-by-site basis. This process in itself increases public, professional and political awareness of sustainable and environmental issues related to brownfield sites. It has been found that these issues should be part of the first stages of a project, as key environmental, economic or social issues missed in the early stages of planning can cause delays, add costs and create poor perceptions of the new uses for brownfield sites.

Investors, developers and end-users need to have assurances on brownfield sites: better sustainable planning and management can provide this. In addition, sustainable targets and indicators allow for the long term monitoring of a site. All these aspects require clear consensus and responsibility for their planning, implementation and management.

Recommendations and Conclusions:

1. Environmental legislation at both the EU and local levels is a key consideration for sustainable development during the planning and redevelopment of brownfield sites.
2. It is important to recognise that brownfield sites frequently have a greater negative impact on sustainable issues than standard urban development sites. These include environmental, economic and social issues.
3. Sustainable targets and indicators for brownfield site redevelopment should be relevant to the area and the site as well as relate to national and local sustainable development policy and strategy.
4. It is essential to undertake a sustainable development assessment, followed by a management plan and supported by plans for monitoring, reviewing and auditing. At the outset it is necessary to agree responsibilities for sustainable development issues and who is able to make decisions.
5. Stakeholders, both professional and members of the community, are key to devising and agreeing sustainable development indicators and targets. This process itself heightens the awareness of sustainable development issues for all involved. Sustainable development workshops have been found to be a good way of engaging, influencing and informing stakeholders.
6. New remediation techniques that rely on natural processes, such a bio-remediation, take time to be effective. This should be factored into the project phasing.
7. New technologies that support sustainable development can be promoted through policy, the use of planning tools and software that shows how these can be deployed on new developments.
8. Brownfield sites that have been developed along the sustainable development principles offer investors, developers, local government and end-users greater assurances that risks often associated with brownfield sites have been addressed. This also provides a positive marketing message.