LUDA E-compendium: Handbook E4

Integrating assessment into sustainable urban regeneration
Introduction

This handbook describes the urban regeneration process, with a particular focus on the role and importance of carrying out assessment. Assessments are intended to support decision-making that seeks to make urban regeneration more sustainable (according to the concept of sustainability described in handbook E2). This handbook looks at the stages preceding implementation of an urban regeneration programme, where careful, rational consideration can assist stakeholders to identify the ‘best fit’ option for the community.

This handbook justifies why assessment should support decision-making in sustainable urban regeneration. Most importantly, this handbook provides guidance on what, when and how to carry out assessment. This handbook tries to answer the following questions:

- What is assessment in sustainable urban regeneration? (Section 1)
- Why is it important to integrate assessment into the urban regeneration process? (Section 2)
- How to integrate the assessment activities into the regeneration process? (Section 3)

Handbook E4 is supported by Handbook E5 – LUDA Assessment Decision Support System. This is a database of the methods and techniques recommended for use throughout the Regeneration Process. The database allows users to select the method that is the most applicable to their problem.

This handbook and the LUDA Assessment Decision Support System (handbook E5) are targeted at a professional audience: urban practitioners, planners, property developers, city authorities, representatives of government bodies, professional actors and those with an interest in the regeneration of LUDAs. The main aim of this handbook is to provide these professionals with advice about incorporating assessment into the process of sustainable urban regeneration.

The e-compendium is designed to be used online. The text includes interactive links which allow you to move around the document, to link to other handbooks, or to open websites. Links are shown as coloured text. You can also find the links by looking for icons in the page margins, as shown here.

If you prefer to read this handbook like a normal book, then you can print it out. Please note that all of the handbooks are designed for double-sided printing.

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1. What is ‘assessment’ in urban regeneration?

Large Urban Distressed Areas (LUDAs) suffer from interlinked social, economical and environmental distress, as well as of problems of faulty urban structure and weak institutional capacity. In addition, the large size of LUDAs, their internal diversification and the number of their inhabitants magnify the complexity of the problem, as described in handbook E2.

Therefore, the challenge of reversing the decline of these areas is a large and intricate task that usually spreads over many years from inception to the point in time when the area is considered sufficiently recovered and the special measures that have been put in place are completed.

A holistic and cohesive approach to improving the situation in rundown areas is sustainable urban regeneration (SUR) – a concept based on the following two principles:

- Equal importance of economic, social and environmental issues. Integrative thinking about urban areas, their problems and potentials is necessary to develop ‘win-win’ strategies tackling all forms of distress (see handbook E2).
- Empowering the various stakeholders to participate in decision-making through development of common vision of the stress-free future, that integrates knowledge and experience of various urban professions (urban policy-makers, planners, property developers, designers and constructors) with the needs and wants of local communities (see handbook E3).

Sustainable urban regeneration can be put into practice by following the step-wise logic of the LUDA regeneration process.

1.1 What is the LUDA regeneration process?

As the main aim of regeneration of LUDAs is to reverse the social, economic and physical decline and meet sustainable development goals, the approach to regeneration taken by the LUDA project concentrates on strategic, well thought-out planning, preceding any actions undertaken. Decision-making in the regeneration process must be supported and informed by assessment activities, aiming at providing a ‘best-fit’ development option capable of sustaining ‘maximum benefit’ to the community affected by its implementation.

The LUDA regeneration process set out below represents a generalisation and simplification of the planning process in urban regeneration in the majority of EU countries, supported by the regeneration experience in the reference cities. The regeneration process comprises tasks that are grouped into the following steps (see also Figure 1):

1. Identifying the LUDA area and recognising the stress features present in the LUDA,
referred to as DIAGNOSIS,
2. Participation in creating a stress-free vision for the LUDA — VISIONING,
3. Translating the vision into a coherent master plan — PROGRAMMING,
4. Putting the programme into practice — IMPLEMENTATION
5. Evaluating the success of the programme — MONITORING.

Figure 1: Regeneration Process — the steps

The step-wise process of urban regeneration, set out in Figure 1, starts with diagnosis, when the distressed situation in LUDA is being recognised, in terms of environmental, social, environmental and ecological conditions as well as the spatial boundary for action. This picture of the situation provides the context and the ‘springboard’ for creating the vision of the desired stress-free future, which is developed in participatory manner in the visioning step. This vision is embedded in the framework of policies accompanied by a set of objectives and targets. During the programming step this vision is translated into the urban regeneration plan (master plan), setting the regeneration and related policies in space and time. This plan is then ‘fleshed out’ through individual projects and initiatives developed and then put into practice in through the implementation stage.

The performance of the individual projects and the entire regeneration programme is evaluated through the monitoring stage by comparing the outcomes against the targets. Overall changes in the quality of life in the LUDA are assessed through the use of appropriate indicators in the monitoring phase. Evaluation of the monitoring results provides feedback to the programming and implementation steps and can be used to review and revise a regeneration programme over time and to adjust it to new challenges.

1.2 The role of assessment in the regeneration process

Assessment is a general term for any processes of evaluation or estimation. In the case of urban regeneration, the purpose of assessment is to underpin decision-making throughout the regeneration process. The assessment activities should integrate the planning steps in the
course of sustainable urban regeneration, from the recognition of distress, through to establishing objectives, programming and implementation to the monitoring and final evaluation of outcomes.

The LUDA sustainable regeneration process provides an approach to urban regeneration planning that amalgamates four established participative planning procedures that seek to structure the re/development process and its assessment:

- **Collaborative Strategic Goal Oriented Programming (CoSGOP),** emphasising the importance of participation of all stakeholders in a flexible and responsive planning process [see Annex 1]
- **Strategic Environmental Assessment (SEA),** the recently introduced legal basis for assessment in the EU member states
- **Sustainability Appraisal (SA) – the UK’s approach**
- **Prospective Process through Scenarios (PPtS)** an approach to participative visioning adapted from techniques originating in the business sector.

SEA puts the emphasis on identifying the baseline conditions for any major re/development proposal, such as the regeneration of large distressed areas. In this context the SEA process provides for managing and monitoring through the assessment of impacts of the regeneration initiatives. SA and CoSGOP are objective-led processes. They focus on setting objectives and targets against which various regeneration options can be assessed. Finally, PPtS focuses on the use of futures techniques and stakeholders’ involvement, emphasising the development of shared objectives and shared vision of a stress-free future.

The applicability of these four process methods to the sustainable urban regeneration has been proven by the renewal strategies adapted by the reference cities. Four main approaches to the regeneration included:

- **Asset-Based Community Development (ABCD),** an attempt to building sustainable future on the community and individual strengths, talents and resources. Similar stakeholder-centred approach is represented by CoSGOP.
- **Needs-oriented strategy** and **potential-based strategy,** focusing on the recognition of the baseline situation in a like manner to SEA.
- **Vision-oriented strategy,** in the LUDA approach present by integrating the futures thinking (similarly to PPtS) and goals and objectives to be achieved (like SA) into the regeneration process.

The way these four planning processes have been mapped and integrated together to create the LUDA regeneration process as described here, is explained in more detail in Annex 1.
Combining these procedures in the regeneration process outlined above and elaborated below enables regeneration professionals to:

- satisfy EU legal requirements;
- engage with all stakeholders;
- follow a logical regeneration process where a number of assessment activities can be linked to the main decision points, i.e. tasks to be completed in order to properly inform decision-making; and,
- be directed towards the assessment methods and techniques most appropriately employed to carry out these assessment activities (see Annex 2).

1.2.1 Assessment types

A wide range of assessment techniques have been developed to assist in understanding the economic, social and environmental impacts of planned changes. These assessment activities can be divided into four categories:

1. **Baseline** assessments, being an analysis of the current conditions pertaining in LUDA, usually carried out at the beginning of the regeneration in **diagnosis**.

2. **Prospective** (or ex ante) assessments that follow on from this and look forward to support decision-making before changes are implemented. They include:
   - Predicting the probable forthcoming events and devising different scenarios of the future in **visioning** (and to a lesser extent in **diagnosis**).
   - Analysing possible future implications (environmental, social, and economic) of the alternatives. The most suitable options are chosen by comparison between each other and benchmarking against various criteria in **programming** (the plan options) and **implementation** (individual proposals).

3. **Formative** assessment is an integral part of the more advanced **implementation**. It consists of a range of assessment procedures undertaken throughout the life of the regeneration programme and individual projects. The outcomes of these assessments provide direction to modify the regeneration activities to changing context on an ongoing day-to-day basis and to adapt the previously produced strategies to meet the increasing understanding of the potentials and sustainable redevelopment of the LUDA case and to changing requirements of the community.

4. **Retrospective** (ex post) assessment is a review of the actual effects of the chosen option that has already been put into life. These methods are used in the **monitoring** stage of the regeneration process. This type of assessment is a critical judgement of the performance, impacts and sustainability consequences of the selected alternative.

Each type of assessment forms and integral and necessary part ensuring more sustainable outcomes and improvements to the LUDA as a result of the process of regeneration (see Figure 2).
1.2.2 Assessment methods and techniques

Individual assessment tools, used on their own, are insufficient to support and secure a decision-making process that addresses all sustainability issues throughout the course of urban regeneration. Consequently, fully integrated sustainability assessment requires the regeneration team to deploy a whole family of methods that can help policy-makers and decision-takers cope with the wide range of choices that they face when trying to improve the rundown areas of their cities in a more sustainable manner. In the LUDA project the following main families of assessment methods and techniques find their application:

- **Data collection methods** associated with gathering information. In the diagnosis step they are used to analyse the baseline situation. In monitoring, data collection methods provide materials for assessment of the performance of the regeneration projects above the baseline.

- **Futures methods and techniques** being creative ways of examining possible future changes, events and environments, in the regeneration process supporting the diagnosis and visioning step.

- **Multi-criteria methods (MCA)**, enabling selection of alternatives by comparing them against a set of performance criteria, support decisions made in relation to policies, plan and individual projects (visioning, programming and implementation).

- **Cost-benefit analysis methods (CBA)**, accounting for economic, social and environmental effects of urban regeneration proposals, enabling informed choices in visioning, programming and implementation and providing material for evaluation in monitoring.

- **Impact assessment methods (IA)**, used mainly in programming and implementation for predicting impacts of the regeneration programme and individual projects. These methods also find their application in assessment of the baseline conditions (diagnosis) and evaluation of change in these conditions (monitoring).

- **Additional methods and techniques**.
Figure 3 shows the applicability of the main families of methods to the regeneration process steps.

*Figure 3. The LUDA regeneration process steps: types of assessment and applicability of assessment methods.*

For more information about the families of methods applicable to the regeneration process see Annex 2. To see detailed descriptions of the assessment methods and techniques and what situations they are applicable to go to *handbook E5 - the LUDA Assessment Decision Support System.*

2. The importance of integrating assessment into the regeneration process.

2.1 Securing sustainable and feasible options

The European Union and the majority of member states have placed sustainable development at the heart of policy making and it forms one of the main building blocks of the urban thematic strategy and the current *URBAN programme* as mentioned in *Handbook E3*. Both seek to address deep seated urban problems in a more sustainable manner emphasising the ‘bottom-up’ approach to the urban problem drawn originally from the *Agenda 21* ‘Policy plan
Integrating assessment into sustainable urban regeneration for environment and sustainable development in the 21st Century developed at the Rio Earth Summit in 1992. From this the concept of sustainable development can be usefully summarised into four core principles or dimensions: ecological integrity, equity, participation and futurity, forming the PICABUE model of sustainable development. PICABUE draws attention to concerns about the quality of environment, equity of resource consumption, as well as the participation of the public in decisions that affect their lives, particularly in understanding the future implications of the decisions taken today.

Thus achieving more sustainable urban development (SUD) relates to questions about the future of cities, the protection of cultural heritage and the capacity needed to not only conserve resources and protect the environment, but qualify whether such action is equitable. Achieving SUD requires common objectives to be set by the community as a whole in all four dimensions (e.g. through local agenda 21). This means assessments undertaken to evaluate the sustainability of urban development must relate to these objectives and support and foster public participation in decisions taken about the future of urban development because such inclusiveness becomes integral to SUD. Assessment of the sustainable redevelopment of LUDAs has therefore not only to address immediate concerns, but also be very far reaching, addressing long-term environmental, economic, social and institutional impacts.

The complexity of the LUDA phenomena means that reversing decline and improving the quality of life in the rundown area is a difficult and long-term task requiring the application of a wide range of assessments. Various sustainability issues need to be considered: socio-cultural and economic conditions, environmental state of affairs including the urban structure as well as community and institutional capacity (see the ‘diamond of the quality of life’ in handbook E2). In addition, the trade-offs between them need to be handled effectively to achieve ‘win-win’ strategies. Therefore, sustainable urban regeneration of LUDAs, as set out in handbook E2, is only possible when assisted by especially carefully planned and appraised actions. The use of ex ante assessment methods throughout the LUDA regeneration process helps to avoid piecemeal or short-term solutions (that ultimately result in negative consequences or waste of resources) by providing evidence base for decision making in forward planning.

Ex ante assessment helps to identify the impacts (positive and negative) of various redevelopment options. It helps to identify possibilities and select the best-fit option from the given selection of choices, by comparing them as alternative courses of action. While assessment cannot guarantee that the selected option will deliver sustainability in practice (due to the uncertainty of future events), it offers much greater assurance whether the course of action taken is leading in the appropriate direction. Therefore, ex ante assessment reduces the risk that decision-makers may put into practice inappropriate and ill-fitting programmes and initiatives or fail to understand undesirable outcomes. Benchmarking (comparing) the option against environmental, social and economical targets and comprehensive assessment of impacts, risk, cost and benefit of the option help to choose the alternative that is the most likely to deliver. It also helps to understand what the various stakeholders stand to gain or loose economically or...
in terms of damage to their environment and quality of life. Thus best fit options will seek to maximise gains and minimise losses and most importantly to provide regeneration programmes that include mitigation measures for those who stand to loose out. Most of the reference cities participating in the LUDA project aimed in their regeneration strategies at achieving socially sound and sustainable development. A particularly good example of such an approach can be found in the regeneration programme implemented in Graz (see Box 1).

**Box 1. Graz – focus on marginalised groups**

The strategy for the regeneration of the deprived areas in Graz followed the aim of socially sustainable development. The specific measures were:

- establishment of an ethnic market,
- women’s employment initiative involving the identification and filing of sustainable jobs,
- training and practical experience for the young people,
- establishment of a public district day centre for the elderly
- intercultural linguistic support for foreign women,
- advice and support for young people at risk from drinking and drug abuse.

Other good examples of socially just redevelopment actions can be found in Antwerp, Dublin and Essen (see handbook E6).

### 2.2 Meeting the legal requirements

The regeneration of LUDAs is usually carried out at the sub-city level (e.g. district) through implementation of a regeneration programme and realisation of individual projects. Therefore, while the regeneration programme (as a whole) might require assessment to satisfy the European directives as enacted through national legislation, individual projects (taken alone) might not, depending on their size, and vice versa (see Figure 3). The relevant EU legislation to check is:

1. **Strategic Environmental Assessment** directive, requiring formal assessment for, among others, plans and programmes associated with town and country planning and land use, what may include urban regeneration. To find out, whether the regeneration action to be undertaken in your area requires formal assessment, see the text of the Directive 2001/42/EC.

2. **Environmental Impact Assessment** directive, specifying what types of individual projects fall into category of mandatory impact assessment. To check whether the projects to be realised in the course of LUDA regeneration need EIA, consult Directive 97/11/EC.

Both SEA and EIA directives require publication of an environmental report, engagement of statutory consultees, presentation of the draft programme or project proposal to the public,
and monitoring of the effects of the implemented plan/project. One example of how the SEA directive has been translated into national legislation is the UK sustainability appraisal (SA), which is compulsory for local development plans (including regeneration programmes) and regional spatial strategies. A description of this is provided in Annex 2. SA is a good approach because it requires the development of objectives and targets, and the appraisal of options must be recorded and reported. Also, like EIA and SEA, the monitoring and evaluation of the implemented strategies form a vital part of the process. However, what makes SA different to EIA and SEA is that the appraisal needs to be carried out by an independent appointed team of experts.

The approach described in this handbook incorporates assessment into the urban regeneration process in order to meet the requirements of SEA and SA in seeking to understand sustainability impacts and outcomes. In the handbook the reporting actions needed to comply with SEA and SA are signposted as text boxes accompanying the steps in the regeneration process.

Figure 4. LUDA regeneration scale in the context of legal requirements for assessments

<table>
<thead>
<tr>
<th>Spatial scale</th>
<th>UK spatial planning</th>
<th>General tiered system of objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Policies</td>
<td>SEA</td>
</tr>
<tr>
<td>Regional</td>
<td>Plans</td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>Programmes</td>
<td>EIA</td>
</tr>
<tr>
<td>Site</td>
<td>Projects with significant environmental impact</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cascading objectives</td>
<td></td>
</tr>
</tbody>
</table>

2.3 Meeting the requirements of the funding bodies

Many of the financial instruments supporting the regeneration programme across Europe require elements of assessment and evaluation in the scope of the programme. Goal oriented programming (as a key resource for developing the CoSGOP) was introduced in Germany as a means of ensuring more effective outcomes and maximised return from investment in major infrastructure programmes. Another important example is the European Social Fund (ESF). -
one of four main structural funds set up to help reduce differences in living standards between the regions of the EU – which requires ‘monitoring outcomes and distance travelled’, i.e. analysis of the baseline to assess progress, developing a set of indicators and a scoring system, devising a system for reporting results. The ERDF, another of the structural funds, also subjects the main outcomes of its programmes to annual evaluation. Annual implementation reports sent to the European Commission detail the financial situation, advancement in realisation, steps undertaken to ensure the effectiveness of implementation and compatibility with community policies, and evaluation measures.

In addition, in each member state, the national regeneration funding projects have their own requirements towards assessment. For example, in the UK New Deal for Communities provides guidance on how to monitor progress and measure outcomes.

It is important to note that most of these measures are broadly aimed at ensuring that public funds are used effectively and although in many cases sustainable development is implicitly included they are not aimed specifically at ensuring more sustainable outcomes.

2.4 Meeting stakeholder expectations

The stakeholder is, in general, anyone who feels they will be affected by the outcomes of the assessment or decision-making process. Direct stakeholders groups range from citizens, via private developers and service providers to planners and policy makers (see handbook E3). The interests, needs and wants of these groups can vary significantly.

A satisfactory regeneration process aims at meeting the expectations of the widest possible range of stakeholders, as their contentment with the results of the regeneration programme is a significant proof of its success. It does so by promoting use of assessment activities throughout the urban regeneration process. Involvement in making assessments can empower stakeholders to influence the regeneration programme through taking a full part in the decision-making process and help them reach consensus over the need for, and objectives in the whole undertaking. The needs, wants and opinions of the internal stakeholders of LUDA (people living, working, recreating, shopping etc in the area) are particularly important. Firstly, considering their perceptions of the situation in a LUDA can help in recognising the issues seen by these stakeholders as the most urgent to address (see diagnosis). Secondly, participation in developing the vision of a stress-free future helps to express the needs of stakeholders and incorporate their ideas into the regeneration programme (see Box 2 and visioning). Finally, extensive social and community impact assessment ensures that the regeneration programme does not overlook needs of the groups that tend to be marginalised (the poor, young, elderly, unemployed or ethnic minorities) - see programming.

Issues related to stakeholders and their participation in the assessment process are described
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2.5. Learning from previous experience and disseminating the knowledge

Experience in urban regeneration, gained elsewhere, can and should provide valuable input into any LUDA regeneration programme. The lessons learned by other cities can aid all the steps in the process, particularly with decision-making at the strategic planning stage. Capitalising on the experience of others can minimise risks of badly chosen options and good practice examples indicate what works well.

This information is only available if the previous regeneration process included retrospective assessment and evaluation – and if the results of the evaluation have been disseminated. Therefore, the LUDA project aims at spreading the word and promoting good practice. Numerous examples from the European cities that participated in the LUDA project can be found in various parts of this handbook (in form of text boxes). Handbook E6 presents case studies of the LUDA project reference cities.

3. Integrating assessment activities into the regeneration process

This section provides guidance on the assessment activities supporting decision-making at each step in the regeneration process. What needs to be emphasised is that there is no rigid order in which the individual tasks within a number of the steps should be accomplished. Although the outcomes of some of tasks feed into subsequent tasks, many of them can run in parallel to one another. The description that follows and the accompanying diagrams try to represent the complexity of the sub-processes and associated assessment activities within each stage in the overall regeneration.

The guidance offered below indicates some of the assessment methods and techniques that are particularly useful for the individual tasks. Short descriptions of the assessment methods
3.1. Diagnosis: baseline assessment

This is the first step in the regeneration process. The overall aim is to investigate and recognise the baseline in terms of environmental, social and economical situation. The diagnostic stage in the regeneration process of LUDAs is crucial, as deep deprivation of these areas requires a renewal programme tailored to its problems and potentials, and needs of stakeholders. The information obtained in the diagnosis steps establishes the appropriate extent and direction of the regeneration actions, and helps to evaluating the changes that resulting from these actions.

The following assessment tasks should be completed in the diagnosis step of the regeneration process (see Figure 5).

*Figure 5. What needs to be done in Diagnosis?*

<table>
<thead>
<tr>
<th>Input</th>
<th>Assessment tasks</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data, both objective and subjective, obtained from various sources</td>
<td>Stakeholder analysis</td>
<td>Recognised distress situation</td>
</tr>
<tr>
<td>Other cities’ experience</td>
<td>Resources and limitations analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identification of problems and potentials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identification of drivers for change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development of distress indicators</td>
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</tbody>
</table>

**Stakeholders’ analysis – who is interested in LUDA and its improvement?**

There are two overriding reasons for involving stakeholders in a planning process. One is for obtaining much-needed information on 'what is important to whom and why', i.e. recognising stakeholders’ values and expectations (see **handbook E5, Quality of Life Assessment**). To bring effective changes to the quality of life in the distressed area, these subjective viewpoints need to be taken into consideration along with factual information obtained from studies, statistical data, and other resources. Secondly, the end result is more likely to have broad-based
Integrating assessment into sustainable urban regeneration

approval if stakeholders are involved throughout the process, because the final outcome includes their say in urban regeneration (see box 3).

Box 3. Manchester, Lyon, Dublin – positive experience of community involvement
Example of these three cities shows that the early phase workshops and working groups ensure the communities’ support for the further proceedings, as long as these proceedings are transparent and logically follow the introduced principles. Also in Essen, Antwerp and Genoa the stakeholder involvement was an important feature in the regeneration strategy of the area (see handbook E6).

Stakeholder analysis is the first tasks of many in the course of urban regeneration that can significantly contribute to the establishment of good governance (see handbook E3). It does so through:

1. Identification of stakeholder groups,
2. Investigation of the possible roles the given group can play in regeneration and assignment of responsibilities. Among others, it involves engaging administrative authorities: of the area, of the neighbouring jurisdiction areas, also on higher organisational tiers (see box 4). A specially appointed team may be necessary to carry out the assessments (see box 5).
3. Ideally, the establishment of a communication platform (in the form of meetings, workshops various forms of activities) between different stakeholders. See box 6 for an example of successful partnership building in Dresden.

Information on building strategic alliances and coalitions of interest is included in handbook E3. The good practice on building partnerships is also available on the Neighbourhood Renewal website.
Analysis of resources and limitations

The organisations responsible for urban regeneration need to recognise to what extent they are capable of carrying the process of improving the situation of LUDA. Analysis of resources and identification of limitations prevents from undertaking the tasks that cannot be completed, therefore allowing focusing on achievable aspects of regeneration.

Information on following issues should be collected and analysed:

- Internal resources (human and financial) and the possibilities for obtaining external funding. Lack of funding has been recognised as the most important barrier for the regeneration of LUDAs. The success of the sustainable regeneration seems to be determined by the combination of internal and external sources of funding (see box 7). For more information on obtaining funding from European Union see the website: http://europa.eu.int/comm/environment/funding/urban_en.htm
- Time constraints on the project
- Limitations in data availability and quality that often are a significant problem as LUDAs occur at the sub-city level, often not corresponding with administrative boundaries or statistical units.

Identification of problems and potentials

The knowledge about problems and potentials of the area provides input to further assessment phases by offering information about what issues need to be addresses and what opportunities can be used.
The most common **problems** in LUDAs are listed in **Handbook E2**. However, each LUDA is different and all problems need to be individually diagnosed so that they can be tackled successfully.

**Box 7. Multiple sources of funding – key to successful regeneration**

Most of the cities participating in the LUDA project benefited from the European funding, mainly the **European Funds for Regional Development (ERDF)**, granting money within **URBAN I** and **URBAN II Programmes**.

**Graz – efficient use of EU financing**

The regeneration of Graz has been financed by the City of Graz, the province of Styria, other public and private institutions, and the European Union. Graz has participated in both rounds of the URBAN Programme. In the first round of the URBAN Programme over 50 individual projects were sponsored, including aid for the development of small firms, employment projects, and improving the quality of social facilities. In the second round, development in the areas of information society and improved urban structure and urban design are being realised (see **handbook E6** for details).

Other source of funding for regeneration actions was the public money. Public investments acted as the motivation for the involvement of private sphere. The joint financing was mostly cooperative divided into separate phases and separate interventions. Only seldom it came to the combination of public and private financing in form of joint investment based on public-private partnership (PPP). Successful functioning of PPPs in urban regeneration can be observed in, for example, Genoa, Lyon and Dresden. For more information consult **handbook E6**.

Data on the problem areas can be obtained from national statistics organisations, government agencies responsible for specific sectors, research institutes and individual experts. However, it is important to collect other types of information as well as statistics. What is important at this stage is the views of internal stakeholders about the problems in the area. Much of the evidence about regeneration programmes suggests that one of the main difficulties facing those who are designing these programmes (external stakeholders) is that they have a poor or one-sided understanding of the problems they are trying to tackle [see for example: ![web link](http://www.active-citizen.org.uk/files/downloads/Reports/Benefits%20of%20Community%20Engagement.pdf)]. People living in a LUDA may have a very clear view of what is wrong with their lives and what they want to be changed—lack of jobs, unpleasant environment, fear of crime etc.

** Potentials** are the themes and issues that area likely to provide impetus and focus for improvement and regeneration. They are specific to individual LUDAs (see for example the story of Craigmillar, Edinburgh in box 8). Examples of the potentials identified in the cities participating in the LUDA project included:

- The legacy:
  - natural (e.g. green open spaces used for recreation in Dresden and Bratislava)
  - historical (e.g. distinctive architecture adapted to other uses as in the example of colliery buildings in Essen)
• Cultural (e.g. remnants of old urban structure now seen as focal points for investment in the Dresden Weisseritz area).
• Survival of skills and traditions of the local communities (e.g. in the cities of Dublin, Antwerp, Ostrava, Graz).
• Mixed communities with great cultural potential (e.g. Essen, Genoa)

Box 8. Potential in Edinburgh-Craigmillar
The chances of Craigmillar to become a quality place to live and work in have been enhanced by the relocation of the main city hospital nearby and the proposed development of a biotech park, creating 12,000 jobs. Key workers’ need for accommodation will provide a market for housing. An influx of new workers will create a socially and economically mixed community, which therefore will be much more sustainable. The housing is associated with provision of new quality education, green spaces, leisure and retail (see the case study in Handbook E6).

New housing in Craigmillar, Edinburgh. Photograph: Charlie Shanlin, City of Edinburgh Council

Identification of drivers for change
Drivers for change are a broad-ranging set of forces shaping the future and influencing the regeneration process. It is important to take these drivers into consideration and ‘go with the flow’ when deciding about the direction of the regeneration process. The following main external drivers for regeneration of LUDAs have been widely recognised as vital in Europe:
• Technological (economical): referring in particular to the transformation from a carbon-based economy to one driven by knowledge-based industries. This results in changes to the urban structure, where instead of separating work and home, mixed use areas are being created, incorporating work, home and leisure activities and thus reducing environmental impact of transport.
• Environmental: citizens’ value system and quality of life expectations show increasing
intolerance of poor environmental conditions, therefore new technology in building, transport, water management and energy recycling, together with growing demand for green spaces, have become a major concern of sustainable redevelopment of cities.

- **Public health and safety**: meeting minimum requirements for air and water quality are linked to environmental conditions, but other factors such as crime minimisation and issues surrounding fear of crime, road safety, protection against terrorism; and protection against natural disasters such as flooding and seismic activity are now extremely significant.

- **Social**: mainly related to changing life patterns associated with increasing life expectancy and new lifestyle choices (trend towards one-person households, increasing amount of time devoted to leisure, culture and education).

- **Political**: in the form of policies supporting regeneration (see handbook E3) and grants or funding available for regeneration purposes. Other political motivations can co-support regeneration, for example pressures to improve the image of an area due to forthcoming events. In fact politicians may actively seek to secure major international events for their city as a means of leverage for special national or regional funding. Genoa is a very good example of this (see text Box 9).

**Box 9. Genoa – political drivers for change**

Main impulses for the beginning of the regeneration for Genoa were important international events: the World Cup (1990), the celebration in honour of Columbus (1992), the G8 meeting (2001) and the designation for the 2004 European Capital of Culture. Change of the image of the rundown city centre before these events was considered as necessary by the city authorities and triggered the process of regeneration. Other examples of event / cultural stimulation of urban regeneration could be observed in Manchester (Commonwealth Games in 2002), Xanthi, Essen and Graz (see handbook E6).

The streets of Genoa in festive mood. Photograph: Aleksandra Kolpak, University of Salzburg.
Development of the distress indicators

The preceding tasks paint a detailed picture of the situation in a LUDA, its problems, potentials and how the area is perceived by its inhabitants. This information can be presented using a set of indicators that provide a benchmark of performance when compared to other cities. Such indicators also show changes in the quality of life that result from the urban regeneration process. An appropriate system of indicators – either developed to address the needs of the area or adapted from other sources - is necessary for the effective monitoring and recording of the changes in the quality of life and, consequently, evaluation of the entire regeneration process.

It is recommended that these indicators should meet the following criteria:

• They should represent all sustainability issues affecting the quality of life in LUDA (e.g. see the dimensions of the ‘diamond of the quality of life’ in handbook E2);
• They should be meaningful to all stakeholders (simple and easy to interpret and communicate, preferably chosen or developed in a participatory process);
• They should illustrate long-term trends;
• They should suit the area of concern;
• They should be supported by readily available data or involve low acquisition costs for such data; and, maybe the most importantly,
• They should address the key quality of life factors in the given LUDA.

Examples of European sustainability indicators systems, currently used at the city, district or smaller level include:

• Urban Audit (set of 250 indicators)
• European common indicators
• TISSUE (Trends and indicators for Monitoring the EU Thematic Strategy on Sustainable Development of the Urban Environment)
• The indicators developed within the HQE²R project: Sustainable renovation of buildings for sustainable neighbourhoods
• A European Thematic Network on Construction and City Related Sustainability Indicators (CRISP)

The analysis of strengths and weaknesses of these various monitoring systems reveals that none is fully able to cope with the comprehensive challenges of monitoring quality of life in urban regeneration process. Indicators with a strong focus on sophisticated statistical methodologies often lack transparency and the appropriate participation of stakeholders (e.g. Urban Audit indicators). Putting emphasis on stakeholders’ participation is often connected with a lack of quantitative statistical information (see the case of Dublin-Ballymun in Box 10). Systems with a comprehensive set of indicators to capture the idea of quality of life often lack manageability due to extensive data collection needs (e.g. HQE²R system consisting of 61 indicators).
The LUDA approach to the distress indicators makes an attempt to balance the stakeholder-centred approach with the more sophisticated systems of collecting and organising data. The indicators are grouped into five thematic areas, following the dimensions of the ‘diamond of the quality of life’ (see Handbook 2):

- socio-cultural conditions,
- economic conditions,
- urban structure,
- environmental conditions; and
- community and institutional capacity.

Furthermore, the indicators within each category are divided into groups providing objective and subjective information. Objective information is based on statistical results, while subjective information consists of the internal perception of LUDA (‘local’ people’s satisfaction with their environment) and external perception (other stakeholders’ opinion about the living and working conditions in LUDA).

In addition, indicators should not only record the statistical data but also reflect what is important to local residents of LUDA. See example from Dublin-Ballymun area in Box 10.

Box 10. Dublin - Ballymun Community Indicators (selection)

<table>
<thead>
<tr>
<th>Economic:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of jobs (with liveable wages) available in the area</td>
</tr>
<tr>
<td>Number of sites available for economic/social use and take up of that</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in school attendance</td>
</tr>
<tr>
<td>Percentage of pupils completing Post Primary Cycle</td>
</tr>
<tr>
<td>No. of people voting in local and national elections</td>
</tr>
<tr>
<td>Reduction in anti-social behaviour measured by:</td>
</tr>
<tr>
<td>No. of broken trees</td>
</tr>
<tr>
<td>No. of broken street lamps</td>
</tr>
<tr>
<td>No. of fires started</td>
</tr>
<tr>
<td>No. of dumped furniture/appliances</td>
</tr>
<tr>
<td>No. of incidents of graffiti</td>
</tr>
<tr>
<td>No. of animals abandoned</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of people buying eco-products</td>
</tr>
<tr>
<td>Number of facilities available for recycling, including composting</td>
</tr>
<tr>
<td>Number of homes with better insulation features</td>
</tr>
<tr>
<td>Improved energy conservation awareness</td>
</tr>
</tbody>
</table>

Who participates in Diagnosis?

It is most likely that policy makers and planning experts will initiate the diagnosis process and will be engaged in most of the actions at this stage. Engaging citizens, tradesmen and NGOs in this process is necessary to provide additional information input on problems and potentials of the area and helps to legitimate both the process and its outcomes if this engagement is managed effectively.
What methods and techniques are used in Diagnosis?
The techniques used in diagnosis are mainly associated with data collection and analysis; however, some futures methods and techniques [see Annex 2] are also recommended to identify drivers for change and potentials, for example, horizon scanning and strategic conversations. To find out more, go to Handbook E5 (LUDA Assessment Decision Support System).

What is the outcome of Diagnosis?
The main outcome of the diagnosis step is a detailed and rich picture of the current situation in LUDA, expressed through a wide range of spatial and other data formats including lists of existing problems, potentials and drivers for change as seen and estimated by the stakeholders. This needs to be formalised to meet the requirements of SEA (see Box 11).

3.2 Visioning: prospective assessment

The overall aim of this step is to produce a shared and desirable vision for the future through collaborative work with all stakeholders and to present this vision first as a scenario and consequently as a set of sustainable urban regeneration policies. Visioning is mainly based on the use of various futures methods and techniques to tap the inherent creativity of all sectors of the community (for more information about them see handbook E3). However, the vision is a derivative of the information collected and analysed in diagnosis (problems, potentials, drivers for change). This shared vision should address the problems (in a hierarchy of urgency or prioritisation), use the potentials of the area to the maximum and seek to leverage one or more of the potential drivers for change.

The following assessment tasks should be completed in visioning (see Figure 6):

Creating hierarchy of problems – identifying priority action areas
The organisation of issues should take into account their urgency – as seen by the stakeholders - and timescale over which the problems can be solved. A simple model to differentiate between and prioritise actions can be used, where the stakeholders create a hierarchy of problems, classifying them into those that are to be addressed ‘now’, ‘soon’ or ‘later’. The details of this method are provided on: http://www.communityplanning.net/methods/method100.htm. The hierarchy of the problems is created in order to address the most urgent problems first – by putting into life the appropriate projects and initiatives - in the Implementation step.

Box 11. To meet the requirements of SEA, the baseline assessment should be prepared in the form of a scoping report (for details see SEA Directive).
Development and selection of scenarios - creating a shared vision of the future

Visioning engages stakeholders in the development of prospective futures. This is done through the involvement of stakeholders in developing a set of scenarios for the sustainable urban regeneration of an area. The vision will normally offer a number of scenarios setting out how it is possible to get sustainable urban regeneration over the short, medium and longer term. The development of scenarios and the stakeholders participation are described in more detail in handbook E3.

At an early stage of the visioning, the priority may be to get as many ideas as possible, but as choices are made, things begin to narrow down. Usually, after elimination of some ideas, 3-4 scenarios are generated for the vision of the future. The scenarios represent ground for discussion and exploration of the future rather than actual future predictions. Genuine consideration of alternatives can help ensure the scenario adopted is the vision of the future which all stakeholders participating in the exercise share and wish to support (see Box 12).

Box 12. Edinburgh – Craigmillar: selection of the best scenario

The example of method of selecting the best scenario can be seen in Edinburgh-Craigmillar case study. Four development options (market forces-driven development, decentralisation of services from the city to the local community, concentration of the development on a given area plus creating stronger links with Edinburgh, and development of the area as a satellite town) were assessed by the stakeholders against the set of criteria such as: creating links to the community, proximity of services, enhancing community profile and external image, cost and contribution to the long-term regeneration. The assessment, using simple scoring system, resulted in the matrix clearly showing preferences of the participants for the ‘concentration’ scenario. Details of this case study can be found in handbook E6.
Development of policies with clear objectives and targets

Very often this shared vision is adopted as the authoritative statement about the future of the area and prospect of the regeneration to meet the objectives set. Policies developed in the LUDA regeneration process are expected to balance environmental, economic and social interests and translate the common vision of the future into a set of objectives of the regeneration programme. These objectives should also be compliant with the general concept of sustainable development as represented in the European and national legislation. A good example of how it works can be found in the regeneration programme of the Dublin-Ballymun, realising the principles of the ‘Sustainable development: a strategy for Ireland’. Box 13 also provides an example of such sustainable urban regeneration policies developed in Bratislava.

Box 13. Bratislava - Raca: Policies of the regeneration programme
Five policy fields for Raca area are:
1. Creation of socially responsible community
2. Access to finance
3. Improvement of infrastructure
4. Effective governance
5. Good environmental resource management

More detailed objectives of ‘Good environmental resource management’, specifying subjects of the individual projects, are as follow:
- Effective recycling
- Education
- Connection to the nature
- Good care about the local environment
- Space for relax activities
- Elimination of dumps
- Creation of green spaces
- Choosing clean activities
- Creating recreational areas

For more details see handbook E6 - case studies

The policies should reflect the distress situation in LUDAs in terms of addressing the existing and urgent problems as seen by stakeholders (see Box 14).

Box 14. New East Manchester - objectives aiming at the improvement of quality of life
In Manchester, driven by the local community’s own priorities, the choice of objectives included:
- reducing unemployment by creating and securing jobs for local people,
- tackling and improving community safety,
- improving the health and well-being of the community,
- increasing educational attainment and access to work
- providing resources to improve housing conditions and community and leisure facilities (for more information see handbook E6)
Integrating assessment into sustainable urban regeneration

New East Manchester—the construction and the vision. Photographs: Aleksandra Kolpak, University of Salzburg

The objectives of the policies need to be supported by SMART targets developed in collaboration with the stakeholders:

- **Specific** - expressed by a number, rate, frequency etc.
- **Measurable** – supported with a system, method or technique for gathering the data (and therefore inter-related to the system of indicators developed in diagnosis).
- **Achievable** – this means the possible constraints (assessed in diagnosis) should be taken into consideration. Benchmarking the planned targets against the situation in other parts of the city or other cities can ensure that they are achievable and not overambitious.
- **Relevant** – associated with the policies for the sustainable urban regeneration.
- **Time-based** – have dates set for completion of the tasks/achieving the targets.

*Who participates in Visioning?*

By its very nature, visioning should be participatory, and all tasks ought to involve a range of stakeholders, i.e. policy makers, citizens, tradesmen from the area, developers, planners and service providers. It is particularly important to be sensitive to the community’s wishes. The financial and political ‘power’ (represented respectively by developers and local authorities) are key drivers but they need to be balanced by consideration of other stakeholders’ aspirations and needs, some of whom may be alienated due to potentially very negative outcomes for some groups.

*What methods and techniques are used in Visioning?*

The family of futures methods and techniques is the most applicable here. Prospective assessments aiming at creating the vision of the future in a participatory manner use techniques such as visioning, scenario development and futures workshops. The second family of methods used to some extent at this step are techniques providing well-informed selection of alternatives –
Multi Criteria Analysis methods (e.g. AHP, cluster evaluation, concordance analysis). To find out more on these methods, go to handbook E5 (LUDA Assessment Decision Support System).

What is the outcome of Visioning?
The outcome of visioning is a shared, desirable vision of the future in the form of the developed regeneration policies, supported with clear objectives and achievable targets. Another, less tangible but equally important outcome is the process of learning between stakeholders; how people participate and how they work together to find common ground to discuss issues of shared concern (see Box 15).

Box 15. Malmo – Augustenborg: awakening of community
Social participation has been one of the most prominent characteristics of the entire regeneration process in Augustenborg. Residents got involved through meetings, brainstorming sessions, public hearings and seminars. It led to a real community awakening when the inhabitants of the area realised what role the surroundings play in the quality of their lives. Similar development of the community spirit occurred in Dublin, Antwerp and Manchester (see handbook E6).

3.3 Programming: prospective assessment

The policies developed in visioning need to be supported by a plan stating how the area shall be regenerated so as to meet the objectives and targets set for it. This plan of action – in many cases referred to as master plan - is a framework document which proposes an integrated strategy for the environmental, economic and social regeneration of the area. As the content of the policies and plans forming the programme are specific to the area’s regeneration, its legal, financial and cultural setting, it is difficult to draw generalisations about this step of the regeneration process. However, it is possible to set out what needs to be done (see Figure 7 facing).

Formulating the regeneration programme
The regeneration programme (in this handbook referred to as masterplan) provides an outline of the future redevelopment of the area which must be planned in accordance with the standards established in the plan. The masterplan - a set of plans, illustrations, and descriptive text specifying the policies developed earlier and integrating their social, economical and environmental dimensions in one document - is guidance rather than a detailed blueprint, as the individual projects are selected later in the implementation step. The masterplan can detail the regeneration activities in the areas where no previous renewal actions have taken place. Alternatively, it can play an integrative role in the areas, where some regeneration initiatives have already been running, providing an overview of the state of affairs and, possibly, acting as a co-
ordinating management instrument. It is critical that the plan be a living document that reflects the local community and other stakeholders’ needs, flexible enough to respond to changing needs and demands.

To realise their sustainability intentions masterplans needs to specify the following:

- The spatial context of the regeneration programme, by indicating the broad land use (housing, greenspace, retail etc);
- Time scale: the milestones and overall time needed for completion. The master plan in Edinburgh-Craigmillar (handbook E6) includes the design and layouts for the short, medium and long term, showing the phasing of the development over 5, 10 and 15 year horizon;
- Long-term resource planning; and,
- Recommendations for regeneration projects which would be feasible and sustainable, bearing in mind the implications of cost, time and priorities for the area.

**Figure 7. What needs to be done in Programming?**

<table>
<thead>
<tr>
<th>Input</th>
<th>Programming</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visioning:</strong> The shared vision Objectives and targets Priority action areas.</td>
<td>Formulating the regeneration programme Appraisal of the plan</td>
<td>Master plan for regeneration</td>
</tr>
<tr>
<td>Other cities’ experience</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The large part of masterplanning focuses on urban design, setting out the land use requirements and the development needs of the area. Although urban design is fundamentally concerned with the physical form taken by an environmental project, it is both the result of a socio-economic process and the stimulus for social and economic effects. Good urban design has been recognised by the cities participating in the LUDA project as one of the most important factors pulling the regeneration process and influencing the quality of life in rundown areas (e.g. by encouraging investment and providing services and facilities supporting housing, education and health care). Table 1 presents what needs to be done to provide sustainable urban design.
Table 1. Sustainability of urban design

<table>
<thead>
<tr>
<th>Is the master plan:</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>A result of participatory process, or at least including results of public consulta-</td>
<td></td>
</tr>
<tr>
<td>tion?</td>
<td></td>
</tr>
<tr>
<td>Based on a distinctive urban culture and a spatially compact form?*</td>
<td></td>
</tr>
<tr>
<td>A strong landscape framework in a parkland type setting?</td>
<td></td>
</tr>
<tr>
<td>Composed of a set of inter-related neighbourhoods?</td>
<td></td>
</tr>
<tr>
<td>Promoting a high population density?*</td>
<td></td>
</tr>
<tr>
<td>Balanced in terms of land use, economic and social structures?</td>
<td></td>
</tr>
<tr>
<td>Promoting an energy conscious public transportation network?</td>
<td></td>
</tr>
<tr>
<td>An example of high levels of infrastructure and shared service provision?</td>
<td></td>
</tr>
<tr>
<td>Set within a settlement pattern that is able to integrate existing communities with</td>
<td></td>
</tr>
<tr>
<td>those emerging from the urban regeneration?</td>
<td></td>
</tr>
<tr>
<td>Supported by a financial structure that is viable in the short, medium and long term horizon?</td>
<td></td>
</tr>
</tbody>
</table>

* These two criteria are particularly important in the case of growing cities.

By creating a masterplan, other cities’ experience can be used as an indicator what works and what does not. An example of comprehensive master plan for Dublin-Ballymun area regeneration can be found at: [http://www.brl.ie/second.htm](http://www.brl.ie/second.htm).

Appraisal of the plan

The appraisal of a master plan ensures that all sustainability issues (environmental, social and economical) as well as organisational and financial matters have been taken into account. It can be investigated by using the checklist provided in table 2 (facing).

Another example of appraisal criteria are the general objectives for development plans set by sustainability appraisal in the UK, prompting economic growth balanced with social and environmental conditions.

Box 17 provides an example of the Edinburgh – Craigmillar master plan appraisal and the legal requirements for environmental impact assessment of the regeneration master plan are set out in Box 16.

Box 16. To meet the legal requirements, the environmental impact assessment of the master plan should follow the methodology of SEA, what means producing and environmental report and presenting it to public together with the draft plan. This report needs to include the likely significant effects of implementing the plan on the baseline environmental and socio-economic conditions, mitigation measures of the negative impacts and reasonable alternatives. Also the findings of public consultation need to be taken into account in preparing the final version of the plan [see text on SEA]. To meet the requirements of Sustainability Appraisal, the appraisal process needs to be carried out by an independent team and cover extensive sustainability issues [see text on SA].
Table 2: Sustainability appraisal of the master plan.

<table>
<thead>
<tr>
<th>To appraise the master plan you need to:</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyse the environmental quality of the urban regeneration in terms of its natural habitat biodiversity, energy consumption, waste, emissions and contamination;</td>
<td></td>
</tr>
<tr>
<td>Examine the relationship between environmental quality and economic growth / decline, the competitiveness and efficiency of the urban regeneration;</td>
<td></td>
</tr>
<tr>
<td>Consider the pressure economic growth / decline, competitiveness and efficiencies put on the demand for land, related infrastructure provision and provision of public services.</td>
<td></td>
</tr>
<tr>
<td>Establish whether the urban regeneration is able to accommodate such growth without placing undue pressure on the environment.</td>
<td></td>
</tr>
<tr>
<td>Collect data on the performance of the property market relating to the urban regeneration to appraise the aforesaid.</td>
<td></td>
</tr>
<tr>
<td>Analyse if the urban regeneration programme is capable of supporting a mix of income groups drawn from a diverse range of social backgrounds.</td>
<td></td>
</tr>
<tr>
<td>Analyse the impacts of the plan on social aspects (e.g. social inclusion, education, income, employment, safety and security)</td>
<td></td>
</tr>
<tr>
<td>Analyse the plans impact on community and institutional capacity (participation and involvement, social justice and equity)</td>
<td></td>
</tr>
<tr>
<td>Analyse the types of partnership structures to fund the urban regeneration.</td>
<td></td>
</tr>
<tr>
<td>Analyse the information obtained in terms of rents, capital transfer prices, market yields and returns on investment and for carrying out a financial evaluation of the urban regeneration.</td>
<td></td>
</tr>
<tr>
<td>Set out the equity sharing agreement for the urban regeneration, using cash flows to support sensitivity analysis, risk assessments.</td>
<td></td>
</tr>
<tr>
<td>Use the results of these calculations to establish the basis for the agencies making up the equity sharing partnership to fund their stake holding in the urban regeneration.</td>
<td></td>
</tr>
<tr>
<td>Drawn upon the aforesaid to make the business case for the urban regeneration using cost-benefit analysis.</td>
<td></td>
</tr>
</tbody>
</table>

Box 17. Edinburgh – Craigmillar: appraising the master plan
In Craigmillar, the regeneration policies have been supported by the formation of a master-plan setting out development, design and layout of the regeneration programme. The plan has been appraised by developing the business case for the urban regeneration. Here a cost-benefit analysis has been carried out for the short-medium and long-term time horizons of the urban regeneration process. This appraisal has adopted a range of investment techniques to calculate the net present value of the urban regeneration. The programme has been discounted at the prescribed rate and used to calculate the internal rate of return.

The results of these calculations have in turn been used as the basis for those agencies making up the joint venture to fund their participation in the equity of the urban regeneration and meet the costs of the action. This exercise incorporated a risk assessment by re-examining the outcomes of the Cost-Benefit Analysis under different social, economic and environmental conditions to establish how resilient the programme is to such change.

Who participates in Programming?
Planners, consultants and urban designers are actively involved in the process of urban design,
development of the masterplan and its appraisal. Some assessment methods require experts and/or consultants with particular knowledge of the use and application of the method as well as interpretation of the outcomes. Citizens are being consulted on the framework provided by master plan. The approval of the regeneration programme by policy makers will enforce its status.

**What methods and techniques are used in Programming?**

From the urban design perspective, assessment must deal with physical as well as socio-economic aspects of development. The methods used in appraising the regeneration plan are mainly: cost benefit analysis, risk assessment and the whole spectrum of impact assessment methods (environmental, economic and social). Methods considered as particularly appropriate for urban design assessment are analytic hierarchy process and social cost-benefit analysis. Other specific methods and techniques, such as MASTER (see Annex or handbook E5), can be used for individual sustainability aspects. The multi criteria analysis methods are used to make informed choices between the alternatives. To find out more, go to handbook E5 (LUDA Assessment Decision Support System).

**What is the outcome of Programming?**

This step results in a coherent regeneration programme for the LUDA, in the form of the master plan following the objectives and the policies developed in Visioning. The appraised master plan secures meeting the sustainability requirements of the urban regeneration and meets the community needs in the economically feasible manner.

### 3.4 Implementation: formative assessment

In the implementation phase of the urban regeneration, the specific projects to fit the framework set in the master plan are selected, appraised and then realised (including both physical regeneration projects and other initiatives – be they environmental, economic or social). Implementing regeneration programme and projects is accompanied by putting procedures in place to collect and manage monitoring information (e.g. direct collection of data, exploitation of secondary sources of data, measuring progress in relation to targets). Figure 8 (facing) shows what tasks need to be completed in Implementation

**Selection of projects and initiatives**

Projects have to fit into the regeneration framework of policies specified by the regeneration programme and master plan. They can come from the local authorities (e.g. public transport improvements), from private developers bids (e.g. for construction of new housing estate) or be community based (e.g. neighbourhood watch). The regeneration programme needs to be seen as a whole to decide what mix of projects will have the combined best effect on outcomes.
In looking for practical solutions to the problems set by the distress situation in LUDAs, lessons learnt by other cities throughout their regeneration should be used. Making use of the evidence that exists about what has been tried before and what works, can save time and resources and give a better chance of success. LUDA project provides case studies in handbook E6. Additional examples of experiences of other municipalities are presented at the following websites:

- [www.renewal.net](http://www.renewal.net)
- [http://hqe2r.cstb.fr/neighbourhoods.asp](http://hqe2r.cstb.fr/neighbourhoods.asp)
- [www.eaue.de/winuwd/default.htm](http://www.eaue.de/winuwd/default.htm)

Projects ought to be assessed in terms of: their contribution to achieving sustainability objectives, impacts, their costs, benefits and risks. Thinking about project details – timing, location, scale and scope – and whether these contribute towards the sustainability of urban regeneration is also an important part of project development, as it helps ensure that the projects can deliver on the targets which are set for them. The checklist in table 3 (overleaf) can be used for selection and appraisal of the individual projects:

Specific techniques are also available for the assessment of sustainability in buildings. For example:

- [BREEAM](https://www.breeam.com) (the Building Research Establishment Environmental Assessment Method). The BREEAM methodology can be also used for evaluation of buildings in use – see monitoring.
- [Green Building Challenge](https://www.greenbuildingchallenge.com)
- [Design Quality Indicators](https://www.designqualityindicators.com)
- [Housing Quality indicators](https://www.housingqualityindicators.com)
LUDA E-Compendium: Handbook E4

Table 3. Checklist for the sustainability assessment of the projects

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>What problems will this project address, what potentials and drivers will be used?</td>
<td></td>
</tr>
<tr>
<td>What objectives of the regeneration programme are being addressed?</td>
<td></td>
</tr>
<tr>
<td>What benefits (environmental, social, economical) will be brought?</td>
<td></td>
</tr>
<tr>
<td>Who will benefit from the project?</td>
<td></td>
</tr>
<tr>
<td>What experience has been used to select this project?</td>
<td></td>
</tr>
<tr>
<td>How does this project link with other projects in the area?</td>
<td></td>
</tr>
<tr>
<td>What is the funding for the project and how secure it is?</td>
<td></td>
</tr>
<tr>
<td>What are the risks to project delivery? How can they be reduced?</td>
<td></td>
</tr>
<tr>
<td>What are the environmental, social and economic impacts of this project?</td>
<td></td>
</tr>
<tr>
<td>What are the mitigation measures?</td>
<td></td>
</tr>
<tr>
<td>How will the project be monitored, managed and evaluated?</td>
<td></td>
</tr>
<tr>
<td>How will the lessons learnt from the evaluation be passed on?</td>
<td></td>
</tr>
<tr>
<td>What are the alternative options to this project?</td>
<td></td>
</tr>
</tbody>
</table>

* Some projects will require environmental impact assessment to comply with Directive 97/11/EC. A description of EIA can be found in handbook E5 (LUDA Assessment Decision Support System).

‘Turn-key’ projects

The priority action areas identified in the visioning exercise indicate what type of projects should be implemented first to kick-start the regeneration process and to provide clear message to the stakeholders that changes have begun. Example of such a ‘turn-key’ project is provided in Box 18.

Box 18. Antwerp – Spoor Noord: urban park as a ‘turn-key’ project

In Antwerp the ‘backbone’ of the Spoor Noord redevelopment strategy is the creation of 17ha contemporary, multifunctional urban park, with the emphasis on green, light, space, entertainment, culture and sport. Through this project, the local administration aims at provision of the catalyst for the improvement of the area as well as for the surrounding areas.

Creation of the park was enabled by the release of the centrally located void from the use of the railway company and supported by the political factors (extension of the urban green being one of the goals of the elected formation). For details see handbook E6.
In regeneration operations on almost entirely deserted land, projects often include one or more ‘flagship’ developments, e.g. the Guggenheim in Bilbao or Canary Wharf tower in the London docklands (see also Guidelines for urban regeneration in the Mediterranean region).

Alongside the projects aiming at physical changes in LUDAs, are also initiatives targeted at increasing community involvement, enhancing perception of the area and incurring changes. These can bring very good results in the short term. Two examples from Dublin-Ballymun demonstrate this (see Box 19).

Box 19. Dublin - Ballymun: ‘turn-key’ initiatives in social development

1. Learning scheme adapting citizens to new situation: residents relocated from flats with not-adjustable central heating to houses were given the opportunity to learn about energy- and money-saving methods of using adjustable heaters. The ‘Transition programme’ was very popular and resulted in increased environmental awareness.

2. Creation of strong psychological linkages between the individuals and the area: this was achieved through various small-scale initiatives such as cultural and social activities, art events, events aiming at improvement of image and environmental conditions (gardening lessons).

Turn-key projects can also be low-budget and small-scale such as this light installation in Dresden (see photograph overleaf). This type of projects still attracts attention and shows that the process of changes has begun.
Project management

Project management concerns tracking the success of an individual project and the whole regeneration programme in terms of achieving the targets and securing the expected benefits. This management, conducted during the life of an initiative to guide its direction, is supported by the ‘real time’ formative assessment. This type of assessment helps to adjust the programme to changes in the external conditions or unpredicted events that may have implications for the urban regeneration. For appraisal and evaluation purposes it involves systematic collection of data and employment of performance indicators (associated with targets set out in the visioning exercise). The effective public participation is also essential to ensure sustainable urban regeneration.

Sustainable project management needs to take into consideration sustainability issues - as shown in table 4, i.e.:

- Environmental - waste management and waste minimisation, selection of environmentally friendly building materials;
- Economic - purchasing materials, services and labour from local suppliers); and,
- Social - minimising the number of accidents on site, minimising nuisance to neighbours).
Integrating assessment into sustainable urban regeneration

Table 4. Matrix of management competencies against the sustainability issues

<table>
<thead>
<tr>
<th>Key management areas</th>
<th>Economic</th>
<th>Social</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing people</td>
<td>Manpower planning, sourcing strategy</td>
<td>Fair and safe employment policies, responsible dealing with suppliers, community impact of employment policy, conflict management</td>
<td>Effective staff training in environmental issues</td>
</tr>
<tr>
<td>Managing building premises</td>
<td>Life-cycle planning Maintenance and operational costs</td>
<td>Usability, accessibility, user participation, security</td>
<td>Local/global environmental impact, e.g. biodiversity, CO₂ emissions</td>
</tr>
<tr>
<td>Managing services</td>
<td>Energy costs, maintenance and operational costs</td>
<td>Usability, accessibility, user control</td>
<td>Energy efficiency, local/global environmental impact</td>
</tr>
<tr>
<td>Managing the working environ-</td>
<td>Productivity</td>
<td>Quality of life, health and safety</td>
<td>Waste management, transport</td>
</tr>
<tr>
<td>ment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing resources</td>
<td>Value for money, procurement, risk management</td>
<td>Socially responsible procurement, risk management</td>
<td>Green procurement, risk management</td>
</tr>
</tbody>
</table>

Adapted from: Curwell et al, 2005

The sustainability of the project can be easier achieved by setting up management processes and procedures with clear objectives and sustainability targets, e.g.:

- **ISO 14001** is an international standard that specifies a process for controlling and improving a company’s environmental performance. Implementation of this environmental management system requires compliance with current legislation and policies and adhering to the established improvement objectives.
- The **UK Considerate Contractor Scheme** seeks to minimise local nuisance.
- The **RIBA Plan of Work** is a robust process protocol which describes the activities from appraising the clients’ requirements through to post construction.

Who participates in Implementation?

Private investors, particularly developers will have a hand in delivering the key projects, and town planners and development control officers will obviously have a central role to play. Construction companies, utility, building and other service providers will be instrumental for successful sustainable land, resource and facilities management at the time of implementation. Citizens’ involvement can be directly delivered through engagement of local employees or employers in the implemented projects.

What methods and techniques are used in Implementation?

This step is associated with the assessment of the individual regeneration projects and initiatives impacts upon environmental, social and economical aspects. Therefore, impact and risk assessment methods are used to the greatest extent. Also the methods from CBA and MCA.
families are used. The suitable projects, fitting into the master plan framework, can be selected with the use of methods such as Cluster Evaluation or Analytic Hierarchic Process. To find out more about these techniques, go to handbook E5 (LUDA Assessment Decision Support System). Formative assessment, during the delivery of the projects, e.g., during construction is associated with the use of normal day-to-day project management techniques, which, are not explored further in this handbook.

What is the outcome of Implementation?
The process of sustainable urban regeneration starts to be visible ‘on the ground’ as the tangible changes start to occur in LUDA, e.g. through physical construction or social projects.

3.5 Monitoring: retrospective assessment

The monitoring step focuses on measuring, interpreting and evaluation of the changes in the quality of life in LUDA (with the use of indicators designed in diagnosis) and on the evaluation of the outcomes (performance) of the individual projects and the regeneration programme (investigating, whether the targets set in visioning have been achieved).

If the results of either evaluation are not satisfactory, remedial actions should be applied. Also examples of good practice and lessons learnt should be recognised as a result of evaluation. The tasks to be completed in monitoring are presented in Figure 9.

Figure 9. What needs to be done in Monitoring?
Monitoring and evaluating change:
This type of monitoring records and evaluates changes in the quality of life in the area previously classified as LUDA. In the diagnosis step an appropriate indicator system was developed. The monitoring step compares the new data – on the same indicators – to the preceding situation what allows to draw conclusions about the changes that have occurred. Usually some aspects of the changes are unsatisfactory. This can mean that changes to the regeneration programme or other remedial actions are necessary. An important part of monitoring of quality of life should be collection of direct stakeholders’ viewpoints, especially from the local community. The most important method here is survey questionnaires [see handbook E5].

The LUDA project approach to monitoring changes in the quality of life uses the system of indicators in five categories (economic, socio-cultural, environmental, urban structure and community and institutional capacity), divided into groups providing objective and subjective information. Objective information is based on statistical results, while subjective information consists of the internal perception of LUDA (people’s satisfaction with their environment) and external perception (other stakeholders’ opinion about the living and working conditions in LUDA). By comparing monitoring results from the three perspectives, conclusions can be drawn on the appropriate (re)direction of the regeneration process. If, for instance, the perception of an area is bad, although the objective situation determined by statistical data is much better, emphasis needs to be put on the communication activities, better involvement of stakeholders and marketing the qualities of the area to the stakeholders outside LUDA. If the results of monitoring objective situation are worse than the perception of the state of affairs, more attention needs to be paid to solving the problems represented by low data values.

Monitoring performance
Monitoring performance aims at identifying what actions have taken place and what the consequences of such action have been. Indicators linked to the objectives and targets are used to monitor the effects of the regeneration programme or individual projects (see Box 20 for an example from Edinburgh). The change in the status of each indicator is used to evaluate the programme (or project) effectiveness and inform future planning rounds.

The purpose of performance monitoring is to learn from past experience, improve service delivery, planning and allocation of resources as well as accountability towards stakeholders. Similarly as in the case of the evaluation of change, if the targets have not been met, actions need to be undertaken in the form of remedial action.
Remedial Action

The remedial actions are meant to offset any negative effects of the implemented initiatives, or enhance the performance of the individual project (or the entire regeneration programme) that turned out to be ineffective (see Box 21). The need for remedial action, i.e. redirecting the regeneration programme – can be clearly signalled by the results of the monitoring using the LUDA approach. Remedial action, to provide desired effects, should be accompanied by its own assessment process; using various impact and assessment methods, cost-benefit analysis or other as already described.

Box 20. Edinburgh-Craigmillar: Performance indicators

The key indicators of performance of the regeneration programme, in the respective ‘themes’ (thematic areas) are:

<table>
<thead>
<tr>
<th>Themes and Targets</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business ‘confidence’ and start-up</td>
<td>Number of new business start-ups</td>
</tr>
<tr>
<td>Economic activity and participation</td>
<td>Percentage of residents on Incapacity Benefit</td>
</tr>
<tr>
<td>Prosperity and income improvement</td>
<td>Average growth in household income</td>
</tr>
<tr>
<td>Reduced unemployment</td>
<td>Number of Unemployed People</td>
</tr>
<tr>
<td>Improved quality of environment</td>
<td>Quantity of derelict/degraded land improved</td>
</tr>
<tr>
<td>Rise in asset base and community value</td>
<td>Increase in average local property value</td>
</tr>
<tr>
<td>Improvement in quality of life</td>
<td>Percentage of residents indicating significant improvement in quality of life (satisfaction weighting).</td>
</tr>
</tbody>
</table>

Remedial Action

In May 2000 a moderated Goal-Workshop was realised in Essen-Katernberg, with above 100 participants representing the officers, politicians, institutions, citizens, etc. After overall analyses of the regeneration process effects in Katernberg to date, ten most important positive revitalization projects were chosen. New set of goals and visions were discussed in the working groups and in plenary session. Based on these discussions, the main project proposals for next five years have been formulated, priorities defined and implementation probability asssessed.

Box 21. Essen – participatory selection of the projects as a remedial action

Monitoring and if necessary remedial action is also an important part of SEA and SA (see Box 22).

Box 22. Monitoring of the changes to the baseline caused by the regeneration programme is a legal requirement of the Strategic Environmental Assessment. Monitoring should be undertaken in accordance to the indicators developed in the diagnosis (in SEA terminology: scoping stage). Remedial actions should be instigated in regards to any unforeseen effects to the environment adverse.

Sustainability Appraisal requires monitoring and evaluation of the performance of the programme.
Who participates in Monitoring?
Policy makers and implementers are likely to be involved at this stage of regeneration process. Local residents and other internal stakeholders also participate actively, providing their views on the changes that have occurred in LUDA. Experts and consultants may be involved to carry out more advanced assessment (e.g. environmental effects of the project/programme) and to advise over remedial. Private developers, in the ideal situation, provide data necessary to evaluate the changes or performance of the projects they are responsible for.

What are the methods and techniques used in Monitoring?
Assessments within this step, similarly to diagnosis, are mostly based on the collection of data and its analysis. Therefore mostly these methods (e.g. survey questionnaires, expert judgement) and other supportive and versatile methods are used here (e.g. SWOT). To find out more, go to handbook E5: LUDA Decision Support System.

What is the outcome of Monitoring?
First of all, evaluation of the changes in the quality of life and the performance of the regeneration programme helps to answer the question “has the regeneration process been successful?” Good practice involves announcing the results of the evaluation to the direct stakeholders – people and organisations interested in LUDA - to ensure accountability.

Secondly, evaluation of performance provides examples of good practice (and also examples of ‘dead end’ projects or initiatives that should be avoided in the future). The future regeneration programmes in other places can benefit from taking into consideration lessons learnt throughout the Regeneration Process. Dissemination of good examples is becoming a common practice and the information can be easily obtained on the internet, see for example:

- www.cyburbia.org
- www.eaue.de
- www.regen-link.org

Thirdly, the output of regeneration is updated data on the situation in the area, which can be used as a new baseline for future endeavours.

Therefore, monitoring and evaluation are integral part of the regeneration process. Most of the bodies funding regeneration require elements of monitoring and evaluation on the course of improvement of rundown areas (see section 2.2).
4. Conclusion. LUDA regeneration process – bringing improvement to distressed areas?

Handbook E4 introduced and described the LUDA regeneration process: the rationale behind incorporating assessment into urban regeneration, the steps comprising the regeneration process and the broad families of assessment methods and techniques that are advised to be used throughout the course of regeneration process.

A question arises here: what makes the authors of the handbook recommend this particular process as one capable of turning the fortunes of rundown areas around?

Firstly, the role of the LUDA regeneration process in empowering stakeholders. One of the principles of the LUDA regeneration process is wide participation of stakeholders in the decision-making process (more information available in handbook E3). This approach can help to establish good urban governance, leaving behind the top-down approach. Enabling stakeholders to participate in the decision-making process evokes the feeling of ‘owning’ the place they live and work in. Even if the regeneration process per se brings results less spectacular than expected, this new sense of responsibility for the place can be beneficial for the area (e.g. less vandalism) and for the quality of life of people (emotional well-being stemming from a sense of belonging to the place, increased self-worth).

Secondly, the importance of assessment in the LUDA regeneration process. While, as said before, the assessment cannot automatically guarantee the sustainability of the future actions, it provides an evidence base and, consequently, a rational direction for the decisions throughout the LUDA regeneration process. It eliminates to large extent one of the possible sources of faulty and erratic actions. Furthermore, participating in assessment activities empowers the stakeholders (see the point above) and provides all participants with the learning experience that can be utilised later and possibly benefit the area in longer run.

Thirdly, building on the previous experience. The methodology of the LUDA regeneration process brings together four process methods (see section 1.1 and Annex 1 for details) that reflect the principles of the regeneration strategies applied before in reference cities. It proves that proposed approach has been used before and brought positive results.

Finally, approval of the methodology by the city partners of the LUDA project. While the entire LUDA regeneration process has not been followed by any of the cities participating in the project, individual tasks were carried out and numerous assessment methods and techniques applied, bringing positive results (see handbook E6 – case studies). It validates the LUDA regeneration process as a flexible approach; while ideally followed as a whole, it also offers the possibility of selecting individual actions and incorporating them seamlessly into the planning process leading to regeneration of an area.
For these reasons, it can be said that the LUDA regeneration process forms adjustable procedural framework for the conduct of successful renewal process. However, what needs to be remembered is that the bulk part of this success depends on how the guidelines of the LUDA regeneration process will be applied in practice by the organisation responsible for urban renewal.

5. Further Links & Information


This is a good source of information about methods like CBA, MCA, Risk assessment, Life Cycle Assessment, EIA, SEA and Sustainability Appraisal. It also gives a good explanation of integrative approach to assessment.

Advice on various aspects of urban regeneration based on inspiring case studies from Europe and USA.

Comprehensive but simple introduction to SEA.

Guide on environmentally sound management for practitioners

Charlotte-Valdieu, C., Outrequin, P. and Robbins, C. 2004. The HQE²R toolkit for sustainable neighbourhood regeneration and European application overview. Brochure HQE²R No 2, HQE²R.
Alternative approach to sustainable urban regeneration, offering methodology and tools. More information is available on the HQE²R website: http://hqe2r.cstb.fr. Very useful!

Example of application of futures techniques in practice. More publications on the futures techniques are available on http://www.dit.ie/DIT/built/futuresacademy/publications/

A report presenting slightly different approach to the assessment of the quality of life concept and its practical application.

The document provides vision, strategy, relevant sources of funding and support and case studies. Particularly useful for the regeneration organisations in the UK, but not only! More related information on www.neighbourhood.gov.uk/

Comprehensive information about indicators related to environmental issues.

LUDA is a research project of Key Action 4 City of Tomorrow & Cultural Heritage from the programme Energy, Environment and Sustainable Development within the Fifth Framework Programme of the European Union. http://www.luda-project.net

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