LUDA PROJECT

Improving the quality of life in Large Urban Distressed Areas

LUDA E-compendium: Handbook E4

Annex 1 & Annex 2

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

Introduction

This document contains two annexes to handbook E4 'Integrating assessment into sustainable urban regeneration'.

Annex 1 explains the foundation of the LUDA Regeneration Process methodology, based on CoSGOP and supported with actions from the procedures of Strategic Environmental Assessment, Sustainability Appraisal and Prospective Process through Scenarios.

Annex 2 presents the categorisation of the methods and techniques aiding decision-making in the sustainable urban regeneration process into families (Part 1) and provides their short descriptions (Part 2).

Annex 1 has been written for the researchers and practitioners interested in the methodological aspects of the sustainable urban regeneration. Annex 2 is an introduction to the database of assessment methods and techniques provided in Handbook E5.

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.

Acknowledgements

This handbook has been compiled by the Research Centre for the Built and Human Environment at the University of Salford with assistance from the School of the Built Environment, Napier University, Edinburgh. The handbook is based on material produced by the LUDA project.

Photographs were supplied by colleagues at the Department of Geography and Geology at the University of Salzburg. The cover photograph shows a view to the Centro Storico from the port and Renzo Piano's 'biosphere' in Genoa.

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Annex 1

1. Development of the LUDA regeneration process

The aim of the development of the methodology was to identify a generic sustainable urban regeneration process model, which helps to understand the place and role of assessment and is easily applicable in practice and acceptable for practitioners. The foundation of the methodology lies in extensive scientific research. It has been put to trial by experience in European cities; first being built around the expertise provided by reference cities closely related to the LUDA project and then tested by the cities participating in the project.

The LUDA project approach to **Sustainable Urban Regeneration** and its **assessment** is referred to as **LUDA regeneration process**. This approach is built around the well-established framework of strategic planning in urban regeneration (Collaborative Strategic Goal Oriented Programming (CoSGOP)). Three process methods: Strategic Environmental Assessment (SEA), Sustainability Appraisal (SA) and Prospective Process through Scenarios (PPtS) have been analysed and their actions and methods combined with CoSGOP to create an innovative, flexible and comprehensive process, **integrating assessment into Sustainable Urban Regeneration** (for more information about Sustainable Urban Regeneration see **handbook E2**).

Collaborative Strategic Goal Oriented Programming (CoSGOP)
LUDA project has adopted a theoretical model called **Collaborative Strategic Goal Oriented Programming (CoSGOP)** as a starting point for an analysis of redevelopment processes in the European LUDAs.

CoSGOP has been developed as a logical framework to help develop the community based approach for tackling urban distress and to support large-scale regeneration. So far, it has been applied in European cross-border policy programming, as well as in local and regional development programmes with good results. CoSGOP offers a decision-making process that is inclusive, competitive and sustainable. As such it promotes collaboration between stakeholders and their integration into a strategy which is cross-cutting and allows partners to develop consensus on the scope and distribution of urban distress and programme of area-based regeneration. In addition to this, it draws particular attention to the goals of the programme and participation required between stakeholders to agree them. As a tool for agreeing the scope and distribution of urban distress and goals of the area-based regeneration programme, CoSGOP provides a way of logically framing the improvement process and a means of communicating the aims and objectives between stakeholders.

The generic goals of CoSGOP represent the main outcomes expected from the community-based approach to tackling urban distress and area-based regeneration. They offer the opportunity for community to not only assess the outcomes, but also identify if they meet the

targets set. They are as follows:

- Understanding urban distress
- Reversing the trend
- Regenerating the area
- Improving the quality of life

2. CoSGOP Process

CoSGOP is not a planning method, but rather a process model. It provides a framework for communication and joint decision-making in a structured process characterised by feed-back loops. In this sense, it facilitates a joint learning process of all the stakeholders involved. The major elements of CoSGOP include (see Figure 1):

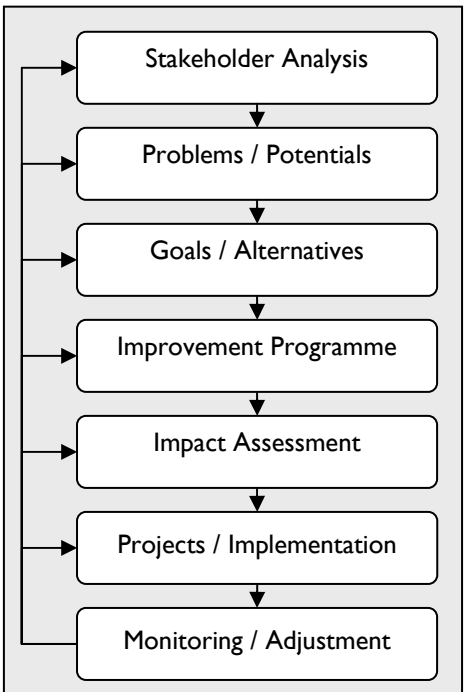

Figure 1: Elements of CoSGOP

Analysis of stakeholders: Provides an overview of the main actors involved in the rehabilitation process and/or who have an influence on the development of an area. This is oriented towards identifying their perception of problems, their interests and expectations as well as their strengths and weaknesses.

Analysis of problems and potentials, i.e. the strengths, weaknesses, opportunities and threats of the area – including both the situation represented by statistics and as perceived by the stakeholders.

Development of goals, improvement priorities and alternatives for the area - a deci-

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sive element of an improvement process requiring active participation and of the concerned stakeholders.

Specification of an improvement programme and main activities. The improvement programme is the core of a regeneration strategy. The programme needs to provide a flexible framework that gives room for further detailed development and change according to the progress of the joint learning process.

Assessment of possible impacts of the improvement programme. This ex-ante assessment should provide information about the most suitable and accepted way of rehabilitation.

Definition and detailed specification of key projects and their implementation. The definition and specification of key projects is vital for action.

Continuous monitoring of improvement activities, feed-back and adjustment of the programme according to the evolving requirements. Monitoring and feed-back are key elements of learning processes. Therefore they play a decisive role in rehabilitation programmes.

3. Why amend CoSGOP?

The established planning practice developed in recent years has been influenced by a range of international, EU, national and local legislation. For example city planning and development has responded in the mid 1990s to the requirements of local Agenda 21 and in the late 1990s to the EU directive on EIA. More recently in the UK sustainability assessment (SA) of plans has been required since 2000. Now the directive on strategic environmental assessment (SEA) has to be addressed.

Although CoSGOP provides a logical framework for the regeneration process, and for setting targets and indicators**, it inadequately represents all aspects of assessment**. The main reason for not adopting CoSGOP as the structure for the assessment methodology is that the elements are deemed as insufficiently aligned with the visioning needs and futures thinking that are increasingly popular in sustainable urban regeneration. Indeed the whole use of the term assessment in CoSGOP is ambiguous and counter-intuitive, suggesting that impact assessment covers all the issues. In the LUDA approach to the sustainable urban regeneration – the LUDA regeneration process - assessment is understood to be a basic requirement of each stage of the sustainable urban regeneration, including futures thinking, multi-criteria analysis and other methods alongside impact assessment.

Therefore, in the LUDA project, an attempt is being made to analyse which elements of CoSGOP are the most relevant to the LUDA regeneration process and use them as a part of assessment integrated into sustainable urban regeneration.

3. Assessment integrated into urban regeneration - LUDA regeneration process

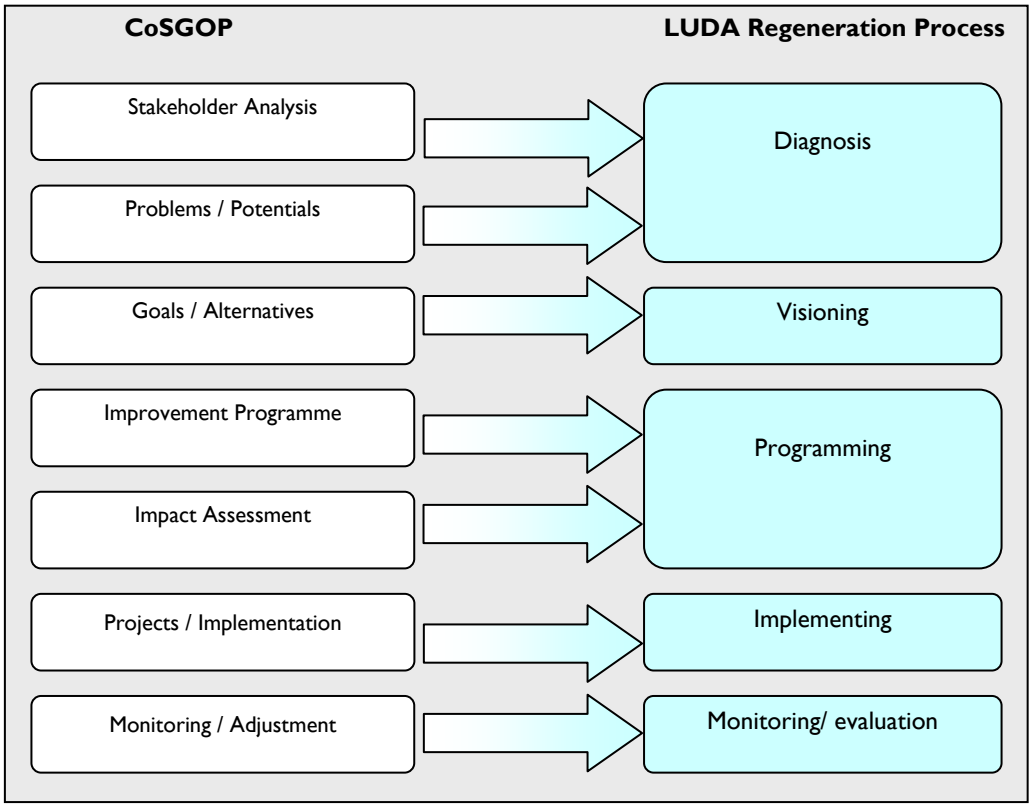
The LUDA regeneration process has been developed in order to identify what assessment activities should underpin the decision making in the sustainable urban regeneration and what methods and techniques can be used to do this.

The LUDA regeneration process is built of the following steps:

- Diagnosis,
- Visioning,
- Programming,
- Implementing,
- Monitoring.

LUDA regeneration process builds on the structure of CoSGOP (see Figure 2).

Figure 2. Integrating CoSGOP into the LUDA Regeneration Process



LUDA regeneration process adds to the methodology of CoSGOP as it also combines the actions that are crucial for three process methods: Strategic Environmental Assessment, Sustainability Appraisal and Prospective Process through Scenarios.

SEA, mandatory for local and regional policies, plans and programmes, represents a 'baseline-led

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approach'. The programme, before its approval and implementation needs to be assessed in terms of the changes it causes to the baseline environment. The detrimental changes should be avoided; if not possible, mitigation measures need to be applied to maintain or enhance the conditions from before the implementation.

Because of the specific of the method, the following actions are recognised as the most aligned to the LUDA regeneration process:

- Recognition of baseline conditions,
- Impact assessment,
- Applying mitigation measures,
- Public consultation,
- Monitoring of impacts,
- Remedial action.

Sustainability Appraisal is an obligatory procedure in the UK, implementing the requirements of the SEA Directive into British law. In England, local planning documents (local development frameworks) and regional spatial strategies need to be assessed in terms of their economic, social and environmental implications. Therefore, urban regeneration programmes incorporated into local development frameworks in the UK (e.g. in the form of supplementary planning documents) automatically become subject of Sustainability Appraisal. SA is an 'objective-led approach' what means that the agreed sustainable development objectives are the principal components of sustainability appraisal. It is the performance of a strategy, policy or programme in meeting the sustainability objectives that lie at the heart of the process. The most important actions in sustainability appraisal for the LUDA regeneration process are:

- Development of a set of objectives and targets for sustainable development to act as a benchmark against which the performance of the strategic options should be appraised,
- Appraisal of policies,
- Monitoring and evaluation.

Prospective Process through Scenarios (PPtS) is a futures process for strategic thinking. It combines elements of a number of approaches used in 'future studies' in recent years and it also draws on International and European experience. PPtS provides the methods and techniques needed to explore the future and to approach complex issues of a long-term nature in a creative way. The main actions within PPtS are as follows:

- Exploring the future by identifying the major driving forces,
- Developing different scenarios of the future
- Developing shared vision of the future

Figure 3 (overleaf) presents how the actions of these four process methods (SEA, SA, PPtS and CoSGOP) form the LUDA regeneration process.

Actions of the process methods			CoSGOP elements	LUDA Regeneration Process	
SEA	**SA**	**PPtS**		**Steps**	**Assessment tasks**
Designation of responsible authorities	Appointment of an independent team	Setting the strategic question	Stakeholder Analysis	**Diagnosis**	Stakeholder Analysis Resources and limitations analysis Identification of problems and potentials Identification of drivers for change Development of distress indicators
Identification of other relevant plans, programmes and environmental protection objectives		Identification of the driving forces of change			
Identification of SEA objectives and targets	Development of the SA Framework (sustainable development objectives, targets and indicators)	Identification of the main issues and trends			
Collection of baseline information		Identification of the 'critical uncertainties'			
Identification of environmental problems			Problems and potentials		
Deciding the scope of SEA	Testing the strategic objectives against the SA Framework				
Identification of alternatives	Identification of issues and options	Creating different scenarios	Goals and alternatives	**Visioning**	Creating hierarchy of problems – identifying priority action areas Development and selection of scenarios Development of policies with clear objectives and targets
		Testing policy options			
		Identification of turning points			
		Producing a preferred future vision or 'prospective'			
Assessment of environmental effects	Appraisal of strategic options		Improvement Programme	**Programming**	Formulating the regeneration plan Appraisal of the plan
Public consultation on plan and environmental report Inclusion of the consultation findings into account in preparing the plan	Appraisal of policies		Impact Assessment		
	Recording and reporting of findings		Projects / Implementation	**Implementing**	Selection and appraisal of the projects and initiatives Project management
Monitoring and evaluating	Monitoring and evaluation		Monitoring / Adjustment	**Monitoring**	Evaluation of change Evaluation of performance Remedial actions

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This selection of actions, forming the LUDA regeneration process, attempts to create the innovative methodology that would combine focus on baseline conditions, following targets and objectives of sustainable development and at the same time be driven by creative thinking about future and wide public participation and therefore provide guidance through the course of sustainable urban regeneration. This amalgamation of processes, following the principles of sustainable urban regeneration, may help to improve the situation in rundown urban areas.

Further reading

Gesellschaft für Technische Zusammenarbeit [GTZ] (1988) ZOPP: An Introduction to the Method, Eschborn: Germany

Harridge, C., (2002) Making effective use of sustainability appraisals, Entec UK Ltd

Annex 2: Assessment methods and techniques

Part I presents the families of methods and techniques applicable to the LUDA Regeneration Process. Part 2 presents short descriptions of these methods in alphabetical order.

1. Main families of assessment methods and techniques

In the LUDA project the following main families of assessment methods and techniques found their application:

- Data collection methods,
- Futures methods and techniques,
- Multi-criteria methods,
- Cost-benefit analysis,
- Impact assessment methods,
- Additional methods and techniques.

Data collection methods

These methods are associated with gathering information: both objective (e.g. statistic data) and subjective viewpoints (e.g. local community opinion). The methods, recognised within the LUDA project that fall into this category are:

- Availability of Public, Near-Residential Green Spaces,
- Expert Judgement,
- Explorative Quarter Research (EQR),
- Geographic Information Systems (GIS),
- Managing Speeds of Traffic on European Roads (MASTER)
- Quality of Life Assessment,
- Semantic Differential,
- Survey Questionnaires.

These methods and techniques are mainly used in the baseline assessment at the Diagnosis step (to recognise, describe and quantify the situation of distress in LUDA) and in the final step of Monitoring, where the new set of gathered data is used to track the progress made in relation to baseline information (retrospective assessment).

For more details see **handbook E5** - LUDA Assessment Decision Support System.

Futures methods and techniques

These are creative ways of examining possible future changes, events and environments,

mostly used in the initial stages of the regeneration process. Futures methods and techniques encourage people to 'think outside the box' and to adopt the longer-term perspective so that future changes can be anticipated, prepared for, and ultimately managed better. Consequently, futures methods and techniques encourage decision-makers to make more intelligent decisions today concerning the future by focusing on the most important questions that must be resolved in order to design better policy. Perhaps the most valuable aspect of futures methods and techniques, however, lies in their ability to encourage a wide range of stakeholders to participate in decision-making towards a common goal or shared vision.

These methods include:

- Brainstorming,
- Competence Trees,
- Futures workshops,
- Horizon Scanning,
- Scenario Development,
- Strategic Conversations,
- Visioning,
- Wind Tunnel Testing.

In the LUDA Regeneration Process, futures methods and techniques are mostly being used at the Visioning step (when developing scenarios and creating common vision of the future). To some extent the futures methods and techniques are being also used at the Diagnosis step, when the wider context of LUDA, including drivers for regeneration process, is being recognised.

To view detailed descriptions of these methods, see **handbook E5** - LUDA Assessment Decision Support System.

Multi-Criteria Analysis Methods (MCA)

Multi-criteria methods can be used to identify a single most preferred option, to rank options, or to short-list a limited number of options for subsequent detailed appraisal. In particular, MCA methods are useful for comparing options and proposals when evaluating alternatives of the plan or programme. These methods usually rely on the scoring and weighting of options against a defined set of objectives and/or performance criteria. Despite these common characteristics, each MCA method is distinct and has a different role to play in reaching key decisions. The multi-criteria methods recognised in the LUDA project as the most applicable to urban regeneration are as follows:

- Analytic Hierarchy Process (AHP),
- Concordance Analysis,
- Cross Impact Analysis,
- Flag Model,
- Multi-criteria analysis,
- Regime Analysis,

- Spider Analysis.

The MCA methods in the LUDA Regeneration Process are mainly used at the Visioning step when scenarios are being chosen and, to a lesser extent, in Programming (plan appraisal) and Implementation (by the selection of projects for the regeneration plan).

For more information about these methods consult **handbook E5** - LUDA Assessment Decision Support System.

Cost - Benefit Analysis

Cost Benefit Analysis (CBA) is a technique of assessing sustainability by accounting for economic, social and environmental impacts of urban regeneration proposals. The technique involves subtracting the costs of a development from the value of all the benefits generated by the programme. The advantages of CBA lie in the systematic way that the technique deals with costs and benefits; however, the issue of accounting for intangible expenditures and incomes remains unsolved. Attempts to supplement such analysis with 'willingness-to-pay' for benefits and 'willingness-to-accept' costs are still controversial. Therefore, CBA is often accompanied by other techniques able to account for distributional equity and use more participatory techniques (e.g. community impact analysis). To see more detailed description of CBA and possible application of this method to the urban regeneration assessment, see **handbook E5** – LUDA Assessment Decision Support System.

Cost – benefit analysis is to the greatest extent used at the Programming step (when developing the master plan for regeneration) and in Implementation, when the individual regeneration projects are selected. For more details about CBA see **handbook E5**—LUDA Decision Support Database.

Impact Assessment Methods

These methods assess the potential direct, indirect and cumulative effects of the alternatives of the plan, programme or projects. Impact assessment methods are useful for predicting the magnitude, geographical scope, time-scale, and likelihood of each impact, making judgements about whether the impacts are significant and putting forward measures for mitigating impacts. IA methods are usually targeted towards one particular sustainability issue (e.g. Environmental Impact Assessment) and include as follows:

- Community Impact Evaluation
- Ecological Footprint
- Economic Impact Assessment
- Environmental Impact Assessment (EIA)
- Environmental Impact Model (ENVI)
- Life Cycle Analysis (LCA)
- Project Impact Assessment (PIA)

- Social Cost-Benefit Analysis (SCBA)
- Social Impact Assessment (SIA).

Impact Assessment methods are to the greatest extent used at the Programming and Implementing steps, predicting and estimating the environmental, social and economic effects of the realised options.

For more information about impact assessment methods consult **handbook E5** - LUDA Assessment Decision Support System.

Other methods and techniques

There are some techniques that cannot be categorised according to these three main groups. These include:

Analysis of Interconnected Decision Areas,

Cluster evaluation,

Risk Assessment Methods,

SWOT analysis.

For more details see **handbook E5** - LUDA Assessment Decision Support System.

2. Short descriptions of the assessment methods and techniques

The methods are marked accordingly to the family they belong to:

DAT – Data collection methods

MCA – Multi-Criteria Analysis methods

IA – Impact Assessment methods

Fut – Futures methods and techniques

O – Other

Full descriptions of the assessment methods are available in **handbook E5** - LUDA Assessment Decision Support System.

Analysis of Interconnected Decision Areas (AIDA) O

The main aim of AIDA is to find sub-solution of sub-problems and combine those to answer the main question. AIDA maps the decision-making process in the form of a network of nodes and links, where a node represents a decision, and a link between two nodes represents the relation between decisions: exclusive or compatible. AIDA is a powerful management tool to set strategic directions, develop tactical plans, and track progress against goals. This method also presents decision-making roles and responsibilities in a more explicit way.

Analytic Hierarchy Process (AHP) MCA

AHP is often used in complex decision problems, as it allows structuring a decision into smaller,

sub-decision parts. In AHP a ranking of importance of decision elements (e.g. policies' objectives) is built through making comparisons between each possible pair of them. Knowing the weighting for each decision element (e.g. objective) and to what extent this element is fulfilled by the individual alternative, the optimum choice can be made.

Availability of Public, Near-Residential Green Spaces DAT

This experimental method has been used by Berlin Municipality. It combines the following strands of assessment: appraisal of the suitability for recreation; survey of intake areas; calculation of the degree of availability; deduction of the housing type. The results, presented as a map, indicate areas with need for more available green spaces.

Brainstorming Fut

Brainstorming is a participative method for developing creative solutions to problems. It works by focusing on a problem, and then having participants come up with as many deliberately unusual solutions as possible and by pushing ideas as far as possible. During the brainstorming session there is no criticism of ideas - the idea is to open up a large number of possibilities, and break down preconceptions about the limits of the problem. Once this has been done, the results of the brainstorming session can be analysed and the best solutions can be explored further.

Cluster Analysis O

Cluster Evaluation is a method that permits the detection of homogeny groups in the data, classifying it into similar groups or clusters. It is used in comparing and contrasting program designs, methodologies, approaches and strategies for problem solving to help determine locally effective options and best practices. Cluster Evaluation allows highlighting the common themes and issues across group of projects, therefore focusing on progress made towards the broad goals of the programming initiative.

Community Impact Evaluation (CIE) IA

CIE assesses the impact of development plans, programmes and projects on the community, systematically taking account of the total costs and benefits on the various community sectors. All possible impacts on the community associated with the project or programme should be taken into consideration, as well as the willingness of the community to accept the impacts.

Competence Trees Fut

Competence trees are special futures techniques that essentially allow an organisation, group or community to identify and evaluate its specific skills and level of competency. The real benefit of applying this technique, however, lies not in its ability to highlight internal competences, but rather to enable the mobilisation of key people on the basis of these competences in an attempt to create and effectively achieve a shared future vision.

Concordance Analysis MCA

Concordance Analysis is a multi-criteria decision-making method, based on a pair-wise comparison of alternatives against each other, one criterion at a time. For each pair of alternatives this comparison results in one option 'winning' and the other 'losing' for each criterion. A cumulative total of wins is established across all criteria and one alternative will emerge as 'best' out of the two alternatives being compared. This procedure carried out for all combinations of alternatives allows selecting the overall best option.

Cost Benefit Analysis (CBA) IA

A judgemental technique in which a researcher compares all social and private costs and benefits of a programme with a view to determining whether the benefits exceed the costs, and if so by how much. In its simple form, CBA is carried out using only financial costs and financial benefits. A more sophisticated approach to CBA tries to put a financial value on intangible costs and benefits, e.g. the cost of environmental damage of new road or the benefit of shorter journey to work.

Cross Impact Analysis MCA

Cross Impact Analysis is quite a complex but effective technique that involves the development of a matrix in order to examine the interaction and interdependence issues on each other. It is often used to help with the choice of policies, using two kinds of approaches: 'Policies Vs Policies', that allow for an understanding of the relation of one action to another, or 'Policies Vs Indicators' that allows for an understanding of the effect of the policy in relation to selected indicators. Cross Impact Analysis complements other assessment methods, especially the ones that produce isolated forecasts.

Ecological Footprint IA

Ecological Footprint is a way of assessing the compound effect of humanity's consumption of natural resources and generation of waste. Ecological Footprint is an estimate of the land area necessary to sustain current levels of resource consumption and waste assimilation for a given population. This method deals only with demands placed on the environment and does not attempt to include the social or economic dimensions of sustainability.

Economic Impact Assessment IA

Economic Impact Assessment measures the overall economic impact of a policy, programme or project on the economy of the community. Economic impacts are defined as the positive or negative effects on the level of economic activity in a local municipality. Economic Impact Assessment can be particularly useful for estimating the potential benefits of various forms of growth.

Environmental Impact Assessment (EIA) IA

Initiatives for large-scale facilities and structures likely to cause significant environmental impacts are subject to the Environmental Impact Assessment Procedure in EU (and quite widely worldwide). The central idea of EIA procedure is that if a project is likely to have serious envi-

ronmental consequences, these should be examined before the development is authorised. EIA sets the environmental effects of a development project on the site and the elements of surrounding natural and human environment (ecology, landscape, heritage, and, to some extent, the community).

Environmental Impact Model (ENVI) IA

The purpose of the ENVI model is to make an ex-ante evaluation tool available for municipalities. ENVI gives a calculation of the environmental impact of the chosen projects or scenarios of the LUDA regeneration (e.g. energy and water consumption, waste production). The tool is presented in the form of a software calculation package.

Expert Judgement DAT

Expert judgement is an approach for soliciting informed opinions from individuals with particular expertise. This approach is used to obtain a rapid assessment of the state of knowledge about a particular problem. It is frequently used in a panel format, aggregating opinions to cover a broad range of issues regarding a topic. Expert judgement is being used when the issue is highly contentious and when observational data are difficult or expensive to obtain. Expert judgment is also integral to many decision-making tools.

Explorative Quarter Research (EQR) DAT

The quarter is a unit of people and environment and EQR aims at exploring the acceptation of the quarter by its inhabitants. The appropriation of space, together with its quality and potential, determines the meaning of an area to people, and opportunities taken and experienced by local residents. The approach of Explorative Quarter Research tries to deliver a phenomenological description of the actual state of environmental relations. EQR analyses data collected by non-participant observation or living-biographic interviews.

Flag Model MCA

The Flag Model is a discrete multi-criteria evaluation method used to assess sustainability of projects and policies. It does so by means of a set of indicators and *a priori* defined benchmark values, named critical threshold values. The Flag Model evaluates the degree to which a project or policy complies with multiple objectives, i.e. whether it sits within the critical threshold value bandwidth. Flag model can be used for either assessment of single policy or comparison of two or more alternatives.

Futures workshops Fut

Futures workshops are a useful and effective way of encouraging public participation in the overall futures exercise. It is one of the tools than can be used to help the participants imagine what the future might look like. The workshops usually follow a standard set of steps which are centred on the particular needs and distinct characteristics of the project in question, helping to create potential and preferred visions of future that should be the base for the development of policies and plans

Geographic Information Systems (GIS) DAT

GIS is a tool for managing, visualizing and analysing a wide variety of data. GIS links spatial information (where things are) with descriptive or qualitative attribute data (what things are). GIS can, for instance, calculate areas and distances, construct buffer zones around features, draw isolines using interpolated values between points, identify view areas from a point, and superimpose maps of the above to produce combined maps. It is often used as a visualisation tool for the results of other assessment methods.

Horizon Scanning Fut

Horizon scanning is a technique that can be used to identify and monitor emerging issues and signals of change in the external environment by undertaking a systematic review of literature and other modes of communication. Scanning unorthodox sources of information often produces very valuable information that usually is not considered by conventional research techniques. Horizon scanning is an essential element of almost every futures method and technique and can be easily adapted to meet the requirements of the project or group implementing it.

Life Cycle Analysis (LCA) IA

LCA is a systematic set of procedures for compiling and examining the inputs and outputs of materials and energy and the associated environmental impacts directly attributable to the functioning of a product or service system throughout its life cycle – from the extraction of natural resources, via the use or operation phase, to the final disposal or recycling.

MASTER (Managing Speeds of Traffic on European Roads) DAT

The MASTER Framework is an experimental method, being a set of guiding rules and principles for evaluating the impacts of a speed management policy so that the socio-economic feasibility of the policy can be established. The impacts assessed using the framework will typically include vehicle operating costs, time costs, accidents, pollution and noise, and how are these impacts distributed.

Multi-Criteria Analysis (MCA) MCA

MCA is a family of methods that are based on comparing alternatives against a set of criteria. MCA treats all criteria as of equal importance and uses variety of measurement scales as a yardstick for benchmarking development proposals. Advocates of MCA propose three criteria for evaluating plans, programmes and projects; efficiency, equity and sustainability. Examples of methods belonging to MCA family are: Analytic Hierarchy Process, Concordance Analysis, Flag Model and Regime Analysis.

Project Impact Assessment IA

An integrated assessment method used to assess the social, economic and environmental impacts of a development project. This method looks at the impact of a project and tries to overcome these by changing project conception and design. This methodology can be developed as a designer's response and accountability after the first impact assessment.

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Quality of Life Assessment DAT

Quality of Life Assessment (QoLA) is a community decision-making framework that aims to identify what matters and why in an area, so that the quality of life consequences (both good and bad) of strategic actions can be better taken into account. The core idea of QoLA is that it is the *benefits* people get from the environment, the economy and society that matter and should be managed. QoLA assesses plans, programmes, decisions and projects in terms of whether they maintain (and enhance) the benefits that matter for the people affected.

Regime Analysis MCA

Regime Analysis is a qualitative multi-criteria method. The fundamental framework of this method is based upon two standard kinds of input data: an evaluation matrix and a set of political weights. The evaluation matrix is composed of elements that measure the effect of each alternative considered in relation to each relevant criterion. The set of weights provides information about the relative importance of criteria to be considered. In Regime Analysis, alternatives are compared in a pair-wise way for all criteria and then ranked basing on the results of the comparison.

Risk Assessment Method(s) O

Risk assessment involves approximating the level of risk by estimating the probability of an event occurring and the magnitude of effects if the event does occur. Risk Assessment is a process that involves bringing together available information about risks and hazards from experts and lay sources for the purpose of making decisions about an appropriate response. This method lies at the heart of risk management, because it assists in providing the information required to respond to a potential risk.

Scenario Development Fut

Scenarios are vivid descriptions of what the future events or environments might be, created in the participatory process. They aim to take into account critical uncertainties about the future in order to create multiple perspectives that can enlighten and inform the strategy decisions that must be made in the present. Scenarios are fast becoming one of the most popular futures instruments used today and also represent one of the most fundamental steps in most futures exercises.

Semantic Differential DAT

Semantic Differential measures people's reactions to stimulus words and concepts in terms of ratings on bipolar scales defined with contrasting adjectives at each end. Respondents usually characterise the tested object by marking one of the predefined degrees at the above mentioned bipolar scales listed one under another. By connecting the marked degrees at all the scales by a line we obtain the so-called 'polar profile' expressing the level to which, according to the respondents, the tested object features each individual characteristic.

Social Cost-Benefit Analysis (SCBA) IA

SCBA has developed as a complementary method to Cost Benefit Analysis. SCBA proposes two principle criteria for evaluating plans, programmes and projects; efficiency (minimising the costs/ maximising the benefits) and equity (social distribution of impacts and benefits). The explicit inclusion of social criteria, in majority impossible to translate to monetary value intangibles, usually results in ranking alternatives rather than judging them on net present values.

Social Impact Assessment (SIA) IA

Social impacts are recognised as "the consequences to human populations of any public or private actions – that alter the ways in which people live, work, play, relate to one another, organise their needs, and generally cope as members of society". SIA is a method aiming at predicting and evaluating the above-mentioned impacts of policies, plan or projects before they occur. SIA is usually used in conjunction with Environmental Impact Assessment in order to get a wider scope of analysis concerned with social, economic and environmental impacts.

Spider Analysis MCA

Spider analysis, a rudimentary Multi Criteria Analysis technique, is an analytical tool used to visualise the relative strengths and weaknesses of individual scenarios through several chosen factors (e.g. sustainability indicators) by plotting directly the scores on each dimension. Each factor is represented by an axis starting from the interior towards the outer boundary of the spider, in which the lowest scores are to be found in the centre of the spider.

Strategic Conversations Fut

A strategic conversation is an informal but structured discussion on a particular issue or policy area that results in a clearer understanding of that issue. The conversation allows the participants involved to voice their opinions and ideas on the subject matter and can often result in the unveiling of obscure or previously unidentified issues that may play an important role in influencing the future.

SWOT Analysis O

This method identifies the strengths, weaknesses, opportunities and threats of a plan, programme or project. SWOT searches the possessed information for issues supporting the decision-making structures in accomplishing their objectives (strength or opportunity), or obstacles that must be overcome or minimized to achieve desired results (weakness or threat). SWOT analysis is a basic, straightforward model and can be used at all stages of the regeneration process.

Survey Questionnaires DAT

Survey Questionnaires are the basic research tool used to collect subjective information from a given group of people. The questionnaires present exactly the same questions to each person surveyed, resulting in comparable outputs, more reliable than outcomes of interviews. The goal of survey questionnaires is to enable the researcher to accurately assess the characteristics or thoughts of a predefined group of people.

Visioning Fut

Visioning is a futures tool that essentially is applied, as its name suggests, to create a 'vision' for the future. The main benefit of this technique is that it allows groups to imagine and consider their 'preferred' or desired future. These visions can then be transformed into realities through the development of goals and action plans. Visioning, therefore, is an essential technique in any futures exercise in order to promote the idea that in order to achieve the preferred future, it must first be envisaged.

Wind Tunnel Testing Fut

Wind Tunnel Testing plays a vital role towards the end of a futures exercise. Its main objective is to test the specific policies developed as a result of the exercise. The technique ensures the feasibility and robustness of all policies proposed and that these policies are flexible enough to deal with a range of potential future uncertainties. In the case where scenarios have been created, the policies would be wind tunnel tested against each scenario to assess their applicability and effectiveness. Therefore Wind Tunnel Testing adds to the overall validity of the futures study.

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