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MAKING GREENER CITIES

A PRACTICAL GUIDE



URGE
urban green environment

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Urban Green Spaces
to Improve the Quality of Life
in Cities and Urban Regions

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MAKING GREENER CITIES

URGE
urban green environment

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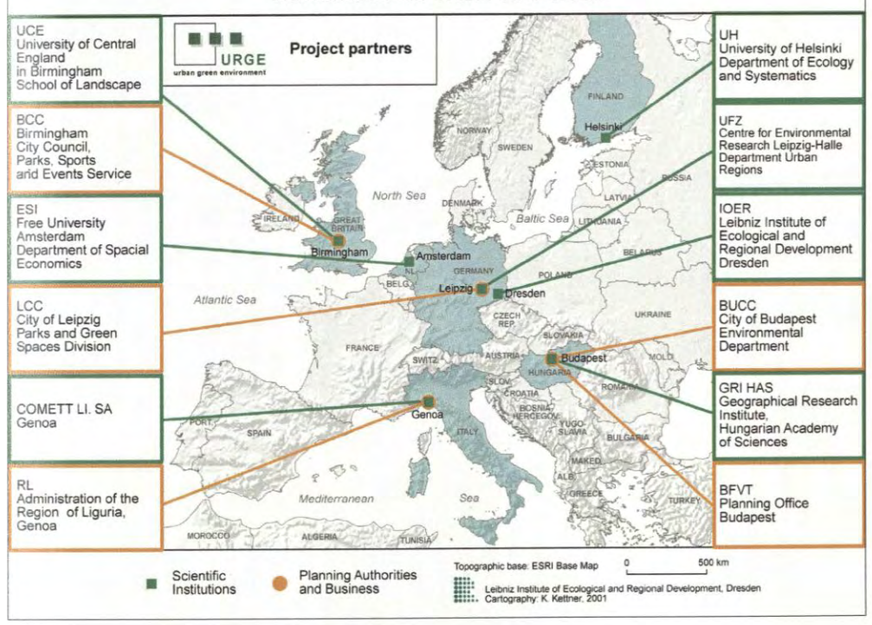
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URGE
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MAKING GREENER CITIES

A PRACTICAL GUIDE



Ne jemi të lumtur t'ju prezantojmë këtë Manual si produktin kryesor të projektit tonë të EU: „URGE – Zhvillimi i hapësirave të gjelbra urbane për të përmirësuar cilësinë e jetës në qytetet dhe rajonet urbane".

Manuali konsiston në një sinteze të punës sonë në gjithë Evropën dhe instrumentave të përpunuara gjatë kohës së të cilës u zhvillua projekti, të përpiluara për të gjithë planifikuesit e hapësirave të gjelbra urbane, dhe paraqet një paketë instrumentash për analizën e strukturës së gjelbër të një qyteti në tërësi dhe vlerësimin e hapësirave të gjelbra në vecanti. Në këtë mënyrë, Manuali jep orientime si të përmirësohet situata e gjelbër urbane me ndihmën e shembujve të praktikave të mira nga Qytetet Partnere dhe Referencë në këtë projekt, së bashku me vizionet për një qytet të gjelbër të së ardhmes.

Të gjitha pjesët e Manualit janë të disponueshme në Anglisht, por paketa e instrumentave është përkthyer gjithashtu në gjuhët e Qyteteve Partnere në këtë projekt, hungarisht, italisht dhe gjermanisht dhe gjendet në diskun shoqërues.

Ne besojme se përdorimi i këtij Manuali do të sjellë një rezultat të suksesshëm dhe do të realizojë qëllimin e tij: – QYTETE MË TË GJELBRA!

Ekipi i Projektit URGE

We zijn blij u dit handboek te kunnen presenteren als belangrijkste resultaat van het EU-project „URGE – Development of Urban Green Spaces to Improve the Quality of Life in Cities and Urban Regions".

Het handboek bestaat uit zowel een synthese van Europese onderzoeksresultaten als de instrumenten die gedurende de looptijd van het project ontwikkeld zijn. Deze instrumenten zijn ontworpen voor planners die zich bezighouden met stedelijk groen en bieden een handvat voor de analyse van de groenstructuur in de gehele stad, alsmede voor de evaluatie van individuele groengebieden. Op die manier biedt het handboek een leidraad voor mogelijkheden tot verbetering van de stedelijke groensituatie. Dit wordt ondersteund door geslaagde voorbeeldprojecten uit de partner- en referentiesteden van het project, tezamen met visies op de 'groene stad van de toekomst'.

Alle delen van het handboek zijn beschikbaar in het Engels, maar het instrument voor de analyse van de groenstructuur in de stad (de 'toolbox') is ook vertaald in de talen van de partnersteden; Hongaars, Italiaans en Duits. U kunt deze vinden op de bijgevoegde CD-ROM.

We vertrouwen er op dat het gebruik van dit handboek tot een succesvol resultaat zal leiden en aan zijn doel tegemoet zal komen – het groener maken van steden!

Het URGE consortium

Imame udovosltvieto da predostavim na Vaseto vnimanie nastojastija Naracnik, kato edin ot osnovnite rezultati na Evropejskija proekt „URGE – v prevod Obrastam vnimanie – Razvitie na gradskite zeleni plosti s cel podobrjavane kacestvoto na zivota v gradovete I gradskite regioni".

Naracnikat predstavljava sintez na nasata dejnost v redica Evopejski gradove i na instrumentite razraboteni po vreme na rabotata po proekta s cel da badat izpolzvani ot specialistite zanimavasti se s planirane na zelenite plosti v gradovete. V Naracnika e vklucena matrica za analiz na strukturata na gradskite zeleni plosti, kakto i napatstvija za podobrjavane na sastestvuvastoto polozenie, predstaveni s pomostta na primeri za dobri praktiki predostaveni ni ot gradovete -partnjori i ot referentnite gradove. V Naracnika e predstavena i nasata vizija za zelen grad na badesteto.

Vsicki glavi na Naracnika sa predstaveni na anglijski ezik, no v prilozenija disk matricata za analiz na zelenite plosti e predstavena na ezicite na stranite ot koito sa gradovete-partnjori po proekta.

Nie vjarvame, ce nastojastijat Naracnik ste izpalni postavenata cel i izpolzvaneto mu ste dovede do uspesen rezultat – DA NAPRAVIM NASITE GRADOVE PO-ZELENI!

Konsorcium po proekta URGE

We are happy to present this manual to you as the main outcome of our EU-Project "URGE – Development of Urban Green Spaces to Improve the Quality of Life in Cities and Urban Regions".

The manual consists of a synthesis of our work across Europe and the tools developed during the project runtime, being designed for all practitioners and planners dealing with urban green spaces, providing a toolbox for the analysis of the urban green structure of a whole city and for the evaluation of individual green spaces. As such the manual gives guidance on how to improve the condition and status of urban green situation with the help of good practice examples from our partner and reference cities, together with visions for the green city of tomorrow.

All parts of the manual are available in English, but the toolbox has also been translated into the languages of our partner cities, Hungarian, Italian and German, to be found on the enclosed CD.

We trust that the use of our manual will produce a successful outcome and realise its purpose – to MAKE GREENER CITIES!

The URGE Project

Wir freuen uns, Ihnen unser Planungshandbuch vorlegen zu können, das Hauptergebnis aus dem EU-Projekt „URGE – Förderung von Grünflächen zur Verbesserung der Lebensqualität in Städten und urbanen Räumen" (englischer Originaltitel: „URGE – Development of Urban Green Spaces to Improve the Quality of Life in Cities and Urban Regions").

Das Handbuch beinhaltet eine Synthese unserer Arbeit, in die Erfahrungen aus weiten Teilen Europas eingeflossen sind, sowie eine Sammlung von Instrumenten, die während der Projektlaufzeit erarbeitet wurde. Sie wurde speziell für Planer städtischer Grünflächen entwickelt und bietet verschiedene Instrumente für die Analyse urbaner Grünstrukturen sowie für die Bewertung einzelner Grünflächen an. Das Handbuch gibt Anleitungen zur Verbesserung der Grünsituation in Städten anhand gelungener Beispiele aus unseren Partner- und Referenzstädten sowie anhand von Anregungen für die „Grüne Stadt von morgen".

Alle Teile des Handbuches liegen in Englisch vor; darüber hinaus wurden die Instrumente in die Sprachen unserer Partnerstädte, Ungarisch, Italienisch und Deutsch, übersetzt. Die Sprachversionen sind auf beiliegender CD-ROM zu finden.

Wir hoffen, das vorliegende Handbuch wird Ihnen als nützliches Handwerkszeug dienen und damit seinen Zweck erfüllen – Städte grüner zu machen!

Das URGE-Projekt

Meillä on ilo esittää teille tämä ohjekirja, joka on EU:n URGE – hankkeen (Kaupunkien viheralueiden kehittämistä elämän laadun parantamiseksi kaupungeissa ja urbaanialueilla) päätuote.

Ohjekirja koostuu yhteenvedosta työstämme Euroopan kaupungeissa sekä hankkeen aikana kehitetyistä työkaluista. Se on tarkoitettu kaupunkien viheralueiden parissa työskenteleville suunnittelijoille. Ohjekirja tarjoaa työkalupakin kokonaisten kaupunkien viherrakenteen sekä yksittäisten viheralueiden analysoimiseen. Ohjekirja opastaa kaupunkiviherіöiden laadun kohottamiseksi hyvien esimerkkien avulla tutkimus- ja vertailukaupungeista. Se tarjoaa myös näkemyksiä huomisen viherkaupungeista.

Ohjekirjan kaikki osat ovat saatavissa englanniksi ja työkalupakki on käännetty yhteistyökaupunkien kielille eli unkariksi, italiaksi ja saksaksi. Käännökset löytyvät mukana olevalta cd-levyltä.

Toivomme ohjekirjan käytön auttavan teitä saavuttamaan hyviä tuloksia – VIHREÄMPIÄ KAUPUNKEJA.

Ystävällisen terveisin,
URGE hankeen konsortio

Nous sommes heureux de vous présenter le guide résultant du travail du programme de recherche européen URGE (Développement des espaces verts urbains pour améliorer la qualité de vie dans les villes et agglomérations urbaines).

Notre manuel comprend une synthèse de notre étude appliquée à l'échelle des villes européennes et les outils spécifiques destinés à l'ensemble des aménageurs ayant un lien avec les espaces verts et adaptés à une analyse de la trame verte urbaine ainsi qu' à l'évaluation du potentiel de chaque espace vert.

De plus, ce guide apporte des méthodes sur les manières d'améliorer l'état de la nature urbaine de chaque agglomération en se fondant sur des démarches exemplaires relevées dans les villes de références et dans les villes partenaires, dans la perspective de programmer la nature des aménagements futurs.

Ce guide est disponible en anglais mais le chapitre traitant des outils a été traduit dans toutes les langues des villes partenaires, hongroises, italiennes, allemandes comme joint dans le CD.
Nous espérons que l'utilisation de ce guide apportera des résultats positifs et atteindra son but initial,à savoir réaliser des villes plus vertes.

Le groupe de recherche URGE

Z veseljem vam predstavljamo ta priročnik kot glavni rezultat našega EU – projekta "URGE – načrtovanje mestnih zelenih površin za izboljšanje kvalitete zivljenja v mestih in urbanih regijah".

Priročnik je rezultat našega dela po vsej Evropi. V njem so prikazana orodja načrtovanja, ki smo jih med izdelavo projekta oblikovali in razvili za vse načrtovalce mestnih zelenih površin. Namen je ustvariti nabor orodij za analizo strukture mestnih zelenih površin celotnega mesta, kot tudi za vrednotenje posameznih zelenih površin. Tako, skupaj z vizijo zelenega mesta prihodnosti in pomočjo primerov dobre prakse naših partnerskih in referenčnih mest, priročnik predstavlja pomoč za izboljšanje razmer mestnih zelenih površin.

Vsi deli priročnika so na voljo v angleškem jeziku, sam nabor orodij, ki ga lahko najdete na priloženem CD (zgoščenki), pa je bil preveden v jezike partnerskih mest, v madžaršèino, italjanšèino in nemšèino.

Prepričani smo, da bo uporaba priročnika prinesla uspešne rezultate in tako izpolnila njegov namen – USTVARITI BOLJ ZELENA MESTA!

URGE Consortium

Örömünkre szolgál, hogy kezében tarthatja ezt a kézikönyvet, amely az URGE-Városi Zöld Környezet címû Európai Uniós projekt legfontosabb eredményeit tartalmazza. A projekt célkitûzése volt, hogy a zöldfelületfejlesztés eszközeivel javítsa a városi életminõséget.

A zöldfelületekkel foglalkozó szakemberek számára készült kézikönyv Európa számos városában végzett munkák szintézisét foglalja magában. A zöldfelületi rendszer városi szintû elemzéséhez, illetve az egyes zöldfelületek értékeléséhez szükséges eszköztárat vonultatja fel. A programban részvevõ partner és referencia városok követendõ gyakorlati példáinak bemutatása útmutatóul szolgál a zöldfelületek fejlesztéséhez.

A kézikönyv angol nyelven készült, de a mellékelt CD-n található eszköztár a partner városok nyelvén (magyarul, olaszul és németül) is olvasható.

Bízunk benne, hogy haszonnal forgatják ezt a kézikönyvet, és segítségével közelebb kerülünk célunkhoz: a zöldfelületekben gazdagabb városok kialakításához.

URGE-konzorcium

Es para nosotros un placer presentar este manual, resultado de nuestro proyecto de la UE „URGE – Desarrollo de espacios verdes urbanos para la mejora de la calidad de vida en ciudades y regiones urbanas".

El manual se presenta como una síntesis de nuestro trabajo en Europa y de las herramientas elaboradas durante la ejecución del proyecto. Diseñado para los proyectistas de espacios verdes urbanos, este manual ofrece un conjunto de instrumentos para el análisis tanto del conjunto de los espacios verdes de la ciudad como para la evaluación de las aéreas singulares.
A partir de estos elementos, y con la ayuda de ejemplos sobre buenas prácticas realizadas por nuestras ciudades socias y de referencia, este manual se convierte en una guía para mejorar la situación de las zonas verdes urbanas al tiempo que presenta nuevas visiones de la cuidad sostenible del mañana.

Todas las partes del manual están disponibles en ingles, pero el conjunto de herramientas elaboradas será igualmente traducido a los distintos idiomas de nuestros socios, húngaro, italiano y alemán y se facilitará en soporte CD.

Confiamos en que el uso de este manual tenga resultados positivos y cumpla su propósito – ¡construir CIUDADES SOSTENIBLES AMBIENTALES!

El proyecto URGE

Abbiamo il piacere di presentarvi questo manuale quale principale risultato del progetto comunitario „URGE – Development of Urban Green Spaces to Improve the Quality of Life in Cities and Urban Regions", da noi elaborato.

Il manuale è composto dalla sintesi del lavoro che ha coinvolto i diversi paesi europei partecipanti al progetto e ne rappresenta l'elaborazione finale; si rivolge a tutti coloro che si occupano di pianificazione del verde come strumento di analisi e valutazione dell'intera struttura urbana e dei singoli spazi aperti che la compongono.
Il manuale fornisce, inoltre, linee guida per incrementare la dotazione del verde in città, ponendo l'attenzione su alcuni esempi „di buona pratica" scelti dai partecipanti ad URGE, che insieme hanno collaborato per ipotizzare un futuro più verde per le città del domani.

Il manuale è stato redatto in inglese; i criteri, che potete trovare nel CD allegato, sono stati tradotti nelle lingue dei rispettivi partner – Ungheria, Italia e Germania.

Ci auguriamo che l'uso del manuale – MAKE GREENER CITIES – possa produrre risultati soddisfacenti per „FARE PIU' VERDI LE CITTA'".

Il progetto URGE

EU – URGE Projesi - Kentsel Bölgelerde Yaþam Kalitesinin Iyileþtirilmesi Için Yeþil Alanlarýn Geliþimi'nin ana çýktýsý olan bu el kitapçýðýný sizlere sunmaktan mutluyuz.

El kitapçýðý, bireysel yeþil alanlarýn deðerlendirilmesi ve bütün kentin kentsel yeþil alan yapýsýnýn analizi için bir araç saðlayan, kentsel yeþil alanlarla ilgili bütün plancýlar için tasarlanan, proje süresince özenle hazýrlanan araçlar ve Avrupa'daki çalýþmamýzýn sentezini kapsamaktadýr. Yarýnýn yeþil kent vizyonuyla birlikte, ortak kent ve referans kentlerden iyi uygulama örnekleri yardýmýyla, kentsel yeþil alan durumlarýnýn nasýl geliþtirileceði hakkýnda yol gösteren bir rehberdir.

El kitapçýðýnýn bütünü Ýngilizcedir ancak araç kutusu partner kentlerin dilleri olan Macarca, Ýtalyanca, Almanca'ya da çevrilerek iliþikteki CD'de bulunmaktadýr.

El kitapçýðýmýzýn baþarýlý bir netice vereceðini ve daha yeþil kentler yapmak olan amacýný gerçekleþtireceðine inanýyoruz.

URGE Konsorsiyumu

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INTRODUCTION

SECTION A



Urban green spaces are crucial elements of all cities. They affect the townscape, provide ecological diversity and form essential structural and functional elements that make cities and urban regions more liveable places for their citizens. It is this key role of improving the quality of urban life that has caused the European Commission to acknowledge the vital importance of urban green spaces, not only because of their ecological functions but also with regard to their relevance for healthy citizens, societal well-being, economic benefits and the central role that they perform in the development and delivery of sustainable ideals (Figure A 1).

Urban green spaces provide a wide range of outputs, however, due to their multi-functional characteristics, the development and management of parks and green spaces is becoming a more and more complex planning issue that needs careful consideration if green spaces are to be successful places, accepted and appreciated by citizens, without placing an undue financial burden on local planning authorities. The development and implementation of appropriate management strategies demands a comprehensive and, above all, an interdisciplinary base of knowledge which informs us about the complex interplay of factors that are linked to many green space issues. To provide such a base and to contribute to the ideals of sustainable urban development, the Project "URGE – Development of Urban Green Spaces to Improve the Quality of Life in Cities and Urban Regions" attempted to go deeper into the nature of the complex interactions that occur between different urban green space functions and tried to develop an integrated point of view which was able to deal with the future multi demands being expected of urban green.

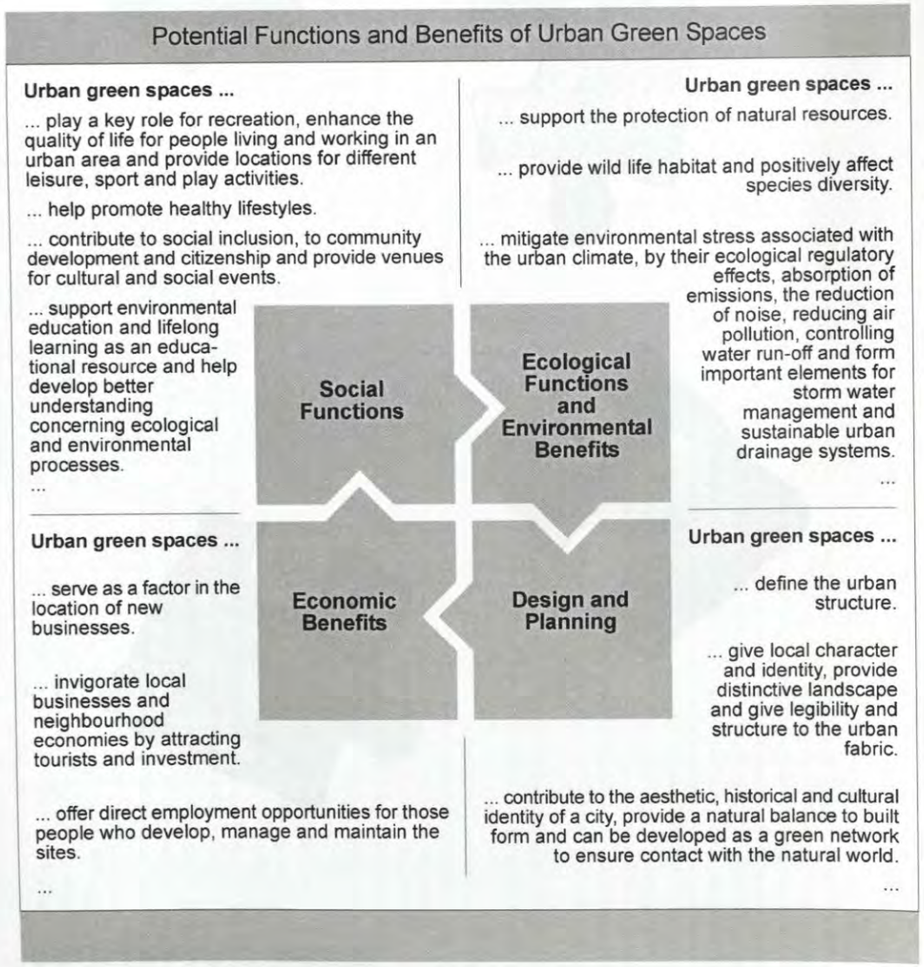


Fig. A 1: The benefits and functions of urban green spaces.

Urban Green Spaces as defined in the URGE-Project

Urban green spaces are understood as public green spaces located in urban areas, mainly covered by vegetation (as opposed to other open spaces) which are directly used for active or passive recreation, or indirectly used by virtue of their positive influence on the urban environment, accessible to citizens, serving the diverse needs of citizens and thus enhancing the quality of life in cities or urban regions.

The central objects of investigation within the URGE-Project were public urban green spaces. In order to have a common understanding about urban green spaces, the URGE-Consortium agreed on the above mentioned definition. The definition of terms used within the Manual can be found in the Glossary on the annexed CD-ROM "Tools" (Part 3, Supplement).

The URGE-Project and its Goals

URGE was a 38 months long research project funded under the 5th Framework Programme of the European Commission, within the Key Action 4 "City of Tomorrow and Cultural Heritage". The project consortium consisted of twelve partner institutions from six European countries under the overall co-ordination of the Department of Urban Regions at the UFZ – Centre for Environmental Research Leipzig-Halle in Leipzig. Six scientific institutes were included in the consortium, the Leibniz Institute for Ecological and Regional Development in Dresden, the University of Helsinki, the Free University Amsterdam, the University of Central England in Birmingham, the Institute COMETT Li. Sa. in Genoa, and the Hungarian Academy of Sciences in Budapest (contact list of URGE-Participants can be found on pages 111, 112). Together they formed teams of researchers representing the disciplines of ecology, economics and sociology as well as urban and landscape planning. Five local authorities, with their supporting Planning Departments, completed the consortium – the Region Liguria and the Cities of Leipzig, Birmingham, Budapest and Budapest Urban Planning Ltd., their primary role was to audit and test the scientific results for their applicability. Each of these four Partner Cities selected two green spaces as case studies. These case studies were used to develop, test and refine the concepts and tools developed by the project and which are described later in this Manual.

The experience of eleven Reference Cities, selected from across Europe, further enriched the project in providing additional information about the status of their urban green spaces and their green planning activities (Figure C 2, page 43). The information provided by the Reference Cities formed much of the basis of the Good Practice Examples (Section C).

Previous research projects concerning green issues have tended to analyse the potential roles and benefits of urban green according to a single discipline, e.g. ecological, economic or social aspects. As a result, the body of knowledge in the field is disciplinarily separated at both an academic level and in the development, planning and administration of green space strategies. This separation makes communication and co-operation between different disciplines more difficult; in many cases it seldom happens and has given rise to a situation where a city's green space management is characterised by poor knowledge about the complex functioning of urban green due to the lack of any convincing integrated/interdisciplinary methods for the optimal development and management of green spaces.

Such a situation emphasised the need for interdisciplinary research involving academic institutions in an active collaboration with city partners, and this largely defined the way in which the URGE-Project was organised. Because of this collaboration, it was possible to realise the major objective of URGE, to develop instruments, which could be used to help improve the provision of urban green spaces, both qualitatively and quantitatively, thus moving towards the project's overall aim of enhancing the quality of life of the urban population and contributing to the sustainable development of European cities.

The New Instrument – ICC

URGE provides strategies for the development and management of urban green spaces by means of an interdisciplinary approach. As an early output, the project consortium compiled a catalogue of standardised interdisciplinary criteria regarding urban green which formed the basis for the so-called "Interdisciplinary Catalogue of Criteria" (ICC). Criteria for the ICC were developed from the multi-perspectives of ecology, economics, social science and planning (Figure A 2). The applicability of the ICC was tested in the four Partner Cities at City Level, regarding the entire green structure, and at Site Level by two case study sites (an inner green space and an urban fringe green space). The development of the criteria contained within the ICC, as well as their further evaluation was undertaken using different Case Study Cities selected from all over Europe and enabled the international application of the project outcomes.



Fig. A 2: Interdisciplinary approach of the URGE-Project.

"MAKING GREENER CITIES" – A PRACTICAL GUIDE provides interdisciplinary assistance to the user presenting a range of information and specific tools, intended to form a resource for academics, professional planners, local governments and citizens interested in developing and managing urban green spaces throughout Europe. This Manual presents the main experiences, results and recommendations of the URGE-Project. Rather than prescribing any specific model, we describe and guide you through the process of how to improve the urban green space situation by using the URGE-Toolbox facilitated by interdisciplinary analysis, the selection and description of Good Practice Examples and by considering recommendations and visions for a "Green City of Tomorrow".

URGE took a dual approach in its research and analysed issues and made recommendations for the provision of green in respect of a whole city as well as the quality of individual green spaces and their specific interrelations with their surroundings. Using this approach it was possible to differentiate between City Level and Site Level.

City Level

*At **City Level**, the entire urban green structure of a city within its administrative borders is considered. Other green spaces such as private green, including allotments, cemeteries, brownfield sites, street trees and agricultural land, are included at this level as far as their ecological and structural functions within the urban context are concerned.*

Site Level

*At **Site Level**, all individual urban green spaces that are available for public use in relation to their surroundings and their urban context are analysed and evaluated.*

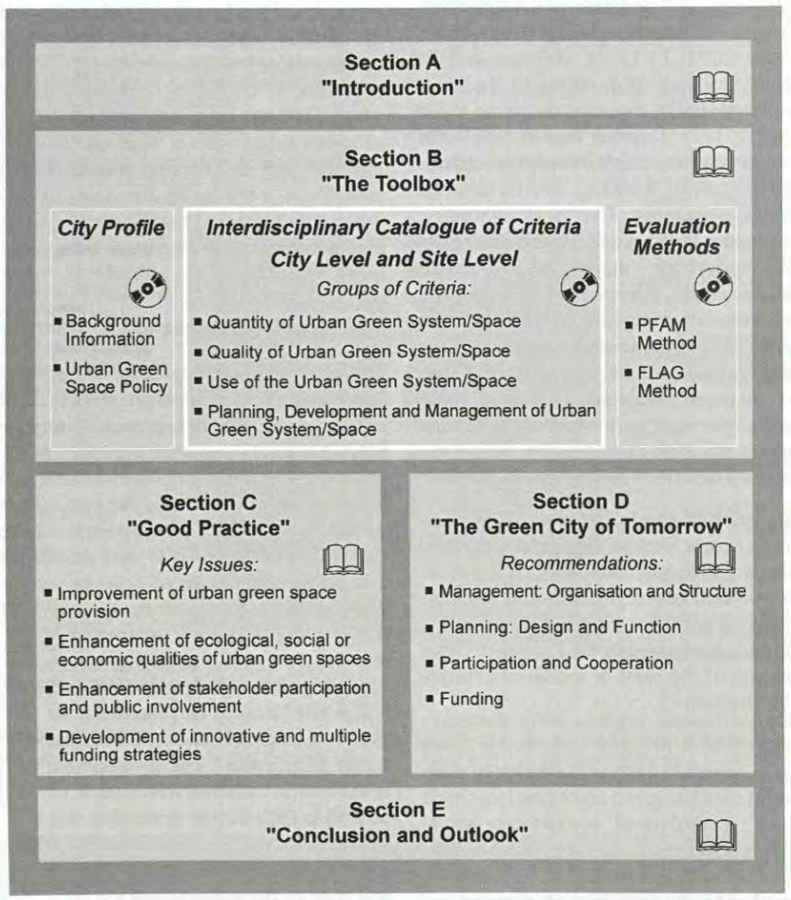


Fig. A 3: Structure and content of the Manual.

The Manual "MAKING GREENER CITIES" consists of the booklet and an annexed CD-ROM "Tools"; the structure of the Manual is given in Figure A 3.

- **The Booklet** provides a general overview of the URGE-Project as well as instructions on how to handle the respective tools, including the presentation of Good Practice Examples for the improvement of green spaces and the vision for a future "Green City".
- **The CD-ROM "Tools"** gives detailed information of the suite of tools, including the files and templates that facilitate the practical application of the URGE-Methodology all of which can be downloaded. It also presents additional valuable project information, the addresses of URGE-Project partners and contact persons, a Glossary, the URGE-Homepage off-line and posters.

The **Booklet** is composed of five sections, as shown in Figure A 3, its core, however, is composed of three parts.

Section A: Introduction, gives a general introduction about the URGE-Project and about the Manual.

Section B: The Toolbox, which is the heart of the Manual, contains the introduction to the developed instruments – the complete information is stored on the CD-ROM. The tools are:

- **The City Profile**: This questionnaire template deals with a city's general structure and organisation in relation to its green spaces. The questionnaire helps to gather information that enables the user to carry out a self-assessment of how a city administration is dealing with its urban green spaces and the issues involved.
- **The Interdisciplinary Catalogue of Criteria (ICC)**: The ICC integrates ecological, economic, social and planning aspects of urban green spaces organised through an interdisciplinary set of four criteria groups. It is intended to give assistance to practitioners working in the field of urban green planning. The four criteria groups are: 1. Quantity of Urban Green, 2. Quality of Urban Green, 3. Use of Urban Green, and 4. Planning, Development and Management of Urban Green. As indicated, the user can access templates for analysing urban green at City Level and at Site Level from the CD-ROM. The ICC's conceptual background and its structure are described later in the Manual in Section B, which also gives details for its application.
- **The Evaluation Methods**: The Toolbox presents and discusses two different evaluation methods, which are designed to enable the user to identify problems in the performance or provision of urban green – an essential precondition for the development of strategies for the future improvement of a green space. The described methods support the analysis and the interpretation of the data collected by the ICC. Both methods have been tested at Site Level and are explained using the example of the Partner City Leipzig.

Section C: Good Practice, provides examples for green space development and management. The examples, collected from the pan-European URGE-Project network of fifteen cities, are presented to allow users to learn from the experience of others and to examine different strategies for achieving effective urban green space planning. Good Practice Examples are identified as an important mechanism for introducing new ideas and new knowledge, especially when old routines are becoming ineffective. They are presented according to the following Key Issues: a) Improvement of urban green space provision, b) Enhancement of ecological, social or economic qualities of urban green spaces, c) Enhancement of stakeholder participation and public involvement, and d) Development of innovative and multiple funding strategies.

Section D: The "Green City of Tomorrow", thinking about sustainable city development requires thinking about creating strategies for the future development and management of urban green spaces. Section D gives an overview about the challenges cities will face in the near future as well as presenting ideas for strategies and making recommendations for working towards a "Green City of Tomorrow". These are related to the four main aspects of green space provision: a) Management: Organisation and Structure, b) Planning: Design and Function, c) Participation and Cooperation and d) Funding.

Section E: Conclusion and Outlook, presents a summary of the main findings of URGE and of the recommendations contained in the Manual.

The **CD-ROM "Tools"** contains three parts:

- **Part 1 – Booklet:** This part stores the complete booklet in PDF-files for viewing and printing.
- **Part 2 – Toolbox:** The toolbox provides the templates of the City Profile, the whole ICC at City Level and Site Level and supplementary information to assist in the application of the ICC, plus a detailed description of the Evaluation Methods. These tools are offered in four languages: English, German, Hungarian and Italian. Further on, you will find brief introductions on how to use the templates and how to evaluate the ICC data sets.
- **Part 3 – Supplement:** This part contains a compilation of additional information about the URGE-Project.



The topics and tools presented in Sections B, C and D have been designed as an integrated package so that they can be used effectively to contribute to the different stages of the planning and management processes of urban green spaces. However, their optimum value will be achieved if they are utilised in combination like the pieces of a jigsaw that, when put together, form a whole picture of the urban green situation under investigation. However, each tool can still be used independently for specific purposes.

The instruments and tools of Sections B, C and D can be applied and integrated into the course of urban green planning (Figure A 4). The basic condition for a successful planning and management process leading towards a "Green City of Tomorrow" is the development of an explicit, well-defined and publicly accepted **strategy**. This requires the definition of the citizens' future demands plus the development of appropriate objectives and priorities. In particular, it is important to involve stakeholder views at the very start of the process of defining the city's strategy. The visions drafted in Section D and the Good Practice Examples in Section C give useful hints for city-specific strategies and support this process.

The next step is an interdisciplinary **analysis and evaluation** of the current status of individual urban green spaces and/or the structure of the overall green system of a city. The application of Section B's Toolbox can help to identify and analyse any problems and assess the potential for improvement at both City Level and Site Level.

Section D provides valuable general recommendations concerning the **planning, realisation and management** of urban green, including aspects that need to be taken into account in the design, the need for co-operation and collaboration as well as issues regarding funding. Section C highlights examples of innovative planning practices from other cities and thus serves as a pool of ideas for encouraging appropriate strategies.

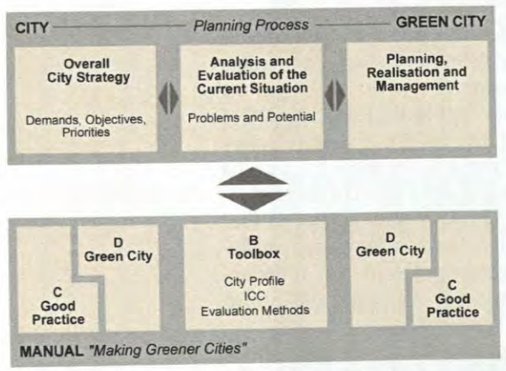


Fig. A 4: Application of Sections B, C and D in the urban green space planning and management process.

In the process of developing and managing urban green, it is suggested that planners should also pursue alternative ways of moving towards a "Green City". For example, when considering the re-development of a part of a city we recommend starting with an analysis at ICC City Level, since it allows a critical audit of the green space provision. The ICC-Benchmarks identify problems and needs, help to protect existing green spaces and to develop new ones. Subsequent to this analysis, planning strategies can be formulated followed by their realisation and can take advantage of the Good Practice Examples as well as the ideas developed in the vision for a "Green City". It is suggested that the ICC is used as a monitoring instrument and that the URGE-Methodology is incorporated within the ideals of the Local Agenda 21, since the provision of urban green spaces has to be planned and realised together with the planning of other urban functions like housing, transport, infrastructure, etc. The process of urban green planning, as depicted in Figure A 4, can be seen as one part of an integrated overall city planning process where the implementation of the strategy becomes easier because it is accepted both by the municipality administration and the citizens.

The Manual – A "Tool To Get People Talking"

Besides its function as a 'planning assistant', the Manual is also intended to act as a **"Tool to get people talking"** – as a method to advance and strengthen communication, to allow us to start (re)thinking and learning about the complex interactions between the needs of citizens and the supply of urban green spaces and as a catalyst for the delivery of scientific and technical knowledge and ideas to the user.

The Manual offers a picture of what has been done and of what can be done, it forms a driver for changing and improving the quality of our "urbanscapes", improving the quality of life and for advancing the ideals of the sustainable city. As an instrument for developing and managing urban green spaces the Manual is only as valuable as its ability to meet user needs, but its development has been carefully planned, revised and tested by a pan-European team of scientists and practitioners. Accordingly, it is hoped that it will find wide application within and outside Europe, but continued dialogue is essential from all those interested in the development of urban green space planning. To facilitate this, an address list of URGE-Participants is provided on the CD-ROM and the URGE-Team welcomes any response from the users of the Manual in form of comments or field reports.

THE TOOLBOX

SECTION B



The tools, which were developed during the URGE-Project, are presented in this section of the Manual (Figure B 1). They provide assistance for the interdisciplinary analysis and evaluation of urban green spaces in European cities and urban regions. The tools included are:

1) City Profile
2) Interdisciplinary Catalogue of Criteria (ICC)
3) Evaluation Methods

1) City Profile

Description
The City Profile is a questionnaire designed for the compilation of general information about the urban green conditions in a city or an urban region.

Aim
The City Profile enables a local or regional authority to carry out what can be described as a 'green space health check'. This 'check' is intended to identify existing strengths and weaknesses of green space policy and the provision of green as a starting point for any necessary improvement. The information gathered through the application of the City Profile enables municipalities, planning authorities or other users, to carry out a self-assessment with regards to urban green space issues within their respective territories. The City Profile can be applied in a wide range of ways, for example, to compare the urban green situation across several cities; to help develop integrated regional green space policy; in bidding for funding offered by national or European support programmes; or as a useful tool to help monitor urban green space development in one or more cities. The City Profile is also useful for the collection of data needed for the second tool, the ICC.

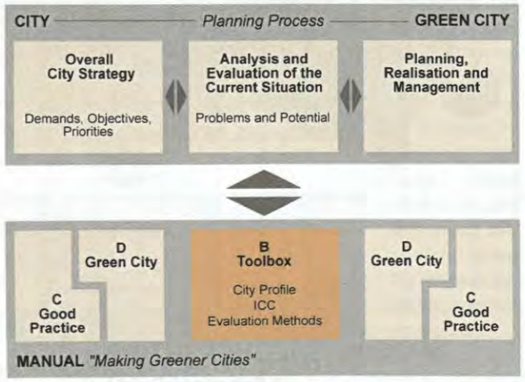


Fig. B 1: Application of Section B into the planning process.

The City Profile is provided as a template on the attached CD-ROM "Tools".

2) Interdisciplinary Catalogue of Criteria (ICC)

Description
The ICC integrates ecological, economic, social and planning aspects of green spaces. These are organised in four criteria groups to offer assistance to practitioners in the assessment, development and management of urban green spaces, in order to improve the quality of life in European cities.

Aim
The ICC was developed during the URGE-Project in response to the absence of any integrated, interdisciplinary method for ensuring the optimal development, management and use of urban green spaces, expanding the knowledge base concerning these complex interactions particularly between nature, economy and social systems. Through systematic and collaborative research, a new set of tools for urban green space planning was devised from a cross European perspective.

This part of the Manual explains the conceptual background and structure of the ICC and gives recommendations for the application of the ICC. In order that the Manual be kept concise, the text only describes the characteristics of one criterion for both City Level and Site Level. However, a complete list and overview of all the available groups of criteria and individual criteria, with full information is provided on the CD-ROM "Tools".

3) Evaluation Methods

Description
This part of the Manual briefly describes two evaluation methods, the Polyfunctional Assessment Method (PFAM) and the FLAG Method, including the advantages and disadvantages of each method.

Aim
The aim of evaluation is to determine whether the current condition of the green system for a whole city (City Level) or that of a single green space (Site Level) is satisfactory or whether it needs improving. The evaluation methods support the analysis and the interpretation of the data collected by the application of the Interdisciplinary Catalogue of Criteria (ICC).

A detailed description of both methods, as well as their theoretical background, is available on the attached CD-ROM "Tools". Both methods have been tested at Site Level with data from the application of a preliminary version of the ICC applied at the District Park Reudnitz in Leipzig (Germany) as an example.

The Structure of the City Profile

The City Profile is a questionnaire consisting of two parts and several sub-sections. Part A asks for general data about the city and background information about urban green spaces, Part B concentrates on urban green space planning and policies.

Part A guides the user through the process of gathering information about the city or urban region under investigation, including land use types, population and geographical data as background or contextual information for assessing the performance of the urban green space to be undertaken in Part B. Part A can also be used as a basis for the identification and monitoring of change in the urban fabric. Part B is more extensive and focuses on urban green spaces as a specific land use type within the urban fabric. It serves as a guide to collect data about the urban green structure, but also draws together information that can illustrate how effective a local authority is in providing effective urban green spaces. Therefore Part B guides the user systematically through a range of key topics by asking questions about environmental, ecological, economic and social demands, which critically examine the objectives for the development of green spaces, the existence of overarching green space systems, the importance given to green spaces, and how they function.

How to use the City Profile

The City Profile is organised in a fashion that allows the easy compilation of data. In most cases, the user is only required to select an appropriate response and then to evaluate that response in the following section, right through to a final evaluation process at the end of the questionnaire. In the final section the user should review the responses by giving a statement about the general goals and strategies for urban development and urban greening in relation to sustainability. In making these final statements, the user is required to reflect on the process and if the objectives for urban green space development and management so far identified, fully accord with current concepts of sustainable urban development which should include a full interpretation of green space issues.

Thus the City Profile works in several ways:

- It gives direction and a common basis for gathering simple and useful facts on a city or regional scale.
- It identifies key aspects and questions relating to policies and priorities and encourages the user to evaluate them.
- It encourages the city council and other users to review the actual provision and relate this back to existing policy.
- It ensures that the city's strategies and policies for urban greening are properly represented within the overall aims of the local authority.
- It helps to develop integrated green space policies.
- It supports funding bids.
- It identifies problems regarding the current provision of green spaces and identifies possible examples of good practice.
- When applied fully, it provides a comprehensive and easy-to-use framework for analysing the strengths and weaknesses of existing greening strategies and green space provision.

If used constructively, the City Profile will provide a good starting point for a critical appraisal of a city's green space policy and for assessing local authority attitudes to the provision and management of urban green spaces. All European cities and regions have urban green spaces of which they can be proud and these should be identified when compiling the City Profile, their respective aims and objectives, how they are funded, what particular contribution they make to the urban green system and how these outputs are delivered.

The City Profile is intended to facilitate urban green space planning, development and management. By questioning the effectiveness of a city's green space provision, its green space performance can be better understood. The City Profile also identifies if green space concepts or local policies are adequate or sufficiently qualified to deliver policy, to strengthen policy and extend good practice. Its use offers a critical overview of the current urban green situation. If further more detailed analysis and evaluation is intended then the use of the "Interdisciplinary Catalogue of Criteria at City Level" (Section B – The ICC) is recommended and for individual green spaces, the specific tool "Interdisciplinary Catalogue of Criteria at Site Level" (Section B – The ICC) should be applied.

The City Profile questionnaire template is available for downloading on the enclosed CD-ROM "Tools" in the languages English, German, Hungarian and Italian.

Conceptual Background

The traditional approach for the evaluation and development of green spaces in European cities is often characterised by a rigid sectoral divide. The different departments of a city's administration gather green-related data in their own field of interest, which are later analysed and evaluated (Figure B 2). Based upon this type of analysis, strategies for the development of urban green spaces are often built upon a limited number of criteria related to a single discipline where, generally, the opinions of other disciplines are not taken into account.

Typically, this process results in only quantitative targets (e.g. "create more green spaces") with little consideration being given to the needs of the local population, economic factors, wider planning targets or even the qualitative aspects

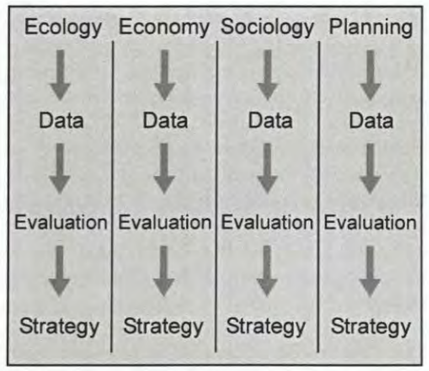


Fig. B 2: Evaluation and development of urban green spaces – traditional 'silo' approach.

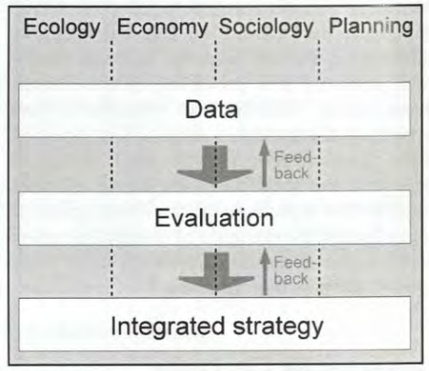


Fig. B 3: Evaluation and development of urban green spaces – interdisciplinary approach.

of green spaces (e.g. biodiversity). As a consequence, the emerging strategies for urban green spaces are not in harmony with the local circumstances. This effect is further compounded when other aspects of urban development (housing, infrastructure etc.) displace green space planning and development.

To solve this problem URGE developed an interdisciplinary approach (Figure B 3), where criteria from the four disciplines of ecology, economics, sociology and planning were selected and integrated into a single tool called "The Interdisciplinary Catalogue of Criteria (ICC)". With the application of the ICC it is possible to analyse and evaluate urban green systems and individual green spaces in a more multi-dimensional way, which can support practitioners in achieving optimal development and management strategies for individual local green spaces or the green system of a city or a city district.

For a better understanding of the concept and the possible application of the ICC the meaning and definition of some of the most frequently used terms are introduced here:

A **criterion** is defined as a decisive and determinative characteristic or argument. Each criterion is measured with the help of indicators, which have three basic functions, simplification (to simplify information about complex phenomena), quantification (to quantify processes making their significance more apparent) and communication (to improve the exchange of information between different stakeholders/ users). Each **indicator** can be measured by **quantitative** or **qualitative data** (information), which need to be collected by different methods (e.g. surveys, statistics, interpretation of policy documents). The **method** to be applied depends very much on the nature of the indicator. Benchmarks assigned to most criteria give guidance on the standards, which should be achieved in order to ensure effective green space policies and optimum performance.

The Structure of the ICC

The ICC contains criteria, indicators and methods, which make the interdisciplinary analysis and assessment of urban green spaces possible. The ICC operates at two levels, one deals with cities as geographical units (City Level) and aims to support the analysis of the green structure of a city or an urban region, and the other focuses on the evaluation of individual green spaces within cities (Site Level).

The two levels of the ICC are not entirely the same, since the different levels of interpretation require different questions, but they are complementary.

The ICC comprises four criteria groups, both at City Level and at Site Level, as shown in the following table.

City Level	Criteria Group	Site Level
Quantity of the urban green system	1	Quantity of urban green space
Quality of the urban green system	2	Quality of urban green space
Use of the urban green system	3	Use of urban green space
Planning, development and management of the urban green system	4	Planning, development and management of urban green space

The purpose of **Criteria Group No. 1** is to determine the physical characteristics of the urban green system or single spaces, measured by quantitative indicators. **Criteria Group No. 2** considers qualitative aspects (e.g. species and habitat diversity), while the purpose of **Criteria Group No. 3** is to identify and analyse the types and range of uses and to determine the general trends in usage patterns. **Criteria Group No. 4** concentrates on the administrative processes, it enables the end-user to analyse and understand the legal, planning and managerial aspects of urban green spaces, including the level of public involvement.

Individual criteria are structured using a common format, which is designed for easy use. Each criterion with its application is presented in the format shown in the following table:

	Criteria Group
Criterion N°	**Criterion**

Description	The description contains the definition of the criterion and its meaning within the context of the URGE-Project. It also describes the main objective behind its application and assessment concerning either specific improvements to the green system in the city or how it affects an individual green space.
Analysis	INDICATOR – Here the indicators, which are needed for the analysis of the criterion, are described. There are two kinds of indicators: (1) quantifiable indicators (e.g. figures concerning air-pollution; total number of green spaces), (2) simple indicators, which are, for example, verified by questions that can be answered with YES or NO (e.g. existence and impact of planning instruments). METHOD – The method to collect the data for the respective indicator is described here. BENCHMARK – To evaluate the indicators it is necessary to have some target values or statements to refer to: (1) where possible, clear figures (benchmarks) or reference values are given, (2) where concrete benchmarks are inappropriate, indicators have to be assessed according to the guidance given. *If several indicators are available for one criterion then each method and its benchmark is numbered separately.*
Example	To illustrate the application of single indicators, examples, mostly drawn from URGE Partner Cities, are given for some criteria.
Assessment	The assessment of the indicator is necessary in order to evaluate the collected data and to draw conclusions for the ongoing planning process.
Notes	Further hints, literature sources and links to other criteria are given here.

The complete ICC consisting of 35 criteria at City Level and 41 criteria at Site Level can be found on the attached CD-ROM "Tools", Part 2 Toolbox. To simplify use, additional work sheets (**Checklist of Criteria, Evaluation Worksheets**) are provided together with a **Catalogue of Questions** for use in drawing up citizens' surveys.

How to use the ICC

The ICC can be used to evaluate the green situation of the whole city or city districts as well as the quality of a single green space. Users of the ICC are recommended to go through the different criteria listed in the catalogue and apply them carefully according to the instructions in the ICC. In some cases a criterion may have limited relevance for a city or a particular green site, in other cases data may simply be missing or are difficult to acquire.

Criteria are often assessed by more than one indicator, thus providing a more comprehensive evaluation, or, in some cases, an alternative method of evaluation. It is not necessary to apply all the criteria and indicators, however, for the optimal use of the ICC the greatest possible amount of information should be collected. Where possible, to aid evaluation, alternative methods for the same indicator are provided. Depending on the availability of existing data, skills and technical facilities the most appropriate method should be selected and used.

A Checklist of Criteria is incorporated at the beginning of the ICC to provide an overview of evaluation. Data and information collected through the application of the ICC can be further analysed using the evaluation methods given on page 35 (Section B – Evaluation Methods) to compare data regarding individual green sites with other sites in the same city or district or to compare the whole green system with similar data from other cities in the country or outside the region. Such an approach gives a strong cross European perspective.

Finally, it should be remembered that green structures are not static, they change steadily over time. Therefore it is highly recommended that the application of the ICC be repeated from time to time to check the pace and direction of change, to test the outcomes of greening initiatives, or to re-examine the effects of urban development (e.g. through monitoring). In such situations, the interdisciplinary approach gives a strong mechanism of feedback for a constant evaluation of green space in relation to other aspects of planning (Figure B 3) and ensures that green space policy features as an integral part of planning at both City Level and Site Level.

The primary aim of the ICC was not to provide a universal set of prescriptions for urban green space management but rather to encourage the end-user to consider new ideas and to identify potential solutions in the field of urban green space policy and development.

In the following tables the parameters for each of the criteria groups for both the City Level and for the Site Level are given, followed by a summary list of all criteria for each of the levels.

A
B toolbox
C
D
E

Criteria Groups at City Level

City Level

Parameters of Criteria Groups
Quantity of the urban green system
Criteria included in this section focus on the physical characteristics of the urban green system, measured by quantitative indicators. The purpose of these criteria is to provide information about the quantity, shape and fragmentation of urban green spaces in a city. Essentially, the greater the quantity and continuity of green spaces in a city the better for many reasons. It is generally accepted that the main reason for loss of biodiversity is habitat fragmentation, particularly in urban regions. In other words, the more that total and individual green space is reduced or divided in an area (e.g. in a city), the more species will be lost and the poorer the overall ecological quality will then be. Urban green space policy and planning should seek to enhance the connectivity of individual sites and thus reduce the level of fragmentation of urban green systems. **Key words: surface area, shape index, connectivity of green, fragmentation, soil sealing, green space per capita, integrated planning**
Quality of the urban green system
The quality of a city's overall environment is determined, to a large extent, by the quality of its green spaces. The purpose of the criteria included under this heading is to help analyse the city's green spaces in terms of their inherent contribution to the city environment. Green spaces of the city provide a refuge for fauna and flora and create biodiversity, which includes diversity of species, and diversity of habitat. The preservation of the natural and traditional man-made urban green spaces, and their dialogue with the surrounding cultural and historical components, is a key issue, which helps to preserve not only the diversity of nature, but also the local identity of the city. Furthermore, the preservation of the green spaces of the city will help citizens to identify that they belong to a well-defined environment and culture, where the inherent value of its green spaces is understood and maintained. Green spaces also play an important part in: - regulating air quality, absorbing pollutants from the air and providing humidity – making the cities more liveable - structuring the city through the scale and quality of the landscape - forming important elements of local identity, where they give special character and image to the city and its neighbourhoods. **Key words: biodiversity, protection, heritage, environmental quality, aesthetics, city identity, city image, well-being**
Use of the urban green system
The most important function of the urban green system in a city is to provide places for different kinds of human activities. City inhabitants and public institutions use the green spaces in many different ways, e.g. for daily activities, most typically recreation, education, cultural events, socialising, sport and economic purposes. The purpose of this set of criteria is to identify and analyse the types and range of uses and to determine any general trends in usage patterns. The form and intensity of use varies greatly and it is important to recognise the full spectrum of needs within an urban society and to make suitable provision. **Key words: recreation, sport, safety, crime prevention, education, housing classes, production, employment**
Planning, development and management of the urban green system
In most European countries urban green space planning is underpinned by legislation, which defines the responsibilities of individual municipalities and the roles of specific departments towards the maintenance and preservation of urban green spaces. The main aim of this set of criteria is to help to analyse just how comprehensive the green planning and green space management regimes of a city are. Users of the ICC are able, through assessment, to identify any shortcomings that prevent the optimal use of the green system in their city. **Key words: green policy, planning, financing, Local Agenda 21, public authorities, citizen's involvement, urban management**

List of Criteria at City Level

City Level

1. Quantity of the urban green system

Criterion		Indicator
1.1	Surface area of urban green spaces	Simple ratio of green area to the total surface area
1.2	Fragmentation	Average shape index
1.3	Isolation from other green spaces	Average inter-patch distance
1.4	Connectivity of green spaces	Average number and types of connectivity elements between green areas
1.5	Soil sealing	Proportion of sealed surfaces as a total proportion of the city expressed as a percentage
1.6	Supply of green spaces	Area of urban green space per resident
1.7	Accessibility of green spaces	Proportion of city green space within easy walking distance of residents
1.8	Internal/external integrated system	Existence and effectiveness of instruments for the implementation of an integrated green system

2. Quality of the urban green system

Criterion		Indicator
2.1	Species diversity	Total number of recorded species in the two taxa, breeding birds and vascular plants
		The numbers of species in the IUCN categories Ex, EW, CE, EN, VU and NT for both taxa
		The number of species that are considered to be exotic/alien regionally in both taxa
2.2	Habitat diversity	Number of habitat types represented in the city
2.3	Level of protection	Proportion of protected green spaces, expressed as a percentage of the total urban green space system
2.4	Protection of cultural and natural heritage	The number of green sites designated for cultural and national heritage as a percentage of the total city green space
2.5	Air quality	Maximum values of SO_2, CO, NO_2, O_3, dust and smog according to the guidelines of the European Union, or registered number of days when threshold values are exceeded
2.6	Capacity of urban green to improve environmental quality	Leaf area index expressed as an average for the city
2.7	City identity	Interrelation between urban development and green space policy in the city
		Statements from citizens about the importance of green spaces in the general image of the city
		Presence of important events in the city organised in green spaces
		The profile of green spaces in the city's marketing campaign/strategy
2.8	Awareness of physical and emotional benefits derived from urban green spaces	Existence of health initiatives that are related to urban green spaces
		Policy statements, which embrace health and green spaces

3. Use of the urban green system

Criterion		Indicator
3.1	Recreation	Simple statements from citizens about the frequency of use of green spaces
		Forms of recreational use of green spaces
		The importance of different recreational uses
3.2	Sports facilities	Number and types of sport grounds within a green space system
		Percentage of the green space system devoted specifically to formal sport activities
3.3	Safety	Number and type of reported incidents in green spaces in the city
		Annual number of incidents in green spaces compared to the total annual number of urban incidents
		The amount of locked public parks and gardens compared to the total area of the green space system in the city, expressed as a percentage
		Statements from the public about their general fear of crime in green spaces
3.4	Education and urban green spaces	Total number of hours that pupils are educated directly in the urban green spaces
		Subjects studied in green spaces
		Number of school gardens/children's farms/etc. in the city
		Number and type of green space related study path/trails in the city
		Presence of specific education initiatives, which embrace green spaces
3.5	Substitution	Proportion of people living in different types of housing

3.6	Production	Number and type of products delivered by urban green space over the city as a whole
		Total "green space profit" as a percentage of the total "urban profit"
		Exploitation of natural resources to produce energy
3.7	Employment	Number of "green space jobs" (direct and indirect) per km^2 urban green space
		Total salary costs of "green space jobs" in the municipality

4. Planning, development and management of the urban green system

Criterion		Indicator
4.1	Urban green policy and its legal context	Existence and impact of legislation, at the international, national, regional and local levels, on the planning and management processes of green spaces
		The impact of existing law
4.2	Planning instruments	Existence and impact of planning instruments at the international, national, regional and local levels on the planning and management processes of urban green spaces
		Existence and input of plans to guide the work of green space planners
4.3	Aesthetic and cultural aspects of urban green spaces	Incorporation of aesthetic and cultural components in the context of the planning and design of urban green spaces
4.4	Citizen's involvement in green space planning and management	Existence of effective instruments to involve citizens in the planning and management processes of an urban green system at city level
		Citizen involvement in green space management
4.5	Inclusion in Local Agenda 21 plans	Presence of an Agenda 21 plan in the city and its application to green space planning
4.6	Integration of green space planning with other kinds of planning	Level of co-ordination between urban green space planning and other kinds of planning
4.7	Responsibilities within the administration	Efficiency of decision making
		Adequacy and experience of personnel working in the field of green space planning and management
4.8	Integration of private green spaces	Description of private green space as a resource
		Existence of plan(s), guidance, grants or other administrative instruments which aim to involve private green spaces in the urban green system

4.9	Budget for urban green spaces	Green space related budget as a percentage of the total city budget
		The amount of budget per green space job in the city
		Annual amount of budget/expenditure for urban green space development per km^2
		Annual amount of budget/expenditure for maintenance per km^2 urban green space
		Annual amount of budget/expenditure for existing urban green space refurbishment and management
4.10	Activities to create income	Existence of initiatives to use urban green spaces to create income
		Types of economic activities
4.11	Fund raising capacities	Capacity of the public administration to raise funds for urban green spaces
4.12	Sustainable waste management	Existence of plans and/or procedures to co-ordinate the urban green space policy and the waste management plan

Criteria Groups at Site Level



Parameters of Criteria Groups
Quantity of urban green space
This criteria group focuses on the most important physical characteristics of a particular green space in the city. Since physical features of a green space can be best measured by quantitative data, this group of criteria is based mainly on quantifiable indicators. The purpose of these indicators is to provide comprehensive information about factors like the size, shape, permeability and connectivity of green spaces, along with the relationship between one green space and the whole urban green system. **Key words: surface area, shape index, connectivity of green, fragmentation, soil sealing, integrated planning**
Quality of urban green space
The main aim of these criteria is to help to analyse and understand the quality of individual green spaces and the ways in which they contribute to the overall quality of life, including how they contribute to ecological diversity and form individual components within an urban environmental system, capable of ameliorating the climate, absorbing pollution and offering protection against the intrusion of urban living. Individual sites are highly variable in character and in their potential to contribute to biodiversity, depending on the site's function and management strategy. Green spaces managed primarily for recreation still contribute to biodiversity although this may not be the primary management objective. **Key words: species and habitat diversity, erosion, quality of air, water and soil, barrier, local identity, well-being, health**
Use of urban green space
The purpose of this group of criteria is to analyse the actual uses occurring within an individual green space. It is important to note that the use of particular green spaces may differ considerably from site to site, and that measurements regarding the types of use and usage patterns will reflect that. What is also true is that the usage can always be described and ranges from daily activities to institutionally organised activities such as education, cultural and sporting events. Use is dependent on the location, accessibility, quality and size of site with some green-spaces more frequently and intensively used than others. Other factors, like ownership and safety, may also influence the use of green spaces. We can also observe conflicts among the different user groups, while the intensity of use has an impact on the quality of habitat and ecological richness of the green space. **Key words: access, recreation, sport, education, safety, user's needs, production**

Planning, development and management of urban green space

The main aim of this group of criteria is to analyse the impact of the planning system and management regimes on the green spaces. Planning, development and management of individual urban green spaces is a complex issue, which depends very much on the local political and economic circumstance. The development and management of individual green spaces is part of the overall development and management system for the city, however, enormous differences can be detected in these activities at the site level. Depending on the public administration system in place, local governments and local planning authorities may play a significant role in the development of certain green spaces in different urban neighbourhoods and districts. The ultimate quality of individual green spaces may differ considerably from others, due to better or worse management and maintenance practices reflecting the levels of support.

Key words: green policy, planning, financing, Local Agenda 21, public authorities

List of Criteria at Site Level

Site Level

1. Quantity of urban green spaces

Criterion		Indicator
1.1	Surface area of urban green space	Surface area of green space
1.2	Extent of edge effects	Shape index
1.3	Isolation from other green spaces	Inter-patch distance to nearest neighbouring patch
1.4	Connectivity to other green spaces	Presence of different types of green corridors that links a site to other urban green spaces
1.5	Soil sealing	Proportion of soil surface with disturbed drainage/water dynamics
1.6	Integration in green space system	Existence and effectiveness of instruments capable of integrating the green space to the green system

2. Quality of urban green spaces

Criterion		Indicator
2.1	Biodiversity	Species diversity: number of rare/threatened/endangered species
		Biotope diversity: the number of different habitat types found within the green space.
2.2	Surface disturbance	Proportion of the surface which is heavily worn
2.3	Naturalness	Proportion of indigenous/exotic, rare (threatened/endangered) and protected species in relation to the total number of species found at the site
		The proportion of native biotopes in relation to the total surface area of the site

2.4	Pollution	Soil pollution and quality
		Air quality
		Water quality
		Noise attenuation
		Urban intrusion
2.5	Regulatory effects	Leaf Area Index expressed as an average for the city
		Volume of vegetation
		Proportion of the total area, which is in shade on a sunny summer day at noon
		Wind amelioration
2.6	Aesthetic value	Statements from local residents with regard to the aesthetic value of the green space
		Added price and rental value of houses/offices
2.7	Cultural aspects	Identification of cultural components in the context of the planning and management of the site
2.8	Local identity	Statements from local residents regarding the importance of the site to local identity
2.9	Awareness of physical, emotional benefits derived from urban green spaces	Existence of local health initiatives that influence the intensity of use of the green space among local residents
		Statements from local residents with regard to the quality of the site

3. Use of urban green spaces

Criterion		Indicator
3.1	Catchment area	Number of potential users per urban green space
3.2	Accessibility	Number of entrances to the urban green space
		Most common forms of access by users
		Number of parking places related to the average number of visitors by car
		Number and frequency of public transport links that connect the site to the built up area of the city
		Obstacles to access
3.3	Daily recreational needs	Activities of people on site
		Forms of recreational use
		Acceptance of local supply of green space
		Frequency of use
		Timing of use
		Duration of stay by users
		Supply of equipment for recreational use

3.4	Sport & Play Facilities	The use of green space for sports facilities
		Type and amount of sports facilities
		Children's play equipment
		Quality of pathways for sport and other use
3.5	Life strategies	Level of socialisation while using the green space
		The use of green space connected to other daily activities
		Importance of the site in the leisure activities of the local population
3.6	Social inclusion	Heterogeneity of user groups according to social indicators
		Evidence of neglect, lack of maintenance
		Evidence of social intolerance
		Evidence that suitable measures are in force to combat expressions of social intolerance
3.7	Safety	Evidence of patrol/warden in and around the green-space
		Annual number of registered incidents in the urban green space
		Types of incidents in the urban green space
		Statements from users about fear of crime
		Evidence of community work for crime prevention
3.8	Conflicts of use	Evidence of conflicts of use
3.9	Multi-functionality	Number of permanent functions related to the total area of the urban green space
		Number of occasional functions related to the total area of the urban green space
		Intensity of exercised permanent functions
		Intensity of exercised occasional functions
3.10	Policies for community events	Existence of municipal strategies that encourage family and community events in urban green spaces
3.11	Educational resource	The use of a green space for education linked to school curricula
		Existence of extra curricula activities offered by the school or community in the green space
		Co-operation between local schools and green space providers
		Type of information available for the users on site
		Existence of thematic study paths/trails etc. in the green space

3.12	Substitution	Proportion of people living in different types of housing in the catchment area
		Proportion of dependent visitors as a percentage of the total number of visitors of the green space
		Income Profile of the urban green space visitors
3.13	Production	Number and type of products derived from the urban green space
		Quantity of products derived from the urban green space
		Value of products delivered by the urban green space
		Exploitation of natural resources to produce energy
		Existence of plans for future exploitation of natural resources to produce energy
3.14	Employment	Number of "green space jobs" per 100 m² of the urban green space
		Number of "green space jobs" per 1000 daily visitors to the urban green space

4. Planning, development and management of urban green spaces

Criterion		**Indicator**
4.1	Legal and planning aspects	Existence and impact of legislation and planning instruments at the national, regional and local levels, on the planning and management processes of green space
4.2	Citizen's involvement in site planning and management	Existence of effective instruments and methods to involve citizens in the design and planning process of the green-space and to inform them about the project
4.3	Community ownership	Personal attachment by local residents to the green space
4.4	Inclusion in Local Agenda 21-Plans	Inclusion of the green space in the Green Area Management Programme attached to the LA 21
4.5	Integration of green site planning with other kinds of planning	Co-ordination between the development of the green space and other kinds of planning
4.6	Responsibilities within the administration	Efficiency of decision making
		Adequacy of the number of personnel
4.7	Integration of private green spaces	Census of private green spaces
		Existence of plans and administrative instruments (adopted at the local level) to connect and integrate private green space to the green area being analysed

4.8	The importance of the green space to public authorities	The amount of money devoted by the municipality to the green space
		Actual communal expenditure on the urban green space as a percentage of the total green space expenditure
		Importance of the green space for the future development of the neighbourhood and for the green space structure of the city
4.9	Activities to create income	Existence of initiatives that enable an urban green space to create income
4.10	Budget for urban green space	Annual income derived from an entrance fee to the urban green space
		Proportion of income derived from alternative ways of financing
		Annual total budget/expenditure for development of the urban green space
		Annual total budget/expenditure for maintenance of the urban green space
		Annual total budget/expenditure for refurbishment of the urban green space
		Funds available at the local level
		Public involvement in funding decisions
4.11	Fund raising capacities	Existence of current and potential funding
4.12	Sustainable waste management	Existence of selective waste collection and recycling in the green space

Examples

To demonstrate the structure and layout of the ICC, which is completely available on the CD-ROM "Tools" (Part 2, Toolbox) two **examples** are given here, one for City Level and one for Site Level:

City Level	Quantity of the urban green system
Criterion N° 1.1	**Surface area of urban green spaces**

Description

The amount of urban green space within a city has a strong impact on the quality of the overall environment, the ecological conditions and the general satisfaction of the population. In this criterion, the total amount of urban green space is expressed as a ratio of the total administrative area of the city. Green space includes all land, which supports vegetation or would be expected to support vegetation.

Analysis

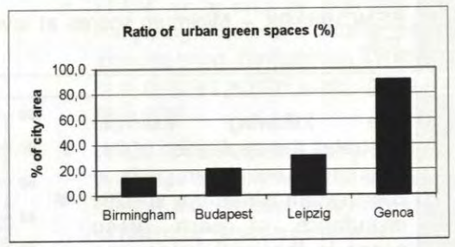
INDICATOR – Simple ratio of green area to the total surface area of the city, expressed as a percentage.

METHOD – This indicator requires accurate values for the total area of the city within its administrative boundaries and the total area of green space.

BENCHMARK – The proportion of UGS, within the city boundary should be maintained or increased over time.

Example

On the basis of the ratio of green area to the total surface area of the city, a cross-European comparison is possible. In the diagram opposite data are given for four cities. Note the huge differences in the proportions of green spaces. Of the four cities investigated, Genoa shows the highest proportion, but has a large percentage of green because the administrative borders reach high into the surrounding mountains. It means that most of the green spaces of Genoa are located outside the compact city at a distance, which is not easily accessible for the majority of its population. Further analysis of the situation is called for in all instances to qualify the situation.



Assessment

For a more meaningful evaluation, it is recommended to assess long-term changes in this criterion, by compiling trend data at intervals over the previous ten years. The minimum target is to maintain the same value for the amount of green space. An increase in the amount of UGS is excellent and indicates that the city has made genuine progress towards improving the condition of its UGS system. Correspondingly, if the value has decreased, then the condition is deteriorating and corrective action is called for. Reduction in the amount of urban green space increases the likelihood of species losses, causes loss of ecological quality and a decrease in its ability to perform other functions. Universally applicable benchmarks for the amount of green space are not appropriate, because it is the change in the amount of green space, which is important, not the absolute amount.

Notes

Data should be readily available from existing records or can be obtained from maps (especially historic data) or from satellite images.

Site Level	Quality of urban green space
Criterion N° 2.8	**Local Identity**

Description

Neighbourhoods can often be defined by a certain landscape character, which people cherish and which may reflect local identity, and reinforce the sense of belonging. This criterion is closely linked to cultural, historical or other aspects.

Analysis

INDICATOR – Statements from local residents regarding the importance of the site to local identity.

METHOD – Citizens' feedback from questionnaire survey. The survey should be carried out among local residents living in the neighbourhood and it should focus on the importance of the green space on the image of the neighbourhood or district.

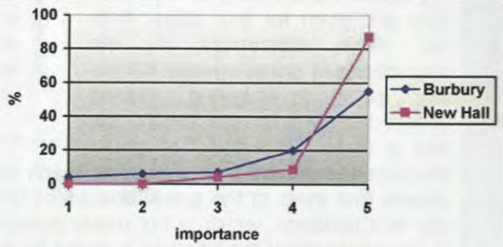
The question to be asked is: How important do you think this green space is to the local image?

Respondents are asked to score their response by giving a value between 1 and 5. (Score 1 = Not important, to 5 = Very important). The indicator can be identified by expressing the scores at level 5 as percentage of the total survey number. A deeper analysis can be carried out by expressing the ratio (%) of the different score classes against the total number of respondents. During the analysis the socio-economic background of respondents (gender, age, occupation, etc.) can also be considered.

BENCHMARK – Minimum scores at level 5 = 51%, expected scores at level 5 = 70%

Example

The following example illustrates the application of this criterion on two urban parks in Birmingham where the specific importance of each green space to the local image was surveyed.



Note that the trends are very similar with, in both cases, the site being ranked over the theoretical 51% threshold, though New Hall Valley scores higher. For Burbury Park the lower figure indicates less regard for this site, nevertheless, it confirms that this green space is highly valued by the majority of the local people, but invites us to look for factors which cause the score to drop. The reasons why people award high or low ratings can normally be determined by including a comments section in the questionnaire.

Assessment

On the basis of the analysis the importance of the green space to local image and local identity should be assessed. 70% scores at level of 5 would be typical of a high level of satisfaction. During the assessment the factors that cause a negative perception of site should be identified. As part of the investigation further opportunities that may strengthen the local identity of the site need to be explored.

How to Evaluate the Data

Aim of the Evaluation

The aim of the evaluation of a green space using this Manual is to find out whether the state of the analysed green space is satisfactory or whether it needs action for improvement. If this evaluation is carried out regularly (e.g. every five years), it can serve as a monitoring tool for the development of a green space and its social impact.

We selected two evaluation methods for the URGE-Project, which can fulfil this aim, the Polyfunctional Assessment Method (PFAM) developed by the OLANIS Expertensysteme GmbH (Leipzig, Germany) and the FLAG Method developed by the Free University Amsterdam (The Netherlands). Both were tested at Site Level with data from the application of a preliminary version of the ICC at the District Park Reudnitz in Leipzig (Germany).

Both methods offer the possibility to compare several green spaces (of a city) with each other and they are usable for almost every type of indicator (qualitative, quantitative) from different disciplines.

Preparation of the Evaluation

For both methods, two **preconditions** are essential:

- Different kinds of criteria with different types of data can be used; the only precondition is that they can be ranked.
- A target must exist against which the current condition can be compared (planning targets, other green spaces, general benchmarks or reference values etc., depending on the aim of the investigation).

In preparation for the evaluation of a selected green space, for both methods, you have to do some groundwork:

1. The Interdisciplinary Catalogue of Criteria (ICC) (Section B; CD-ROM: Part 2, The ICC-Set) must be applied to the green space, with any collected data being used as the basis for the evaluation of the green space.
2. For each indicator, define a benchmark or threshold value. For PFAM and FLAG the planning targets were chosen as threshold values against which the current condition was compared. The planning targets refer to official, if possible EU benchmarks (e.g. for noise), to regional specifics (e.g. biodiversity, vegetation) or to specific details of the site (e.g. aspects of use, local identity).
3. Choose an evaluation method. We offer the two methods PFAM and FLAG, which are described below. You can use PFAM with an MS-Excel spreadsheet that is attached to this Manual on the CD-ROM. For FLAG special software is required which can be obtained from the Faculty of Economics and Business Administration at the Free University Amsterdam.

To make it easier to choose the most appropriate method, there are short descriptions of both methods below, including the advantages and disadvantages of each. You will find a detailed description with theoretical background and some examples of their use on the attached CD-ROM.

The Polyfunctional Assessment Method (PFAM)

The main purpose of PFAM is to analyse the state of an individual green space or of a city's green system.

Advantages

- PFAM can be used for individual sites, comparing the actual condition with the planning target. Furthermore, it is adequate to compare several green spaces with each other.
- PFAM is very flexible and practitioners can adapt it to any regional situation in Europe. It can be used in any city as long as reference values are available.
- It is possible to use the method for almost every type of indicator (quantitative data, qualitative data, Yes/No-answers etc.) from all disciplines.
- It is possible to assess criteria, which are described by one or more indicators. A weighted sum of the indicators is used as the assessment function.
- The results per criterion can be visualised with a Geographical Information System (GIS) utilising the software ArcView. This is a very useful tool if an overview of several or all green spaces of a city is required.

Disadvantages

- The only type of criterion that cannot be treated with PFAM is a criterion (or indicator) for which the possible answers cannot be ranked. In this case, the criterion must be changed to achieve results that can be ranked.

- The preparations (definition of classes, weights, impact function etc.) need to be done by practitioners and are very time consuming, although most steps have to be undertaken only once.
- In the case of using the method in an MS-Excel spreadsheet (as recommended), a protracted calculation process is necessary to obtain the results. OLANIS is working on a solution.

Software

You can apply the PFAM Method, including calculation, without any special software, in a normal MS-Excel spreadsheet. A GIS based software called "Polybewert" is available, working as a plug-in for ArcView.

This software calculates all values automatically. Using the software, impact functions can easily be defined. Currently, the classes have to be defined before using the software. In a forthcoming version of the software, the defining of classes will be integrated. Different ways of calculating the assessment results are integrated (real mean value, theoretical mean value, normalized values). GIS is not useful for assessing single spaces, but it is able to compare different spaces within a city. (We did not test GIS software during the project). Software, which is independent of GIS, could be developed if there is sufficient interest. For more information or for obtaining the software, please contact the supplier, OLANIS Expertensysteme GmbH. (www.olanis.de)

Work Steps	Frequency	Validity range	Process
1. Define the criteria and select indicators, which describe the criteria adequately and for which data can be collected (= ICC).	1	E	P
2. Apply the ICC / Collect the data.	e	E	P
3. Weight the indicators according to their relevance for the respective criterion.	1	R	P
4. Define an arbitrary number of classes for each indicator. The collected data have to be put into these unique classes (indicator class value). The classification reflects the situation (spatial or temporal).	1	R	P
5. Define the impact function. This function describes the impact of an indicator class value (allocation of an indicator to a class) for the criteria in 8 stages. 1 indicates very low impact, 7 indicates very high impact, 0 indicates that the criterion cannot be fulfilled (e.g. water quality cannot be assessed if there is no water).	1	E	P
6. Assign and classify all data.	e	E	P
7. Read off the impact factor from the impact function.	e	E	A
8. Multiply the impact factor by the corresponding indicator weight to derive the indicator value.	e	E	A
9. Summarise all indicator values of a criterion to obtain the absolute functional fulfilment value for that criterion.	e	E	A
10. Repeat steps 7 to 9 for minimum possible and maximum possible indicator class value. The resulting minimum and maximum absolute functional fulfilment values define the range. Divide the difference of these values into 5 classes.	1	R	A
11. Assign the absolute functional fulfilment values to the scores 1-5: 1 indicates that the criterion is very badly fulfilled, 5 indicates that the criterion is very well fulfilled.	e	E	A

Frequency
1 Step has to be performed only during the first assessment
e Step has to be performed for every assessment

Validity Range
E Step is equal across Europe
R Step is equal only in a defined region

Process
P Step should be performed by practitioners (specialists)
A Step can be automated (requires software)

Fig. B 4: Usage of the Polyfunctional Assessment Method (PFAM).

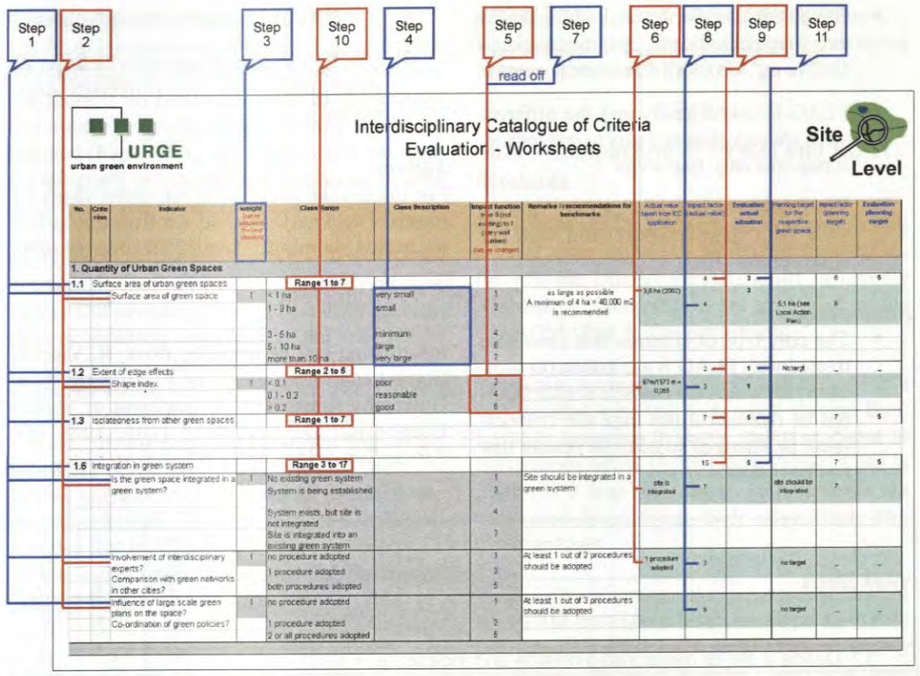


Fig. B 5: Work Steps of PFAM Method, using the District Park Reudnitz in Leipzig as an example.

If you wish to apply PFAM, please use the provided MS-Excel Evaluation-Worksheet on the CD-ROM (Part 2, The ICC-Set, City or Site Level, Worksheets). It contains the complete ICC with all criteria and indicators. Weights are already assigned to each indicator, but these can be altered according to your requirements. Suggestions for classes, together with the respective impact functions are given, which can also be adapted to the situation in your city or region.

Results of the PFAM Method

In PFAM, the results are expressed **per criterion** in scores between 1 and 5 (Work Step 11). The results of the indicators are aggregated into these scores. Score 1 indicates that the criterion is very poorly fulfilled, 5 indicates that the criterion is very well fulfilled.

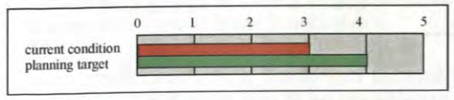


Fig. B 6: Comparison between current condition and planning target.

The comparison between the actual situation of the green space concerning a certain aspect (criterion) and the planning target indicates possible problems and potential.

- If the scores are equal, no immediate need for action is given: the green space meets its current target.
- If the scores differ only slightly, by one score level, there may be a need for action and further examination of that criterion is called for by the practitioner undertaking the analyses, to decide what/if measures are required (Figure B 6).
- If the scores differ substantially, by two score levels or more, there is definitely a need for action. The practitioner has to check the situation and find adequate measures.

The FLAG Method

The main purpose of FLAG is to analyse whether one or more policy alternatives can be classified as acceptable or not in the light of a set of constraints. The method can operate both as a classification procedure and as a visualisation method.

Advantages

- You can use FLAG for individual sites, comparing the actual state with the planning target. Furthermore, it can be used to compare several green spaces with each other.
- FLAG is very flexible and practitioners can adapt it to any regional situation across Europe. It can be used in any city as long as reference values such as policy objectives are available.

- It is possible to use the method for almost every type of indicator (quantitative, qualitative etc.) from all disciplines.
- FLAG is user-friendly and the different steps are very clear and easy to understand. It requires only four steps.
- The results per indicator can be made visible with flags (colours) and with pie charts or bar charts.

Disadvantages

- The only type of criterion that cannot be treated with FLAG is a criterion (or indicator) for which the possible answers cannot be ranked. In this case the criterion must be changed to achieve results that can be ranked.
- It is difficult to treat Yes/No questions.
- Special software is needed which can be obtained from the Free University Amsterdam.

Software

For the evaluation of an urban green space by means of the FLAG Method, a software programme named 'SamiSoft' (Sami, 2000) must be used.

Information can be obtained from: R. Vreeker (Rvreeker@feweb.vu.nl) or P. Nijkamp, Free University Amsterdam, Department of Spatial Economics, De Boelelaan 1105, 1081 HV Amsterdam or look at www.feweb.vu.nl/re.

Work Steps	Frequency	Validity range	Process
1. Define a set of measurable criteria and indicators (= ICC).	1	E	P
2. Assess the impact of the alternatives for these indicators.	e	R	M
3. Establish a set of normative reference values (CTV)	e	R	M
4. Evaluate the alternatives (i.e. concerning urban green area(s)) with the help of software.	e	R	A

Frequency
1 Step has to be performed only during the first assessment
e Step has to be performed for every assessment

Validity Range
E Step is equal across Europe
R Step is equal only in a defined region

Process
P Step should be performed by practitioners (specialists)
A Step can be automated (requires software)
M Step should be performed by the municipality

Fig. B 7: Usage of the FLAG Method.

The critical threshold values (CTV) defined in **Step 3,** represent the reference system for assessing the alternatives. These values can consist of references set by the government, or of values agreed by the stakeholders. In situations where it is difficult to agree on a precise level of CTV, a bandwidth of critical threshold values can be used. This is presented in Figure B 8.

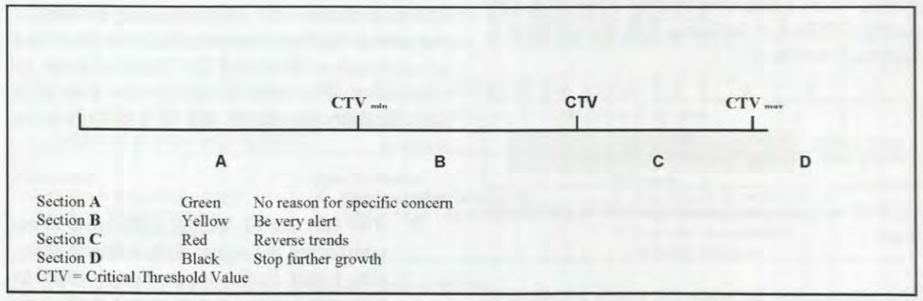


Fig. B 8: FLAG Method: Critical Threshold Values (CTV) for a cost indicator.

After the establishment of the indicator and the threshold values, the FLAG Method is used in **Step 4** to evaluate the alternatives.

In essence, it assigns a flag to every indicator (CD-ROM: Part 2, Evaluation Methods, Examples for Evaluation and Results).

Results of FLAG Method

The FLAG method uses coloured flags to express the results of the indicators: a green flag means that there is no reason for concern but a black flag means that something definitely should be changed (Figure B 8). Also yellow and red flags are assigned, indicating that we should be alert (yellow), or that trends should be reversed (red).

As identified, the FLAG Method evaluates indicator by indicator and not a criterion as a whole. The advantage of this, is that the specific aspect concerned, described by the indicator in the criterion, is immediately shown. A disadvantage is that no overall value (i.e. colour) for the criterion as a whole is presented by the method. Nevertheless, if the assigned flags of the indicators belonging to one criterion are considered together, this indicates an overall score for the criterion. For example, if a criterion includes five indicators of which one received a red flag and the other four a green flag, the overall criterion will receive a good score.

Analysis and Interpretation of the Results

The focus of this Manual is the analysis of the current situation of an urban green space compared to the planning targets which were defined when the green space was created or reconstructed or which are official (e.g. national or EU) benchmarks. The aim is to identify problems, reveal the potential of the green space and to find solutions.

The planning target does not necessarily signify the ideal state for the fulfilment of the criterion, but it is based on the envisaged function of a green space, and the management required in relation to this function, although this may not be compatible with all of the criteria used in the assessment. For example, some ecological functions may be assessed as being poor, because the green space has a high percentage of sealed surface, but since it may be an intensively used green space, use by people is the dominant and desired function, so that even a poor ecological status in such a green space is acceptable.

If the current condition is worse than planned, the individual indicators should be examined to see which aspects of the criterion are responsible for the problem. Then it must be judged if the situation needs action for improvement. If the green space has been developed recently some of the problems may resolve themselves over the time, but in many cases concrete measures to improve the situation will be required.

Besides established measures for improvement, which are available in every city, this Manual offers Good Practice Examples (Section C), which can be taken into consideration when trying to solve certain problems.

Short-Comparison of PFAM and FLAG Methods

The PFAM and FLAG Methods were tested using a 'live' case study site as part of the URGE-Project, the District Park Reudnitz in Leipzig (Germany). These results are explained on the CD-ROM (Part 2, The Evaluation).

These two evaluation methods can be used in a very similar way and with equal results. Both methods identified the most urgent problems in the example of the District Park Reudnitz and in Figure B 9 (see next page), both methods are compared identifying their advantages and disadvantages.

Both methods evaluate the indicators separately but PFAM provides a result based on the whole criterion. Results of indicators, which are purely qualitative and cannot be ranked, need to be changed into categories, which can be ranked in order to allow an assessment using PFAM. The same holds true for the FLAG Method. The analysis of qualitative indicators can also not be undertaken within the FLAG Method in a direct way. However, after the transformation of the qualitative data into a cardinal scale, the method is fully capable of evaluating the scores concerned. In either method Yes/No questions will always obtain an extreme score (either green or black flags in the FLAG Method or impact factor 1 or 7 in PFAM). This has the disadvantage that there are no possibilities to have a gradual change in the quality of the criterion concerned. So there is no advantage of using one method over the other.

PFAM is very flexible, but needs a complex calculation process to achieve the results, FLAG is also flexible, but with the current software only indicators from three given disciplines/classes (biophysical, economic or social) can be treated. This is nevertheless no problem, since you can always add indicators, no matter what their subject is. You only have to decide in which of the three groups you will include them. The planning criteria as used in URGE can, for example, be included under the heading of social indicators.

For FLAG a simple user-friendly software is available, while for PFAM the usual MS-Excel software is sufficient.

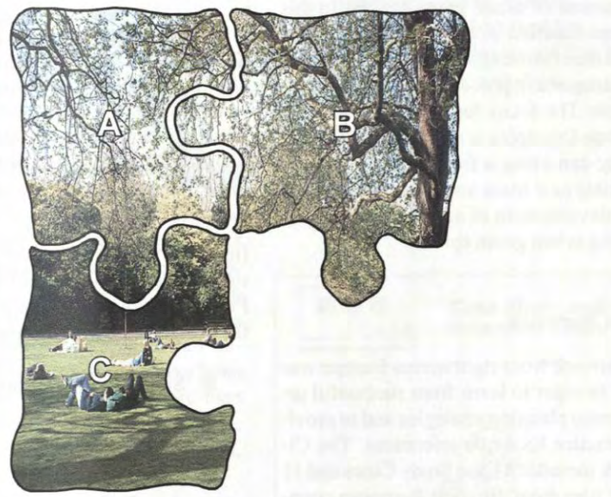
Both evaluation methods achieve similar results. Therefore, it is up to the person who will carry out the assessment to choose the preferred method.

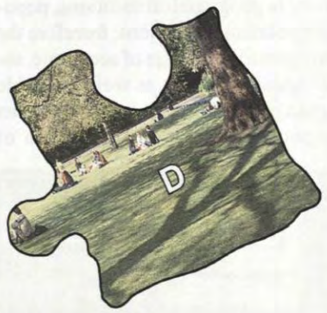
COMPARISON OF PFAM AND FLAG METHOD Advantages (+) and Disadvantages (-)		
Method	**PFAM**	**FLAG**
Flexiblity	Can be adapted by practitioners to any regional situation in Europe (+)	Can be adapted to any regional situation in Europe, no specialism is needed (++)
Comparison of urban green spaces	Comparison of urban green spaces with each other possible (+)	Comparison of urban green spaces with each other possible (+)
Comparison of Policy Alternatives	One or more policy alternatives can be classified as acceptable or not (+)	One or more policy alternatives can be classified as acceptable or not (+)
Type of Indicator	Suitable for almost every type of indicator (qualitative, quantitative) from different disciplines (+), for Yes/No-questions numbers have to be given (-); If possible answers cannot be ranked, the indicator has to be transformed into a scale; for each indicator an arbitrary number of classes has to be defined (-)	Suitable for almost every type of indicator (qualitative, quantitative) from different disciplines (+), Yes/No-questions are dificult to treat (-); If possible answers cannot be ranked, the indicator has to be transformed into a scale; for each indicator an arbitrary number of classes has to be defined (-)
Usability	▪ External experts needed to perform analysis (-) ▪ Usable with normal MS-Excel sheets without any software (+)	▪ No external experts needed (+) ▪ Not usable without software (-)
Software	Additional GIS-based software "Polybewert", working as a plug-in for Arc View (+)	Software program "SamiSoft" (+)
Contact for Software and more Information	OLANIS www.olanis.de	Free University Amsterdam www.feweb.vu.nl/re
Visualisation	Visualisation by Arc View based GIS possible (+)	Visualisation by colours for flags and as pie charts or as bar charts (+)
Assessment	Target has to exist: comparison of current condition with planning target; assessment of criteria described by one or more indicators; if more than one indicator, weighted sum of all indicators	Target has to exist: comparison of current condition with planning target; assessment of indicators; all indicators of one criterion considered together to indicate an overall score for the criterion
Evaluation	Results are expressed per criterion in scores between 1 and 5	Results are expressed indicator by indicator, not for a criterion as a whole
Worksteps	11 steps (-)	4 steps (+)

Fig. B 9: Comparison of PFAM and FLAG Method.

GOOD PRACTICE

SECTION C





Good Practice represent a good starting point for the development of new ideas and thinking that can challenge the normal routines. A good practice approach means seeking out information and experiences from cities which have undertaken similar activities, then determining which of these practices could be applied to an existing situation in another city. The URGE-Project defines Good Practice as a project, process or method, which demonstrates an innovative use of resources that results in providing a significant improvement to the urban environment. Good Practice provide concrete references that assist with the development of ideas and strategies in terms of demands, objectives and priorities. They can relay helpful examples for the planning, realisation and management of urban green spaces. In this way they can function as a "Tool to get people talking" and they can be applied in the urban planning and management process as shown in Figure C 1 below. The focus for the URGE-Project Good Practice Examples is on their learning potential. They can bring a fresh perspective that helps stimulate new ideas and bring renewed vigour to the development of innovative strategies for enhancing urban green spaces.

The Cities Network

A Cities Network from right across Europe was established in order to learn from successful urban green space planning strategies and to provide Good Practice Example references. The Cities Network includes 4 Case Study Cities and 11 Reference Cities from different European countries, see Figure C 2 (page 43). The cities demonstrate a diversity in geographical locations, population size and political dimensions; therefore the network represents a wide range of economic, social and ecological situations as well as a wide variety of urban green spaces. It is essentially an information pool consisting of a collection of surveys and background information regarding specific structures and legal frameworks, which influence the quantity and quality of urban green spaces.

A communication network was provided for all participating scientific institutions and city representatives through the URGE-Homepage as well as discussion forums via the Internet; the partners also met regularly at workshops. This network provided an opportunity to exchange experiences and ideas relating to urban green space planning and management. The contact list of the cities network participants can be found at the end of the booklet page 109-111.

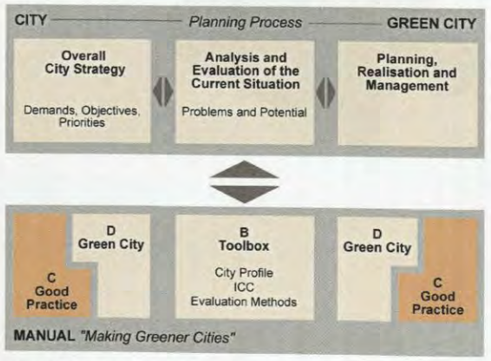


Fig. C 1: Application of Section C into the planning process.

Selection of Good Practice Examples

The Good Practice Examples are presented



at the level of city development planning (strategic level – mostly concepts, programmes etc.) and;



at site level (project level – concerning individual green spaces).

In order to maximise the comparability and usefulness of all the information, the URGE-Project designed a standard layout to assist with the presentation of the Good Practice Examples:

- Subject and key issues
- Facts and actions
- Lessons

The documented Good Practice Examples are grouped by the following Key Issues:

Key Issues



Improvement of urban green space provision



Enhancement of ecological, social or economic qualities of urban green spaces



Enhancement of stakeholder participation and public involvement



Development of innovative and multiple funding strategies

Improvement of urban green space provision

Measures and methods for improving the quantity, provision and distribution of urban green spaces require special strategies. Careful management, organisation and planning of processes and concepts are needed to guarantee a well structured urban green system as an integral part of a cohesive urban plan. The chosen examples demonstrate the following aspects:

- overall development concepts as a strategic framework,
- variety of strategies,
- integration of individual green concepts within an overall concept,
- legal measures,
- instruments for describing and protecting green spaces,
- definition of green space standards.

Enhancement of ecological, social or economic qualities of urban green spaces

An adequate quantity of urban green spaces within a city does not automatically mean that the social, ecological and economic demands and requirements are being fulfilled. Therefore there is a need to introduce new measures for the qualitative improvement of urban green spaces, in line with the objectives for the whole city or for a specific site. It is advisable to utilise the synergistic effects of combining ecological, social and economic improvements. Green space development when coupled with other measures can become a dynamic catalyst that can drive urban regeneration. In this Manual examples have been selected that show the impact when more than one aspect (ecological, social or economic aspects) of urban green space is combined, concerning:

- the promotion of the quality of life,
- the coordination of the planning, design and management process,
- management and maintenance.

Enhancement of stakeholder participation and public involvement

All known stakeholders' needs and views have to be canvassed during the entire planning and management process. The organization of stakeholder and citizen involvement can take many different forms and operate at different scales to reflect the full range of people with different ideas and interests. The selected examples demonstrate the following aspects:

- linking of regional and national strategies and of local authorities,
- collaborative partnerships (e.g. private-public),
- co-ordinated approach of all local authorities and organisations,
- involvement and consultation of local communities and citizens.

Development of innovative and multiple funding strategies

The acknowledged lack of public funding alone, should not be seen as the reason for either reducing the number of green spaces or their maintenance regimes. An argument based on low standards certainly should not be used to cut budgets even further. It should rather be the incentive for prudent use of the existing budget and provide the impetus to search for innovative strategies and new resources to improve the efficiency of multi-functional green spaces. The selected examples show innovative and multiple funding strategies as well as possibilities for new, cost-neutral management regimes for urban green spaces, concerning:

- new sources and "cocktail" funding,
- innovative use of funding,
- public-private partnerships,
- using the funding according to the aims of the Management Plan.

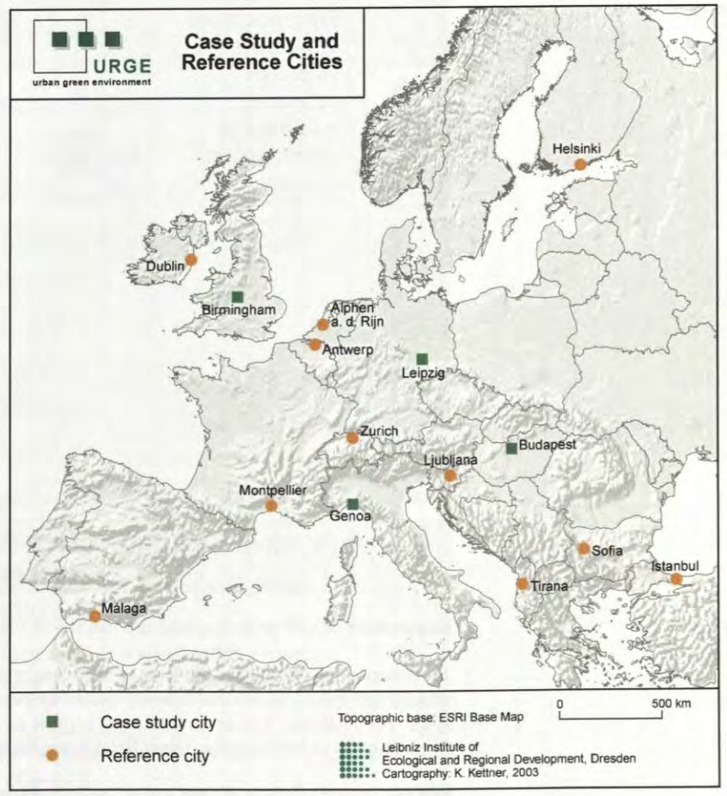


Fig. C 2: Map of Case Study Cities and Reference Cities.

Overview of Good Practise Examples

Key Issue	Level	Examples	Page
Improvement of urban green space provision	City Level	Alphen aan den Rijn	47
		Antwerp	49
		Dublin	57
		Helsinki	62
		Ljubljana	69
		Málaga	72
		Montpellier	74
		Sofia	77
		Zurich	82/83
Enhancement of ecological, social or economic qualities of urban green spaces	City Level	Dublin	57
		Montpellier	74
		Zurich	82
	Site Level	Antwerp - Spoor Noord	50
		Birmingham - Burbury Park	52
		Birmingham - Newhall Valley Country Park	53
		Budapest - Szent István Park	55
		Dublin - Ballymun	58
		Genoa - Prà Urban Park	60
		Istanbul - Golden Horn (Haliç)	64
		Leipzig - District Park Reudnitz	66
		Leipzig - Green Belt Grünau	67
		Ljubljana - Marshlands and Recreational Park Barje	70
		Montpellier - River Lez and Lironde	75
		Sofia - Ecozone	78
		Tirana - Lana River	80
		Zurich - Centre Zurich North	84

For further information about the Good Practice Examples see City Contacts on pages 109-111.

Explanation of Abbreviations and the Validity of Figures

The abbreviation UGS stands for Urban Green Space(s). The figures for inhabitants, area of the city and area of urban green spaces are official figures, sent to us from each respective city. The presentation of urban green spaces per inhabitant is quite controversial, because each city has a different standard based on what is counted as green space and what is not. These figures provide an overview of the provision of urban green spaces.

Parks or projects written in bold letters under **Programmes and key projects** are described in detail in the following Good Practice Examples.

Key Issue	Level	Examples	Page
Enhancement of stakeholder participation and public involvement	City Level	Alphen aan den Rijn	47
		Antwerp	49
		Helsinki	62
		Ljubljana	69
		Málaga	72
		Montpellier	74
		Sofia	77
		Zurich	82/83
	Site Level	Antwerp - Spoor Noord	50
		Birmingham - Burbury Park	52
		Birmingham - Newhall Valley Country Park	53
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		Leipzig - District Park Reudnitz	66
		Leipzig - Green Belt Grünau	67
		Ljubljana - Marshlands and Recreational Park Barje	70
		Montpellier - River Lez and Lironde	75
		Sofia - Ecozone	78
		Tirana - Lana River	80
		Zurich - Centre Zurich North	84
Develop-ment of innovative and multiple funding strategies	City Level	Alphen aan den Rijn	47
		Antwerp	49
		Dublin	57
		Helsinki	62
		Málaga	72
		Sofia	77
	Site Level	Antwerp - Spoor Noord	50
		Birmingham - Burbury Park	52
		Birmingham - Newhall Valley Country Park	53
		Istanbul - Golden Horn (Haliç)	64
		Zurich - Centre Zurich North	84

For further information about the Good Practice Examples see City Contacts on pages 109-111.

Alphen aan den Rijn (Netherlands)

Inhabitants: 70,000 (2001)

Area: 5,800 ha

Density: 1,210 Inh / km²

Area of UGS: 163 ha

Area of UGS per Inhabitant: 23 m²



Green situation in the city

Alphen aan den Rijn has 142 ha of parks and public gardens, forming about 2.5 % of the city area. Key examples of urban parks include Wetering Park, Bospark, Rijnstroom Park and Europa Park. Similarly, examples of the major green spaces include the recreation area Zegersloot, the privately owned bird park Avifauna and the theme park Archeon. The city has an additional 21 ha of allotment gardens. The urban green space system is based on 'green corridors' which follow traffic routes, water features (rivers, canals, ponds) and a surrounding greenbelt which connects to other green spaces within the region. Due to the high pressure for built development, green space planning has a relatively weak position within the city administration, nevertheless, many opportunities for improvement have been presented over the years.

Goals for the city development



Fig. C 3: A green corridor in Alphen aan den Rijn in the quarter Kerk en Zanen. The green corridors connect the inner city green spaces with the Green Heart of the Randstad.

The general goals for urban green space planning are the enhancement of green zones coupled with the high quality maintenance of sites. In the future, a regional green system is to be pursued concentrating on 'green fingers', elements of the city's green spaces which follow natural lines, urban forests and green corridors. Three city squares will be implemented in the short term.
Planning restrictions (in particular the Randstad – a spatial and economic concept from the 1930's) limit the expansion of the city across the legal "red boundary" of the municipality of Alphen aan den Rijn. As a consequence, considerable pressure is placed upon open spaces due to their development potential. This requires the city to consider the future of accessible green areas with great care and to use infill development. Development pressure is placing considerable strain on the original planning ideals of the city which involve the concept of the green heart of the Randstad, and will test whether the concept can be sustained in the face of increasing pressure on undeveloped areas.

Programmes and key projects

With the help of the new plan Ecological Main Structures (January 2002) the city administration uses the landscape to shape the main urban areas. This plan is an ecological vision for the future of the city which contains the directives, measures and associated aspects, for the development of the green environment. In 2004 the municipality is starting to improve the management, organisation and design of the green areas in the city by means of a Green Structure Plan.
Important key projects include – Ecolonia – commissioned by the Dutch National Environmental Agency and established in 1993. The area consists of 2.7 ha land and integrates social considerations, architectural style, communal and psychological aspects of living with ecology. The urban development plan incorporates as many natural elements as possible. Zaanse Rietveld – a green development site located in the south of the city, is characterised by the protection of wetlands. The area will be created in the next 5 years and is supported by the Provincial Government. Other new projects which combine housing, green space and water include Nieuwe Sloot and Van Oordt.



Fig. C 4: Plan of Alphen aan den Rijn showing the main green structures and areas for urban development (dark red).

Alphen aan den Rijn

Subject and key issues

The city is increasingly improving the provision of urban green space through strategies and visions. Moreover Alphen aan den Rijn has included resident participation in its policy. In most of the projects the citizens participate in decision-making concerning the planning, designing and maintenance of green spaces. This



Fig. C 5: The public involvement in Alphen aan den Rijn includes the participation of citizens in the maintenance of urban green spaces with technical support by the city administration.

cooperation increases the reciprocal involvement of neighbourhood residents in their living environment, therefore all facets of green space have their own place within the city. Ecology, municipal green space policy, recreation and resident participation together form "green building bricks" for the balanced organisation of green areas.

Facts and Actions

Action taken
Green policy: The development of the city is supported by a well planned marketing campaign



Fig. C 6: To increase public involvement in the management Alphen aan den Rijn organises training courses in the maintenance of green spaces for the citizens.

for the urban green spaces. The survey of green and open spaces gives valuable information which is available for almost every part of the city.
Ecological Vision: If new proposals for green spaces are made, the focus lies along ecological lines, but also on administration and maintenance. Developments at the border of the city do have their main focus on ecology.

Community involvement
The city has been using, to great effect, citizen participation for more than 10 years. The administration determines public needs in collaboration with its citizens and a programme is developed in cooperation with the citizens for the management and maintenance of public green spaces. The municipality decides on the grade of maintenance, which can be intensive, normal or extensive/ecological. The citizens can decide about the quality of the green space and if they want to be involved they can contribute to improved maintenance. To better inform the citizens, the city published a Quality Book – a manual in which the grades of maintenance are defined and examples are provided. The programme is considered as having been very successful. The city supports volunteers and no longer carries out the management itself. Annual programmes (Cleaning actions in green areas in spring; guided nursery visits to support the use of plants; practical training programmes for planting, cutting, etc.) increase the volunteer's knowledge. The maintenance of small green areas, flowerbeds, flowerboxes and front gardens is also undertaken by volunteers. About 4.5 ha of public gardens, 60 playgrounds and 500 flower containers are maintained by resident's involvement.

Fig. C 7: The city organises visits to tree nurseries for citizens.

Financing
Citizens pay for the maintenance of the green spaces in their quarter according to the maintenance grade.

Lessons

- **Different strategies have as their starting point the improvement of urban green spaces.**
- **Strong cooperation between the city administration and the inhabitants helps to realise strategies and visions and fulfils the requirements of the different user groups.**
- **A concept of different maintenance grades based on individual site audits that identify their main functions and requirements helps to distribute the available finance and has huge transferable potential.**

Antwerp (Belgium)

Inhabitants: 455,000 (2003)

Area: 20,450 ha (1996)

Density: 2,193 Inh / km²

Area of UGS: 2,260 ha

Area of UGS per Inhabitant: 50 m²



Green situation in the city

About 11 % of Antwerp's area is green space. Most of the city's green areas are concentrated along the waterfront of the Schelde or the smaller rivers but with additional green squares and urban parks. The polder forests (city forests situated in areas that were originally polders) form the largest portion of the green infrastructure. The overall distribution of green spaces through the city is poorly balanced: all the large green areas are located far from the city centre and the old inner city suffers from a lack of green spaces. The pressure on green spaces is constant due to the low priority given to planning in the past, which has resulted in scattered land use. At the moment, green areas exist mainly as relics of big estates originating from the 18th and 19th centuries or as old city properties and wetlands. Many of the green areas are polluted by noise especially those situated in the city centre area, such as Stadspark or Koning Albert Park, where the traffic noise is ever present.



Fig. C 8: Development concept for the inner City of Antwerp – urban green spaces play an important role in defining the single quarters and their interconnection.

Goals for the city development

Antwerp has no strategic development plan for its city, however, there is the Flemish Regional Plan which acts as a land use plan on a regional scale. The Structure Plan developed in the 1970's is still valid for regulating land use; it defines the overall development and use of the urban area, especially regarding housing, infrastructure and mobility. The city administration is working on updating this plan, which should be completed in 2005. A new urban planning law came into force in May 2000 and strives for the protection of open spaces, defines development density and fights urban sprawl. Because green space is one of the most important elements of urban planning, the objective for the city administration is to ensure that green areas are located within a walking distance of 15 minutes from residential areas. By paying particular attention to the overall structure and detail of green spaces, accessibility should improve and help counteract the drain of young families from the city. Another goal is that all green areas, including large ones outside the densely built parts of the city, should be easily accessible by public transport.



Fig. C 9: Stadspark.

Programmes and key projects

Several projects are in progress to revive the city and its green infrastructure. Stad aan de Stroom aims to reconnect the city to its river and is linked to the regeneration of the old docks located in the north of the city. A key aspect is to make the riverbanks accessible to the public and to establish public use as a major priority. **Spoor Noord**, an industrial area formerly used by the Belgian Railway, is being transformed into a high quality residential and commercial area. The core of this development is a 17 ha park. Through this project the city administration hopes to provide a catalyst for upgrading the poor neighbourhood and encouraging new land use. The pro-active project **Urban Forest Parks** is targeting underused land (mostly agricultural) for recreational uses.

Antwerp

Subject and key issues

Antwerp is characterised by underused former industrial and harbour areas and by a lack of public open spaces. Moreover the existing green spaces are very fragmented because of traffic barriers. The city is using the derelict areas and the definition of green standards to improve the provision of green spaces in the city and to transform distressed areas into areas of higher quality.



Fig. C 10: View of the Bospolder Park project with indigenous tree planting.

The aims of the city are to attract more investors that will provide for residential and commercial land use. Stakeholder participation is strengthened through public-private partnership projects as well as the city's cooperation with its citizens. To achieve its goals Antwerp counts on governmental and non-governmental financial support.

Facts and Actions

Action taken

Because green space is one of the most important elements of urban planning the objective for the city administration is to have green areas within a walking distance of 15 minutes of residential areas. These targets are set as green standards.



Fig. C 11: Information panel at a nature development project by the municipality in a privately owned site.

Stakeholder participation and community involvement

The city developed the programme **Urban Forest Parks** for the public use of private property. Through this programme the city aims to transform underused areas into green and open spaces for recreational uses and to increase the number of green areas. The concept mainly concerns private land which is used in a variety of ways (agriculture, forestry, reservoirs and drainage systems), but is made accessible to the public for recreation, maintenance is kept low, e.g. to keep sheep to maintain the meadows.

The city also works with volunteers, especially for the maintenance of nature reserves and similar areas. Public consultation is carried out regarding the management of urban green spaces, where citizens have the opportunity to fill in questionnaires and mail or phone any problem or question to the city administration. The city also holds meetings with local groups of residents about any subject that is raised.

Funding

The project Urban Forest Parks is supported by the Flemish Regional Government and the Society of Nature Protectors.

Problems

Problems associated with the Urban Forest Park Project are poor public acceptance of the low maintenance regimes. The people prefer well maintained areas, like lawn or stands of trees with no understorey vegetation.



Fig. C 12: The pond in the Stadspark.

Lessons

- **Green standards define the city's goals for green space planning and are applicable as reference values for the implementation of projects.**
- **A public-private partnership can help the city to acquire access to new areas for recreation requiring lower maintenance than other urban areas. Volunteer groups and information exchange between a city and its citizens can promote a balanced planning policy.**
- **External financial support of single projects is essential for their successful implementation.**

Site Level

Antwerp
Spoor Noord

Subject and key issues

The area with a size of 24 ha is situated between the northern part of the 19th century urban ring, the central residential district of the city and the port area. This former shunting yard of the NMBS (Belgian Rail) with repair and maintenance depots, forms a kind of no-man's land, an enormous break between the surrounding areas. The NMBS



Fig. C 13: Antwerp is reusing derelict land for the improvement of the urban green spaces; an example is the conversion of the area Spoor Nord formerly used by the railway.

moved its activities to the port, so the site became available for new uses. The development of the railway yard is seen as offering great potential to upgrade adjacent districts, which are either dominated by gigantic traffic infrastructure or outdated residential houses that lack basic comforts. The density of inhabitants is higher than in the rest of the city and the district is characterised by social problems (deprivation and social isolation). Moreover those districts are in need of green open spaces and also cultural and sporting facilities. Local residents only have the minimum of the city average for public open space within reach; there are hardly any private green spaces or playgrounds for children.
The conversion of the area is now in the planning stage. The transformation will produce a high quality residential and commercial area with a new urban park at the core. Key issues are the enhancement of social and economic qualities, the city's cooperation with various stakeholders and the community as well as a multiple funding strategy.

Lessons

- **The development project together with a new urban park is seen as a catalyst for both the improvement of the area and the adjacent districts.**
- **A cooperative approach of a city with the community and all possible stakeholders generates a vision that is satisfactory to all participants.**
- **Different funds guarantee the realisation of a complex project.**

Facts and Actions

Action taken
According to the draft plan, 17 ha of the former railway yard will become an urban park which will be the backbone for all other developments in the area. The function of the yard is to provide space for active sport and passive forms of recreation. On the other hand the different uses should also become the driving force behind the redevelopment of the surrounding areas Dam, Stuivenberg and Seefhoek. The park project will be implemented from 2004 to 2008.

Stakeholder participation and community involvement
The city decided to cooperate right from the start with the local population, the NMBS, the higher authorities, private entrepreneurs, project bureau Eilandje, several research institutions, schools for higher education, design studios and other

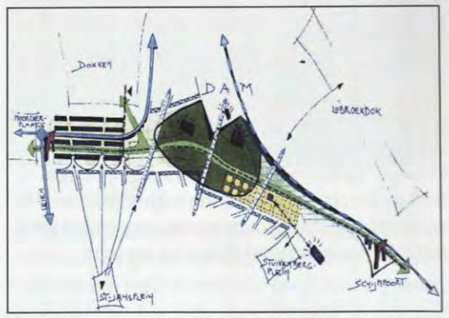


Fig. C 14: The Structural Plan for Spoor Noord, the area planned by the municipality, to be transformed in a high quality residential and commercial area with a new urban park in its heart.

organisations. In a questionnaire about the redevelopment of the railway yard in October and November 2000, the local residents unanimously opted for more green space in the district.
On the basis of recommendations from local people, the initial brief and the provisional vision, the city organised in June 2001 three intensive brainstorming days involving experts. All these initiatives resulted in a consensus brief,which expresses a uniform and strategic vision about the desired development of the railway yard.

Funding
The Federal Government released 4.1 million Euro from the Large City Policy Fund for the redevelopment of the area. In addition, the city can also receive subsidies from the European Funds Objective 2 and the Flemish Fund of Cities.

Birmingham (United Kingdom)



Inhabitants: 980,000 (2001)

Area: 27,000 ha

Density: 3,630 Inh / km²

Area of UGS: 3,750 ha

Area of UGS per Inhabitant: 40 m²

Green situation in the city

Birmingham is one of the top UK cities regarding the quantity of its parks and urban green spaces – totalling 14 % of the city area. There is a full



Fig. C 15: Floral display in Cannon Hill Park.

spectrum of parks from a National Nature Reserve at Sutton Park, a growing number of Local Nature Reserves, to formal parks and country parks. The city also contains nationally the largest number of allotments, a good selection of children's playgrounds, playing fields and recreation grounds. The Lickey Hills Country Park has been awarded a Green Flag for the last four years. This award is a scheme to recognise the highest standards among England's public green spaces. Birmingham has an extensive and historic street tree population. The city sits within an urban conurbation that has a high concentration of historic canals, railways and small rivers – these now provide an important green network. Each town has its own greenbelt many of which overlap. Urban green spaces form a concentric pattern. There is a general threat to green spaces due to development pressure.

Goals for the city development

The city's key aims for its green space network are to improve the quality of its parks through citizen involvement and choice and to integrate wildlife protection and habitat management. Strong green space policies linked to democratic renewal and regeneration will help shape the city's future. Several concepts and plans specifically define the city's policies: the Birmingham Plan (1993), the Nature Conservation Strategy (1997), Local Agenda 21 (1997), the Sustainability Strategy (2000) and the Local Biodiversity Action Plan (2000). A key planning instrument for the improvement of urban green space is the Town and Country Planning Act 1990 – Section 106. The Birmingham Parks and Open Spaces Strategy is due in 2004. The city has strict development control measures that seek to protect and enhance the green space network and the city's biodiversity; there is now widespread use of sustainable urban drainage. Public involvement is the key to the future with an increasing number of Parks Friends Groups, environmental education and community workers.

Programmes and key projects

Several new public parks are being created as the centrepiece of regeneration schemes e.g. Attwood Green, and at Castle Vale. There are historic park restoration projects at Handsworth Park and Aston Park, several major park refurbishment projects and the creation of new capital funded children's play grounds.



Fig. C 16: Masterplan for Parc Central, in Attwood Green.

Another green space of the inner city that was refurbished and reopened in 1998 is **Burbury Park,** where area regeneration included new housing and extensive community involvement. The improvements promoted an increased use of the park and the decrease of crime rates and vandalism. It was awarded the Local Government News Award in 1999. **Newhall Valley Country Park** with a total area of 67 ha is situated in the urban fringe, it resulted from the building of 600 new homes and the establishment of a sustainable urban drainage system.

Birmingham
Burbury Park

Subject and key issues

Burbury Park is a local park with a size of 11 ha, situated to the north of the city centre in a mainly residential area of Birmingham. The park is located within a large district called Newtown that was regenerated in the 1970's, yet by the 1990's suffered from decline and industrial closure, high rates of unemployment and crime. The funded refurbishment scheme was a means of enhancing social and economic aspects of the area. Local citizens were strongly involved in the planning and management process of their neighbourhood park.



Fig. C 17: Wigwam in the play area, Burbury Park.

Facts and Actions

Action taken

The park was refurbished, in response to demand a new multi-use games area was built. Public art elements captured local identity and a childcare centre was created. Pedestrian access to the park was improved and car parks were made secure.

Lessons

- **Physical improvement of the area lead to social (decreasing vandalism and crime rates, new recreational equipment, better access to the park) and economic benefits (rising property values, new employment and new childcare).**
- **Citizen's demands play a vital role in the planning; local people identify with the project and develop a sense of ownership.**
- **Multi-funding is crucial for greatest success.**

Community involvement

Citizens were intensively involved during the process of planning and management. A new form of community consultation included door to door interviews and subsequent local exhibitions of design options (concerning the type of facilities, security matters, site management policy and more). Residents were able to attend the exhibitions to review and add to the plans. Their primary concern was public safety, closely followed by provision for children and young people, the provision of lighting and no shrubs or ground cover planting to ensure better safety.



Fig. C 18: Entrance of Burbury Park.

Public Art: two pieces of public art were added to the park, one of which was actually designed by local children – the Wigwam in the play area.

Funding

In 1996 the area received a UK Government support through the City Challenge Fund (100,000 Euro for the site) for the reconfiguration of surrounding buildings to create a new social infrastructure and the physical development of the park. Additional funds were given for the restoration of the Community Centre, a Healthy Living Centre and the public art. The park was re-opened in 1998.

Problems

Ecology was not a community priority – the primary concern was safety, but gradually wild bulbs have been added and recent ecological surveys have shown that the park attracts a surprising array of wildlife.



Fig. C 19: Multifunctional games area, Burbury Park.

Birmingham
Newhall Valley Country Park

Subject and key issues

Newhall Valley Country Park is situated in the north east of the city in the urban fringe occupying 67 ha. The site is located along the watercourse of the Plantsbrook and it links two mainly residential areas. The original land use was arable farmland with some historic wetland grazing meadows and wet woodland. It is a piece of "captured countryside" with a working 17th century water mill. Key issues of the project included the enhancement of social and ecological qualities, high citizen's and stakeholder's involvement as well as innovative cross funding.



Fig. C 20: 17th century mill in Newhall Valley Country Park.

Actions

Action taken

A new country park was created for free public use in a district with few open spaces incorporating two new playgrounds. Transportation budgets funded a cycle route. An adjacent school became the owner of a 33 ha playing field. This ecologically important site has been recognised in the City Strategy (1997); the scheme is a national pilot project for Sustainable Urban Drainage to recharge the wet meadows, wet woodland and the brook. The White-Clawed Crayfish is present in the head waters of the brook 2 km upstream from the site, it is now planned to re-create its native habitat and re-introduce it within the park.



Fig. C 21: Garden of a Flourmill in Newhall Valley Country Park.

Stakeholder participation and community involvement

Consultations have been carried out with local stakeholder groups, since 1986, the developers, landowners and the local population negotiated and produced the final scheme for the site. Residents commented on the design of the park and campaigned to protect the site (nature conservation strategy). The involvement in the planning and management process was arranged by public workshops, exhibitions, conferences, questionnaires to households and a design forum, which met over the course of three years.

Funding

Section 106 of the Town & Country Planning Act 1990 allows for the cross funding of leisure provision from the capital receipts of a development, in this way the developers built 600 new houses and paid 2,500,000 Euro to the City Council for the development of a country park and the refurbishment of the local community library. They also gave 100 ha of their land to the City Council, 67 ha for the new country park.

Problems

Difficult land exchanges, because of absent landowners lasted 10 years and caused difficulties in maintaining public interest.



Fig. C 22: Wetland meadows in the park.

Lessons

- **Good planning example for a result that meets social and ecological needs, it demonstrates the value of the Nature Conservation Strategy as having supplementary planning guidance status.**
- **A corporate approach by the City Council linked to the various stakeholders and the residents worked effectively even if the initial situation was complicated.**
- **The development of a residential area can generate money by means of capital receipts or planning agreements which can be used for the provision of local leisure facilities.**

Budapest (Hungary)

Inhabitants: 1,700,000 (2002)

Area: 52,500 ha

Density: 3,250 Inh / km²

Area of UGS: 8,550 ha

Area of UGS per Inhabitant: 50 m²



Green situation in the city

Budapest has a poor provision of green spaces, but the remaining natural landscape gives a particular character to the city. About 50 % of the green spaces are of ecological importance, although the number is decreasing due to building activities. The regional green system consists of green fingers, and greenbelts, with disjointed green areas. Overall, the spaces form a ring around the city with interspersed islands, which, in part, form a mosaic-like structure. The proportions of green spaces in the Pest and the Buda sides of the city are not equal; the Buda-side forest is of particular significance. There are districts with a deficit of green space, in particular, the amount of public parks, gardens and wooded corners in the downtown districts is small, and their use is regarded as too intensive. Private gardens form an important component of the city's green system.

Conflicting interests for city development present a threat to urban green spaces and the area of the most important natural features (hills, valleys, small stream areas) has shrunk as a result of urban development. Green spaces suffer from competition for land use, the pace of economic development is rapid, and thus existing sites are developed very rapidly. By contrast, the creation of green spaces is slow.

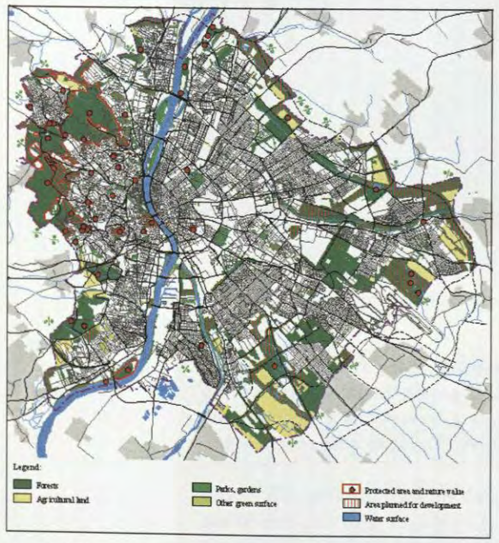


Fig. C 23: Map of green and nature conservation areas.

Goals for the city development

The city intends to concentrate on the creation of new green spaces coupled with the maintenance of those already in existence. The main objectives are to increase the number of public garden areas in the densely built downtown part of the city, the greening of roadsides along main traffic routes and the establishment of green areas as compensation for the unharnessed ecological potential of earlier development. The principles for green space development are contained within the General Regulation Plan, which identifies policy for the protection of existing green spaces against building activities, the formation of a greenbelt system for the city, the creation of a new public park and the general enrichment of existing green spaces. Here key aspects are accessibility, natural appearance and variety of use. On this basis, development areas have been defined and outlined in the Regulation Plan and the Land Management Plan. Development also includes a programme to improve the quality of roadside and street trees.



Fig. C 24: Róka-Hegy Park: green space intensely used for leisure.

Programmes and key projects

Several projects are planned as part of the General Regulation Plan. A new park is under construction on the Csepel Island, in addition, intensive urban development schemes are planned for this 40 ha site. The Orczy Garden, a historical garden situated on a former industrial area in a densely built downtown district, will be extended. The **Szent István Park**, completed in 1999, is highlighted as being the most successful park-reconstruction in Budapest.

Budapest
Szent István Park

Subject and key issues

The park with a size of 3.3 ha is situated in the densely built up city centre on the bank of the Danube river near the Margaret Bridge, opposite to Margaret Island. The park is shaped like a 'T' and is divided into two parts by a busy road. It is very popular and used by the elderly as well as younger people for everyday recreation. The green space was created in the 1930's and after that was rebuilt twice, but in 1999 further reconstruction was required because of its condition. The social qualities of the park were improved and the citizens were involved in its planning and management.

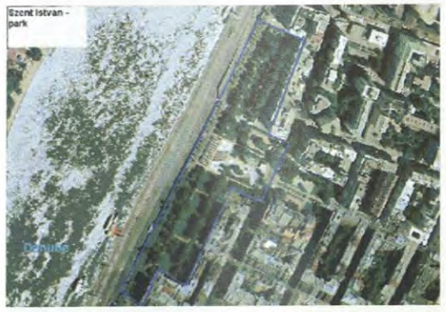


Fig. C 25: Aerial view of Szent István Park and Danube River.

Facts and Actions

Concept

The aims of the planning concept were the spatial separation of different functions (e.g. playgrounds, sport areas, quiet places), the provision of representative displays (water and plants), the protection of the park (fence) and the provision of facilities to an appropriate standard (toilets, playgrounds).



Fig. C 26: Flower beds in the intensely used Szent István Park.

Action taken

Urban green space planning tried to influence the use of the park as a place for recreation. The attractiveness for users was increased through the modernisation of playgrounds (to EU standard) and the separation of conflicting activities. The western part of the park was segregated for people with dogs, so that there were no longer problems between dog owners and other users. The part of the park alongside the pier was surrounded by a fence, therefore access can be restricted which prevents vandalism. The remaining part can be used without restriction.

Community involvement

The citizens took part in public workshops, exhibitions, conferences and questionnaires, thus helping in decision-making about the management of the park. This promoted good acceptance and agreed usage of the park.

Problems

Ecology is not the main focus of the green space as the emphasis is on recreation. Moreover the park is sometimes overused, a problem that still has to be solved.



Fig. C 27: Recreation corners in Szent István Park.

Lessons

- **A strong emphasis on the enhancement of the social qualities of this green space improves the usability for all kinds of users in a way that mutual disturbances are kept to a minimum.**
- **The engagement of citizens in the process of planning and management encourages the approval of the population and the usage of the park.**

Dublin (Ireland)

Inhabitants: 495,781 (2002)

Area: 11,500 ha

Density: 4,350 Inh / km²

Area of UGS: 2,000 ha

Area of UGS per Inhabitant: 40 m²



Green situation in the city

The distribution of the green areas within the city can be considered as well balanced. Towards the urban periphery the green spaces increase visibly in their size and number. Due to its history the inner city has the highest density and the lowest provision of green spaces, although it contains the most important historical gardens. The city has approximately 750 green spaces (totalling about 2,000 ha), which vary from Georgian squares, regional parks, nature reserves, pocket and neighbourhood parks, to coastal riverside parks and intensively used sports grounds.
In addition to the green spaces controlled by the Parks and Landscape Services Division of the Dublin City Council, there are a number of important parks and open spaces in the city managed by The Irish Heritage Service (Dúchas) like the Phoenix Park (the largest green area in Dublin), the National Botanic Gardens, the St. Stephen's Green, the War Memorial Park and the Canals.

Goals for the city development



Fig. C 28: A booklet showing the most important urban green spaces in Dublin.

The city considers its green spaces as an irreplaceable resource providing social, recreational and educational facilities for the population. There has been no significant expansion in the amount of area of green spaces in the last 10 years, the city's goals being the restoration, upgrading and intensification of use of the existing green areas.
Many areas, especially in the urban fringe, originally kept undeveloped and identified as future green areas, have become built up in recent years. The city's commitment is to supply every district with a neighbourhood park, which will provide for the recreational needs of its inhabitants.

Programmes and key projects

The aims of green space planning for the next few years are given in the Dublin City Development Plan (1999); these include the development of parks in specified areas and the acquisition of land for parks and riverside walkways, plus the utilisation of waterways to achieve the interconnection of the green areas and public spaces and to ensure the city's connection to its outskirts. The city uses the potential of its green spaces to promote tourism, nature conservation and provide recreational facilities. New housing and development projects require a minimum of 10% of the area be devoted to green space purposes to ensure ecological diversity. Public participation is an important part of green space policy, obtained by public consultation with residents, user groups and conservation volunteers. Recent restoration projects include green areas along streets, public squares and parks. Longer term projects include the refurbishment of parkland in **Ballymun** and the inner city parks.



Fig. C 29: Waterside paths along the Dodder River in south Dublin are a part of the existing linear greenways.

Dublin

Subject and key issues

Dublin is improving its provision of urban green spaces on a district level. A green network forms the basis for further recreational possibilities and new conservation areas, thus enhancing the social and ecological qualities. The city raises planning taxes as an innovative way of financing green spaces in development zones.



Fig. C 30: Dublin's inhabitants can enjoy a wide range of green spaces – about 750 in total.

Facts and Actions

Action taken
The city's commitment is to provide every district with a neighbourhood park which meets the recreational needs of the inhabitants and which also becomes a focal point for urban life. The city has a lot of small under-developed plots, especially in the urban fringe, which form the basis for future urban open spaces. Much of this undeveloped land within the city is institutional land, where, if developed for alternative usage, the Dublin Corporation would require a minimum of 20 % of the most valuable parts of these sites for open space purposes. Thus the city can provide new urbanised areas with sufficient open and green spaces.



Fig. C 31: The bloomy central area of St. Annes Regional Park.



Fig. C 32: The development of land reserves (undeveloped plots, especially at the urban fringe) enables Dublin to satisfy the needs for urban green spaces.

Another project is the planned interconnection of single open spaces into a greenways network. It is an objective of the City Development Plan to acquire land along the rivers and canals. These linear greenways will connect the city to the rural hinterland, for conservation purposes, to act as wildlife corridors, and to promote the recreational and tourism potential of the area.

Financing strategy
The city imposes planning levies (a special tax) on private developers. This public revenue is used for the development of green spaces, the implementation of special features and the intensification of uses.



Fig. C 33: Dublin's green spaces are enjoyable places with different features and qualities.

Lessons

- **The recognition of the need for open green spaces as a vital infrastructure enables the city to build up future land reserves.**
- **A network of green spaces promotes ecological, social and economic qualities of the city.**
- **Planning levies can generate funding which can be used for the development and enhancement of green spaces.**

Site Level

Dublin
Ballymun

Subject and key issues

The Ballymun area with about 20,000 inhabitants at present is situated in the north of the city. Initially the district had a poor image with a lack of basic infrastructure and an unattractive urban environment. The population was characterised by marginalisation. The regeneration project is bringing about the enhancement of social, ecological and economic aspects for the Ballymun area. The need for the involvement of local residents in the planning and implementation process was recognised from the outset.

Facts and Actions

Action taken

The project involves the demolition of the existing 36 spine tower blocks and their gradual replacement with new terraced houses. Work was initiated in 1997 and will run until 2004. The project is being carried out in the context of a Strategic Master Plan which provides a framework for the future development of Ballymun and an integrated area plan which identifies opportunities for tax and other financial incentives to encourage private sector investment in the overall renewal project. Landscape architects design and develop the open space system, basically composed of two neighbourhood parks (Coultry and Balcurris) and small green areas with several playgrounds.

Considerable attention has been paid to the incorporation of sustainability of the proposals in relation to economic development, energy conservation and environmental improvements.



Fig. C 34: The area for the Balcurris Park which is located in the centre of the new housing estate is already recognisable.

Stakeholder participation and public involvement

The Masterplan for Ballymun which provides measures to redress the current marginalisation of the population has evolved through a possibly unprecedented public consultation process and will continue throughout the years of the implementation process. A variety of means to actively involve residents were developed to ensure full and meaningful community involvement. The development of ideas and proposals aimed at building a strong local consensus in support of the Masterplan. The following instruments and techniques were used:

- Public Meetings: The latest ideas for the Masterplan were presented, the people were told how they could get more involved, questions were answered and local concerns were addressed.
- Area Forums: Members of five forums were actively involved in the development of the Masterplan. The area forums were important in ensuring that there was sufficient focus on the different issues of particular interest to each area.
- Design Groups: These comprised representatives from the Area Forums, Ballymun Housing Taskforce, the Health Board and local Community Groups. The group met with the project team each week to develop and refine their ideas for the Masterplan. A recurring theme was the need to attract businesses to the area for the provision of sustainable employment. The Design Group evaluated existing facilities for youth, children and recreation and assessed the need for further development. They provided the project team with locally based knowledge, ideas and information and therefore ensured that the proposals in the Masterplan were relevant, applicable and acceptable to Ballymun.
- Surgeries/Drop-Ins: A means of enabling residents to become involved at an individual level that was particularly useful for people who were unable to attend public meetings or who did not want to raise their concerns in a public forum.
- Newsletters: This was used for reaching every household in and surrounding the area to keep people informed about the progress of the project.
- Focus Groups: The groups were established to develop six key social themes and to be a contributory factor for the development of the Masterplan.
- Working Groups: These are a follow up to the Focus Groups and will be long-term forums for developing detailed implementation strategies and action plans for the regeneration.
- Future Community Consultation: Built on the success of the public consultation process, the active involvement of the community is seen as a vital component for the future success of the regeneration of Ballymun and will be continued.

The importance of the inter-departmental approach at Government level and inter-agency approach at regional and local level is recognised in relation to issues such as training and education so that appropriate aspects can be further developed.

Lessons

- **An integrated approach concerning economic, ecological and social issues results in balanced implementation and regeneration of a former degenerated area.**
- **Such a through involvement of local residents is a means of establishing a thriving partnership for the development of a Masterplan and the successful implementation of a project.**

Genoa (Italy)



Inhabitants: 610,000 (2001)

Area: 24,000 ha

Density: 2,500 Inh / km²

Area of UGS: 3,140 ha

Area of UGS per Inhabitant: 50 m²

Green situation in the city

Genoa is surrounded by a continuous belt of natural vegetation which reflects the character of the surrounding terrain, but otherwise has only a modest amount of urban green spaces. These include historic parks, gardens, the green spaces of villas, road-side trees, and public squares. Some parks are located in the surrounding hills, but they suffer from poor accessibility and lack a proper structure. New parks are created in disused parts of the city, but an integrated green system does not exist. The rugged morphology of the Liguria territory means that there are few areas suitable for the creation of large city parks, and that the city's space is heavily utilised, limiting the scope for green space provision. The situation is also hampered by the absence of a vision for a local ecological network.

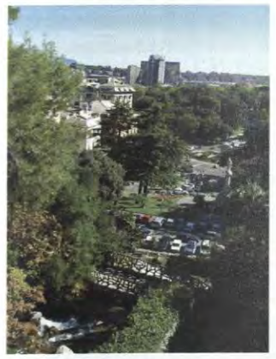


Fig. C 35: Town centre from Villetta Di Negro Park.

Goals for the city development

The General City Plan defines the location of and standards for green spaces. Spaces listed include parks, forests, sports fields, playgrounds, ornamental gardens, and landscapes associated with schools, hospitals, cemeteries and public buildings. A range of opportunities exist for green space improvement and creation – utilising the disjointed green spaces on the urban fringe, disused or derelict land, in the historical parts of the city, the historical villas, on the city outskirts and close to the sea. Particular areas which offer potential as part of an urban forest are the hilly areas and the ridges of the city.



Fig. C 36: Historical garden of villa Pallavicini.

Programmes and key projects

Genoa-Prá is a former industrial area and port zone site forming part of a larger commercial district connected to the industrial areas of western Genoa. Following a decline in its use, the city reclaimed the site for public facilities, creating a park. The main elements are a large amphitheatre, stone terraces, children's playgrounds, various rest areas and a range of other facilities. The Fiumara Park, with an area of 8,000 m², was another park created as part of the re-development of a large industrial site. Development was mixed and included residential housing, offices and public facilities (cinemas, sports) in addition to the park.



Fig. C 37: Map from Genoa Land Use Plan: public green and urban parks.

Site Level

Genoa-Prà Urban Park

Subject and key issues

The park is situated in the west of the inner city, covering an area of 2.7 ha on reclaimed land between the Branega river and the district Castellucio, a protected sea inlet to the south, a railway and a road to the north. Originally the area has been an industrial area and harbour zone with a large industrial zone that occupied the only flat areas in the region, most of them former beaches. A part of the zone was abandoned and following the demands from the inhabitants, the city reclaimed it as a site for public facilities. Because of its location in the densely built up area with little free space, the new city park takes on added importance. The new park (opened in April 2002) was built adjacent to a zone with sport and community facilities (swimming pool, sport area, community centre). The creation of the park enhanced the social and ecological qualities of the area; citizens were involved in the planning process. The project and its implementation were made possible by funds from the Genoa City Council.



Fig. C 38: Aerial view of the western part of the City of Genoa. On a reclaimed land between the port and a highly built up area the main structures of the Prà Park can already be recognised.

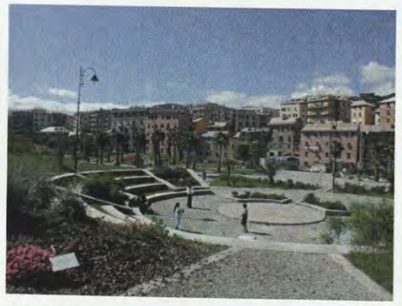


Fig. C 39: Amphitheatre in Genoa Prà Park.

Lessons

- **The conversion of derelict land improves the quality of life in the surrounding areas and provides an opportunity to restore degraded parts of a city which had been deprived of their open spaces.**
- **The participation of inhabitants in the planning process adds to its acceptance and the sense of local identity.**

Facts and Actions

Action taken

In the derelict area a park was created, its main elements are a large amphitheatre with alternating lawn and stone terraces and a paved central area for shows, a large children's playground, various resting places and a mix of facilities. The park has a main longitudinal pathway that runs along the entire area flanked by palms and by some vegetated "maritime dunes" to conceal the port zone and to create areas protected from the very intense traffic along the road. The vegetation of the park has been chosen from local species which are able to resist the maritime climate. Green planning aimed to consider both social and ecological aspects of the site.

The characteristic of the park is its multifunctionality, where it combines a lot of different possibilities for all kinds of user groups, for parents with children (multifaceted playground), teenagers, employees on a work break, retired people and also for different purposes (e.g. performances in the amphitheatre). Since the park was opened to the public it has proven to be very popular.



Fig. C 40: Palms and flowers at the main alley in Genoa Prà Park.

Community involvement

Local inhabitants took part in the planning of the park – strategies were presented to them, local primary schools were also involved, where the schoolchildren helped to find names for the different parts of the park.

Problems

The close proximity to the industrial and harbour areas has a detrimental influence on the park because of polluted air and water.

Helsinki (Finland)



Inhabitants: 559,716 (2003)

Area: 68,620 ha

Density: 820 Inh / km²

Area of UGS: 5,600 ha

Area of UGS per Inhabitant: 100 m²

Green situation in the city

One third of the entire city area is green space, which results in approximately 100 m² of planned green space per inhabitant. There are a range of spaces including large forests, parks (for example, the Korkeasaari, the Seurasaari and the Central Park) and extensive areas of gardens and allotments. Helsinki's oldest parks and gardens belong to former manor houses and are now located in the suburbs. Helsinki's first public parks, Esplanadi, Kaivopuisto, Kaisaniemi, Töölö and Eläintarha were established in the early 19th century, they are all situated beside the sea or very close to it. Because of the topography of the region long stretches of green fingers penetrate from the north deep into the city centre, providing beautiful scenery and extensive areas for natural recreation. Planners have attempted to create an integrated network of safe outdoor routes for pedestrians (about 400 km of paths), cyclists and skiers, so that people can reach areas of urban green spaces within 15 minutes walking time. The legal concept of everyman's right gives access to all uninhabited terrain in Finland and also in Helsinki. The city has consciously worked to preserve and maintain its unique nature (Urban Biodiversity Strategy for Nature) and was nominated as a best practice example by the UN-Habitat Network for its woodland parks.



Fig. C 41: Helsinki's green spaces, here the Kaivopuisto Brunnsparken, unite a rich diversity of natural and cultural areas.



Fig. C 42: Forest in the Central Park of Helsinki.

Goals for the city development

The Green Area Division is responsible for the planning, construction, management and maintenance of Helsinki's green areas in accordance with the needs of Helsinki's residents. The current Master Plan became valid in 2002; its Green Plan includes an extended green space network of city-parks, regional parks, green corridors and green fingers which connect Helsinki to its neighbouring cities. One example is the Central Park, a cultural and historical park in the middle of Helsinki. Helsinki's population is increasing and, due to the requirements for building land, city expansion has caused a reduction in the number of open and green spaces. Although there are brownfield sites, there is no additional land reserve for new buildings within the city apart from green spaces, therefore one quarter of the open space areas are designated for built development. An alternative for keeping the open spaces would be to increase the density of the built areas.

Programmes and key projects

Many historic Parks, such as Töölönlahti Park, right in the heart of Helsinki are being renovated. As the city grows and its density increases, new parks with a variety of functions are being built in suburban areas. The Central Park, started in 1970, has been developed with full public discussion. Long standing plans for the Töölö Bay, the heart of Helsinki, exist but have not yet been realised. These include the redevelopment of the old shunting yards at Töölönlahti. Other projects are the restoration of Esplanadi Park and the transformation of the Vuosaari landfill site into a golf centre. As part of the European Natura 2000 Network of Nature, Helsinki has three protected sites – the Viikki-Vanhakaupunki wetland area, the Kallahdenharju ridge and the Mustavuori-Porvarinlahti wetland. However, there are conflicts of interest concerning this third site due to Helsinki's plans to transfer its cargo ports eastwards to the Vuosaari area.



Fig. C 43: Green area network: green planning in Helsinki is a component of the city planning process. Green fingers form the character and identity of the city.

Helsinki

Subject and key issues

The city of Helsinki is improving the provision of urban green spaces by means of a Master Plan, which is also developed through citizen involvement. The reuse of brownfields sites for building up new residential areas has been adopted as a strategy re-development. Green spaces are managed extensively by the city and private contractors.



Fig. C 44: Green spaces around the Bay Töölönlahti – a part of the Central Park close to the inner city.

Facts and Actions

Action taken

The city has a Master Plan with an extended Green Spaces Plan which links green space matters into the city Master Plan. This plan will determine and govern the city's development over the next 10 years and safeguard many green spaces from being built upon.

The reuse of brownfield land for building aims to raise the density in the built-up areas and to keep the remaining open spaces free for recreational use. Even if only small areas can be kept free from development, this strategy allows Helsinki to sustain its outstanding figures for green space provision. Brownfield land is also used temporarily for green space.



Fig. C 45: Art on a temporary green space on a former goods station near Bay Töölönlahti.

Stakeholder participation and community involvement

The green planning system of the city has been based on citizens' participation since 1996. The Green Area Programme defines the correct management principles for different types of green areas. It strives to increase citizen's involvement and improve co-operation between the different authorities which are responsible for green space planning. The development of the Master Plan was done with the active participation of residents and local groups. Involvement included an exhibition and local forums around the city. As part of the planning process, additional participation allowed further input in the form of comments, which were collected and incorporated where possible by the City's Planning Committee.

Financing

Because of a decreasing amount of money for the management of urban green spaces the city plans to reduce the intensity of their maintenance, which, additionally, could have positive effects for the ecological functions of green spaces. A research project has already proposed less intensive maintenance options with sites being classified into different maintenance grades.

An experimental strategy is to use private management to maintain smaller green areas.



Fig. C 46: Temporary green space on a former goods station near Bay Töölönlahti.

Lessons

- **The Master Plan can be a useful instrument for the predefinition of the city's goals concerning green spaces. The reuse of brownfield land is a possibility to guide the development of a city in a way that green spaces are kept free from building activities. On the other hand, brownfield land can also be used as green spaces and therefore improve the provision of urban green.**
- **An open and transparent planning system provides chances for the involvement of citizens and other participants and for improved cooperation in the whole planning process.**
- **Private involvement in maintenance issues spreads responsibilities and represents a realistic option of keeping up maintenance standards in times of budget pressures.**

Istanbul (Turkey)



Inhabitants: 10,072,447 (2000)

Area: 551,200 ha

Density: 1,900 Inh / km²

Area of UGS: 4,632 ha

Area of UGS per Inhabitant: 5 m² (2000)

Green situation in the city

Istanbul has an uneven distribution of green spaces where provision is regarded as inadequate, accordingly, recreational or landscape facilities



Fig. C 47: With many efforts the Municipality of Istanbul is making significant steps towards a better green provision for an increasing urban population. The Bayrampasa Urban Park is one of the latest implemented green spaces.

are poorly catered for, signs of overuse commonplace, and with resultant damage to the vegetation of sites. These problems are related to an increase in the city's population between the 1950's and 1990's due to urban migration, where the creation of new green areas did not follow the pattern of urbanisation. These social changes are confronting the city with problems regarding irregular and illegal urbanisation (squatters, mass transportation) and while this increase in population is indicative of a need for additional green spaces, in fact the amount of existing green areas available, in relation to the number of inhabitants of the city and their recreational needs, has decreased.

Goals for the city development

The main aim within the green space policy of Istanbul is to increase both the quality and quantity of green spaces in the city and to differentiate between site types to allow an intensification of their use. A target of the Greater Istanbul Municipality, to increase the quality of life for its inhabitants, is to adopt the standards recommended by the Turkish Ministry of Development and Housing Construction, which state 10 m² green space and 3 m² sports area per inhabitant (these standards are only meant for built up areas; forest and water reservoirs are excluded from these figures as they cover about two third of Istanbul's total area). The Istanbul Metropolitan Master Plan gives targets for city development concerning urban green spaces, while the city administration is responsible for protecting the natural resources. This includes the protection of sources of fresh water, to guarantee the supply of drinking water. Turkish legal regulations determine the status of natural sites and their protection and aim to preserve the natural environment and its ecological value. These aims are to be achieved through the cooperation of the central and the local administrations.

Programmes and key projects

The Greater Istanbul Municipality is carrying out a range of Urban Transformation Projects (MEGA) as components of CONCEPT 2023, in order to transform the city into an international centre, targeting the year 2023 for the commemoration of the 100th anniversary of the Turkish Republic.

The Golden Horn Project, instigated by the Greater Istanbul Municipality with the key objective of cleaning the Golden Horn (Haliç), aims to restore and revitalise this unique stretch of water, famed for its incomparable beauty in the Byzantine and Ottoman periods. Green corridors will connect the northern forests to the Marmara Sea, these forests are now confined to a very restricted area due to urbanisation. Other projects are the Bayrampasa Urban Park, a former landfill site being transformed into an urban park to provide recreational facilities in a densely urbanised area, and the Atatürk Arboretum.



Fig. C 48: The Belgrad Ormanlari is the biggest forested area in Istanbul's surroundings; the splendid landscape and the clear air make it a favourite place for excursions.

Istanbul
Golden Horn (Haliç)

Subject and key issues

The Golden Horn Environment Protection Project was instigated by the Greater Istanbul Municipality with the key objective of cleaning the Golden Horn, a sea inlet of 7.5 km length that is situated on the European side of the city at the southern end of the Bosporus. Until the 1960's the Golden Horn was a place of enjoyment for recreation, swimming and fishing. However, industrial and residential areas, developed without proper infrastructure, resulted in untreated sewage being discharged into the Golden Horn. The stretch of water also silted up, maritime traffic was brought to a halt, which accelerated the silting-up and reduced the oxygen level. The Golden Horn had turned into an ugly mire with an unpleasant smell, it could not be used for recreation, transport or fishing anymore.
The main aim of the project was therefore to enable this unique stretch of water, to recover its former identity, thereby adding a contemporary dimension to this major venture. For this project the municipality won an international prize from the Metropolis Association in 2002. Through various funds the city was able to implement the project and enhance the social and ecological qualities of the Golden Horn.



Fig. C 49: Gradually Istanbul is coming back to acquire the re-identification to Haliç – the Golden Horn waterfront, which was mainly used by heavy and polluting industries. The former inaccessible quayside is becoming an extension of the city and will be enframed by green spaces.

Lessons

- **A corporate approach can help to accomplish major challenges and improve the situation of a part of a city.**
- **Multi-funding strategies, including external funding sources, guaranteed a successful project and ensured its implementation.**

Facts and Actions

Action taken

The Golden Horn was dredged and its mud tipped into an old stone quarry. The basin of the sea inlet was afforested to prevent further water erosion



Fig. C 50: The conversion of the polluted industrial areas at the Haliç into a green water front.

which had been the cause of silting up. After being cleansed, the aquatic life in the water once again began to flourish.
A large fountain was built near the mouth of the Golden Horn, it has both an aesthetic function and increases the oxygen level of the water.
Wastewater treatments were installed, so that no more untreated sewage would be discharged into the Golden Horn.
Factories and other industrial premises and shipyards were moved to other sites outside the city, so that historical buildings around the stretch of water could be restored and could be given new uses, e.g. a former fez factory was renovated and is now open to the public. Various cultural projects were started and the Golden Horn is becoming a valley of culture.
The Golden Horn was made navigable again and old passenger quays were reopened. Several valleys leading to the Golden Horn with historic picnic sites and promenades were fully refurbished. The new and restored green spaces and the entertainment centres, offer rest and leisure facilities to the inhabitants of Istanbul. A total area of 118 ha was landscaped and laid out as a green belt.

Funding

The project was funded by the World Bank, the Istanbul Water and Sewage Administration and the Istanbul Metropolitan Municipality (total budget of US $ 313 Million).

Leipzig (Germany)



Inhabitants 494,795 (2002)

Area: 29,761 ha (2002)

Density: 1,660 Inh / km²

Area of UGS: 4,600 ha

Area of UGS per Inhabitant: 93 m²

Green situation in the city

Leipzig has a variety of urban green spaces. The largest individual green spaces are the Floodplain Forests and two parks. The Floodplain Forest (950 ha) forms a very important green finger stretching from the south of the city, adjoining



Fig. C 51: Johannapark with new town hall in the background.

the large lignite mining sites, to the northwest along the rivers Weisse Elster, Luppe, Pleisse. A second floodplain is located in the northeast. Otherwise, the other green spaces are more or less fragmented but new green fingers are planned. Leipzig's green spaces are well equipped with playgrounds, paths, resting and leisure facilities. There has been a small increase in the number of sites, but a general decline in maintenance. Leipzig's allotments, with a total area of 1,243 ha, are a significant part of its green infrastructure.

Goals for the city development

A central objective for the further development of the city of Leipzig is: "More greenery, less density!" Sustainability for a compact city is defined by short travel distances to facilities and a socially integrated city. Guidelines for urban renewal include higher quality public spaces; an increase in the number of open and green spaces, especially parks; an increase in the number and quality of playgrounds and recreational facilities; and the creation of less intensively used meadows. Particular emphasis is placed on the needs of the elderly and teenagers. New green spaces are planned, especially in the east of Leipzig, a part of the city which has few green spaces. Leipzig is characterized by quarters of 'Gründerzeit style', which form a belt around the historic city centre. There are many vacant lots within these quarters, which go back to the Second World War and to the demolition carried out during the 1970's and 1980's. These offer potential for development, and the planning system calls for unconventional, but sensible solutions to incorporate greening on a temporary or permanent basis.

Programmes and key projects

The Green Bow Paunsdorf (157 ha) is an exciting green project where it is planned to turn a former army firing range, into a district park, with recreational areas, playgrounds, retention areas and a path structure to link adjoining settlements. Another recent project is the **District Park Reudnitz** located at the former railway station "Eilenburger Bahnhof", planned as a green finger within the densely populated eastern part of Leipzig, an area deficient in green spaces. The park provides new opportunities for daily recreation and footpath connections running north-south as well as east-west. The **Green Belt Grünau** is the development of a green network in the high-rise building estate of the district Grünau, aimed at improving the quality of life and providing recreational areas. Leipzig places a high priority on improving the quality of life for citizens and has an annual '1000-trees-programme' – involving the planting of new trees within the grounds of old buildings. In addition, the municipality supports the green improvement of private gardens and associated land.

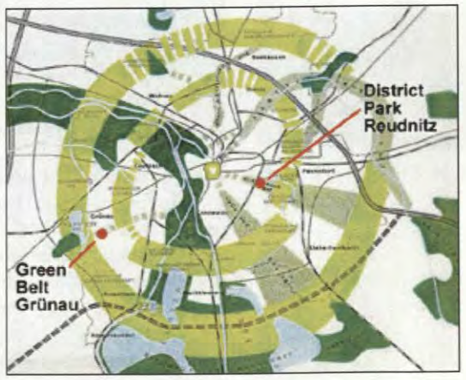


Fig. C 52: Radial Ring System "Green Ring City of Leipzig" – Objectives 2000.

Leipzig
District Park Reudnitz

Subject and key issues

The area of the District Park Reudnitz covering 5 ha is integrated within the project "Eilenburger Bahnhof" and stretches for 2 km from the city centre to the eastern outskirts of Leipzig. The project was planned as a green finger within the densely populated eastern part of the city, which is characterised by 'Gründerzeit style' residential areas and a deficiency of public green spaces. The site was used by the railway until 1970. Key issues were the enhancement of social and ecological aspects to improve the quality of life in the adjacent residential areas. The involvement of citizens, scientists and planners in the planning process were the basis for a successful outcome. The first part of the park was opened to the public in 2001; the last construction phase is planned for 2004. The project was financed by the appropriation of funds from the Federation (one third) and the Federal State of Saxony (one third) using cost allocation.



Fig. C 53: Aerial view of the District Park Reudnitz.



Fig. C 54: Allotments in the park.

Facts and actions

Main aspects of the planning concept

- Improvement of the quality of life and provision of recreational areas for adjacent estates
- Development of an advanced network of cycle tracks and footpaths within the neighbourhood
- Integration of new management methods for the green spaces
- Development of a green finger with ecological significance and as a fresh air ventilation corridor

Action taken

A sequence of different green spaces was created, including allotments, meadows, playgrounds and sports fields for all age groups (e.g. beach-volleyball, a street ball court, slides and a climbing wall). They are already well used. Places for socio-cultural venues are planned and will offer restaurants and leisure facilities. Since the project strives for high aesthetic quality, works of art (an overground heating pipeline, recycled material, elements from the former railway area including an engine shed and walls) were integrated into the concept. Views to the city centre were kept free. Predominantly native plants were selected as appropriate to this habitat, especially herbaceous plants and native and naturalised shrubs.



Fig. C 55: View connection to the city centre across the allotments.

Citizen and expert involvement

The views of the inhabitants of the district were integrated in the planning process through public workshops and conferences. An international planning seminar and a landscape competition were held; international scientists and planners contributed to the project.

Management strategy

A new progressive green management strategy was developed: frequently used allotments were arranged so that people could take up responsibility for their particular part of the park.

Leipzig's success

The project was awarded the second European Prize for Urban Public Space by the Centre de Culture Contemporània in Barcelona in 2002. The jury appreciated the step-by-step transformation of a brownfield area into a usable urban public space, including citizen participation.

Problems

Complaints arise because of noise from the street ball court. There is also a problem with vandalism.



Fig. C 56: Playground with slide.

Lessons

- **The diversity of the created green space and the fact that it is already well used verifies the successful project implementation, which will enhance the social and ecological qualities of the area.**
- **A new management strategy for green spaces is an alternative to traditional methods and as a catalyst for a new era of management in which inhabitants are actively involved.**

Leipzig
Green Belt Grünau

Subject and key issues

The district of Grünau is situated in the west of Leipzig on the urban fringe. It was the third largest modern estate of industrially manufactured blocks of flats, in the former GDR. Complex 8.3, which lies adjacent to the Green Belt Grünau, was one of the last to be finished. After the political changes, there was a deficiency of services, leisure amenities, green spaces and workplaces, because development stopped just after the completion of the houses. The site of the park was originally planned as an area for a road including tram tracks, yet the planning was cancelled and the land has lain fallow for several years. Planning started in 1993 and in 1996 the park with a size of 38,000 m² was opened to the public. The main issues were the improvement of social and ecological qualities and participation of the inhabitants and local institutions. The project was funded by the Federation and the Federal State of Saxony.



Fig. C 57: Leipzig Green Belt Grünau: Aerial view southwards after redesigning.

Facts and actions

Action taken

One of the objectives of green planning was to develop green networks. Design ideas included earth modelling for the creation of different habitats and zones (temporarily wet and dry zones, densely planted and loosely planted areas, intensively and extensively used areas). Mostly native plants were chosen. Recycled materials and natural stone were used for the construction.
To improve recreational facilities, playgrounds for every age group and a path with resting facilities were developed. A special feature is a semi-circular theatre with large stones arranged as seating which is sometimes used by school classes as a 'green room' for teaching, or for celebrations and barbecues held by local children or youth groups.

Community involvement

Initiated by the municipality and involving close collaboration with house owners (cooperatives), residents and adjoining institutions (including after-school care centre, charities, home for asylum seekers).



Fig. C 58: Opening of the Green Belt Grünau to the public.

Leipzig's success

The creation of several play areas was highly successful and the City Council won the Play Award for this site in 1998/99.



Fig. C 59: Southern playground in Green Belt Grünau.

Lessons

- **The Green Belt Grünau meets the social and ecological needs of the area, characterised by its high degree of acceptance. People use the park quite frequently for various recreation activities. Biodiversity could be improved by creating different biotopes.**
- **The involvement of inhabitants in the planning process demonstrated that consideration of their demands is important.**

Ljubljana (Slovenia)

Inhabitants: 268,084 (2003)

Area: 27,000 ha

Density: 955 Inh / km²

Area of UGS: 720 ha

Area of UGS per Inhabitant: 28 m²



Green situation in the city

Ljubljana is surrounded by a greenbelt, with green fingers coming right into the heart of the city and numerous smaller green areas in the city centre. Two of these green fingers are particularly distinctive being forest covered hills almost joining in the city centre. The two parks (Tivoli and Castle Hill), embedded in them, are the most important recreation areas for the city. Other green fingers are located around the rivers Sava and Ljubljanica, both have high recreational potential as well as being of major importance for biodiversity. In the city centre there are some smaller parks and historical gardens, among them the Botanical Gardens. The Zoo is situated on the southern slopes of the Rožnik Hill in a natural environment of woods and meadows close to the city centre. In terms of quantity there are 28 m² of green spaces for each inhabitant, yet many green areas are inappropriate in terms of structure, design or facilities, for their intended use. Despite their integration in planning policy, green spaces have been built on due to the high priority given to economic regeneration and private interest compared to public interest. No new parks have been developed for more than sixty years. There are no special funds for urban green space development; private capital is not invested in green spaces, while public resources are insufficient.



Fig. C 60: Aerial Photograph: location of (1) Tivoli Park, (2) Ljubljana Castle, (3) Botanical Garden.



Fig. C 61: Trnovo Pier.

Goals for the city development

During recent years the Department of Urbanism has given a higher priority to issues concerning the development of urban green space. The strategy for sustainable urban development, adopted by the Municipal Council in 2001, formalized goals concerning open and green spaces. Establishing an urban green network became an essential part of the new Concept of Spatial Development, the first phase of the new City Plan Ljubljana 2020. The strategy also includes measures for the improvement of open and green spaces. An important decision was to separate sports areas from the general recreation category. To improve sports facilities, sites needed intensive building projects, therefore many green areas of the city, even city parks, had become built on for sports purposes.

Programmes and key projects

There are many planned projects concerning urban green spaces in Ljubljana. One is the plan for the Koseze pond and its associated recreational park; others are the landscape development of the Sava riverbanks; the new urban park Navje; the new Botanical Garden; and a project for city allotment gardens. The recreational park Barje is part of the development and preservation of the **Marshlands of Barje**, an area south of the city with exceptional natural and cultural values. Another future project focuses on the use of waterways to meet the recreational needs of the city's inhabitants and as a means of linking together green areas and public spaces.

Ljubljana

Subject and key issues



Fig. C 62: Botanical Garden.

The city has developed a general concept and defined a typology for urban green spaces. The creation of a green space network promotes the increased value of urban green spaces. Inhabitants and experts are actively involved in the planning and development of the city.

Facts and Actions

Action taken

The Green System of Ljubljana has been recognized as an important aspect of urban planning. The incorporation and connection of all the different urban open spaces into an integrated system of open spaces is the basis for fulfilling its main purpose: the preservation and development of the green spaces for the satisfaction of the needs of the inhabitants, contributing to a coherent city structure and ecological balance. Generally the Green System defines areas in terms of use and classifies the network of local parks. In addition areas of general use, which are developed or protected by green system regimes, including the outskirts of the city, city entrances and important connecting points. A detailed concept defines the typology and categories of green spaces and their management regimes. Particular emphasis is put on the development of green wedges, rivers and streams, with new open space development.
The three main parks of the city are to be connected to their surroundings by the use of green corridors and recreation areas. It is also planned to include a circular thematic way "Path of Remembrance and Comradeship" into the green system of the city, it connects different districts and strengthens identity. The entrances to the city will be landscaped and several tree-lined avenues will be completed.



Fig. C 63: Zvezda Park.

Community involvement

The inhabitants of Ljubljana were asked for their opinion on the development of the city. The information in the form of essays was collected. Experts in spatial planning, particularly those not directly involved in the preparation of the Urban Development Plan, which includes the Green System, were invited to share their views in an open questionnaire. As part of the planning process, Ljubljana residents were invited to take part in two different workshops: (1) for Defining Issues and Priorities and (2) Agenda for Solving Issues. As a result of all these actions different publications and exhibitions were prepared, discussions between public authorities and neighbourhood communities held. The Department of Urban Planning of the City of Ljubljana runs web pages providing continuous and updated information about the Urban Development Plan.

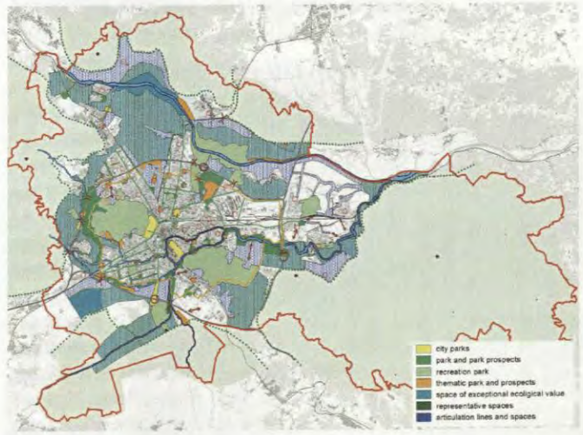


Fig. C 64: Map of the green system of Ljubljana.

Lessons

- **An integrated concept for the green system of a city is an appropriate basis for the effective planning and management of green spaces, meeting the needs of the city's inhabitants. Further specification by means of a typology and green system regimes is helpful.**
- **The participation of inhabitants and experts in a transparent planning process helps the city to solve problems and define strategies.**

Ljubljana
Marshlands and Recreational Park Barje

Subject and key issues

The Marshlands of Barje (164 km²) are a natural asset and are, as such, proposed as a landscape park, they form a natural area defined by national legislation regarding the preservation of nature and are designated as Natura 2000 area. The area is located at the southern edge of the city, which has deteriorated since the southern part of the ring road has been constructed and the entrance to the city neglected. The potential of the area is based on the interlinking of two distinctively different spaces, the urban areas and the marshlands. Six municipalities share the area, hence the main issue of the initiative concerns the cooperation of the differnent municipalities, the question of the proposed function and content of the area, as well as solutions for a new urban leisure park which includes the revaluation and conservation of the marshlands.

Facts and Actions

Action taken

The initiative for the landscape park was started in 1996. In the following years many meetings were held and in 2000 the design for the new recreational park was developed up to a proposal which is based on the regeneration of the southern edge of the city, bringing to the area new leisure facilities and recreational programmes that are attractive for residents and tourists. Developments include a new park centre, the regeneration of housing areas and the waste disposal site, and secure paths from the city into the area and further into the marshlands.



Fig. C 65: Photomontage of the proposed "Natural Park".

The development strategy was chosen from a range of ideas, based on a premise, that the degraded areas should be refurbished to obtain a more positive image, thus contributing to a wider social and spatial vision. An example is the waste disposal site, which became the location for testing and demonstrating recent technologies. A contemporary business and recreational centre, offering a wide range of programmes is included. Commercial and sport activities will be provided with access roads, paths and parking places. Structurally, the centre will lie in between the active and exciting adventure park near the urban periphery, and the more natural area, the marshlands, offering redesigned entrances to the area, new and safe pathways, bicycle and horse routes and a boat link across the whole protected landscape park. This double-sided development promises to boost both the economic activity of the area as well as the important ecological aspects.

Stakeholder and community involvement

The initiative for the landscape park Barje was signed by the six affected communities and three national Ministries, Agriculture, Environment and Spatial Planning and Culture. Citizens will be involved in the process of planning and management following the drawing up of foundations for the park.

Problems

The central waste disposal facilities of Ljubljana located on the site contribute to the poor image of the area and attract illegal uses, but shouldn't become an obstacle for development.

The six communities are different in size, development and economic strength. Accordingly, the debate on the equal distribution of the new programmes in the limited and vulnerable space is difficult. Without appropriate management (grass cutting regimes) the wetlands will disappear, therefore requirements for agricultural use have to be integrated within the proposed development plan, especially for the areas bordering the park.



Fig. C 66: Photomontage of the view from the bridge.

Lessons

- **The act of preservation is the first step towards ecological improvement, but for ongoing ecological, social and economic enhancement of the area, a development programme is needed. A tight design proposal, with firm policies, gives good publicity and can be a starting point for the developing programme. Physical improvement of the area will provide social (decreasing illegal use, new recreational equipment, better accessibility) and economic benefits (rising property values, new employment possibilities).**

- **The cooperation of all involved municipalities does not make decisions easy, but is essential for realising an effecetive concept, that will be accepted by all stakeholders.**

Málaga (Spain)



Inhabitants: 547,000 (2003)

Area: 39,500 ha

Density: 1,350 Inh / km²

Area of UGS: 356 ha

Area of UGS per Inhabitant: 6.5 m²

Green situation in the city

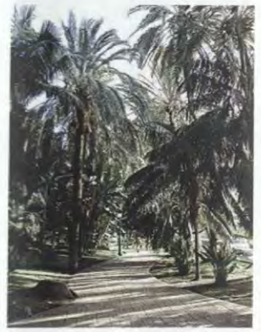


Fig. C 67: El Parque is one of most impressive green spaces in Málaga. This popular park in central Málaga was designed as botanical garden in 1897 and cotains a diversity of plants from all over the world.

Málaga has many different kinds of urban open spaces, e.g. small plazas in the old town, new urban and district parks, urban forests and huge natural parks. Most of the green spaces are located around the old city centre. Three of the most typical are located in the Old Town: the Alameda, the Parque and the Parque Gibralfaro. The Alameda – a wide green boulevard and the Parque, form a unique sequence of open spaces. Among other green areas in the centre are, the Jardines de Puerta Oscura, located on the southern slopes of the Gibralfaro hill and famous for its drought-resistant vegetation; connected to it are the Gardens of Pedro Luis Alonso, inspired by old Muslim gardens. The most important natural park is the Parque Natural de Montes de Málaga being situated in the north of the city, this park was developed as an afforestation project to control the watershed feeding the river Guadalmedina, in order to avoid the floods that Málaga had suffered over several centuries. The estuary of the Guadalhorce River forms another natural park. It has an area of 67 ha and was declared Parque Natural in 1989 because of its importance as a refuge and feeding place for aquatic and migratory birds.

Goals for the city development

The general goals for the city development are set in the PGOU (Plan General Municipal de Ordenación de Málaga). Its main objectives are to keep, improve and enlarge green spaces in order to bring them up to the defined standards. Additional planning tools for urban green space are incorporated within planning legislation. Málaga ranks among other pioneering cities in Europe as the first city in Spain to draw up an Agenda 21 policy (known as Malaga's Green Charter 1995) – a document that draws together all the different measures that must be implemented to ensure a sustainable city.

Programmes and key projects

The city is changing its image with the help of several programmes. There are green projects running in almost every part of the city and in the last 10 years there has been an increase of 256 % in the green spaces. National and European funding support ongoing development. The European URBANprogramme fostered the improvement of urban surroundings and the restoration of the historical city centre; the POMAL programme promoted the establishment of policies for the protection and the re-evaluation of Málaga's natural surroundings. Through this programme it was possible to achieve the reforestation of urban hills (Gibralfaro and Morlaco) and the planning of new urban parks (Park of the Virreinas and North Park, also known as Huelin Park) both located in zones with a high population density and low green space standards.

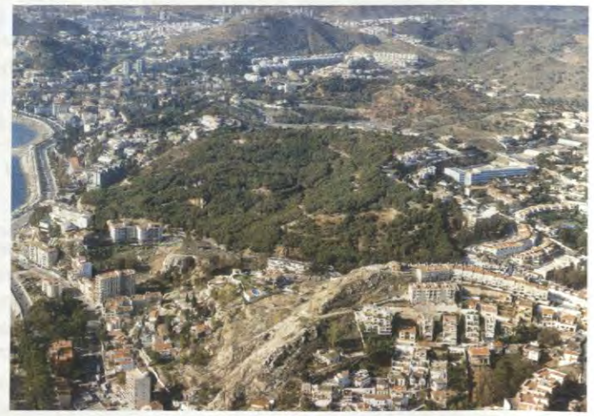


Fig. C 68: The rapid urbanisation process in the sixties also caused a rapid decrease of Málaga's open spaces, only few natural spaces could be preserved. The Parque del Molarco, once a reforestation area with a monoculture of pines, is being transformed into a local park with fundings from the Spanish Government and the European Union.

Málaga

Subject and key issues

Málaga is very successfully improving the provision of urban green spaces through its strategies and programmes, where the citizens are actively involved in turning Málaga into a sustainable city, realising the aims of the Local Agenda 21. Through external funding several projects have been implemented.

Facts and Actions

Action taken

The program for improving the urban environment began in 1995, where the main tasks are the upgrading of the city into a modern one and repairing the wounds caused by the economic boom of the sixties. This programme is committed to the recovery of the historic centre, the development of the city's infrastructure, to spur urban decongestion, to refurbish dwellings and to improve public services and facilities. In these ways the city is changing its image, efforts are made for the improvement of green space provision in undersupplied areas. The success of this programme was recognised and catalogued in 1998, in Dubai, when it was given the Award for Best Practice.



Fig. C 69: The birth of the Parque de Huelin – aerial photos from December 1995 and May 2002. Now a densely populated neighbourhood enjoys this park.

Málaga's success

The improvements in the city of Málaga have not gone unrecognised; the city won several prizes for its progress and its approach to urban development. It is the only European city to be awarded the Habitat II Prize for Good Practice from the United Nations in 1998. Other associated prizes include the National Congress Prize for the Environment in 1998, the European Sustainable Cities Award 1997 among others. This recognition prompted Málaga to encourage the local population in striving towards sustainability, sharing with and learning from other cities.



Fig. C 70: The conversion of the industrial areas within the city fabric into urban green spaces is a big challenge that Málaga accepted. The area is being cleaned for the future Parque Europa.

Public involvement

The Green Charter which is the name for Agenda 21 in Málaga, was introduced in order to realise the recommendations of the World Environmental Conference in Rio de Janeiro 1992. The Charter includes a comprehensive set of measures to be adopted by all citizens and companies to turn Malaga into a sustainable city. One important aspect is the declaration consensus, which states the main goals for city development, such as: urban rehabilitation, mobility, protection and re-evaluation of the natural surroundings of the city, water management, etc, every single person or company is asked to adhere to this consensus.

Funding

Málaga has been successful in acquiring national and European funding for its development. Without external financial support these projects could not have been realised. The merit of Málaga is not only in acquiring funding, but also in submitting municipal programmes that convinced the sponsors. It benefited from two European initiatives: the URBAN programme and the POMAL programme which allowed the city to implement many of the principles contained in the Green Charter.

Lessons

- **Programmes and strategies trigger the required renewal of a city.**
- **Local Agenda 21 offers the chance to involve the city's population in creating a liveable and sustainable city. Mutually expressed aims for the city development are accepted by the administration and the citizens and are therefore easier to implement.**
- **Through a mixture of different external funding various projects were realised and a successful outcome was achieved.**

Montpellier (France)



Inhabitants: 229,065 (2001)

Area: 5,708 ha

Density: 4,010 Inh / km²

Area of UGS: 804 ha

Area of UGS per Inhabitant: 35 m²

Green situation in the city

Montpellier is located between the mountains of the Cevennes, the Garrigue landscape and the Mediterranean Sea and has 804 ha public green spaces. The city has a long tradition of public and private gardens and parks, originating from the 17th and 18th centuries when the use of gardens changed from production to pleasure. The first public places were royal parade grounds (e.g. Peyrou, Citadelle). The oldest French botanical garden was founded in 1593 as a medicinal garden, and includes an orangery (built in the 19th century), a tropical green house and an English Garden. The city is surrounded by many summer-houses and pleasure gardens forming a kind of green belt. Montpellier is expanding rapidly, increasing the need for new urban green spaces associated with the expansion of housing, trade and buildings for scientific research. The medieval city centre contains a lot of smaller parks, squares and green spaces; towards the outskirts there are bigger green areas, for example pinewoods, riverbanks, the zoo and the nature **Reserve Naturelle du Lez**.



Fig. C 71: Promenade in the Jardin du Peyrou, a historical park planned at the beginning of the 18th century.



Fig. C 72: Market in the Jardin de Champ de Mars/ Esplanade de Gaulle.

Goals for city development

The new Montpellier Master Plan specifies the overall plans for city development along special axes that allow the redesign of public spaces along their course. The city has a Green Plan and an ecological approach is applied to the development and management of green spaces. Parallel to the town development, green spaces are planned to be distributed equally in all old and new quarters. City centre policies emphasize the need to ensure that parks and open spaces are situated within easy walking distance, achieved through the retention of spaces and, where necessary, the creation of new ones. Outside the centre this policy is relaxed, with greater emphasis on bigger spaces. Aspects focus on the minimisation of management costs, the protection and opening of private green spaces and the upgrading of spaces surrounding social housing. Montpellier is divided into landscape and vegetation zones, development patterns are given for each respective zone.

Programmes and key projects

One strategy is to open private green spaces to the public. From the 1970's onwards the city began to buy private properties, château parks, vineyards and forests (like **Domaine de Méric** or Domaine de Grammont) to open them for public use. Some projects focus on the development of green areas along tramways and on opening up the banks of the **River Lez** and Mosson as promenades, for pedestrians and cyclists. Other projects include the planting of up to 500 trees per year along the streets, playgrounds, footpaths, cycle paths, and in the inner city the creation of small city gardens. Three new parks are planned, Malbosc Rural Park (30 ha), **Parc Marianne** (7 ha city park) and Mas Nouguier (60 ha park and playgrounds).



Fig. C 73: Green spaces in Montpellier: green projects, recent realisations, public green spaces and forested spaces.

Montpellier

Subject and key issues

The City of Montpellier is improving the situation of green spaces by means of the Green Plan, which sets out the aims, guidelines and concepts, the Declaration for Mediterranean Identity and for ecological maintenance.

Facts and Actions

Action taken

The Green Plan includes concepts for ecological and functional green connections between green areas and aims for the rearrangement and maintenance of existing spaces, as well as for the development of new green areas. The future green programme is for a landscape network that is structured around thematic focal points. Green belts, green fingers, urban forests, conservation areas for flora and fauna, natural and designed spaces will provide linkage to the surroundings. In the city centre, many small but adjoining parks and squares are acceptable. In the suburban area each quarter will include a new green space of 20-30 ha. During the course of urbanisation agricultural and unused lands will be developed into different types of green spaces, which will retain their rural character but incorporate facilities expected in a contemporary park. The Declaration for the Mediterranean Identity given by Vegetation was set in order to increase the identity of the landscape and its associated biodiversity. For green space development, the whole city is divided into landscape and vegetation zones. For each respective zone, development patterns are foreseen, which focus on regionally typical land use and vegetation patterns like vineyards, Garrigue, historical gardens, groves of palm trees, avenues of cypresses, field-weed areas, allotment gardens etc. For each zone a plant list is fixed, which has to be taken into account when new green spaces are planned. For example near the Domaine de Méric an orchard with old fruit species was created and an unused field was redesigned using typical field-flowers. Former leaseholders are responsible for the maintenance of these areas.



Fig. C 74: Park on Place de la Canourgue in the centre of Montpellier.



Fig. C 75: Palms and lawn at Corum Palais des Congrès Opéra.

Since 1992 the management of green spaces has been changed to follow ecological principals including waste recycling and saving water (Mediterranean green spaces do not have to be green over the whole year). Chemical fertilizers are increasingly substituted by compost from green waste; the use of herbicides and pesticide is reduced by choosing biological methods of control and more naturally disease resistant, indigenous plant varieties. The introduction or preference of local wild flora, the creation of meadows requiring infrequent mowing, the retention of perennial herbs and old trees, helps to preserve and to develop biodiversity. Traditional methods of maintenance are only used for parks and squares with historical character, for areas of heavy use and visitor centres.



Fig. C 76: Redesigned field covered with typical field-flowers near Domaine de Méric.

Stakeholder participation and community involvement

In Montpellier representatives of users are integrated into the urban planning commission. A commission for users of public urban spaces oversees maintenance and can be contacted by citizens by phone (free) or by mail. Examples of citizen's participation concerning green space development are pressure groups, centred on specific projects or programmes of children's tree planting in parks near their schools. Former leaseholders are responsible for maintaining newly created green spaces; they as well as the gardeners, receive continuous training in the use of new ecological maintenance methods.

Lessons

- **A green plan can be a useful instrument for the predefinition of the city's goals concerning green spaces (in terms of provision as well as of quality).**
- **City-wide regulations for design and maintenance help achieve the green quality aims.**
- **Planning commissions can integrate residents' wishes in green space development at city or site levels. Public identification with green spaces is higher when citizens (e.g. former land users) are involved in their maintenance.**

Montpellier
River Lez and Lironde

Subject and key issues

In 1977 large-scale construction works started to reintegrate the River Lez back into the life of the city of Montpellier. The banks were opened up and developed as promenades and bicycle paths for inclusion as a component of the open space network for relaxation and sport activities, as defined in the Programme for a Green River Lez. New parks are planned or have just begun and many measures introduced for giving the Lez back to the citizens, for enlarging its retention areas and for increasing biodiversity.



Fig. C 77: The River Lez in the Parc de Lunaret.

Facts and Actions

Actions taken

The Reserve Naturelle du Lez, is a conservation area, where the valuable botanical and zoological characteristics of the River Lez, its banks and slopes, are protected. The biology of the Lez, a river with extreme low water in summertime, had been changed considerably by barrages and water mills. This created widespread artificial water bodies that contributed to a diverse landscape and the establishment of flora and fauna usually native to ponds and lakes. In the 19th century the slopes of the river had been richly planted with exotic trees. Today it is possible for the public to promenade through the Parc de Lunaret, a zoological park and an arboretum on the slopes of River Lez, at the same time becoming familiar with the Mediterranean fauna and flora.

The Domaine de Méric, a residence dating from the 19th century is a property surrounded by 14 ha of land including an English Garden with a labyrinth, terraces, an orangery, orchards and parkland with old trees and rare herbs, as well as the Mediterranean wooded slopes of the River Lez. Supported through a private donation, the City of Montpellier became the owner of the property in 1992 and opened it to the public. Around the building the main structure of the old park was kept. A signposted route along the riverbanks offers an outstanding landscape for promenading and sport activities. The project was aided by the cooperation of public and private initiatives.

About 2 km south-west from the city centre along the River Lez, the residential area Port Marianne (50,000 m²) has been re-developed. The idea was to make the city more compact to prevent urban sprawl. The new quarter opens the city to the east and reintegrates the River Lez as well as other rivers (e.g. Lironde) into the city's landscape. To ensure a natural environment, a landscape master plan and an ecological programme were set up for managing the river's flood waters by sluices, the provision of 'lungs' – widespread green spaces which are integrated into several old and new public parks – and finally, an overall approach to landscaping that is perhaps unmatched in France. Areas that serve as basins for floodwater retention include Parc Marianne and Parc de la Grande Lironde. The first part of Parc Marianne, a future urban park of 7 ha, has just begun with, 4 ha covered with 555 trees. When finished, it will take the form of several terraces planted with grasslands, basins and woodland, watered by the Lironde. The Parc de la Grande Lironde, inaugurated in 1995, is crossed by the Lironde. It was planted with species particularly adapted to the environmental conditions, presenting a natural biotope with organisms adapted to drought in summer. The banks of the Lez are now one of the largest public spaces in the city, much appreciated by its citizens and visitors alike.

Stakeholder participation and community involvement

Especially in the eastern parts, the potential spaces along the banks of the Lez built a network, that was to be reconstructed step by step and where each new part was the result of long negotiations between the city and the landowners. The Project Domaine de Méric was aided by the cooperation of public and private initiatives. The former leaseholders are responsible for maintenance.



Fig. C 78: Banks of the River Lez in the city centre with newly created green space.

Lessons

- **The opening and redevelopment of riverbanks into green spaces is an important contribution to the improvement of the quality of life in the whole city.**
- **Sophisticated involvement and negotiations with landowners are necessary to prepare green space developments. Private initiatives can be suitable catalysts for green space development.**

Sofia (Bulgaria)

Inhabitants: 1,229,000 (2003)

Area: 131,000 ha

Density: 907 Inh / km²

Area of UGS: 5,441 ha

Area of UGS per Inhabitant: 15.8 m²



Green situation in the city

Sofia has a large number of parks with many trees established mostly in the 19th century. The idea for the establishment of urban forests and green belts around Sofia began in 1881 when many green spaces were created (Borisova Gradina, Zapaden Park, Knjazevska Gora, Gornobanska Gora) as well as gardens and street planting. During the socialist period the park areas totalled about 10 km², the urban forests about 2,100 km². There are many tree-lined streets. The major part of the open green spaces in Sofia is situated in the inner residential areas. The city of Sofia itself is surrounded by mountains in three directions, the Vitosha Mountains, Lulin, Plana and Stara Planina. Following political change, a lot of land was given back to the former owners, this, coupled with business interests, caused the loss of many urban green spaces due to changed use. Current problems include a lack of finances for park maintenance, reconstruction and development, the unequal distribution of green spaces throughout the city and the negative impact of highways on open spaces. There is an undersupply of green spaces in many quarters (only 15 m² per inhabitant), a lack of multifunctional parks and they are generally in poor condition.



Fig. C 79: View of the Park around the National Culture Palace and the Vitosha Mountains.

Goals for the city development

The general aims of the Sofia City Strategy are firstly to ensure the balance of growth of the city and its suburban area, secondly, the preservation and development of links to the open environment around the city, and thirdly, the creation of a favourable and liveable environment. One of the main social criteria for Sofia's green system is the accessibility of urban green spaces. Ecological surveys, undertaken with the Sofia Master Plan, identifies that the most appropriate recreational areas to be located in the southern parts of Sofia at the base of Vitosha Mountain and in the northern part of Sofia at the base of Stara Planina Mountain. The most inappropriate areas are around the industrial plant Kremikovtsi and the Airport Sofia. The plan is to extend the existing green zones closer to the city centre.



Fig. C 80: Borisova Gradina.

Programmes and key projects

The municipality is involved in many sustainable projects including urban green spaces. One key project, the Pilot Environmental Management Plan (EMP) for **Ecozone Sofia**, was prepared for an urban and rural area of 135 km², situated in the east of the city. The complex measures, aim to protect and improve the environmental situation. Other key projects developed by the Union of Parks and Landscape Specialists in Bulgaria (UPLSB) include "To make Sofia green for us and our children", a project in which about 400 trees and 200 shrubs had been planted in the districts with scarce green spaces and a programme for "Monitoring of Sofia Municipality's current activity regarding restitution and building in urban green spaces".

Local Agenda 21, which seeks public involvement, also plays an important role for the development of green spaces in Sofia.



Fig. C 81: Doctorska Gradina.

Sofia

Subject and key issues

The City of Sofia is improving the provision and the ecological, social and economic qualities of urban green spaces by means of a Master Plan, which is also developed through citizen's involvement, stipulated by the Local Agenda 21 process and Ecozone Sofia.



Fig. C 82: Yuzhen Park.

Facts and Actions

Action taken

In Sofia's Master Plan the principles of sustainable development concerning integrated, ecological, social and economic demands were taken into account. A lot of goals are fixed for improving the environmental situation of the city.

- Concerning urban green spaces, the Master Plan concentrates on the redevelopment and maintenance of existing parks and green spaces and gives general recommendations for green space development; detailed plans and ideas for every green site will be developed later on.
- The basic indicator for the supply of green space for all cities in Bulgaria is fixed according to the current regulation No 03/7, issued by the Ministry of Regional Development and Public Works. For cities with more than 200,000 inhabitants, like Sofia, the appropriate supply of urban green spaces has to be recommended by the City Master Plan.
- One of the main social criteria for Sofia's green system is the accessibility of its urban green spaces. To achieve this task, Sofia's Master Plan requires that green spaces are spread equally over the city area and that the development of green areas for every-day recreation is within a walking distance of 15 minutes from any residential area.
- With the aim of improving the ecological conditions in the city centre and to use the mountains properly for recreation, the most appropriate zones, which lay on the periphery of the city, will be shifted closer to the city centre, connecting the territory of the city as a whole with the surrounding green areas by green clusters and green fingers. In order to achieve this task, a Plan for Priority Actions identifies the creation of four new parks in the southern part of the city along the ring road and one big park in the north-eastern part of the city.
- The idea of developing thematic parks is included in the Master Plan; these areas are to incorporate recreational functions under different themes, e.g.: "Green Memory of the City of Sofia" (historical parks), "Life Water" (sites with thermal water resources), special parks for blind people, bicycle parks, "Sacred Forest of Sofia" (cultural heritage and monasteries).

Local Agenda 21 (LA 21) and Ecozone Sofia play an important role in the develop-ment of green spaces in Sofia. The Agency for Sustainable Development and Euro-integration (ASDE) is responsible for both. The official framework is given by the city administration.

Stakeholder participation and community involvement

After every stage of Sofia's Master Plan public discussions were held, followed by approval from the municipality. Initiated from LA 21, Ecozone Sofia and UPLSB, the principles of sustainable development were integrated. During the first stage of LA 21 a consultation process with the administrative bodies of all 24 city districts, as well as a committee of experts, citizens and people from the business sector built up a structure that allowed public involvement.

Funding

Sofia had been successful in acquiring national, international and European funding for its development. For example Sofia City Strategy was prepared with assistance from the World Bank and the United Nations Centre for Human Settlements.

Problems

It is not easy to motivate people to participate in the Master Plan discussions. The practice of holding public hearings is still in an initial stage of development.



Fig. C 83: Newly planted trees near the Russian Church.

Lessons

- **The Master Plan can be a useful instrument for the predefinition of the city's goals concerning green spaces. It is helpful to fix indicators and minimum standards for green spaces per inhabitant and for accessibility as well as requirements for the quality and for a network of greens spaces, which can be achieved, for example, by a Plan for Priority Actions.**
- **Local Agenda 21 offers an opportunity to involve citizens in creating a liveable and sustainable city. It is an example of good cooperation between city council, local municipalities and non-profit organisations. It is essential to have organisations, like ASDE and UPLSB, to provide the necessary professional support in a way that enables groups to realise their aims.**
- **Through a mixture of different funding, various projects were successfully realised.**

Site Level

Ecozone Sofia

Subject and key issues

The Ecozone Sofia is an attempt to address complex environmental problems. Due to urban sprawl and industrial development Ecozone forms an area with poor environmental conditions, but has substantial economic and production potential. The project was initiated to remedy some adversely affected areas and to demonstrate new technologies, practices and local management approaches in the context of Bulgarian requirements.

Facts and Actions

Action taken

The complex measures in the Pilot Environmental Management Plan (EMP) for Ecozone Sofia are aimed at the protection and improvement of the environmental situation. The EMP was prepared for an urban and rural area of 135 km² with 105,000 inhabitants in the eastern parts of Sofia. Land use of the area is rather complex and varied including small villages, high-rise pre-fabricated houses, highways and transport networks, industry and warehousing, agricultural land, forest, quarries and landfill sites, as well as Sofia Airport, the historic Vrana Park and the Sofia-East heating power station. Two rivers, the Iskar and the Lesnovska cross the area and have high relevance for the water regime of the Ecozone area. The development of Ecozone Sofia started with 14 projects (culture projects, renovation of industries, revitalisation of brownfield sites, technology parks, revitalisation of the rivers, an eco-village with 60 solar houses, GIS information system and the enlargement of the Airport). There are more than 20 projects, e.g.:

- Biotope Type Mapping Ecozone Sofia East: The main goal of the project is the presentation of the important biotopes and their interaction in order to preserve the ecological balance in the Ecozone Sofia. The project is currently being implemented.
- Rehabilitation of gravel pits and waste disposal sites in the region of the rivers Iskar and Lesnovska: The project aims at the development of water areas for recreation, the preservation of vital biotopes, maintaining the natural water balance and the realisation of a greenbelt establishing a barrier against the pollution of the existing industry. The project is currently being implemented.
- Rehabilitation, revitalisation, development and maintenance of Vrana Botanical Park, an English style garden created at the end of the 19th century: the park, forming an important part of the green space system in Sofia will be opened to the public. It functions as a green oasis, playing an important role for the improvement of environmental conditions particularly by cleaning the air and purifying the underground water. At the moment it is in a very bad ecological condition because of environmental pollution, a lowered ground water table and an interrupted connection to the river Iskar.
- Outdoor playgrounds: the target is to build a colourful and merry oasis in open areas for children's play and recreational facilities, including facilities for those with special needs. The site with a size of 650 m² is situated in an industrial pre-fabricated building area and is the first attempt at such a type of playground in Bulgaria. The project is being developed as a model for the renovation of urban green spaces between existing buildings. The project has been implemented with only the landscape phase to follow.



Fig. C 84: Playground in Sofia-Mladost 3 (Ecozone).

Stakeholder participation and community involvement

Implementation has been developed based upon the experience of best practice of public-private partnerships in Bulgaria. The "Agency for Sustainable Development and Eurointegration (ASDE) – Ecozone Sofia", a non-profit organisation, has been set up in order to undertake the implementation of the Pilot EMP and the model for sustainable development and Eurointegration. Sofia municipality and district administrations of the related territories had been involved in raising funds and in the project implementation.

Funding

Ecozone Sofia had been developed as a pilot project with EC financial support under the PHARE programme. The activities of the ASDE are funded by different sources (Sofia Municipality, EC, other international donors and programmes) and the development of income generating and self-financing strategies.

Lessons

- **Ecozone Sofia is an example of a strategically oriented approach to address local needs. It is a focal point for the encouragement and involvement of different stakeholders, for solving complex environmental and social problems. The diversity of landscapes and land use needs determined management and maintenance regimes.**
- **The project is an example of good cooperation between the City Council, local municipalities and non-profit organisations. ASDE provide the necessary professional support in a way that enables groups to realise their aims.**

Tirana (Albania)



Inhabitants: 340,000 (2001)

Area: 4,180 ha

Density: 8,100 Inh / km²

Area of UGS: 240 ha

Area of UGS per Inhabitant: 7 m²

Green situation in the city

In Tirana District, forests and woodlands dominate, occupying a total area of about 50,000 ha, 20% of these areas are under protection. The most important area is Dajti National Park (3,000 ha), other important green areas include the Tirana Grand Park at the edge of the city, parks and green squares in the city; green plots along the Lana River; decorative road-side trees; sports areas and private gardens. The complex of Tirana Grand Park includes the park, the City Zoo, the Botanical Gardens, the Cemetery of the Martyrs of the Nation, a swimming pool complex and nurseries, occupying an area of 209 ha. Recent years, since the 1990's, have seen the public green area in Tirana reduced from 400 ha to around 240 ha.



Fig. C 85: Green squares in the city centre.

Goals for the city development

In the last ten years priority was given to complete the development plan for Tirana, but the translation of strategic objectives into specific proposals was never finalised. Currently, the most important plan is the Strategic Plan for Greater Tirana, developed under the Urban Land Management Programme with the technical assistance of an American private company. Several action plans were defined: (1) Preservation of Tirana downtown and directions for its development. (2) Strategy for open space and green space, water surfaces and rivers. This includes an analysis of existing and potential green spaces, clarification of their ownership, identification of the illegal buildings within them -and recommendations to preserve, maintain and improve them. (3) Extension of the city centre towards the northern part. (4) Improvement of the legal framework relating to urban planning issues.



Fig. C 86: Green space near the Parliament.

Programmes and key projects

Since the year 2000, the condition of green spaces in Tirana has greatly improved. 1,090 new trees have been planted along main roads; fourteen squares and similar places have been refurbished involving new planting and the provision of benches and refuse bins. Five other green squares were refurbished with the financial help of donors, 2,000 trees were planted in the Grand Park in December 2000 and a challenging initiative developed to remove illegal buildings was a challenge. At Rinia Park about 30 ha of land were returned to their former natural (green) quality, the existing trees and the old water features retained. The "Clean and Green Project", developed as part of the re-evaluation and improvement of the physical infrastructure of the **Lana River**, is accepted by both the municipal officials and the citizens of Tirana. Other Projects include the refurbishment of the Grand Park, the Zoo and the creation of new gardens. Lately a special initiative was started to raise public awareness about environmental issues in general and green spaces in particular. During 2003 a campaign was organised to increase the use of bicycles instead of cars in order to help improve air quality. This activity was organised by the municipality of Tirana in co-ordination with the Ministry of Culture, Sports and Youth and the Italian Embassy in Tirana.



Fig. C 87: Skanderberg Square Garden.

Tirana
Lana River

Subject and key issues

The Lana River is the only river in the municipality and therefore forms an important feature of the city. Of its 8.6 km course through the territory, 3.5 km is in a concrete channel with green spaces along the riverbanks. Characterised by illegal buildings, the surroundings of the river were no longer natural, but built up and highly polluted by rubbish and other deposits. One of the main challenges for Tirana was to revive this urban green area and enhance its ecological and social qualities. In the first phase the municipality and the United Nations Development Programme (UNDP) each contributed about 50% to the project costs. The project has continued along other parts of the river through municipal funding.

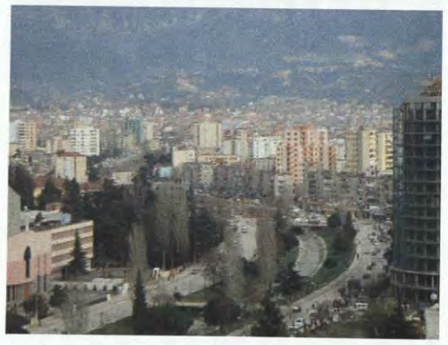


Fig. C 88: Lana River: aerial view of the refurbished area.

Facts and Actions

Action taken
The project "Clean and Green" focuses on strengthening the capacity of municipal officials to initiate and implement small-scale projects addressing local environmental concerns. Work includes the improvement of the physical infrastructure, the arrangement and cleaning of the riverbed as well as the refurbishment of the green areas. The project consists of two phases for different sections of the river. The refurbishment works include the removal of construction waste, the cleaning of the bridges, the repair of concrete paving on the riverbanks, the provision of soil and related earthworks, the planting of trees, bushes and flowers and the reseeding of lawns. The project also mobilized unemployed workers from the city.



Fig. C 89: Lana River banks near „Cathedral" footbridge.

Public campaign
Together with the project, the municipality started a public campaign to raise people's awareness about the issues of environmental problems in Tirana. The project was launched by a press conference on the site and was also made visible to the public by advertising boards that remained on site during the whole duration of the refurbishment process.

Stakeholder involvement
The difficulties encountered during the implementation were successfully overcome through coordination between the UNDP, the Municipality of Tirana and the contractor.



Fig. C 90: Lana River banks: left side section in rehabilitation and right side rehabilitated section.

Lessons

- **The highly visible impact that was achieved through the refurbishment set a pattern which could be replicated and has established a process that can be followed by similar projects. The success of the project in creating a pleasant clean and green space for the citizens has raised the awareness of politicians, the government, sponsors and the citizens of Tirana concerning the importance of such a space.**
- **A raised awareness in the population concerning environmental issues is beneficial for the acceptance of a project. Efficient cooperation between all involved stakeholders is the key to successful outcome.**

Zurich (Switzerland)



Inhabitants: 360,980 (2000)

Area: 9,188 ha

Density: 4,000 Inh / km²

Area of UGS: 1,800 ha (without forests)

Area of UGS per Inhabitant: 50 m²

Green situation in the city

Zurich has 4,440 ha of green spaces, 207,000 road-side trees, more than 75 parks and gardens spread unevenly, over the whole area of the city, while almost a quarter of Zurich's municipal area is wooded. Zurich does not have a historical green belt, but it is surrounded by 1,040 ha of wooded hills, which have been protected since the 19th century by national forest law. City expansion beyond the city walls has changed the city, but features remain as part of the recreation complex, including the moat. In the northern part of the city, the free land was used for the construction of public buildings including the university and hospitals (Leutholdplan 1850). Between 1882 and 1887, the lakeside was developed by local wealthy residents to create a waterfront, which became the main recreation area of the city. Zurich developed from a city on the river to a city on the lakeside. After the Second World War, an intensive building programme began and many green areas were built upon. Today the pressure on green spaces remains very high. The building of residential houses and roads are the main problems.



Fig. C 91: Fountain in Belvoirpark.

Goals for the city development

The municipality of Zurich has many concepts and projects for open spaces, which have influenced the development of the city. The Open Space Concept of Zurich (Freiraumkonzept der Stadt Zürich) identified ten goals: a significant open space framework; an effective network; opportunities for sustainability; designed open space as a cultural asset; public open spaces in all districts; residential housing with gardens and courtyards; free access to areas on the doorstep; flexible leisure time areas; living space for nature in the city; and diversified agricultural areas. A minimum requirement of 8 m² public open space per inhabitant and 5 m² per place of employment is set. The Environmental Programme identified overall aims for the environment (e.g. ecological, sustainable management), where the Zurich administration follows green principles for recycling, the saving of resources and surveys of plant and animal habitats. All valuable parks and private gardens are listed in a catalogue to ensure that no unauthorised building takes place. A programme for improving the condition and ecological value of the streams and rivers has the aim of achieving a better linkage of the mountain forests with the riverbank recreation areas. A nature protection network is in development.

Programmes and key projects

Several green projects are included in the project **Centre Zurich North**, a former heavy industry site. Future development is characterised by residential and commercial areas and open spaces (e.g. Oerlikerpark, MFO-Park, Park Louis Häfliger). The development concept for the city quarter of Zurich-Leutschenbach aims to create linked and attractive open spaces of high quality, diverse parks for local recreation and improved nature conservation. The development concept for the station Altstetten identifies a change from an industrial area to a service area with open spaces and ecological enhancement. The city quarter Zurich West is another large development, which includes the restoration of the banks of the Limmat River.



Fig. C 92: Aerial photograph of Zurich.

Zurich

Subject and key issues

The Environmental Programme of Zurich has fixed aims concerning urban green spaces: ecological and sustainable management, spaces for natural dynamics on large areas and active conservation of habitats for plants and animals as well as ecological cross-linking. Small projects at different places across the city contribute to the improvement of the provision of urban green as well as the enhancement of social, ecological or economic qualities. Three different main projects are described, which are all characterised by their exemplary stakeholder participation and public involvement.

Nature in the Quarter

Subject and key issues

The idea of the project is to create more living space for humans with nature close to the housing development. The areas around houses are sometimes unattractive for use but large enough for development as natural sites. The department responsible for green spaces supports the owners of these houses if they want to design and cultivate a more near-natural area around their houses.

Facts and Actions



Fig. C 93: Meadow of margueri-tes around a residental area.

Action taken
A special project was initiated through a cooperative building association comprising a landscape architect, the citizens and the planning department. Typical elements for designing a near-natural area are: flower meadows, near-natural playgrounds and the use of indigenous plants.

Stakeholder participation and community involvement
A cooperative building association or private owners ask residents what they like and dislike around their houses and what they would prefer to see in the residential area, ideas for the management of the properties are included. The findings are presented at an information meeting. Residents also establish working groups to support the process of planning where they take responsibility for the care of the specific area in the future years.

Funding
The department supports schemes by offering technical expertise but owners of the areas actually pay for management work.

Problems
Sometimes elderly people have problems regarding the identity of the new designed area, typically where a more natural approach is thought to be untidy, and it is desirable to explain management using information boards or try to include all concerned people in the project.



Fig. C 94: Fountain and playground in schoolyard, Schoolhouse Ahornstraße.

Nature around the Schoolhouse

Subject and key issues

Public schools and kindergartens are to be surrounded with open spaces which are near-natural and suitable for children.

Facts and Actions

Action taken
Proposals are adapted to the circumstances of each school and its surrounding area: typical work might include unsealing of asphalt, changing lawn into meadow, building willow houses.

Stakeholder participation and community involvement
Children, parents, teacher and the school caretaker participate in the form of project teams who undertake the planning. The green space planning department only assists with moderation and coordination. All initiatives have to come from the co-operation of all participants.

Funding
The Green Planning Department pays for the scheme according to the kind of project; pupils help with the implementation wherever possible.

Problems
With a more natural-like area around the school, the amount of trodden-in dirt becomes higher than normal, requiring more frequent cleaning. This conflict and possible solutions should be discussed during the planning. Sometimes a conflict over aims can develop concerning between the children like and what would be the best for nature (e.g. paved places for skating or playing ball versus natural surfaces).

DOMINO

Subject and key issues

The project concentrates on several quarters which suffer from higher-than-average traffic pollution and which also have structural problems. Specific measures concerning social, economic and ecological aspects are intended to upgrade the quality of life in each quarter.

Facts and Actions

Action taken
The idea is to concentrate activities in several quarters of the city. Different topics, traffic, habitation, schools and green spaces are brought together and through a series of small steps and collaboration with the community, sub-projects are realised. Examples include the rearranging of a playground, the redesigning of a central plaza for a more comfortable visit.

Stakeholder participation and community involvement
A central aspect of the project is the close participation of the community. The aim of the municipality is that the citizens of the quarter identify with it and develop a 'feel-good' factor. The projects are a complex mix of different topics which need to be seen as a whole. Therefore in the City Council, working groups are formed which can work outside their departmental boundaries and fast-track decision-making.



Fig. C 95: Sculpture in schoolyard, Schoolhouse Ahornstraße.



Fig. C 96: Playground in schoolyard, Schoolhouse Nordstraße.

Funding
The projects are initiated and paid for by the different city departments.

Problems
Preparing arrangements and solutions, involving the residents of these areas is a time consuming process requiring a high input from the department.

Lessons

- **By having an overall strategy for the development of the urban environment as a guide (by means of an Environmental Programme), the aims of different small projects can be implemented and thus the provision of green spaces gradually improved.**
- **Individual projects are adapted to the specific level of use (e.g. district, school) ensuring that the actions and measures are focussed on the special needs of the location and its community.**
- **It is important that the people who are making decisions in the cooperative building associations or the private owners are convinced about the project. Planning cannot start before it is clear who is responsible for the construction. It is advantageous to have only a short time between planning and constructing to keep the people engaged and enthusiastic. A strong foundation through sponsorship, which includes all appropriate departments proves to be effective and reduces conflict.**

Centre Zurich North

Subject and key issues

This area of 55 ha is situated in the north of Zurich, it had been used for heavy industry and was one of the largest urban industrial areas in Switzerland. Yet in the 1980's Zurich North underwent changes, many factories became disused and in 1988, the process was started to develop this area into a new quarter with sustainable dwellings and service areas. Several projects have been selected for the regeneration and transformation of this urban brownfield zone and basic requirements/ principles fixed for the development: (1) Maintenance of the industrial location in a concentrated area. (2) The creation of mixed areas for dwellings, services, leisure and culture near stations. (3) The transformation of large areas into public parks, ecological compensation areas and squares. (4) Ecological and economic aspects will not contradict each other. Project implementation led to the enhancement of ecological, social and economic qualities of the area. The future residents of Zurich North were consulted in the planning process. Landowners financed the schemes for green spaces and the associated decontamination of the land.



Fig. C 97: Centre Zurich North: MFO Park.

Facts and actions

Action taken
In 1991 a large city planning competition was launched for this part of the city, aimed at setting objectives for a planning brief for the future development of residential and commercial areas and open space. Cooperation between the landowners and the public administration continued throughout the planning process and produced a draft plan. In addition to the preservation of an existing park, it proposed the construction of four new parks and the planning of new rows of trees along the avenues. Competitions were also used to design the four individual parks. The first park „Oerlikerpark" was opened in 2001. It is a district park with facilities for recreation and play, including a pavilion for use as an open-air stage or for restaurants. The park is supposed to evolve in harmony with its users. The second park is called „MFO-Park" and was opened in July 2002. Located at a central place near the Oerlikon Station, this park has relevance for the whole city. The park provides a range of activities that supplement daily uses with public events planned. The third new park „Louis Häfliger", which was completed in 2003, is a neighbourhood park, situated in-between a heterogeneous area of residential and industrial use. The idea of the design was to remove the barriers between the park, the residential and the industrial areas. The different parts do not define a closed design, but relate in their materials and dimensions to the adjacent surroundings. The competition for the fourth park, the „Wahlen-Park" took place in 2001. Located on a former industrial area, this park will provide an open space for activities and also be a play area for an adjacent school. The historical „Gustav Ammann-Park" is a former private garden, opened to the public in 1996.

Citizen's involvement
New approaches to community consultation were taken to involve the future user groups in the design of the parks. During the judging of the competition entries for each park, representatives of the community were able to present their requests in front of the jury. In the case of the Oerlikerpark, workshops consisting of teenagers, employees, pensioners and parents with children, were arranged to identify detailed requirements, to be included at the development stage.

Funding
The sites intended for parks and the cleaning up of the subsoil (decontamination) was financed by the landowners through a legal framework contract; with their contributions due upon final completion.

Problems
The problem of contaminated soil turned out to be particularly significant on the former industrial land. The creation of the Oerlikerpark was intended to be the catalyst for the development of the area but not all of the planned residential homes are built or occupied. Because of this the park is still only partly used, but a range of measures are planned to increase usage.

Lessons

- **The regeneration of brownfield land is an efficient means of transforming a derelict district and reviving a part of the city; it provides opportunites to create new green spaces with new functions, overall improving the quality of life in the urban area. Every park was given special functions, special facilities and equipment, to reflect the different needs of the community and employees of the area.**
- **The interest of the people was already high at the point of inauguration of the Oerlikerpark. If the demands of the community are considered during the planning phase and their wishes realised, the outcome will be promising.**
- **Funding was assured by means of a legal framework contract.**

The green space system has to be recognised as a vital part of the urban fabric. Therefore the approach of green space planning and management has to be strategic and it has to be an integrated component of the city's planning process. The provision of urban green spaces has to be planned and realised together with the planning of other urban functions like housing, transport, infrastructure etc. The planning and management process of a city has to be open and transparent so that citizens and other stakeholders have the opportunity to participate, in a meaningful way.

Green standards can offer benchmarks for the quantitative and qualitative demands of green spaces; this helps a city to analyse current conditions, to identify problems and to define development goals and potential (e.g. by means of a master plan). Building regulations, design vocabularies for particular quarters as well as threshold values and benchmarks for green spaces in development areas, help to protect existing open and green spaces and to acquire new ones. Binding regulations also offer a political mechanism for achieving set goals.

Brownfield transformation is seen as a strategy for reviving parts of the city and offers the opportunity of creating new green spaces, with new functions, which improve the quality of life in the quarter itself and also partly in adjacent districts. A green network is needed as a vital link between single green spaces. This offers a more even distribution of green spaces across the whole city, with improved biodiversity potential such as the provision or preservation of wildlife corridors (e.g. alongside linear elements like streams, riverbeds, railway lines).

Each city should define its own green space strategy. The greening projects should be cooperative ventures between all stakeholders and strategically oriented, whilst addressing local needs. An improved quality of green space that responds to the needs and requirements of the users, will lead to a high degree of acceptance within the population. Renewed physical qualities of green spaces can bring about social, economic and ecological benefits, which include among other things: decreasing crime rates with greater accessibility and a safer environment; new equipment and facilities which will attract wider user groups; the reduction in conflicts, through better design and activity separation; and improved biodiversity potential and performance.

The involvement of citizens and stakeholders is an essential element in the development of a sustainable city. Through participation, people's concerns and expectations are seen to be taken seriously. Therefore they will respect and endorse new projects and will identify more closely with them. In some instances this will even extend to the possibility of taking up responsibility for them and their care (e.g. volunteering). Public-private partnerships and agreements, concerning the ownership of, or access to land can present new opportunities for the acquisition of green spaces for recreation or nature. As an instrument the city's Local Agenda (LA) 21 can be an influential tool as it combines ideas of town planning and development and the voice of the people. This makes implementation easier, because the programme will be accepted both by the municipality, the administration and the citizens. As a key concern of LA 21, communities are encouraged to engage in the planning and implementation of greening projects, also in searching for effective and innovative strategies in a permanent and dynamic learning process. Sustainable solutions are those that can work across the full environmental urban agenda and can be applied at any scale.

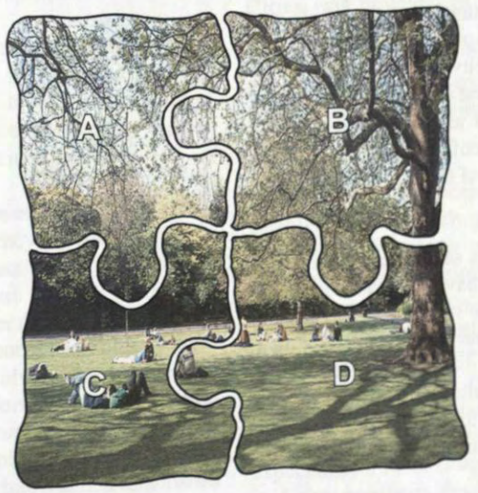
Different and innovative methods of funding have to be sought and each understood, as essential elements of the whole planning and implementation process. Funding from several sources can help to achieve more, especially if the project outcomes can address all the partners' funding aims. The generation of funding (e.g. by means of capital receipts or planning levies) is useful if the municipality has limited financial resources. Private maintenance and volunteering helps to spread responsibilities and ownership and help lift the financial burden for the management and maintenance of urban green spaces. At the same time it is a useful mechanism of engagement for citizens and stakeholders.

The city has to use its finances according to the required functions of each green space. By assigning different maintenance grades and specifications, the city supported by its citizens, can decide which green spaces are managed intensively and which are not. Changing the maintenance specification can be made to biodiversity and the ecological value of a green space. The involvement of citizens and a wide range of stakeholders open the door for a new era of planning and management. The needs of each existing and potential user group can only be met through their cooperation and the cooperation of new external partners; helping the city to achieve new outcomes for green space.

The development of urban green spaces is seen as a main challenge towards a more sustainable city. Every city has to prioritise its actions according to the scale of its problems and needs. A step-by-step implementation can maximise the benefits whilst keeping an overall target, a vision, in mind. The enhanced quality of green spaces is more important than simply reaching some standards. The key lessons described above are seen as a pool of ideas for further encouragement. They can be a part of the city's strategy, yet not all of them will fit into the specific frameworks or targets of every city. These Good Practice Examples are to be seen rather as incentives and considerations to be taken into account in the planning phase than merely to be slavishly copied.

THE GREEN CITY OF TOMORROW

SECTION D



This section of the manual deals with the vision of the **"Green City of Tomorrow"** where city development means creating robust strategies for the future development and management of urban green spaces which respect the future goals and demands of individual cities and their citizens. The vision of the "Green City" is an approach developed by the URGE-Project intended to be used as a basis for further interdisciplinary discussion and to promote debate between the actors and departments within the planning process and the wider stakeholders who have an interest in urban green – it is offered as a mechanism to promote discussion or as a "Tool to get people talking".

The route becoming a "Green City" depends very much on the current situation of the whole city and its urban green spaces, but also on the historical context of city development, all of which can be analysed and described with the help of the tools developed as part of the URGE-Project, "The City Profile" and the "Interdisciplinary Catalogue of Criteria" (Section B – Toolbox).

Accordingly, within this section, a brief review of the key aspects that have impacted upon the evolution of green space strategies is presented, in order to help the reader to interpret their own city situation and thus to move forward to address future requirements, while the later part moves on to consider a range of ideas which are intended to help to realise the vision of the "Green City of Tomorrow" (Figure D 1).

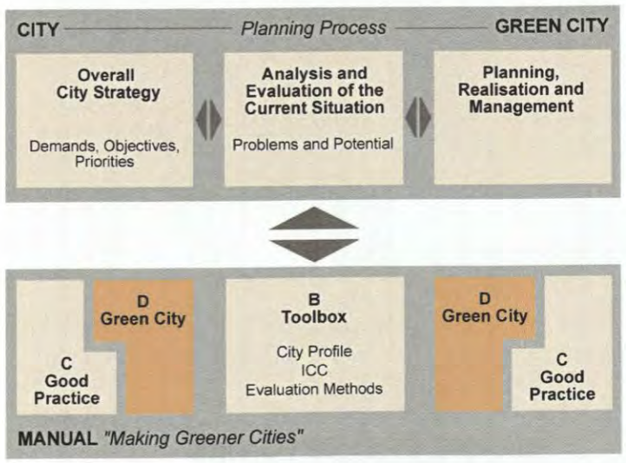


Fig. D 1: Application of Section D into the planning process.

Green Spaces in the Past

Historically the evolution of green spaces closely follows the fortunes of city development (Gälzer 2001), the ways in which a city was planned, its expansion, the encapsulation of land as well as reflecting the social status of city dwellers which has changed significantly throughout the 18th, 19th and 20th centuries.

However, even a casual examination of the variety of green space types in a city reveals their diverse origins and the ways in which events at the time. The celebration of battles, the rights of commoners, or simply unsuitability for building, have conspired to identify them as green spaces safeguarded against development.

Accordingly, the development of parks, gardens and public places cannot be separated from the historical events or from the social situation of the time. Culturally, they catalogue key aspects of city development and city identity.

Pre 18th century parks were designed for the pleasure of the aristocracy, according to the fashion of the time reflecting the Renaissance Style in Italy, the Baroque Style in France and the gardens designed under the idea of the English Landscape School. But early examples of more public green spaces involving the greening of removed former city fortifications to create promenades for the common citizens, occured within the Cities of Hamburg in 1804, Krakow 1820 and Vienna 1860, while Munich established a civic garden in 1789 (Gälzer 2002).

However, in many European cities the most significant development of the typical public park is associated with the industrialisation of the 19th century and associated town planning where major concerns existed regarding the health of the working classes. The provision of public parks reflected these concerns and the pride associated with these major strides in city planning (Albers 1997).

The **Public Parks Movement** of the 19th and early 20th centuries, created by Victorian philanthropists and fuelled by the social ideals of the humanists, saw carefully planned parks and gardens as an integral part of city development, maintained at public expense, reflecting civic pride, the needs and welfare of citizens and which were designed to be accessible, to offer fresh air and a refuge from the toil of the new industrial age. In catering for the social well-being of citizens, they have qualities which are still just as vital in the 21st century as they were when the parks were first created and developed, principles that were widely applied as a means of providing for the recreational needs of city dwellers.

In fact 19th century city planning defined many European cities, introducing the concentric model of towns and a variety of initiatives to establish the familiar concept of the **green belt** to define city boundaries and limit growth. Early examples include the Budapest forestry belt, established in 1870; Sofia urban forests and green belt, 1881 and the Forest and Meadow-Belt Vienna, 1893 (Albers 1997; Gälzer 2001).

The 20th century moved the process further with Howard's (1902) particularly powerful vision of the **Garden City**, involving a reformed community connected with liveable residential areas where a green surrounding and a network of private and public green spaces would support social activities and provide healthy living conditions (Figure D 2). The concept of Garden Cities was believed to be a solution for the problems connected with urban growth, establishing green suburbs surrounding the major cities – for example around London, Welwyn Garden City, and in Germany, Garden City Hellerau (Albers 1997).

Holistic planning concepts were becoming well established in the early part of the 20th century (Albers 1997) with a range of concepts concerning the provision of urban green within the overall spatial structure of the city, which included **models of green rings, radials, fingers or belts**, an early example being Cologne, 1923 (Figure D 3). During the 1920's green space development was strongly connected to the realisation of different architectural ideas especially for residential areas. In particular, the mid-rise dwellings development and the ideas established by the "Bauhaus" led to concepts of new urban form with increasing importance being placed on the role of urban green. The Charta of Athens, which was established by the CIAM (Congrès Internationaux d'Architecture Moderne in Athens) in 1933 and published by Le Corbusier in 1943 included maxims of a reformed city, becoming a highly influential strategic document for improving the living conditions in cities.

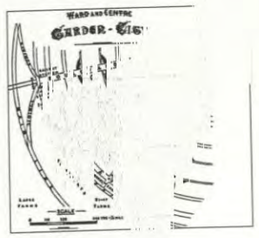


Fig. D 2: Ideal Structure of the Garden City.

The destructions of World War II caused major change across the whole of Europe and provided the opportunity to re-plan our cities according to the ideals developed earlier in the century to achieve a "modern and functional" town. As far as green spaces were concerned, the main ideal of a European **"urban landscape"** in the late 1940's and the early 1950's was to plan green space to structure and aerate the cities with the aim of having modern cities with green residential areas and a good supply of open spaces.



Fig. D 3: Green System Cologne (1923).

Across much of Europe, in the bigger cities, development resulted in large high-rise housing estates on the urban fringes (Albers 1997). Rolling green spaces between the vertical blocks were established within the urban landscape but in hindsight could be criticised as assuming the function of urban distant green, being characterised by a lack of usability and accessibility.



Fig. D 4: Rolling green spaces (Leipzig Grünau).

The goals of models like "Urbanität durch Dichte" (characterised by a higher density of urban space) and "Car Friendly City" (characterised by extensive highways, wide verges, traffic island sites and pedestrian underpasses) intensified the problems of access to spaces, the overall quality of the landscape and the social and environmental problems occurring within the cities.

Now these are recognised as inappropriate trends where city planning needs to concentrate on liveable and greener cities, and alternative models of urban form, perhaps invoking the landscape principles of the New Towns in the UK and elsewhere across Europe, which were planned to achieve a comprehensive green network and outstanding landscapes which respected the needs of the natural environment and of citizens. Nevertheless many important principles regarding the strategic planning of urban green as an integral part of city development had been established and have since been taken further as part of urban ecology, and urban forestry.

Recognizing the need to pursue a more sustainable approach to development now characterises our attitude to urban space planning but needs to embrace the positive values advocated and firmly developed in the 19th and 20th centuries. The idea of greening the cities is absolutely related to past aspects of urban development and thus is not a new idea of the 21st century. History provides us with models, ideals, practices and failures that can guide us in the future development of the "Green City of Tomorrow" where it is not just a question of the amount of green spaces but of their qualities and their potential for use. The vital role that green spaces play in the health and welfare of city dwellers is once again a familiar theme, as is the idea of accessible spaces which are able to form an everyday part of people's lives. The development of overarching spatial models has been helpful, but the real need is to establish specific green systems which are responsive to need and which respect the qualities that we strive for, to improve the quality of life for European citizens, such was the aim of the URGE-Project.

However, in concluding this brief overview, it is clear that each phase of city development has had its own specific impact upon the green structure, both positive and negative effects. Green space strategies and green space fortunes are changing just as radically now as they did in the past, and will continue to evolve, developing from their historical roots and the specific conditions appropriate to each city.

Changing Conditions for Future Green Space Development

While the historical context of cities has defined the character and diversity of its green spaces, demographic, economic and spatial changes are occurring throughout Europe that are already impacting upon urban green space provision and function. These major processes and changing basic conditions have impacts on the social, financial and ecological situation and, as such, will influence the planning and development of urban green, the user expectations regarding individual sites and the city as a whole (Figure D 5).

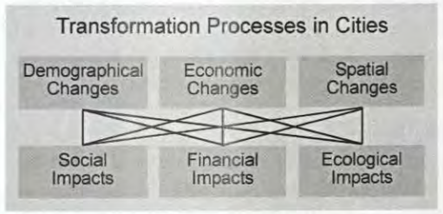


Fig. D 5: Transformation processes and their impacts.

Demographical Changes and Social Impacts

Demographical changes (a decrease or increase of population, an ageing population, increasing immigration) may lead to changing requirements regarding the function and the supply of green spaces (EC 2004). Because of the diversity of 21st century urban communities, the related social changes and associated problems, green spaces are expected to have increasing social relevance as places for communication and integration and will need to reflect the different lifestyles and specific requirements of citizens without compromising their ability to meet the requirements of all sectors of society. The realisation of these individual requirements may prove to be difficult due to conflicting use and may be contrary to the aim of integrating different user groups.



Fig. D 6: Requirements of the elderly population.

It is probable that there is a need to evaluate the ways that green spaces perform and if necessary modify their use and the facilities so that their qualities accord with local need.

Economic changes and Environment

In times of funding difficulties municipalities are experiencing problems regarding the administration and maintenance of their green spaces. In this context responsibilities may have to be reorganised and new funding mechanisms identified. Partners and private investment have been increasingly drawn into addressing the full environmental urban agenda and, in particular, the future funding of urban green space, but this trend could compromise the public character of green spaces that needs to be preserved since there are dangers of gentrification, isolating and segregating disadvantaged groups without appropriate lobbies. In all considerations involving funding mechanisms it is necessary to enhance the integration of the inhabitants concerning their requirements and also ensure their active participation in the maintenance of green spaces.

Spatial Transformation and Ecological Needs

The ongoing spatial transformation of cities, both expansion and redevelopment, has major effects on the use or re-use of open space in urban areas (Figure D 7). There appear to be two main directions for the future development of cities: (1) the spatial isolation of urban space and surrounding landscape and (2) the integration of open space. It is suggested that the reality will be somewhere in between the two options (Kühn 2000).



Fig. D 7: Spatial transformation in cities.

(1) In some areas there is an increased focus on re-using previously developed land for higher building densities, resulting in pressures on remaining green spaces and, in the worst cases, in the loss of open space. Such scenarios are present in inner cities as well as in the surrounding areas (DTLR 2002).

(2) The current situation as well as research reveals the "disintegration of the cities" and a high significance of the interspace (Ganser 2001; Kühn 2000; Sieverts 1997; Figure D 8). Urban transformation processes can also cause an increased number of open spaces, which may not be managed especially under decreasing public finances.



Fig. D 8: Netlike diffusion of cities.

There is a growing importance and relevance regarding **environmental issues** and to ensure the sustainable development of cities and urban regions. To avoid, on the one hand, an ongoing urban sprawl and on the other hand to protect open space within the city, strategies for intelligent inward urban development are necessary (EC 2004). The protection of open spaces enables local authorities to guide growth and avert the penalties of urban and suburban sprawl (Figure D 9). There cannot be a choice between economic growth and open space protection – both require integration (Lerner, Poole 1999).



Fig. D 9: Urban sprawl.

It is expected that a more diverse range of green spaces is needed, according to the changing and increasing variety of social, educational and physical needs and lifestyles of the urban population (ODPM 2002, Nohl 2002) especially in response to the problems of public financial arrangements. These changes and general conditions have to be answered with new strategies and with a new typology and comprehension of urban green spaces. The planning authorities have to respond to these changing demands (DTLR 2002).

Green Spaces Today

The current situation of green spaces demonstrates a wide variety of problems, but also present a range of opportunities and by using the URGE tools (Section B – Toolbox) each specific situation can be critically examined. During the runtime of the URGE-Project, information was gathered from four Partner Cities, from a review of literature, an analysis of the experiences of 11 Reference Cities and identified a range of broad problems, but also identified tremendous potential for green space improvement. The urban green situation does differ across European cities and the present urban situation needs to be analysed. The ICC forms an instrument for such an analysis and its use during the project revealed issues common to all European cities. Using the format of the ICC, these issues are summarised on the next pages to define the problems and also to identify potential means of addressing them, in the context that opportunities to improve the state of urban green spaces continuously present themselves as cities evolve.

Quantity of Urban Green Spaces

Problems

- Despite an adequate overall provision of green spaces across the whole city they are unable to properly fulfil user needs.
- The distribution, fragmentation and inaccessibility of parks and green spaces, especially concerning ecological and social requirements within the city, can be stated as one of the most important problems. An inadequate number and a poorly balanced distribution of green spaces can lead to overuse which prevents them from performing their intended function.
- Processes that are taking place in cities and urban regions (suburbanisation) consume land which is leading to the loss of open spaces.

Potential

- The transformation of our cities due to re-development and expansion allows the opportunity to address the poor distribution of open space and correct any imbalance.
- The ways in which green spaces function and their vital importance for the social activities of citizens and their contact with nature, is now better understood and identifies a strong rationale for green space retention and development.
- The demolition of dwellings and the design of new city developments can incorporate accessible green spaces as part of the design remit.
- The use of sustainable technology and a co-ordinated approach to urban green space planning can ensure that land use is efficient.

Quality of Urban Green Spaces

Problems

- Ecological functions and the regulatory effects of urban green spaces cannot be fulfilled because of the lack of vegetation structure and quantity.
- The low density of green space and the quality of the vegetation typically has a negative effect on biodiversity.
- Urban green spaces are threatened by air and water pollution, their use is restricted by noise and pollution problems.
- A large number of urban green spaces, typically associated with industrial development, or road improvement, perform poorly in terms of their landscape quality and do not provide usable space. It is necessary to improve their quality and usability.

Potential

- Even fairly modest investment in urban greening and the simple application of nature conservation principles can help maximise the potential of these areas in terms of biodiversity.
- Sustainable technology and measures to address urban pollution can be achieved by the appropriate development, management and extension of urban green spaces.
- By identifying areas of the city which have poor quality open spaces and by identifying the reasons for their poor performance, it is possible to improve the quality of the environment.
- Greater consideration of the performance of open spaces which form part of road and industrial development, partnerships with developers and investment in the public realm can redress the situation.

Use of Urban Green Spaces

Problems

- In many green spaces there is a lack of multifunctional opportunities and therefore such places lack usability.
- Conflicts can be present in green spaces because of different user communities and their specific requirements.
- In areas with an undersupply of urban green spaces, overuse can be problematic for their ecological quality and recreational function.
- In some cases there are conflicts between recreational use, the management of the landscape and nature conservation.
- There are both perceived and real concerns regarding lack of security in green spaces, especially for children, women and elderly people.

Potential

- New ideas and strategies for private or community use can provide diverse multifunctional use.
- Conflicts can be recognised and responded to by a variety of measures including changing the ways that spaces are managed, extending them, or through dialogue with the local community.
- Private gardens, e. g. gardens forming part of ancient aristocratic residences and holiday villas or other private spaces could be included in the urban green system through appropriate management agreements to improve the supply of green spaces.
- Clear management plans can assist in the realisation of appropriate multipurpose objectives.
- The employment of rangers, park wardens, or voluntary wardens to police green spaces, can help reassure users that areas are safe.

Planning, Development and Management of Urban Green Spaces

Problems

- The type of maintenance (too much as well as too little maintenance) can lead to problems because of the different perceptions of local authorities and residents.
- There is an increasing problem of financing urban green spaces concerning their maintenance, the provision of facilities and equipment.
- There are problems in achieving the planning of green spaces as an integral part of the city planning process with a risk that new green projects are isolated from other functions of the city and are not seen as a core part of re-development.

Potential

- A more integrated approach to urban space management and greater understanding of the ways in which green spaces perform can help resolve conflict, while greater dialogue with local people can ensure that management options are appropriate.
- Assigning economic value to ecological and social benefits is a way to strengthen and realise the ideas of local authorities to develop green spaces. It can be an argument for justifying/identifying budgets and in negotiation with municipal authorities
- Green space development can be a catalyst for urban regeneration while investment in green spaces and the environment is seen as a very positive measure by the public, where schemes offer opportunities for public-private partnerships and the involvement of residents in the planning, realisation and maintenance of urban green spaces.

The overall goal of future town planning is the development of sustainable cities and urban regions (Charter of Aalborg "European Cities & Towns Towards Sustainability" 1994; Green Paper of the European Commission) with a strong demand for visions and concepts (Leitbilder) to achieve sustainable development through specific planning objectives backed up by appropriate political ideas which embrace sustainable ideals. The vision of a "Green City" is suggested as being part of a solution for the development of sustainable cities because of its multidisciplinary approach in considering ecological, economic and social requirements for future development. In this respect urban green spaces can be seen as a catalyst to generate sustainable activities.

Conventional urban planning is primarily based on the structuring of the built development but not of the open space. However, because of the disintegration processes in cities, urban space is becoming more and more appreciated as a critical component of urban landscape/townscape (Figure D 10). In times of suburbanisation, deindustrialisation and urban transformation there is a demand and also the possibility to develop new and modern holistic concepts with urban planning strategies based on open (green) spaces and the development of a basic green structure to establish green cities with a green space network where the individual character and the image of the urban fabric can be determined by green spaces (Selle 1999).



Fig. D 10: Melun Sénart, landscape and building development.



Fig. D 11: Real and artifical urban green.

Goals and Demands for a "Green City"

The word **green** is used in a wide variety of meanings in our society to describe ecological, social, spatial and even economic or political aspects within the city.

Therefore the use of the term "Green City" as an overall goal of a single city is strongly connected:

- to the specific conditions pertaining to each city, its character and the way in which it functions,
- to the different expectations of all stakeholders (the inhabitants, the local economy, the planners, the city administration, and the politicians)
- and to the specific and individual goals identified.

While each city has to develop its own individual strategy to become a "Green City", nevertheless there are common threads towards its development.

Every city needs a green infrastructure which means an adequate supply of green spaces and of an appropriate quality in order to guarantee the satisfaction of the social and aesthetic needs of citizens, the ecological functioning of the city and to provide distinctive and individual character. The decision to develop a "Green City" is a long term strategy and in order to develop an individual strategy cities have to set goals.

The goals described below are identified as having particular significance for the improvement of the quality of life, the major aim of the URGE-Project. They are presented under the same main headings used in the ICC (Section B – Toolbox) where the development of urban green spaces should be characterised by:

1. enhancing and optimizing the **Quantity of Urban Green Spaces,**
2. offering a better **Quality of Urban Green Spaces,**
3. improving the **Use of Urban Green Spaces** and
4. improving the **Planning, Development and Management of Urban Green Spaces.**



Fig. D 12: Die Grüne Stadt – The Green City.

A "Green City" is a city where the **Quantity of Urban Green Spaces** is such that:

- green spaces form a basic structure as part of the urban area or urban region and provide the context for urban development on the basis of the landscape which they form and the individual green structures themselves.
- the urban green system has both large connected green spaces as well as smaller stepping stones ensuring a continuity of green spaces.
- ecological corridors enhance the links between urban green spaces and the surrounding landscape and form a connecting network which promotes public access and provides safe use.
- there is a good supply and distribution of green spaces within the urban fabric.
- there is good connectivity of urban green spaces within the city and to the hinterland.

The **Quality of Urban Green Spaces** in the "Green City" should:

- offer green spaces which fulfil the ecological regulatory effects.
- promote biodiversity by providing a high diversity of habitats and by providing semi-natural urban green spaces, by promoting the natural regeneration of vegetation in inner city areas and the development of priority areas for nature conservation.
- promote the social benefits of urban green spaces and provide opportunities for healthy living.
- be characterised by a high aesthetic value, high quality landscapes which have positive effects on the image of the city and are therefore of economic relevance.

The **Use of Urban Green Spaces** in the "Green City" is characterised by:

- good usability and easy access.
- its ability to meet the needs of the residential environment with a range of well designed urban green spaces which allow for different uses and different experiences.
- providing multifunctional spaces and facilities for different user's needs.
- enhancing social inclusion.
- the promotion and development of private green spaces in high-density residential areas.
- being responsive to changing developments and requirements.
- having a direct effect in benefiting the economy.

In the "Green City" the **Planning, Development and Management of Urban Green Spaces** must ensure:

- a high level of participation and public involvement in planning processes.
- the development of partnerships to access new ideas and resources.
- the integration of basic ecological information and data into strategic planning documents and in the process of planning.
- the use of integrative planning instruments involving different aspects of town planning.
- the development of innovative maintenance strategies to reduce the public costs for urban green spaces but to offer a good supply of green spaces.
- innovative and multiple funding strategies.
- the delivery of robust strategies for the protection of green spaces against other kinds of uses and pressures.
- that user's needs are considered as a key issue when designing green spaces.
- that there is a pool of skilled and trained people working for the planning, realisation and management of urban green spaces.

Recommendations for a "Green City of Tomorrow"

In response to the future conditions and requirements of urban green spaces it is necessary to state a number of recommendations according to the future development, management, organisation, function, design and financing of green spaces. The process of planning the "Green City" can be seen as series of critical operations which can be classified into the following four issues, which should not to be seen as separate aspects but as key stages in the planning process:

1. **Management: Organisation and Structure**
   The first step is the development of a city's strategy and the provision of appropriate resources, instruments and administrative arrangements concerning the approach and the realisation of urban greening strategies and projects.
2. **Planning: Design and Function**
   The principle design of urban green systems and individual sites is determined by their function, the use and the needs of the local communities (Department of the Environment UK 1996).
3. **Participation and Cooperation**
   The whole process of green space planning has to be supported by the integration and participation of all stakeholders within the city.
4. **Funding**
   Consideration of methods for financing urban green are critical and have to be developed as part of the overall financing of local government in relation to the other issues and form a key part within the process rather than a separate issue.

The recommendations listed on the next pages are the result of the work during the whole project but are especially supported by the Good Practice Examples (Section C). They are intended to give practical guidance for the work of planning urban green spaces (Figure D 13).

Planning Process	Management: Organisation and Structure	Planning: Design and Function	Participation and Cooperation	Funding
Good Practice Key Issues	Improvement of urban green space provision	Enhancement of ecological, social or economic qualities of urban green spaces	Enhancement of stakeholder participation and public involvement	Development of innovative and multiple funding strategies

Fig. D 13: Relation between recommendations for the planning process and Good Practice Key Issues (Section C).

1. Management: Organisation and Structure

Approach to the Planning Process:

- The **assessment of the current problems and the realisation of potential** is the basis for improving the situation (Section B – City Profile and ICC).
- The **consideration of basic data and concepts** for the city concerning aspects of ecology, pollution and traffic, social and economic needs is a basic condition for integrative town planning (examples include: Helsinki; Sofia, Ecozone).
- It is important to have a **strategic approach** to urban greening, to develop clear goals which are ambitious but achievable, acceptable to local communities, measurable yet flexible. Therefore the local greening policy framework should take account of a variety of strategies (Department of the Environment UK 1996; examples include: Dublin, Helsinki, Málaga, Zurich, Sofia).
- To realise an effective **green infrastructure** and to promote the integration of the different ecological, social, economic and functional demands of urban green spaces it is necessary to establish a concept for the **development of an urban green system** (for example Helsinki).

Figure D 14: Green infrastructure.

- The development of **benchmarks** is identified as a method for the improvement in the supply and performance of green spaces (for example Antwerp) but it is essential that benchmarks embrace both quantitative and qualitative aspects of **green standards**. For qualitative benchmarks it is necessary to apply values concerning the types of green spaces as well as to analyse the requirements in the catchment areas, depending on the form of housing and provision with private green spaces (for example Zurich).
- In order to improve the green situation and to learn from each other it is helpful to develop **good practice networks.**

Realisation and Implementation:

- To secure political and organisational support it is necessary to establish a **clear relationship with local, regional and national strategies** (DTLR 2002). Within the planning and realisation process it is desirable to promote a **continuous exchange** of experiences between the different planning authorities and at different levels of planning (examples include: Dublin, Ballymun; Helsinki).
- A **responsible regional planning policy** is required, which prioritises the different ecological interests as a basis for local green policy (ARL 1997). In most European cities the development of urban and open space structure can no longer be determined at city level, but needs a regional point of view (Albers 1997).
- The existing **legal framework and associated planning instruments have to be adapted to meet new conditions**. New and improved instruments for the protection and the development of open spaces have to be established (ARL 1997). To obtain durable green spaces it is necessary to have instruments to protect them against other patterns of use, especially against the expansion of built-up areas and transport infrastructure. The **protection of open spaces** enables local authorities to guide growth and avert the costs of urban and suburban sprawl (Lerner, Poole 1999).
- **New schemes of organisation and responsibilities** in municipalities are needed to ensure the best use of available and new resources (DTLR 2002).
- To ensure the quality of urban green spaces **trained people** are necessary. Professionals with special skills and knowledge have to be educated and employer apprenticeship schemes, as well as graduate courses in landscape planning and management, have to be developed (DTLR 2002) respectively maintained and improved where they exist.
- The **masterplan** for individual green sites should be used as a guiding framework since they have to be sufficiently flexible to adapt to changing requirements (Department of the Environment UK 1996; for example: Dublin, Ballymun; Montpellier, River Lez).
- A system or method for the **monitoring and evaluation** of urban green spaces should be established so that it is possible to identify the reasons for success and identify the reasons for failure.

2. Planning: Design and Function

Design:

- To fully **understand the qualities** and potential **of a site**, its special biotic and abiotic conditions as well as its historic and cultural circumstances, it is necessary to analyse local conditions accurately (DTLR 2002).
- The special characteristics of a site can be used as the basis for its development using modest resources and can create the specific **genius loci**. The nature of place, the climate and the natural environment should be identified and respected not to realise universal landscapes but to achieve the universal application of green, especially green spaces which are representative of the local region. Such an approach can improve environmental qualities and produce low maintenance costs (Hough 1990).
- There should be no more "subjective optional" layouts but knowledge of the specific **sense of a place** as well as of the requirements and needs of the users (Nohl 2002). Design has to vary to suit local circumstances (for example Istanbul, Golden Horn).



Fig. D 15: Sense of the place.

- The **existing urban green spaces have to be protected and the reasons for protection qualified**. This does not mean that all sites have the same features but that their natural qualities are identified and used as a basis for protection especially to deal with local conditions and needs.
- To **enable spontaneous uses** and to offer multifunctional spaces it is necessary to create green spaces with less predetermined functions, unspecific settings and facilities in form of basic equipment, thus ensuring that they are open for varying uses (Nohl 2002).
- Urban spaces are not static, their importance for the community and their validity change over the course of time (ARL 1997).
- Green space planning has to be understood as a process which respects change; it should not be the aim to create already completed green spaces. The design and development of urban green spaces has to be flexible according to the changes of interest and requirements. **Open concepts** are required. The new demands and requirements, as well as the changing conditions, may require **new typologies** of urban green spaces additional to conventional forms of green spaces (e.g. parks, allotments, play-grounds). Planners should create innovative approaches to new kinds and designs of urban green (e.g. urban farms, urban forests and industrial gardens).
- **Good design** has to be an integral part of the planning and management of an area. To realise this, political commitment and public investment is required (Tibbalds 2001). Despite financing problems it is still possible to develop high quality green spaces (examples include: Zurich, Centre Zurich Nord; Montpellier).
- In designing green spaces attention must be paid to maintenance requirements. The **degree of maintenance** will differ across sites, depending on the purpose of use and the intensity of use as well as public interest (for example Alphen aan den Rijn). Also it is proper to evaluate maintenance regimes and in some circumstances may be advantageous to give up high-intensity maintenance to enable succession and naturalization in some parts of green spaces (for example Helsinki).
- **Ecological compensation areas** or areas with low maintenance and which embrace natural succession have to be specifically recognized as urban green spaces because they are a part of the green system of each city. Municipalities have to maintain these areas but they may not be usable for active recreation. However, they still provide an important landscape resource and are appreciated by residents (Milchert 1996). Therefore, it is proper to identify such sites as key components of the urban landscape and the way in which they contribute to the quality of life.



Fig. D 16: Improving the ecological quality of the residental environment.

- To achieve a high level of **biodiversity** it is necessary to have differentiated intensities of use and a diversity of urban landscape types, which respect the processes of nature. Such sites may have a lower level of maintenance of green (examples include: Leipzig, District Park Reudnitz, Green Belt Grünau). Priority areas for **nature conservation** should be created (Sukopp, Wittig 1998; examples include: Ljubljana, Marshlands of Barje; Sofia, Ecozone; Montpellier, River Lez).



Fig. D 17: Succession on unused railway tracks.

Function:

- The provision of green spaces should be more responsive to the diverse needs of local people. Therefore user's needs have to become the main issue in the design of urban green spaces. To make **user-friendly green spaces** and in response to the changing conditions it is necessary to differentiate green spaces for different user-groups and kind of uses. To have better conditions for children and young families in cities it is necessary to offer useable and accessible urban green spaces with a wide variety of play and leisure facilities involving the chance to experience nature. The consideration of the needs of elderly people and people with disabilities has to be enhanced.
- People need varied useable green spaces for different and changing user needs. Therefore **multifunctional green spaces** are a pre-condition for effective green space provision (examples include: Budapest, Szent István Park; Genoa-Prà Urban Park; Leipzig, District Park Reudnitz).



Fig. D 18: Play and leisure facilities in green spaces.

- The **improvement of the residential environment** and the supply of private green spaces in high-density areas could be a strategy to improve the living conditions and to renew the inner city areas (examples include: Dublin; Leipzig, District Park Reudnitz; Zurich). Such measures may reduce urban sprawl and land-consumption forming a way to promote inward urban development (for example Helsinki).



Fig. D 19: Green backyard.

- The **development of green systems** which involve establishing green corridors to link the urban green spaces is important for both the transfer of species and the usability for citizens (examples include: Dublin, Helsinki, Ljubljana).
- **Usefulness** and **accessibility** have to be closely connected to the design and function of green spaces. "Quality is to be put before quantity and accessibility is to be put before both" (Barber 2002).

- Programmes to increase the **safety of users**, especially for children, women and elderly people in urban green spaces need to be developed.
- Measures for the **prevention of vandalism** have to be developed to ensure durable high-quality green spaces.
- **Environmental education** is becoming more and more important. Different opportunities should be presented in order to improve knowledge of ecology and the functioning of the environment. The involvement of schools and children's groups is called for in all aspects of green space design, planning and maintenance (examples include: Genoa-Prá, Urban Park; Zurich).



Fig. D 20: Environmental education.

3. Participation and Cooperation

- The **participation of local businesses, planning authorities, non-governmental organisations** and **private partners** as well as the **development of partnerships** is important for developing public and private green spaces and to develop local green space strategies, to access new ideas and alternative resources (DTLR 2002; examples include: Alphen aan den Rijn; Antwerp, Spoor Nord).



Fig. D 21: Communication in planning processes.

- Public involvement and surveys of public preferences lead to useable and accessible green spaces. For a user-friendly supply of urban green spaces and to understand the needs, values and aspirations of local people it is necessary to **involve the residents** and their requirements in the process of planning and development (examples include: Antwerp; Birmingham, Burbury Park, Newhall Valley Country Park; Budapest, Szent István Park; Helsinki; Leipzig, Green Belt Grünau; Sofia; Tirana, Lana River). Project managers need to identify the distinctive characteristics of local communities. The changing conditions for the development of green spaces have to be discussed with the local residents so that they can appreciate these changes to develop a clear and shared vision for urban green spaces (DTLR 2002).
- In many European cities the importance and influence of **private initiatives, private-public-partnerships** or **sponsoring** and **local initiatives** is increasing (for example Antwerp). In these cases park departments mainly coordinate initiatives and actions through public meetings and workshops, door to door interviews and exhibitions (for example Dublin, Ballymun; Birmingham, Burbury Park).
- Participation does not just mean consultation and limited collaboration with select groups of people but should be such that the development, realisation and maintenance of urban green spaces is shared and supported (Milchert 1996; for example Tirana, Lana River). The **self-determined activities** of residents should be promoted (for example Leipzig, District



Fig. D 22: Lots of land for self determined use of residents in Leipzig, District Park Reudnitz.

- A **key role for local authorities** is to achieve inter-departmental and interdisciplinary working (Department of the Environment UK 1996; examples include: Dublin, Ballymun; Helsinki).
- An **outside organisation** acting as an adviser and facilitator can help to manage and mediate the difficult task of communication and participation (Department of the Environment UK 1996; for example Leipzig, District Park Reudnitz). Conflicts in use between different urban communities may require mediation in the form of **conflict-management**.

4. Funding

- In times of limited financial resources and uncertainty it is important to consider **multiple funding** strategies to ensure the long term maintenance and existence of urban green spaces (examples include: Antwerp, Spoor Nord; Sofia). The development of public-private partnerships is necessary to combine the efforts of public and private institutions. An assessment of new partners for financing green spaces could be supported by a marketing campaign for urban green spaces (for example Alphen aan den Rijn) but it has to be emphasized that the provision of public green spaces continues to be the state's obligation regardless of new financing methods. Therefore private institutions cannot be seen as stopgaps for the state (Schröder 1997).
- **Novel forms of financing and management** are needed, for example:

- Cross funding of leisure provision from capital levies through a legal agreement with the developer (for example Birmingham, Newhall Valley Country Park).
- Imposing a special tax on private developers specifically for the development of green spaces (for example Dublin).
- The possibilities of leasing urban spaces for public or private use to relieve the public authorities.
- Sponsoring and patronage will become an increasingly important form of funding (Schröder 1997).
- Foundations and lottery funding are two ways of financing urban green spaces in times of scarce public resources, but it has to be recognised that such funding may not be compatible or coincide with the specific goals (Schröder 1997).
- Private initiatives and volunteers have to be encouraged to help develop and maintain urban green spaces (for example Antwerp).
- Activities to create income and to establish the special identity of an urban green space are welcome and may include weddings, events, film rights, selling postcards, T-Shirts, bags, traditional food, historical guided tours through the park, hire of skates, balls, boats, books and blankets but the income should be directed back into the green space budget.

- Work is needed on an integrated and comprehensive urban environmental agenda, which seeks maximum synergy and cooperation between as many stakeholders and partners and is linked to the process of social renewal. These economic and partnering models need to be further explored to help quantify the social and economic benefits of urban green space and provide new and innovative routes to future funding.
- In times of difficult public finance it is necessary to establish **alternative concepts for the maintenance** of urban green spaces, for example:

- Support by the local people (parenthood, special festivals or "maintenance days", citizens pay taxes according the level of maintenance; for example Alphen aan den Rijn).
- Reducing the level of maintenance according to the function and relevance of urban green spaces could help to establish cost-neutral, money-saving management methods (for example Leipzig).

CONCLUSION AND OUTLOOK

SECTION E



The Manual "MAKING GREENER CITIES – A PRACTICAL GUIDE" provides tools, examples and recommendations to establish strategies and projects for the development and improvement of urban green spaces as a part of the sustainable development of cities. As a "Tool to get people talking" it shows ways of putting ideas into practice and it will support you to make a substantial contribution to the process of improving the quality of life in cities and urban regions.

This Manual, with its tools, is intended to initiate a process of communication and debate. It makes suggestions and proposals for application and interpretation according to the specific requirements of a city or of an individual site, where urban green planning policies are expected to be robust and responsive to the needs of the environment, economy and the social needs of citizens.

However, the improvement of the urban environment is a continuing process. Unquestionably, it is a long and probably difficult way to the "Green City of Tomorrow", which needs political awareness, responsible administration, innovative planners and committed citizens. To realise that vision, local actors, as well as national and European policies, have to meet some important future challenges.

Demands of the urban planning process

- Each city has to develop its own strategy and its individual focus according to the principles of sustainable development. To reach the goals it is necessary to mobilise all appropriate resources, including stakeholders, in order to realise concepts and ideas.
- A successful realisation of ideas is strongly connected to quality regarding: (1) the development of specific strategies and overall goals, (2) the analysis and assessment of the current situation and future requirements and (3) the actual process of implementation.
- The development of strategies, the application of planning instruments, and the implementation of programmes are necessary both at City Level and Site Level. The process of planning has to be characterised by interactions between these two levels.
- Existing open and green spaces have to be either fully protected against built development and traffic infrastructure; or only released with strict controls and caveats to help address the distribution balance within cities, from areas of over-supply to areas of under-supply.
- The success of the whole planning process depends on the cooperation of all stakeholders (planners, local economy, politicians, administrators, private initiatives, non-governmental organisations and researchers). The participation of citizens during the whole process is indispensable.
- It is necessary to identify and meet the needs of citizens, to involve them in sustainable development, to encourage responsible behaviour and ecological awareness.
- All stakeholders should be encouraged in developing new ideas, approaches and solutions.

Demands for national and European policy

Local town planning and green policy depends on the legal and financial circumstances operating within regional, national and European administrations. Cities may not have the power to change these conditions themselves, but should lobby for change and initiate political debate.

During the work of the URGE-Project the consortium identified some crucial gaps and problems concerning the political context surrounding urban green which have to be approached and solved before urban greening strategies can move forward.

- The development of urban green spaces has to be recognized and promoted as an important pillar of sustainable development and this importance has to be reflected in a more appropriate and stronger legal framework, which also identifies funding needs.
- The implementation of criteria to assess the green situation of cities and of individual green sites needs local or national benchmarks.
- The development of benchmarks is necessary for the European-wide comparison of cities and their green spaces and for the implementation of instruments for the promotion and development of "Green Cities of Tomorrow".
- The establishment of appropriate (multidisciplinary) training and an improvement in the education of those destined to be involved in the field of urban green planning (landscape architects, geographers, town planners, ecologists, sociologists etc.).
- The inclusion of urban green space issues as a part of other disciplinary training, in recognition of its wide role within the urban agenda and particular relevance to the diciplines of housing, tourism, economic development and community health.
- The closure of the training and skills gaps and appropriate salary levels that equate with the importance of urban green to help guarantee the employment of motivated and skilled people in the creation and maintenance of urban green spaces.
- Research on urban green spaces should continue to be supported by future national and also European funding programmes.
- There is an ongoing need for experts – scientists and practitioners – who deal with urban green issues, to exchange knowledge and to undertake further research.
- It is the responsibility of all those involved in urban greening to contribute to the development of new programmes.

Communication – Exchange of knowledge

The learning process and the advancement of urban greening strategies are encouraged by the exchange of knowledge and by comparing experience, accordingly, all URGE partners support the ongoing process of communication and will continue to strive towards the vision of the "Green City of Tomorrow" and to:

- continue with pan-European working and research,
- maintain the consortium and partnerships and
- maintain and strengthen the cities network.

You may find information on the project and its findings on the URGE-Homepage

http://www.urge-project.org

as well as on the respective current websites of the following partners of the URGE-Consortium:

- http://www.ioer.de
- http://www.ufz.de
- http://www.uce.ac.uk

The consortium **partners** welcome contact from those interested in the project, its results and regarding possible future collaboration. A list of contact persons can be found in the Annex (pages 111,112) and on the enclosed CD-ROM "Tools" (Part 3, Supplement).



Fig. E 1: URGE-Homepage.

ANNEX

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