

# ARCHITECTURE AND URBAN STRUCTURES IN PLANNING THE REURBANISATION PROCESS

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## Arhitektura in urbane strukture v načrtovanju procesa reurbanizacije

### izvleček

Študija je rezultat interdisciplinarnega projekta Re Urban Mobil (Sprožanje reurbanizacije v razmerah demografskih sprememb, orig. Mobilising Reurbanisation on condition of demographic change), ki je bil opravljen med leti 2002 in 2005 v sklopu Petega evropskega okvirnega raziskovalnega programa "Energija, okolje in trajnostni razvoj". Fakulteta za arhitekturo je koordinirala in izvedla posebni del o arhitekturi in urbanističnemu planiranju. Projekt je sicer bil razdeljen na štiri dele (ostali trije so bili: sociologija in demografija, ekonomija in pravo ter urbana ekologija) in izveden na štirih primerih mest (Bologna, Leipzig, Leon in Ljubljana). Splošni cilj projekta je bil razčleniti potencialne in ovire reurbanizacije stanovanjskih območij v mestnih jedrih, kakor tudi razviti orodja, spodbude in strategije za ustrezno dolgoročno namensko rabo teh območij ob upoštevanju spreminjajočih se demografskih razmer. Poseben cilj delovnega paketa WP4 arhitektura in urbanizem je bil na splošno razčleniti prednosti in pomanjkljivosti mestnih jeder glede na rezultate izbranih primerov. Znanstveni cilj je bil opredeliti osnovne zahteve za višjo raven življenjskega okolja ob upoštevanju urbane razvoja in arhitekturnega načrtovanja.

Študijski rezultati so novi metodološki pristopi k raziskovanju, planiranju in uveljavljanju reurbanizacije v mestnih jedrih. Najpomembnejše novosti so: posebna primerjalna interdisciplinarna analiza, poseben seznam kazalcev in njihove uporabnosti, predlog delovne metode za arhitekturno in urbanistično planiranje, nova metoda analize uresničljivosti prenove zdajšnjih arhitekturnih in urbanističnih struktur ter predlog posebnih orodij za reurbanizacijske procese. Planski proces, uporabljen na primerih štirih mest, je osnovan na teh novih metodologijah.

### ključne besede:

Reurbanizacija, interdisciplinarne metode, študije izvedljivosti reurbanizacije, raziskave, planiranje.

### abstract

The study is the result of interdisciplinary research project Re Urban Mobil (Mobilising Reurbanisation on condition of demographic change) within the European Fifth Framework Program "Energy, Environment and Sustainable Development" from 2002 - 2005. Faculty of Architecture coordinated and performed special section about architecture and urban planning from 4 basic sections (others: sociology and demography, economics and law, urban ecology) and in 4 European cities as case-studies (Bologna, Leipzig, Leon Ljubljana). The general aim of the project is to analyse re-urbanisation potentials and obstacles of inner-city residential areas and to develop instruments, incentives and strategies for an appropriate and long-term use of these areas taking into consideration changing demographic preconditions. The specific aims of WP4 (architecture and urban planning) are to analyse the advantages and disadvantages of inner city in general and on the base of case study results. Scientific aim is to define the basic prerequisites for higher living quality with respect to the urban development and architectural planning.

Study results in new methodological approach in research, planning and implementing the reurbanisation in city cores. The most important novelties are: special comparative interdisciplinary analysis, specific list of indicators and their applicability, proposal for work method of architectural and urban planning, new method of analysing renewal feasibility of existing architectural and urban structures, suggestions for special instruments as part of reurbanisation process. The planning process in the case studies in four cities is based upon such new methodology.

### key words:

Reurbanisation, interdisciplinary methods, feasibility studies, researches, planning.

### Povzetek

Raziskava je nastala v okviru interdisciplinarnega raziskovalnega projekta Re Urban Mobil (Pospešitev reurbanizacije kot posledice demografskih sprememb) v 5. evropskem okvirnem programu med leti 2002-2005 in kot del "Energetskega, okoljskega in trajnostnega razvoja". Fakulteta za arhitekturo je usklajevala in izvajala poseben segment arhitekture in urbanističnega načrtovanja izmed 4 osnovnih segmentov (drugi: sociologija in demografija, ekonomija in zakonodaja, urbana ekologija) in v okviru 4 evropskih vzorčnih študij za mesta Bologna, Leipzig, Leon, Ljubljana. Splošni cilj projekta je raziskava možnosti in ovir za reurbanizacijo širših območij mestnih jeder in razvoj instrumentov, spodbud in strategij za ustrezno dolgoročno rabo teh območij ter hkratnega upoštevanja pogojev demografskih sprememb. Posebni cilji segmenta 4 (WP4 - "arhitektura in urbanistično planiranje") so raziskave prednosti in ovir mestnih jeder na širši strateški ravni kot na osnovi podrobnih rezultatov raziskav vzorčnih primerov. Znanstveni cilji so določitev temeljnih pogojev za zvišanje kvalitete bivanja glede na razvoj mesta in arhitekture.

Raziskava je razvila nove metodološke pristope v raziskovalnih, načrtovalnih in izvedbenih sestavinah procesa reurbanizacije mestnih jeder. Najpomembnejše novosti so:

- posebna primerjalna interdisciplinarna analiza,
- razvit sistem indikatorjev in njihove uporabnosti,
- predlog posebne metode urbanističnega in arhitekturnega načrtovanja,
- povsem novo razvita analiza primernosti za reurbanizacijo obstoječih arhitekturnih in urbanih struktur (vsebinsko, pomensko ekonomsko), ter
- predlogi specifičnih instrumentov kot sestavin reurbanizacijskega procesa.

Načrtovanje reurbanizacije v vzorčnih mestih je bilo utemeljeno s predlaganimi novimi metodami in z naslednjimi izhodišči:

- Reurbanizacija mora v bodoče postati strateška sestavina prostorskega planiranja, organizacije, varstva in razvoja mesta ter vključena v dolgoročne plane.
- Aktivna revitalizacija (= poseben del reurbanizacije) je temeljna oblika varstva mestne kulturne dediščine: vključena je v vse sestavine varstva dediščine, na vseh ravneh od nepremične kulturne dediščine do kulture bivanja.
- Revitalizacijo in reurbanizacijo načrtujemo tudi kot "recikliranje" (prilagoditev novi vsebini) struktur visoke materialne ali oblikovne vrednosti in skrbno nadzorovanega "marketinga" obstoječih prostorskih, urbanih in arhitekturnih vrednot.
- Planiranje za revitalizacijo najkvalitetnejših (izjemnih) območij mesta mora biti izvajano najmanj v dveh korakih: a) dolgoročni načrt (strategija) celovite mestne prenove = "master plan"; b) podrobni načrti izvedbe celovite revitalizacije ali reurbanizacije izbranih območij.
- Temeljni princip reurbanizacije je vgraditev ustreznih razmerij med prenovo in novogradnjo v vse izvedbene načrte.
- Vključevanje prebivalcev, lastnikov in uporabnikov je pomembno tako za osveščanje pa tudi kot nujna oblika načrtovanja in izvedbe revitalizacije/reurbanizacije.
- Oblikovanje "ekspertnih ustanov" v okviru izvajanja integralnega varstva zaščitene nepremične dediščine mesta in kot splošna strokovna pomoč občanom v procesu reurbanizacije je ena od osnovnih organizacijskih nalog.

## Introduction

The Re Urban Mobil project (Mobilising Reurbanisation on condition of demographic change) was one of the research projects within the European Fifth Framework Program "Energy, Environment and Sustainable Development" from 2002 - 2005. Divided in 9 workpackages, the four of them were developing the basic analysis (sociology and demography, architecture and urban planning, economics and law, urban ecology). 9 important European research institutions carried out the researches and in 4 cities the case studies were elaborated (Bologna, Leipzig, Leon, Ljubljana). Faculty of Architecture, University of Ljubljana was performing the research on the topic of architecture and urban planning under the leadership of prof. Peter Fister, with special collaborators (dr. Darko Likar, Ad Pirum institute, prof. Roy Graham and the Catholic university in Washington, students from the Faculty of Architecture Ljubljana, etc.). The results of the study from the point of view of architecture and urban planning are to be published also in a special publication, the results of other topics can be found on page [www.re-urban.com](http://www.re-urban.com).

### Objectives (accepted as starting points for research):

Since the emergence of European cities their structural development has been determined by the search of human beings for an optimum quality of life of which housing is a central dimension. In the different stages of urban development, this optimum was looked for in different places. In West European countries, urbanisation was followed by suburbanisation in still growing agglomerations. Due to economic changes from the 1960s onwards, the continuous suburbanisation led to declining inner-city neighbourhoods, in extreme cases to disurbanisation. Counter strategies of urban renewal and revitalisation were partly successful in the sense of attracting higher-income groups to return to the inner city. But regarding the whole core city, its potentials for re-urbanisation as one possible stage following disurbanisation were not exhausted. Instead, patterns of polarisation came into being with gentrified and declining areas nearby.

Beside tendencies of intra-urban polarisation, the overall trend of economic and demographic recession could not be reversed. The gap between growing and declining regions in Europe increased and will even more increase in future. Massive demographic changes will accompany these disparities. According to projections, in many European countries the population decline due to partly extremely low fertility rates will coincide with a growing number of households. Moreover, their structure is modifying: households of both younger and older age groups will become smaller and less stable.

**The general aim of the project is to analyse re-urbanisation potentials and obstacles of inner-city residential areas and to develop instruments, incentives and strategies for an appropriate and long-term use of these areas taking into consideration changing demographic preconditions.**

**The specific aims of WP4 (architecture and urban planning) are to analyse the advantages and disadvantages of inner city in general and on the base of case study results. Scientific aim is to define the basic prerequisites for higher living quality with respect to the urban development and architectural planning.**

## Architectural and planning aspects of the working model

### Basic Principles

The basic aims of the comprehensive reurbanisation are both general and specific. The general principles concern the overarching strategy for the physical organisation and development of the urban space and built structures, while the specific ones are focused on particular issues as part of the positive management of the available space and the existing settlement and building heritage, irrespective of their positive or negative value. As "the architecture is a formed space with special contents and the contents is a human being" (Zevi B., 1950), the measure for the quality of life in the reurbanised city centres are social, demographic, economic and cultural parameters.

Actual problems of most European city centres from the point of view of architecture and urban structures are connected at the same time to the high architectural, symbolic or semantic values of the built heritage and to the insuitability of these structures to the changes of social, demographic and economical needs or expectations. Therefore from the point of view of architecture and urban researchers and planners the reurbanisation process should offer protection of specific values as well as new possibilities for new way of life.

The main frames and expected results must consider the fact that all implementations can be done only by formal planning documents and systems. As the reurbanisation indicates at the same time the preservation of cultural and identity values and the development of new qualities, some new aims and indicators must be built in the existing theories and methodologies of analysing, planning and building of architectural and urban structures:

- Reurbanisation must be in future a strategic part of the spatial planning, organisation, protection and development of the city: incorporation into the long-term plan.
- Active revitalisation (= special part of reurbanisation) is a basic form of protection of the city's cultural heritage: incorporation into the terms of the protected heritage at a 1 1 levels of the immovable heritage and the culture of living.
- Revitalisation becomes a basic form of regeneration and high-quality urbanisation of degraded parts of the city.
- Revitalisation and reurbanisation is planned also as the "recycling" (adaptation to a new use) of structures of high-quality construction and design and carefully supervised "marketing" of established geographic, urban and architectural values.
- Planning for revitalisation of high-quality (distinctive) areas of the city must be done in at least two steps: a) long-term plan (strategy) of comprehensive urban revitalisation = "master plan"; b) detailed workphase plans for the execution of the comprehensive revitalisation/reurbanisation of the relevant areas.

### Particular Components Of The Working Model

In order for the aims of the reurbanisation to be incorporated into the city's plan (case studies) the following must be defined:

- The criteria of the general orientation of the reurbanisation as part of development strategy of a town: conservation of protected areas and parts of the protected immovable heritage, creating acceptance of the appropriacy and precedence of revitalisation as against new construction,

revitalisation of degraded urban areas linked to high-quality (distinctive) urban districts, specific development of the central and identifiable important parts of the city.

- Determination of areas for reurbanisation and revitalisation: according to scope, value criteria, expected problems and outcomes.
- Incorporation of the relationship between revitalisation and new construction in the execution plans is the basic principle of reurbanisation.
- Involvement of local inhabitants, owners and users is introduced in this phase for the purposes of publicity and as a necessary form of planning and execution of the revitalisation.
- Formulation of "expert foundations" for the integral preservation of the protected immovable heritage of the city - update of the situation, definition of influential areas, establishment of new terms of protection.
- Analysis and determination of degraded sections with respect to social, demographic, economic and spatial conception, construction fabric, content and uses.
- Creation of proposals for appropriate use of poorly used space, for environmental, functional and qualitative amelioration or building-up of degraded sections of the city centre, for economically advantageous solutions to the acquisition of new capacity in degraded sections.

#### Some problems of the methodology of planning

Development of built structures ("recycling") and orientation towards high-quality uses requires the creation of quantitatively determined development scenarios: linkage of the comprehensive strategy for the revitalisation of the city centre with particular appropriately selected districts with regard to their physical, functional or semantic characteristics.

*An essential prerequisite is the creation, monitoring and analysing of an appropriate central data repository for all categories of space and buildings, followed by the definition of a development strategy and development documentation in the final phase and the interdisciplinary comparable data for environmental, social, demographic and economic indicators.*

Unifying and updating previously collected or created material, studies, analyses and revitalisation plans is an appropriate starting-point and a means of shortening the timescale for the creation of the plans. From this material a basic information repository for planning and monitoring the revitalisation process will be created, principles (or help in the establishment of principles) for a long-term strategy will be formulated, and prioritisation of various initiatives required for the creation of the plan and the execution of the comprehensive revitalisation will be undertaken. It will be possible to define detailed components following a review and assessment of the applicability of material created previously.

*Establishing the revitalisation plan at the master plan level will require an appropriate interdisciplinary team, sufficiently strong activity at the city level (public involvement) and appropriate policies on the part of the city authorities. Appropriate demographic, sociological and economic indicators and scenarios must back up all conclusions.*

The reurbanisation master plan can be adopted as part of the city spatial planning documents or entirely independently, while constant monitoring (by the appropriate municipal section), formation of a sufficient number of active initiatives (with an orientation towards ensuring the quality of public goods and towards an appropriate development initiative = management)

and linkage with the target strategy at national or even international level, must be provided in parallel.

The scope may include defined parts of the city structure, distinctive complexes or individual (especially protected) parts of the architectural heritage. The selection of these priority workphases will proceed from the comprehensive revitalisation plan, current circumstances and the possibilities for implementation. The selected districts that are sufficiently homogenous from a design, functional and development standpoint can begin to be addressed while the comprehensive strategic plan for revitalisation is still in preparation - they are particularly useful as pilot cases.

Relevant ecological, demographic, sociological and economic analyses and scenarios, building on the general ones in the basic strategic document, must be conducted in advance.

In order to gain acceptance for the partial comprehensive revitalisation plans it is necessary to ensure an appropriate role in the city's development plans and active involvement of owners, users and potential investors via the formation of special initiative groups. Detailed components will be defined with respect to the specifics of individual areas or components.

#### Comparative disciplinary analysis for architecture and planning (Coordination between case-studies and disciplines)

##### Objectives

The work-package "architecture and planning" in the reurbanisation process is the final and one of the most general application. Such task demands special approach - always connected to all other workpackages and research groups.

As the planning for architecture and urban revitalisation/reurbanisation needs specific results from different special analysis and because it is based on interdisciplinary gathered indicators, it is obvious that it can be done after the basic studies only. But for the practical use of individual results of these studies the coordination of their goals must be clear from the very beginning. There are too many examples in every country where special ideas or wishes how to revitalise or to reurbanise parts of the city structures (specially the protected ones!) failed because of one simple reason: the connection between cultural, economic, social, demographic, even political strategies on one side and the reality of space, of the state of existing built structures or infrastructures, were not taken in account as basic conditions for any realistic decision in revitalisation!

To develop special methodology of such coordination it is urgent to start with the coordination at the beginning of the project. Therefore general scheme of theoretical approach in methodology of reconciliation of separated research results of different groups, ideas and viewpoints that could be used for the planning is the starting point of the work on architecture and urban structures within planning the strategy of reurbanisation process.

To be able to coordinate the tasks of architecture and urban research and planning it is necessary to interpret the proposed methodology within every case study and separately inside every special group or independent disciplines at the beginning of the project, following specifics of planning the reurbanisation from the point of view of architecture and urbanism.



### Basic issues

The basic aims of reurbanisation for architecture and urban planning should be:

#### 1. The comprehensive reurbanisation

In general reurbanisation of concerns the overarching strategy for the physical organisation and development of the urban space and built structures - in specific problems it is focused on particular issues as part of positive recycling and management of the available space, settlement structures and built heritage.

#### 2. Reurbanisation as strategic part of development plans

As the reurbanisation indicates at the same time the preservation of cultural and identity values and the development of new qualities, new aims and new indicators must be built in the existing theories and methodologies of planning. Reurbanisation must be in the future a strategic part of the spatial planning, organisation, protection and development of the city and therefore incorporated into the long-term plans. The reurbanisation (master) plan can be adopted as part of the city spatial planning documents or entirely independently through constant monitoring of important indicators.

#### 3. Reurbanisation as the recycling of existing structures

Reurbanisation should be planned first of all as the recycling of structures of high quality, as the regeneration of degraded parts of the city and as the revitalisation of the city's cultural heritage.

#### 4. Reurbanisation planning as interdisciplinary program

Principles for a long-term strategy should be the starting point for the prioritisation of various initiatives required for the creation of the plan(s) and the execution of the comprehensive reurbanisation. Analysis should give the interdisciplinary comparable data for social, demographic, economic, cultural and all physical indicators. Unifying and updating such results should form the basic information repository for planning. Establishing the reurbanisation plan requires an appropriate interdisciplinary team, sufficiently strong activity at the city level (public involvement!) and appropriate policies of the city authorities.

#### 5. The "open planning system" as starting point for reurbanisation of existing architectural and urban structures

To ensure the reurbanisation process an appropriate role in the city's development plans it is necessary to organise active involvement of habitants, owners, users and potential investors. Relevant demographic, sociological and economic analyses and scenarios, building on the general ones (in the strategic document), must be conducted in advance, regarding the actual priorities. Special workshops and/or architectural-urbanistic charettes should be provided to be able to create proper scenarios before planning the long-term strategic plans or even before final decisions for detailed plans of reurbanisation are accepted or implemented.

#### 6. Reurbanisation is a process not a closed action

To ensure the reurbanisation process necessary continuity and realistic feasibility the methodology of approach should be developed through proper phases. If only some selected (preferential) aims are included into reurbanisation strategy and plans the results can not be optimal or of long duration. At least 3 phases should follow: a) research, documentation, evaluation and organisation of special expert and public approach, b) "open planning" phase, c) implementation of special actions, monitoring and organisation of continual reurbanisation process.

### Operational goals of the first phase

The first phase of the project should be got underway immediately in two groups:

- a) definition and evaluation of basic groups of problems and aims
- b) analysis and evaluation of specific indicators - formation of "central data repository".

To define the basic group of problems it is urgent:

- *Nominating a coordinator for the creation of a central data repository.* In addition to a coordinator, appropriate resources need to be provided (funding, IT hardware and training, appointment of contractors and coordination with those carrying out the project). Given that a documentation centre of this kind will be particularly necessary during the implementation stage of the project, so that initial studies can have no real basis without it, this must be one of the first operational goals.

- *Establishing principles for the project.* In addition to the proposed, but still overly general strategic directions regarding the requirement for reurbanisation, criteria and objectives must be agreed that will facilitate consistent work by the split project team across all the various thematic groups.

Proposal for implementation:

1. Each party should prepare a list of special criteria and objectives building on the general ones (for example: the renovation of construction fabric in particular areas is simultaneously dependent on the ownership structure, the adequacy from an urban planning point of view of the introduction of new or preservation of old contents and uses with reference to the development strategy of the city as a whole, the quality of the building heritage etc., which in some instances may call into question the general development or conservation strategy for parts of the city nucleus).

2. Each group should formulate subject criteria that must be reconciled with other groups (for example, the feasibility of proposed conservation of a cultural monument is assessed along with technical preservation, the expected economic case etc.).

3. The project group, together with those responsible for the city's development strategy, should draft a coordinated set of unitary criteria and goals for the assessment of components in the city nucleus and for the direction of individual components of the project.

4. General (detailed) criteria and aims should be presented to the public on two levels: to city councillors and at a public hearing.

- *First public presentation.* As a starting point there could be either general preliminary information produced by representatives of the commissioning body or a more detailed presentation as in the previous proposals. At the same time, an appeal will be made to the public to start taking an active part in the planning and later in the execution of the revitalisation. Special forms of active public involvement could also be proposed.

To analyse and evaluate specific indicators using "central data repository":

- *Setting up the expert group for documenting and monitoring.*
- *Creation of an appropriate "central data repository".*
- *Evaluation of specific indicators.*

### Data sources (important for architecture and urban structures):

The sources are primarily those that can be used directly for the preparation of the basic strategy and master plan for the

revitalisation:

- analyses of parts of the relevant nucleus of the city from the perspective of current situation, assessment and feasibility studies of development taking into account both heritage conservation and spatial and architectural circumstances,
- architectural snapshots of particular buildings and complexes,
- architectural feasibility studies for revitalisation of particular buildings and complexes.

Possible official sources:

Agency (or specific authorised group/official institution) for the Protection of the Cultural Heritage:

- all previously collected material from the area of the nucleus of the city and connected parts of the city,
- material acquired in the course of the project for preparing new terms of registration in the register of cultural monuments.

National Archive and the City Archive:

- Access to required archival material should be arranged not only via ad hoc requests but if possible under a special authorisation to be agreed between the two institutions.

Office of Statistics, Geodetic Administration (other institutions):

- To provide best access to necessary data it can be proposed to be arranged through the relevant offices of the City Municipality as set out below.

Department for Spatial Planning (or other departments) of the City Municipality:

- Computer databases and all available data connected with them (GIS...).
- Snapshot of the whole (A at a planning scale of 1:500; B for individual locations, archaeological and historical data = Agency for the Protection of the Cultural Heritage; architectural data = ground plans and elevations, number of storeys, data on content and use, spatial integration, technical data = assessment of technical condition; economic data = activities, assessment of actual value of the building, connection with the wider city economy; demographic data, etc.).
- Data on infrastructure (including the level of preservation or degradation).
- Data on non-built spaces (transport, green space, public/private, protected etc.).

The available material will reveal the state of documentation of the area under review and indicate what information needs to be obtained in order to finalise the documentation. Since a large part of the data mentioned is likely to be requested by other collaborators, or since certain data in some areas will already have been collected, a coordinator should be appointed immediately and tasked with preparing a central data repository. Details and specifics are part of the developed "data base" (GIS reurban), but it is urgent to connect these data to the specifics of every researched town.

Index of schemes, relating the proposed "Action plan" of the first phase:

- General proposal for the basic scheme of methodology
- Detailed proposal A: Analysis of accordance
- Detailed proposal B: Evaluation of efficiency of existing planning
- Detailed proposal C: Adjustment of legislation
- Detailed proposal D1: Indicators of infrastructure and space
- Detailed proposal D2: Indicators of technical conditions

- Detailed proposal D3: Indicators for the economy
  - Detailed proposal D4: Indicators for social/demographic conditions
  - Detailed proposal D5: Indicators for "cultural" conditions
- Methodology supplement: documentation and monitoring

### **Specific indicators (The contents of indicators as expected to be applicable for architecture and planning)**

1. Specific indicators of infrastructure and space:

- indicators that generate(-ed) the role and relation of the selected area and of its infrastructure within range of town and region in physical meaning - evaluation from the point of view of natural and built circumstances (conditions),
- indicators of the role and relation of the selected area within strategic starting points - evaluation should be executed within the range of existing strategic plans on the level of town, region, state (?):
- indicators of the state of general economic, socio-demographic, technical, physical, ecological (...) state of geomorphologic and built structures - evaluation on the level of town, selected area, groups of houses, infrastructure complexes (i.e. from retail, education, recreation, transport to energy, communication complexes, etc.) and special geological or geomorphologic structures;
- specific indicators of protected areas, heritage complexes, monuments and special constituents that are related to the selected area (cultural, symbolic, semantic, esthetic, social, economic, demographic, etc.) - evaluation should manifest the expected role (influence) of these indicators within the planning and implementation of reurbanisation.

2. Indicators of technical and ecological conditions:

- actual technical conditions (actual state), characteristics and values of basic town structures - evaluation in comparison within selected area (communications, all kinds of supply structures - specifics of the town or selected area),
- technical state of built structures - the final aim should be a detailed documentation (data base) of every built structure; the actual expected aim is to get the data of characteristic (typical) groups of built structures that can be used to calculate the required financial and functional input,
- technical specifics of typical built structures - collection and evaluation of special knowledge and experiences (within selected area and in connection to the region),
- specific indicators of characteristic materials and technologies - survey and evaluation of historic, actual or expected use of specific material or technologies (within selected area, specific groups = types of buildings and in connection to the region),
- special indicators of technical conditions of protected heritage or degraded structures of the selected area,
- indicators of positive or negative ecological conditions connected to the selected areas as well as to the general state of art in the region, town and town centre (detailed selection depends of the local specifics).

3. Indicators of economics:

- general indicators of the actual economic state of selected area - in relation to the town, region or special administrative units,
- special indicators of characteristic economic structures - within selected area and in relation to specific built structures/units on micro (= building, group of buildings) or

- macro level (selected area - in relation to the town or region),
  - economic indicators of positive or negative processes of evolution - the experiences and expectations connected to the selected area and/or to the typical built structures (specially used or built for housing, trade, reproduction, education, culture, tourism, etc.)
  - economic indicators of the possibilities of positive development for the selected area - in relation to the development strategy of the town or special administrative unit and considering the socio-demographic and space indicators.
4. Indicators of socio-demographic conditions
- indicators of existing positive and negative socio-demographic conditions - in relation between the selected area and the town or specific region,
  - socio-demographic indicators of existing state - selection of specific criteria for every case with the possibility to document, monitor and evaluate the state of socio-demographic conditions within selected area, time-section, social strata or specific problems, groups, etc.
  - indicators of anticipation of socio-demographic process - selection of specific criteria or/and methods for every case study.
5. Indicators of cultural conditions
- indicators for evaluation of quality level of built cultural heritage - relation between the selected area and the town/region, relation between special (protected) groups of buildings or public spaces, etc.
  - indicators of culture of life - specifics and values of social, cultural, everyday life, providing the degree of quality of individual houses, groups of buildings or spatial parts of the selected area; the evaluation of relations between existing state and expected changes is to be done;
  - indicators of the role and importance of cultural activities - within selected area in relation between different parts and in relation between selected area and the town/region,
  - indicators of general cultural importance of the selected area
  - comparison and evaluation to the level of town, administrative unit, region, state, etc.

The indicators above can be changed by their importance, can be added by specifics of different problems or can be abandoned because they do not exist as problems or opportunities.

### **Architectural and urban planning aspects (Outline proposal for work method)**

#### **Basic principles**

The basic aims of the comprehensive reurbanisation are both general and specific. The general principles concern the overarching strategy for the physical organisation and development of the urban space, while the specific ones are focused on particular issues as part of the positive management of the available space and the existing settlement and building heritage, irrespective of their positive or negative value.

Before the planning next implementation of the following measures must be offered:

- a) incorporation of reurbanisation/revitalisation as a strategy in the city development plan
- b) collection, unification and updating of previous documentary information (formation of a central data repository and monitoring)
- c) coordination of the creation of the basic reurbanisation

master plan

- d) formation of appropriate expert, coordinating and civil groups in order to facilitate public involvement and for publicising intentions for the reurbanisation of the city centre.

### **Analysing renewal feasibility of existing architectural and urban structures**

#### **Typology of built structures as the instrument of renewal feasibility**

There are different approaches and aims of typological research. Every profession uses its own system and they are many times incomparable between themselves. As the architects and planners need first of all such system of typological evaluation that can answer to the basic questions (such as what is technical, functional or esthetical value proportionate to the existing reality or speciality of researched structure) a new and multidisciplinary typology should be created and used in every different case.

When there is the question of planning the strategy of reurbanisation (or revitalisation...) of existing built structures the most important problem is how to "measure" the feasibility of renovation of the researched area, selected complexes or of every single building. Comparing the existing practices (in Europe) it can be stated that generally only for single buildings or small complexes such studies have been researched and that in general the question of renewal feasibility is not part of the strategy or general planning at all. Of course, the most difficult problem originates when the built structure is at the same time evaluated as cultural heritage.

Strategic decisions for planning are based upon the evaluation of different types of buildings and open places. Differences between them can be the deciding factor for wrong realisation of the strategy many times. But the implementation of expected aims is always connected to the problem of investment acceptability. If a building is a cultural monument (but without suitable function for reurbanisation), or if it has some technical and functional qualities (but it is not listed as cultural heritage), there can be great differences of investment needs in favour of the second one - and the strategic decisions can not be realistic ones! Therefore the method of "measuring" the feasibility of renewal should connect and amalgamate different typologies in relation of the specifics of the researched town or part of it.

#### **Starting points and aims of the proposed method of renewal feasibility**

To be able to compare the feasibility of renewal of single buildings or complexes a special method was developed. The results should help to the objectivity of decisions in the process of planning and during the realisation of rehabilitation and reurbanisation process. It can serve as one of expected tools in reurbanisation action.

According to the specifics of selected areas the built structure must be divided to different groups (following different typologies) that allow to elaborate comparable results. Within every specific group one typical building or typical area is selected and analysed in details - the results serve to create the list of average problems, possibilities and needs.

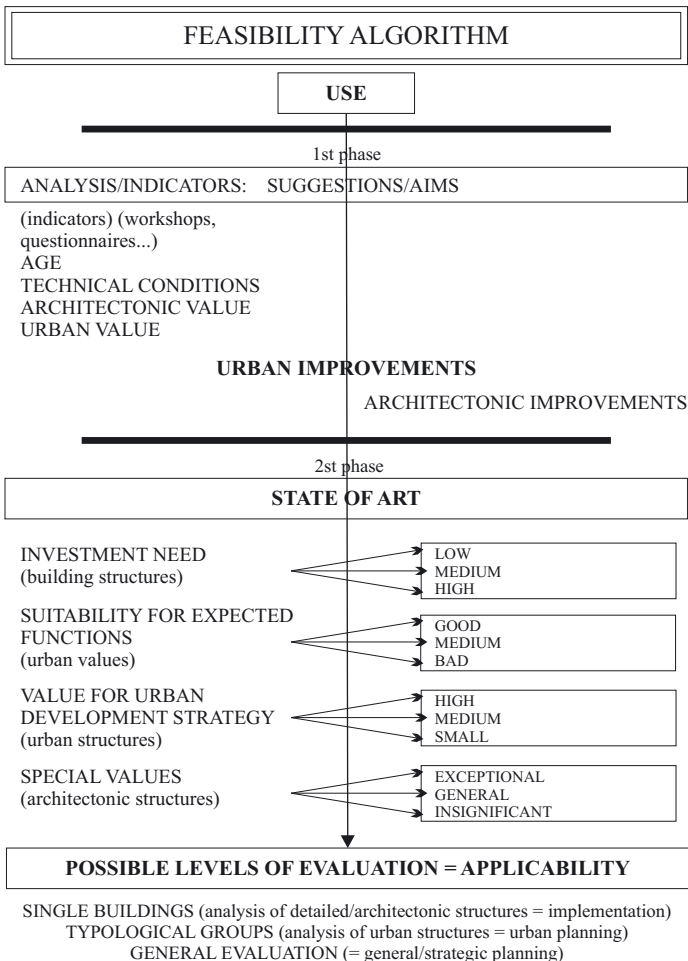
When all the analysis are put together, the general evaluation of feasibility of renewal and possibilities of existing building structures (and/or typical small areas) must be presented on the GIS system to be comparable to other analysis



and data. Monitoring of changes is urgent at least every five years - if a very active reurbanisation (or renewal) takes place, monitoring should be carried out more frequently.

The algorithm shows the method of evaluation of feasibility of architectural and urban structures in reurbanisation. It is divided in 2 phases:

- 1st phase includes different expert evaluations and documentations, using general and/or detailed indicators as criteria and experts' as well as public suggestions for the expected aims of improvements. The result can be made on a) general scale, on b) level of typological groups of buildings or ambiental parts of the town, or on c) detailed level of single buildings.
- 2nd phase is the evaluation analysis of the state of art, using proposed general values or special local values. It generates the final feasibility graph. It can be used as starting-point of discussion, strategy, decisions or even expert support for owners/investors. The square of complete values is the maximum of possible values for part of town structures, for typological unit of buildings or for single building. Drawing the internal values the figure shows the real needs and/or possibilities of existing structures in the future revitalisation process.
- The state of art is divided into 4 categories: on the horizontal level are urban structures and urban values, on the vertical one there are architectural structures/values and building structures (technical conditions of existing architectural structures). Every category has its own specifics and expected results, but in the same time each category is connected to the proposed system of instruments/tools.



As sample there are results of such feasibility studies for case study of Ljubljana and Bologna, both elaborated in detail (single building, detailed field work), and case study of Leon on the general level (using existing formal data). Detailed results of the feasibility research are reported to the treated cities.

**Method for basic sector analyses**

Supplementary field research: To adapt existing (special) typologies of specific built structures to proposed methodology of "renewal feasibility" supplementary field research is to be done. During theoretical and practical research special questionnaires were created. Using them the field research can be done in a relatively short time and by interdisciplinary group of specialists (architects, technicians and other specialists - dependently to the quality of existing typological evaluations).

Supplementary field research is based on the questionnaires on two levels: first level is the analysis of selected sample-buildings (using the 1<sup>st</sup> questionnaire), the second one is a general evaluation of existing state of art of the built structure (using the 2<sup>nd</sup> questionnaire).

**Instruments of the renewal-feasibility method**

There are several steps of the research method. Special questionnaires and calculation-table were created and tested.

**1st step:** Selection of comparative area of typical groups of buildings. Expected result: creation of compatible groups of buildings with expected similar characteristics in the renewal process (from the point of view of age, aesthetic evaluation = monument, heritage, etc., specific technical characteristics, expected possibilities or other special characteristics). When the groups at the same time create special areas (region, district...) the results can be used as general application.

**2nd step:** Detailed analysis of selected sample building.

- Groups of researched problems
- evaluation of functional units (typological groups, urban structures)
- evaluation of "ability for living" (= objective standards + special values)
- evaluation of architectonic/urban special values
- list of technical problems

**Suggestions for the instruments of wp4 - architecture and urban structures**

**Preamble:**

The instruments/tools should help to understand and to use properly the role of urban and architectural structures within the expected goals and opportunities of reurbanisation that are taking shape from the point of view of socio/demographic, economic, and other changes inside the existing city centres. It is expected that architecture and urban structures will offer through proposed tools special directions for general planning and for proper developing for every single case as an essential part of final results as well as an expected applicable issues of strategic or practical reurbanisation.

The proposed instruments are based upon the results of data collection and special researches of Ljubljana and Bologna case studies, upon the reports of four cities (Leipzig, Leon, Ljubljana, Bologna), upon the existing results of other work packages (specially economics and urban sociology/demography), upon parallel methodology research studies of reurbanisation/

revitalisation of architectural heritage and using the results of some best practices.

### Basic Criteria For Wp4 Instruments/tools

TYPE	CRITERIA	SPECIFICS/IMPORTANCE
urban structures	-central	-density of structures and population,
	-subcentral	-accessibility
	-suburban	-share of utilities:
	-(other specifics)	<b>important as criteria for strategic planning of comprehensive reurbanisation</b>
urban values	-urban heritage/monument	-degree of formal values, protection
	-basic urban structure	-infrastructural equipment
	-secondary urban structure	-ecological and environment. values
	-degraded urban structure	-cultural conditions (quality of life)
		<b>important as orientation in planning process</b>
building structures	-residential	-m <sup>2</sup> per capita: total - according to specific groups,
	-public	-building stock: total number of dwellings or parts of buildings, mean number of persons per dwelling, size of dwellings and other functional parts, vacant dwellings or parts of buildings
	-commercial	<b>important as criteria of recycling, developing or destroying/new building decisions</b>
	-productional (industrial...)	
	(other specifics...)	
architectonic structures	-architectural monument	-degree of formal values
	-architectural heritage	-fulfilling standardised conditions (regarding city's specifics or legislative norms)
	-typical arch. structures	-technical state of art
	-atypical structures	<b>important as criteria for final decisions in detailed reurbanisation/building</b>
	-negative/degraded structures	
planning	-national/regional planning	-national/regional strategies include reurbanisation as basic part of plans

### Guidance of the reurbanisation process, connected to the proposed instruments

- Incentives for reurbanisation - national, regional local, individual level.
- Improving environmental quality - on general and individual level.

- Developing attraction of ambiental and housing types - due to specific or expected socio-demographic structures.
- Developing the functional diversity - connected to the expected specifics of each town or case.
- Preservation or improvement/revitalisation of local identity and cultural heritage (monuments...).
- Realistic evaluation of feasibility of existing structures to guide to the best economic, technical and functional reurbanisation.

### Connection of the proposed instruments to the general and specific tools

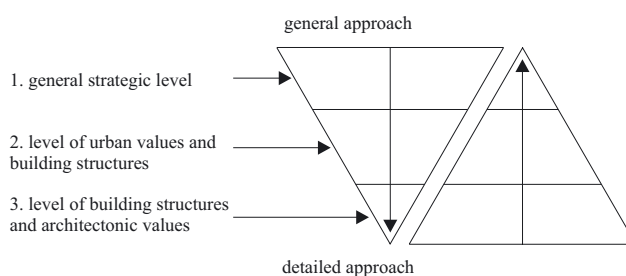
The proposed instruments represent common approach and method of work in a general and specific reurbanisation process from the point of view of architecture and urban structures (planning). They are developed from the specifics of the general situation in city centres in Europe and especially from the local specifics of the four case-cities.

As the detailed tools for selected case studies can be recognised after the architectural charettes will be finished, and because other work packages often repeat the same proposals as it is expected to be done from the point of view of architecture and urban structures, only those tools are selected that can be recognised from the reports of four cities and from the GIS-data. Also the scenarios will be available after the architectural workshops only.

### Levels of understanding and planning reurbanisation

Levels are divided into 3 specific groups from the point of view of realistic way of research, planning and implementing the reurbanisation process for selected parts of a town: general strategic level, level of urban values and building structures and level of architectural values (connected to the existing built structure).

GRAPH OF IMPACT OF DIFFERENT LEVELS:



### Proposal for instruments and tools

Because of great differences between national legislation concepts and postulations it is impossible to harmonise instruments and tools on the national level. Therefore the proposals are on urban and architectonic level only - specially created for general use and for case studies. As the "charettes" are after the detailed evaluation of feasibility of the selected case studies the only realistic and applicable result of specific tools for every case study, the final version of specific tools on the level of architecture and building structures can be expected after the charettes and missing feasibility evaluations can be done.

The proposed instruments are based upon the results of data collection and special researches of Ljubljana and Bologna case studies, upon the reports of four cities (Leipzig, Leon, Ljubljana, Bologna), upon the existing results of other work packages (specially economics and urban sociology/demography), upon parallel methodology research studies of reurbanisation/



revitalisation of architectural heritage and using the results of some best practices.  
(Single instruments are presented in the detailed study.)

### 1<sup>st</sup> level: urban values and building structures

#### A) IN GENERAL:

Using proposed method of work from next "instruments" of "Urban structures" (partly), "Urban values", (partly) "Building structures" and "Planning structures" (partly):

- 1.2. and 2.2. "Civil initiatives"
- 2.1. "Monitoring"
- 3.1. "Expert support"
- 5.2. "Strategic planning"

It is expected that the result should be next tools:

- definition of the strategic importance of the reurbanisation process of the city centre,
- scenarios are included into the general strategy of the city development plans (special "master plan" is possible)
- specific deliverables and tools for each city (urban-strategy level).

### 2<sup>nd</sup> + 3<sup>rd</sup> level: building structures and architectonic values

Using the proposed method of work from next "instruments" of "Building structures", "Architectural values" and "Planning structures":

- 3.1. and 4.2. "Expert support"
- 3.2. and 4.1. "Communities of special interests"
- 4.3 "Stimulative/destimulative action plan"
- 5.1. "Open planning"

It is expected that the result should be next tools:

- detailed recognition of real possibilities and evaluation of feasibility of reurbanisation on the level of housing-blocks and individual houses.
- specific scenarios or recommendations for investors, owners, groups of special interests.
- special plans and actions for implementation of reurbanisation process.
- stimulative/destimulative action plans.
- organisation of expert support.

### Analysis of the aims of four selected case studies: Leon, Bologna, Leipzig, Ljubljana

Analysis is based upon the special reports of the cities (presented in the detailed study).

### The most important aims of the four case cities Bologna, Leipzig, Leon, Ljubljana - from the point of view of architecture and urban structures (planning)

#### LEON:

- to develop formal and practical co-operation between reurbanisation planning on small scale and the city's planning strategy
- to produce special plans for the preservation of cultural heritage (architecture and urban structures (greenery, gardens, squares, streets, etc.) considering the need of stimulate and destimulate prerequisites
- to offer new or to change existing apartments in old fabric
- to rehabilitate squares and parks
- to work out a detailed evaluation of real possibilities for new or changed functions within existing built structures and public spaces



Slika 1: Ohranjene in spomeniško zaščitene dele mesta Leon v Španiji naj bi načrtno obnovili kot predele z visoko kvaliteto bivanja in kot bodoči turistični cilj vse odločitve sprejemata država in občina, ki sta pomembna investitorja.  
*Preserved and protected parts of Leon in Spain will be systematically renewed as city quarters for high quality living and as a future tourist destination - all decisions are adopted by the state and municipality, which are also important investors.*

#### BOLOGNA:

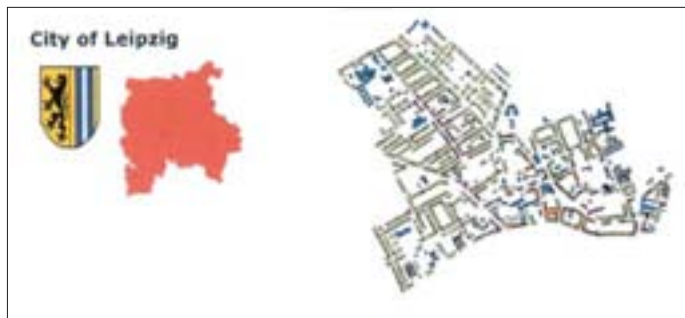
- to develop formal and practical co-operation between reurbanisation planning on small scale and the city's planning strategy
- to elaborate visions for possible development of new structures
- to organise neighbourhood workshops on 3 levels (leaders - information - public discussion)
- to work out a detailed evaluation of general possibilities for new or changed functions within existing built structures and traffic system



Sliki 2, 3: Reurbanizacija izbranih vzorcev Bologni v Italiji je usmerjena v možne spremembe strukture prebivalcev dobro ohranjenega dela mesta.  
*Reurbanisation of selected patterns in Bologna, Italy, is directed towards possible changes in population structure of the well-preserved part of the city.*

#### LEIPZIG:

- to establish general and local strategies for reurbanisation - to connect city planning and small areas development/revitalisation plans
- to work out a detailed evaluation of strategic possibilities for new or changed functions within existing built structures, green areas and traffic system
- to offer new or to change existing apartments in old fabric
- to study the possibilities of reuse of old industrial buildings
- to rehabilitate and improve the design of public spaces and traffic system
- to improve the ecological situation



Slika 4: Problem Leipziga v Nemčiji je v izpraznjenih stavbah (cca 40%!), zato je cilj reurbanizacije razredčenje zazidave in več zelenih površin, kar naj bi pritegnilo nove prebivalce.

*The main issue in Leipzig, Germany, are vacant buildings (approx. 40%), therefore the goal of reurbanisation is diminishing the built-up structure and providing more green surfaces, which should attract new inhabitants.*

#### LJUBLJANA:

- to change the improper functions
- to develop new traffic system
- to offer new apartments in old fabric
- to prevent decay of the historic fabric (cultural heritage)
- to rehabilitate squares and parks
- to work out a detailed evaluation of real possibilities for new or changed functions within existing built structures



Sliki 5, 6: Kot eno osnovnih izhodišč za reurbanizacijo jedra Ljubljane je njena izjemna kulturna dediščina in vloga državne prestolnice. Osnovni cilj je ustvariti najvišjo kvaliteto bivanja ob hkratni ohranitvi vrednot in ekonomsko utemeljeni prenovi.

*The basic starting points for reurbanisation of the Ljubljana city core are its exceptional cultural heritage and role of capital city - the prime target is to create the highest possible living quality with simultaneous preservation of values, which is economically viable and justified.*

#### "Charette" as important part of planning architecture and urban structures for the reurbanisation process

How can a charette facilitate the building/reurbanisation process? The term "Charette" initially appeared in the early part of the late 1800's. Architecture students in Paris who needed to

rush their drawings to the Ecole Des Beaux-Arts placed them on a cart which was called a charette. Later the word broadened its meaning and came to describe any intense, short-term student design project. Today the word is used by the architectural community at large to describe any intense, on-the-spot design effort.

There are two main advantages to working in the context of a charette. The first is that a charette operates in a highly collaborative atmosphere. Instead of an architect taking ideas and plans and going away to develop them on his or her own, a charette allows for the participation of everyone involved with the project, resulting in a highly charged and creative atmosphere. The inclusion of many points of view results in well-rounded and realistic proposals, with everyone satisfied that they were able to contribute. Secondly, Charettes are fast, and relatively inexpensive. In the initial stages of a project, the venture is necessarily highly speculative. It is important to keep costs at bay, while also moving forward quickly to take advantage of changing situations and often prohibitory deadlines. Charettes offer the opportunity to work safely and effectively within both of these boundaries.

#### Comment:

*Special studies and complete methodology are to be published separately as special publications and as the results of researched case studies!*

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