3 The process of planning an ECOCITY

This chapter presents the process of planning an ECOCITY. In order to fully understand the relevance and opportunities of the innovative ECOCITY planning approach, it is helpful to look first at the main characteristics of the conventional planning process.

These main characteristics include:

- sectoral fragmentation, where solutions for planning problems are sought in particular sectors, neglecting interrelationships (see Section 3.1.2);
- a top-down approach in decision-making and lack of participation (see Section 3.1.3);
- lack of evaluation and monitoring of results (see Section 3.1.4).

Confronted with the complexity that characterises the real processes of the construction of the city today, the conventional approach clearly displays its inadequacy. Within the current framework of environmental crises and economic globalisation, it is easy to understand how and why this inadequacy is increasingly noted by planning experts, politicians and citizens. People speak of the 'crisis of urbanism'.

The task at hand is thus to create new concepts, procedures, guidelines, techniques and tools that are adapted to current demands. These need to lay the foundations for a new urbanism based on the challenges of our times, especially those arising from the environmental crises. There is general agreement that the concept of sustainability provides a very adequate framework for this task (see Chapter 1). During the last few decades, a great deal of effort has gone into developing these new approaches (see also Section 2.2.1).

Local Agenda 21 is just one good example of the innovative proposals developed during recent years at the institutional level. However, many efforts to find new planning methods are also being made by local professionals, experts and businesses in their daily work and these are less easily categorised.

However, the efforts of theoretical reflection and institutional processes have not yet been matched by developments in the actual application of these ideas. Of course, the level of incorporation of these approaches varies greatly throughout Europe, as does the scope of implementation and practical experiences. In very general terms, it can be said that the development of sustainable urbanism in southern and eastern Europe has not progressed as far as in northern and western Europe. There has not yet been much experience or research comparing real projects from all over Europe on the basis of the requirements of sustainable urbanism and with the aim of finding common conclusions useful for widespread future application.

The ECOCITY project is thus a pioneering experience in pan-European planning and evaluation within the framework of sustainable urbanism. It represents the first effort in trying to integrate theory and practice on this scale in order to address the three main problems of conventional planning identified above.

3.1 Urban development as a cyclical process

One of the main reasons for the great complexity of constructing a city is the interrelationship of a large number of the cyclical processes. In fact, the main failure of the usual fragmentary approach to planning lies in its inability to account for this cyclical nature of urban phenomena in the solutions that are found. However, the concept of a cyclical process – one of the main principles of ecology as a science – is an integral part of the paradigm for a sustainable approach to planning. Considered from this point of view, all urban interventions develop according to the following cycle, regardless of the scale of planning (see Figure 3.1).

The lifecycle of urban development contains the following phases:

- *Initiative:* the need for a concrete intervention is identified (even in a shrinking city), e.g. the creation of a new settlement, the creation of a new infrastructure element or a facility, the renewal of a whole or part of a neighbourhood
- *Pre-planning:* general objectives and guidelines for the new intervention are established, e.g. overall dimensions, zones, target users, general deadlines and financing
- *Urban planning* begins according to established guidelines
- *Detailed planning and architectural design* begins once the final masterplan has been drawn, e.g. the assignment of different building projects and sectors to different planners and experts through diverse procedures (competition, direct external contracting, internal contracting etc.)
- *Implementation and construction* begins according to the established deadlines

As mentioned above, these are the general phases usually considered in conventional planning processes. The masterplan is one of the main planning products and the planning output is considered 'ideal' when the built intervention corresponds as closely as possible to the previously drawn proposal. This is seen as the main indicator of success in conventional planning.

But the cycle is not really closed after implementation. At least two other relevant and closely interrelated phases can be identified:

- *Maintenance:* the most important part of the cycle begins when the construction process is completed and the built settlement, infrastructure or urban element is given over to use – with all the changes and wear and tear associated with such use
- *Obsolescence:* this is the natural destiny of any urban intervention when the lifecycle is in an advanced state. When the processes of transformation and/or obsolescence reach a certain level, a new intervention becomes necessary and the cycle begins again, applied to a new urban reality formed by time

In the light of this cyclical perspective, it is easy to see how the main drawbacks of conventional planning actually contribute to current urban problems:

- The fragmented, non-integrative and non-iterative approach to planning has led to rigid and mono-functional solutions with very little capacity for adaptation
- The usual top-down approach makes it difficult to adapt the intervention to the real needs and wishes of target users and, at the same time, fails to take advantage of the wealth of knowledge citizens and stakeholders have about their urban habitat, again impairing the capacity for adaptation
- The usual absence of a systematic procedure for monitoring and evaluating the results inevitably means very valuable information is wasted that could contribute to the general advancement and innovation of planning tools and techniques and to the well-focused adaptation of existing structures

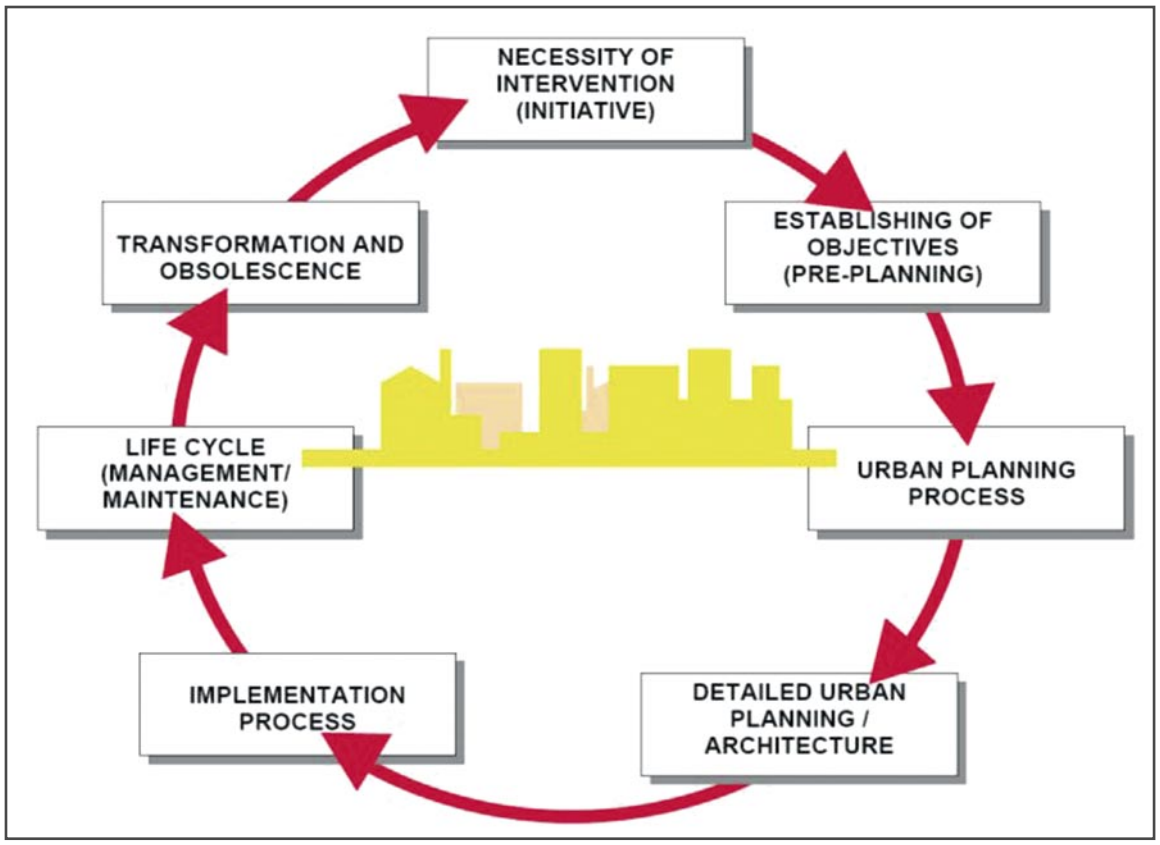

Figure 3.1: Urban intervention as a cyclical process

When working towards sustainable urbanism, these three drawbacks are the main areas on which efforts should be focused, while also respecting the general requirements for economic, environmental and social sustainability. In fact, the ECOCITY project is conceived around these areas, and its general contribution as a research project to the articulation of a new kind of planning process based on sustainability can be considered in these terms.

3.2 Creating an ECOCITY: the integrated planning approach

The idea of integrated planning really constitutes the core of sustainable urbanism. It is based on acknowledging the complexity of every urban process and trying to tackle this complexity by focusing mainly on the interrelationships among different fields and sectors, but without neglecting the necessity of appropriate, sector-specific solutions. The key issues of integrated planning are:

- A multidisciplinary approach
- Iterative (i.e. repeated and ongoing) processes of analysis
- Holistic integration of the results obtained through sectoral analysis

With the city as the main object of analysis, a very important aspect is to adopt a practical and accessible framework for its description. This requires a clear identification of elements of urban analysis which allows both straightforward linking of the planning objectives and criteria to these elements and the assignment of tasks to the different disciplines involved. In the ECOCITY project, the structure adopted for analysis and evaluation was based on the following elements: context, urban structure, transport, energy and material flows, and socio-economy (see Chapter 2). Other alternative structures, based for instance on the scale of approach (territorial, metropolitan or urban) might have a similar role in an integrated planning process. In ECOCITY planning, those sectors related to the metabolic and environmental functions of the city (transport, energy and material flows and socio-economic aspects),

which conventional planning considers as subsidiary to urban structure, are considered at the same level of importance. In every individual case, however, the system of analysis must be adapted to the specific local context and the type of project.

In the ECOCITY project, different planning objectives (see Chapter 2) as well as a set of measures and evaluation indicators related to these objectives (see Chapter 4 of Book II) have been developed as specific planning tools. This was done in such a way so that every aspect of the intervention can be individually identified and approached throughout the planning process without overlooking its connections to the whole. Drawing out the interrelationships also contributes to structuring the iterative processes of the planning cycle.

It is important to remember that this set of tools for analysis, re-integration and iteration can only bring maximum benefits if the approaches taken are multidisciplinary and the work is based on flexible teams in permanent contact with all the agents involved in the process. Thus when adapting these planning tools for a specific context, it is important to bear in mind that one of their most important functions is to make the process understandable to all the actors at all times – including and especially the citizens.

3.3 Creating an ECOCITY: participation

The principle of participation is considered to be an important aspect of sustainable planning and its benefits may be expressed in the following terms: the more the stakeholders affected by an urban process are involved in decision-making, the more knowledge will be accumulated and the easier it will be to avoid possible conflicts by identifying them and channelling them towards more constructive ends.

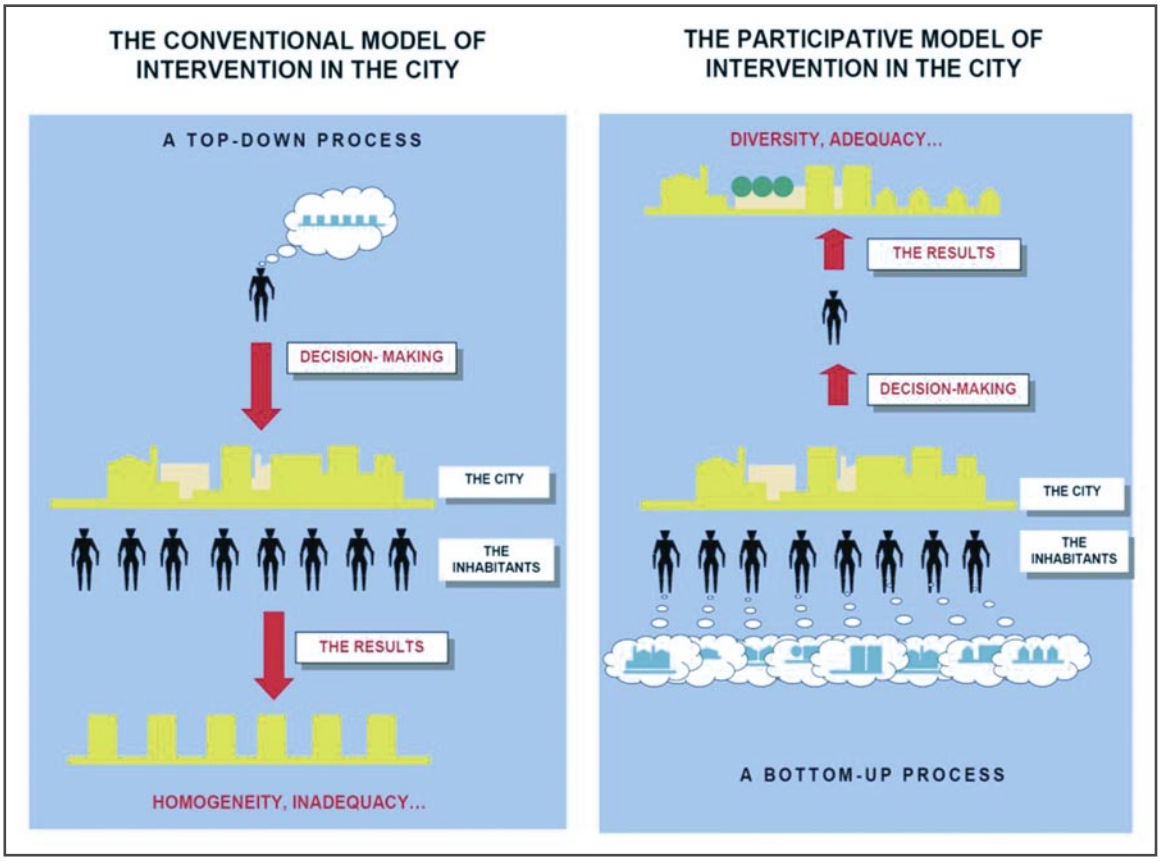

Figure 3.2
Models of intervention in the city Models of intervention in the city

There are two main arguments contained within this principle:

- The first refers to knowledge: the basic idea is that nobody knows more about their city than the citizens (and other stakeholders) themselves. According to this, the usual top-down planning approach constitutes an unnecessary waste of a valuable source of knowledge
- The second refers to conflict: the basic idea is that every stakeholder has interests, wishes and needs with respect to the city where they live and work. If these are not duly considered when making decisions for an urban intervention, it is very likely that conflict and dysfunction will arise at some point. The consequence is a waste of time and resources

Considering these arguments, sustainable planning as a bottom-up process is based on the involvement of all actors and stakeholders from the beginning and throughout the planning process (see Figure 3.2). Regarding the knowledge argument, the results of a participation process which incorporates the wealth of information held by the users will always be considerably richer and more diverse than any solution conceived in isolation by an expert or team of experts at the drawing board or the computer. Regarding the conflict argument, the effort of creating consensus among the different actors and stakeholders and incorporating the needs and wishes expressed by different users will generally be rewarded by greater commitment to the final results from everyone.

In any case, participation should not be reduced to one event, rather it should be an iterative process closely intertwined with all the planning phases. It is very important that integrated planning and evaluation tools are conceived in such a way that they contribute to making this iterative process easier for all stakeholders. All this requires the use of appropriate techniques and methodologies adapted to local circumstances and to the actual phasing of the project.

This is well illustrated by the ECOCITY project case studies (see Chapter 4). A number of different approaches have already been developed[10] but this is a field which is always in need of flexible adaptation and innovation.

[10] see also Book II, Chapter 4.

Generally speaking, though, participation in ECOCITY planning should include:

- *Pre-planning:* the establishment of general planning principles and guidelines according to the needs and wishes of citizens (possible tools: future workshops, European Awareness Scenario Workshops[11])
- *Urban planning:* iterative process which should include decision-making about definite uses, locations and characteristic urban elements (possible tools: planning workshops, Planning for Real)
- *Detailed planning:* continuation of the iterative process applied to specific elements of the project. For instance, users might be particularly involved in the detailed design of a community space of special value (possible tools: micro-planning workshop, architectural charrette);
- *Implementation:* control and monitoring of the work in progress in order to check that the results correspond to the agreed plan (based on the masterplan as a starting scenario, which has been checked and transformed during the iterative planning and participation phases) and to reduce the possible disruption caused by the construction process itself (possible tool: Neighbourhood Planning Office)
- *Operation/maintenance/monitoring:* flexible adaptation through the establishment of bodies both for self-management and for communication with and between the administrative bodies in charge. This should be done in such a way that the results of continuous evaluation and monitoring are fed back into the planning process, in accordance with the idea of the cycle (possible tool: Neighbourhood Planning Office)

[11] see also Book II, Chapter 4 for more detail.

3.4 Creating an ECOCITY: monitoring and evaluation

The most important phase of the cyclical process of urban development starts once the physical construction has ended. This is when planning hypotheses are validated – or not – and when new processes and phenomena, many of them unexpected, make their appearance. In order to address these processes in relation to the lifecycle of the built intervention, management and maintenance tasks are required, whether they have been planned or not. If these requirements were not sufficiently considered during the preliminary phases, conflicts can arise and these tasks will become more difficult to accomplish. Furthermore, if no mechanisms and procedures for monitoring and evaluation are planned, a wealth of useful multidisciplinary knowledge is lost.
When a healthy urban development process with embedded evaluation and feedback tools is working, transformations generally occur in the form of continuous adjustments to meet the real needs of the community and should thus contribute to the general improvement of the area in question. If, on the other hand, an urban process is conflict-laden, transformation and obsolescence generally lead to critical situations.In any case, sustainable planning involves incorporating monitoring and evaluation tools in two different phases:

- Monitoring and evaluation during the planning phase
  (i.e. before implementation; ex ante evaluation)
- Monitoring and evaluation of the built reality (ex post evaluation)

During the pre-implementation phase, continuous evaluation with the participation of all relevant stakeholders (see Section 3.1.3) is the essence of an iterative process. The idea is that this process is supported by an integrative analysis structure, which is adapted to the local context and facilitates the connection between objectives, measures and evaluation indicators. Qualitative and quantitative aspects are considered and the project is only completed when the proposed objectives (or new or adapted objectives agreed on during the process) have been met. This was the approach taken during the ECOCITY project in developing the evaluation scheme. The main goal was to develop a set of indicators for urban sustainability, appropriately and comprehensibly benchmarked, which are applicable in the evaluation of planning results in the very different contexts of the seven case studies. For this task, a total of 34 indicators associated with the five planning elements (urban structure, transport, energy and material flows, and socio-economy) were developed.
As reality often differs from the plans, it is very important to continue monitoring and evaluation once the project has been implemented. Empirical analysis is needed to check whether the preliminary project hypotheses were correct and, if necessary, appropriate adaptations and improvements must be made. The tools required for this ex post evaluation are quite different from those used for ex ante evaluation and must be based mainly on detailed field work and consultation techniques. Again, participation is a key issue in this respect. Only if stakeholders are involved in the ex post evaluation of a development in a permanent way (e.g. through the creation of local premises dedicated to the tasks of management, maintenance and continuous monitoring), will it be possible to ensure that the results of the necessary self-adaptation process do not go against the needs and wishes of the people living there.