Realising Co-operation among Local Authorities – Agenda 21 in practice

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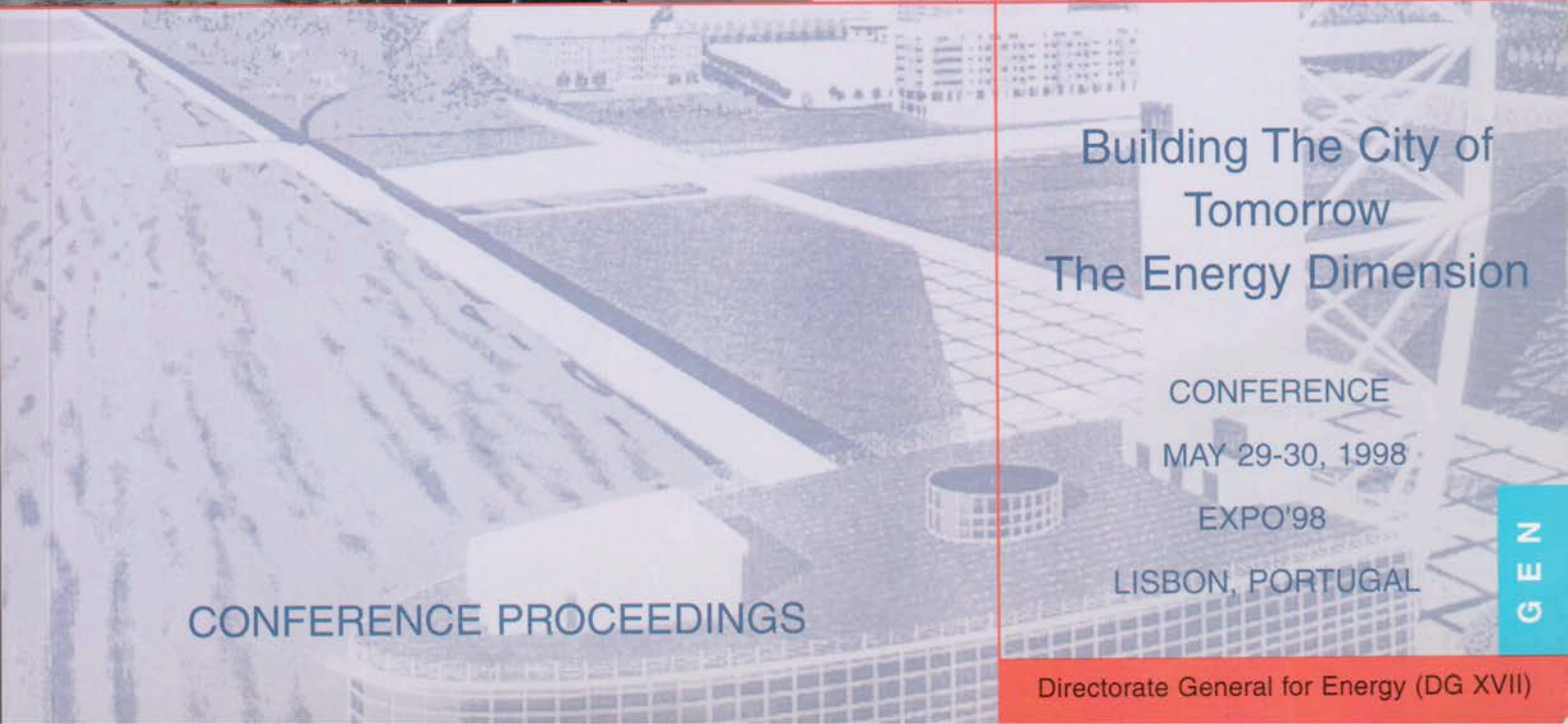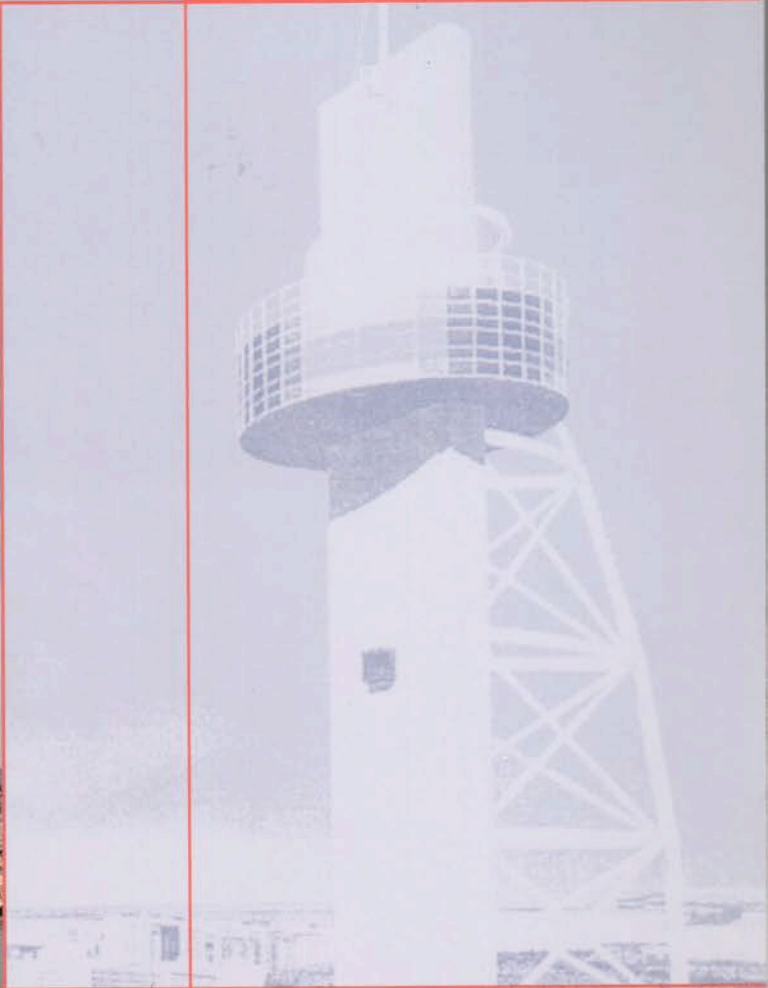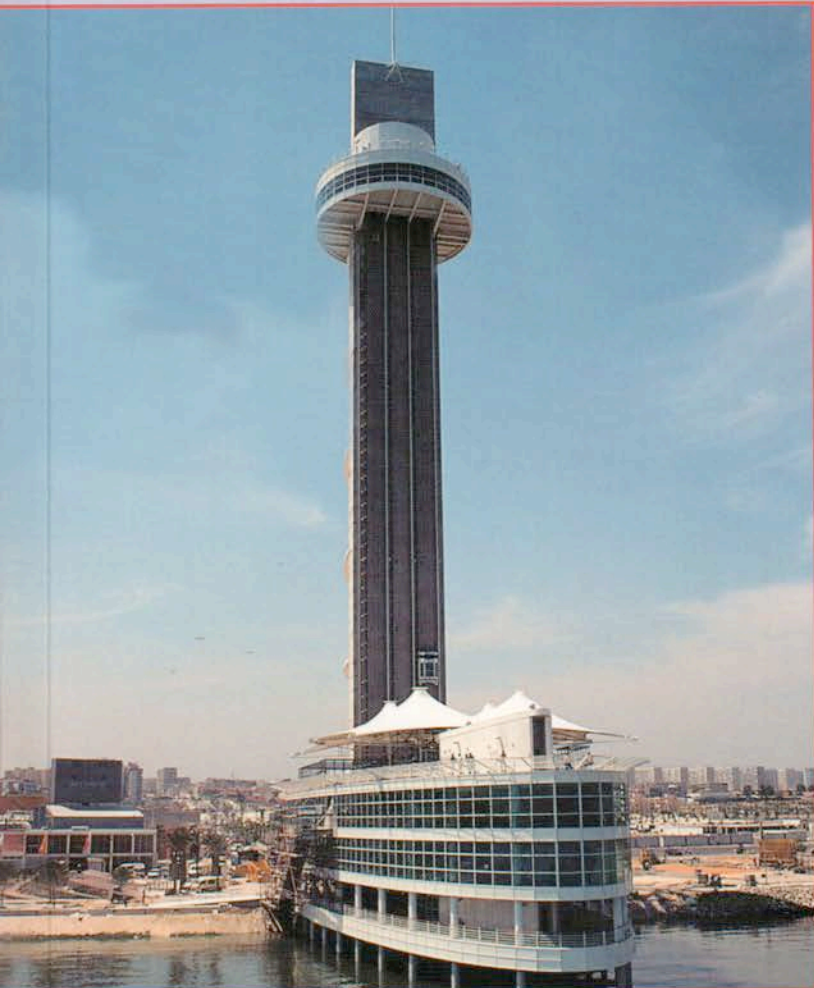
Building The City of
Tomorrow
The Energy Dimension

CONFERENCE

MAY 29-30, 1998

EXPO'98

LISBON, PORTUGAL

GEN

CONFERENCE PROCEEDINGS

Directorate General for Energy (DG XVII)

Building The City of Tomorrow
The Energy Dimension

May 29-30, 1998 - EXPO'98

Lisbon, Portugal

CONFERENCE PROCEEDINGS

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SESSION 4: INTEGRATION OF TECHNOLOGIES AND URBAN MANAGEMENT
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REALISING COOPERATION AMONG LOCAL AUTHORITIES:
AGENDA 21 IN PRACTICE

Abstract:

Finite players play within boundaries: infinite players play with boundaries. The rules of a finite game may not change; the rule of an infinite game must change. And within the infinite game are played many, many finite games, etc. In developing projects we are often confronted with external boundaries, which have to be respected for a successful progress of the activities. Most of our time is then devoted to controlling the process, revising the projects, checking the state of advancement, improving the quality of the products, managing the incoming problems, organising the technical and financial reporting, and so on. These are, of course, essential elements for "managing the projects", but not sufficient for "managing the change". Ideas are the key ingredients for managing the change, and we need to develop new ideas for the essential change we expect for our cities. An original approach for managing the change has been envisaged in Renewable Energies Action Planning: a quite unique approach compared to current decision-making processes at the city level, which may be applicable to other planning topics (environment, economy, employment policies, etc.)

The RE Action Planning is a realistic if ambitious route map outlining the contribution renewable energy can make to a sustainable future for European Cities.

Successfully implementing RE Action Plan will:

-   help to improve the cities' environment;
-   contribute to reversing global warming through reduced carbon dioxide emissions;
-   improve the health and welfare of the local population;
-   improve employment and economic development opportunities;
-   add a sustainable development perspective to the industrial peri-urban areas;
-   make the concept of a sustainable city more of a reality;
-   reduce cities' reliance on imported energy.

That is: a relevant contribution to the implementation of Local Agenda 21.

1. WHAT is RESET?

RESET : Renewable Energies Strategy for European Towns

From the Action Plan for Renewable Energy Sources to the Development Strategies of the Industrial Areas in Europe : RESET intended to assess the feasibility of the penetration of renewable energies in four European metropolitan areas: Barcelona (E), Glasgow (UK), Grand Lyon (F), Torino (I), and St.Petersburg (RUS) taking the part of observer. These large European cities joined together, for the purpose of a DGXII APAS initiative, looking for less conventional renewable-source solutions which contribute towards a new urban quality.

RE-Start : Renewable Energy Strategies and Technology Applications for Regenerating Towns

From the cooperation among these four cities, matured under the RESET Project, a new targeted demonstration project has started, together with other four important European cities: Rotterdam (NL), Copenhagen (DK), Porto (P), Dublin (I).

This project, promoted in the framework of DG XVII Integrated Quality Targeted Projects, aims at providing the public authorities, the institutions and the professionals of these industrial European Cities with some "Exemplary Urban Projects", concerning innovative energy-environmental integration on the city scale. The area of influence for each City-Project is great enough to cause a strong impact on the decisional mechanisms of the city and high visibility for the inhabitants. A mix of functions - housing, tertiary and commercial, institutional, recreational buildings, high-tech industrial settlements - are involved in RE-Start, representing the complexity of urban situations.

2. WHAT has been done? Action Planning is the answer

2.1. Background

As indicated in the Madrid Declaration, approved by the Commission and presented at the European Parliament, the RESET Project's objective is to substitute 15% of fossil energy with renewable energies by the year 2010, and the important questions raised were: the major part of the existing infrastructures are large centralised systems, is it possible to combine this situation with local technical solutions and promote many micro-economies? Who has the responsibility of developing ecological functions - the local organisations, families, or citizens who collaborate at an intermediate level? Which technologies can be used to resolve or prevent which problems? The initiatives provided by the four RE Action Plans developed within the activities of the RESET Project (a DGXII-APAS initiative) are not imaginative hypothesis for the future of Europe, but technical and economical policies which are more practical than many engineering and entrepreneurial operations in the past decades.

The project was organised into three main phases:

- Background - The first phase was devoted to assessing the resources on which the future of the four cities' economies lie , in order to transform the Renewable Energy strategy into local development, through the collection of existing main data and information on the energy and environmental system of the four industrial areas, structured in a comparable form.

- Community Planning - The second phase aimed at developing a Community Planning activity in each of the four cities. The case studies selected for the Community Planning activity can represent the first steps to be undertaken by the local governments in order to strengthen the feasibility of the General Planning. These workshops can become social and political birth processes to motivate new initiatives and increase commitment and information.
- General Planning - The third phase defined the energy action plans of the four cities, assessing the effectiveness of energy substitution programmes in conjunction with the necessary investments, by documenting each single action of the plan with its technical feasibility, its economic implications, and the related employment opportunities.

2.2. Community Planning

Amongst the main objectives of this task of the RESET Project was to ensure the relevance of the project to the local communities and to form community partnerships which will play important roles in successfully establishing renewable energy projects. It was essential that the views of the local community were fully understood during the process of developing renewable energy strategies. The skills, expertise, knowledge and experience of the members of the local community should be used to ensure that the full benefits of renewable energies are realised by using an appropriate consultation technique. Each city took direct responsibility for their own events. The concepts of Planning for Real and EC DGXIII Local Scenario Workshops were combined by each of the four cities to produce four unique community planning events, each contributing towards RESET in a special way.

Community Planning in Torino

GLASGOW

Event:	Glasgow's Community Planning Forum
Date of event:	28th and 29th September 1995
Methodology:	"Planning for Real"
Participants:	31 professionals, divided into groups
Format:	Group and Plenary Sessions

Structure:
- Introduction of participants
- Problems of Glasgow
- Presentation and demonstration on RE, focus on benefits of RE to individuals
- Which REs ? What combination of REs ?
- What actions needed to implement REs ? Participants actions
- Which problems would benefit most ?
- Renewable Energy Advice Centre

TORINO

Event:	RAVE (Regeneration in urban Areas Via Energy) Scenario Workshop
Date of event:	17th November 1995
Methodology:	EC, DGXIII Local Scenario Workshop
Participants:	35 individuals divided into groups according to role (morning session) or topic (afternoon session), with the special participation of a group called 'The Next Generation' (<14 years old) who brought a fresh perspective to the issues
Format:	Group and Plenary Sessions
Structure:	- Positive Scenario of Torino as an ecological model in the year 2010
	- Voting the "Top 5" visions in the year 2010
	- Scenarios for Torino in 2010, with significant contributions from RE
	- Overall RE visions of Torino in 2010
	- Which REs and what actions for success?

LYON

Event:	Lyon Local Community Forum
Date of event:	11th and 12th December 1995
Methodology:	Mix of "Planning for Real" - Scenario Workshop
Participants:	54 "local actors" from local groups, associations
Format:	Group and Plenary Sessions
Structure:	- Introduction of participants
	- Problems of Lyon
	- Presentation and demonstration on RE
	- What effects (benefits) would RE have on Lyon
	- Which REs for Lyon in 2010 ?
	- What actions needed to implement REs ?
	- What are the major difficulties to overcome ?
	- Renewable Energy in Social Housing Projects.

BARCELONA

Event:	Barcelona's Community Planning Forum
Date of event:	8th February 1996
Methodology:	EC - Local Scenario Workshop
Participants:	76 professionals, divided into groups according to role (morning session) or topic (afternoon)
Format:	Group and Plenary Sessions
Structure:	- Brainstorming: which strategies to achieve 15% RE by 2010 ?
	- What specific actions for: housing, transport, tertiary and municipal services, legislation and administration, policies (technological and fiscal), training, education and information
	- For each action: Why, Who, When, Where, How

3. HOW it works?   Steps of RESET Action Planning

An integrated approach to urban strategies was envisaged in RESET Action Planning as a quite unique approach compared to current decision-making processes at the city level, which may be applicable to other planning subjects. This strategic path towards Renewable Energy Action Plans consists of a limited number of steps - from "commitment" to "implementation" - which have been partly experimented by the first group of cities (Torino, A.M.Barcelona, Le Grand Lyon, Glasgow).
These "steps", re-organised after the conclusion of the RESET Project, can be summarised as follows:

1) City commitment
In general terms, growth in renewables fits in very well with the objectives of cities which relate to improving the urban environment and developing Local Agenda 21 Action Plans. Renewable energy could also have important spin-offs for employment in construction and manufacturing industries on an urban and regional scale.
But developing and implementing the city's RE Action plan requires:
-       the firm commitment of the City Council to the initiative;
-       similar commitments from other agencies, organisations, businesses and individuals with an interest in a flourishing City;
-       the support of the general population;
-       the appropriate political context which creates a climate whereby sustainable development and renewable energy are encouraged by regulatory, fiscal and investment policies.

2) Background
The general background is devotes to assess the resources on which the future of the city's economy lies, in order to transform the Renewable Energy strategy into local development, through the collection of existing main data and information on the energy and environmental systems.The City collects information according to the specific formats prepared by RESET :
-       general situation of the city
-       basic statistical data
-       organisation of the municipality with reference to energy and environmental topics
-       energy and environmental management   structures

3) Energy & Environmental Balance

For the preparation of a synthesis of the city's energy and environmental balance, a common framework was developed by RESET g.e.i.e., in order to facilitate cross-comparisons and action planning. Software, with an operational manual and diskette (MS/Excel) is given to the City, when committed, and used either for the city's own purposes or for homogeneous presentations between RESET.
The energy and environmental balance included in the software tool presents several aspects:
-       general data: main information on the city (population, housing, employment....)
-       supply: different tables on local and imported energy

2.3. Action Plans for Renewable Energies

The general planning figures out which policies and which actions would be the most convenient for each city in order to promote a strong "reversion" towards renewable energies.

In each city a global strategy concerning renewable energies was formalised, by bringing together politicians, decision makers, experts and citizens representatives. After having created various scenarios for the year 2010, with the selection of the mix of technologies to couple future quality of life and energy needs, the preferred scenario was detailed and assessed. Renewable Energy Technologies were not the end results of these general plannings, but the background of a multi-objective strategy that each RESET City hopes to realise within a fifteen-year life of the plan, played with the following elements:

- housing and life-styles
- public building
- transportation and land use
- economic development and utility facilities
- information and training

The planned format for each RESET City presents plan policies, followed by actions related to the policy. The policy helps to guide the change of specific rules, the development of regulations, budgets or programme area plans. The action describes the specific measures to be promoted or supported by the Municipality and by the other local actors, and provides a global assessment of that measure: potential energy substitution, environmental impact, employment effects and related social opportunities, total costs.

The result of this process cannot be easily summarised, since many issues belong to the urban "policy" and "decision making" area. However, all cities reached a quantified estimate of the feasible energy substitution by the tear 2010, summarised below:

EXPECTED RESULT of energy substitution for the year 2010

Barcelona	Energy Saving&Substitution	245.591	TOE/year
	Percentage on actual energy consumption	6,45 % min.	11,15 % max
Glasgow	Energy Saving&Substitution	404.544	TOE/year
	Percentage on actual energy consumption	14,7	%
Great Lyon	Energy Saving&Substitution	389.935	TOE/year
	Percentage on actual energy consumption	16,2	%
Torino	Energy Saving&Substitution	302.913	TOE/year
	Percentage on actual energy consumption	17,6	%

-    local Renewable Energy Sources: synthesis of the different RES locally produced
-    electricity
-    district heating and cogeneration
-    demand: synthesis of the energy demand by sector (residential, tertiary, industry, transport...)

4) Scenario Workshop

One of the objectives of RESET is to ensure the relevance of Renewable Energies Action Planning to the local communities and to form community partnerships which will play important roles in successfully establishing renewable energy projects. It is essential that the views of the local community are fully understood during the process of developing renewable energy strategies.

Scenario Workshop

Devised by EC, DG XIII, used to set up a wide range of possible decisions based on the wide range of possible futures. Useful to remove obstacles.

A Local Scenario Workshop brings together a group of 25-30 individuals, representing the broader community, to lay down the foundation for the community visioning effort. People who work closely at the local level - local government officials, scientific field officers, business people and unionists - are often those in the best position to critically examine the impact of policies on communities and individuals as well as on local environments. Their skills, expertise, knowledge and experience, as members of the local community, are used to ensure that the full benefits of renewable energies are realised. Their participation in this Workshop adds credibility to the process, because diverse interests and perspectives are represented right from the beginning.

-    In the preliminary steps of the Workshop, participants evaluate the future in which their community is likely to face if no significant intervention occurs. Weighing this scenario against the desired future helps to define key areas where changes must be effected. Secondary data and indicators are combined with subjective perceptions to develop a rough consensus of current circumstances in the community.
-    The Workshop, then, focuses on the energy & environmental trends that are affecting the community from global and national levels, selecting the key policies which can characterise an innovative energy and environmental strategy at the local level.
-    The result consists of a set of priorities and a list of preferred actions which the community is willing to address for its mid to long-term future, to generate the basic elements of the RESET Action Plan.

5) General Action Plan

After having developed the Local Scenario Workshop, the local carriers extract the most promising energy "policies", among those discussed in the forum, and translates them into possible "actions".

This activity requires a screening, by the City and the RESET local carriers, selecting those ideas which are convertible into actions for the Administration, in the short, medium and long term.

The translation of policies into actions will be helped by an "action form", which will be filled in with the collaboration of the participants in the Local Scenario Workshop.

The result of the General Action Plan will focus on the following key aspects:

- Renewable Energies Potential assessment at the City level, having as a target the substitution of at least 12% of fossil fuels by the year 2010
- Environmental impact assessment
- Employment effects and micro-economic impact
- Responsibilities for managing the plan.

6) Creation of the "RESET Local Team"

City managers and qualified members of the local community are brought into the dialogue regarding the preliminary results of the Action Planning. This group of individuals becomes the "RESET Local Team" having the role of revising the General Action Plan, organising discussion sub-groups and participating in the subsequent phase of detailed planning.


7) Detailed Action Plan

A detailed description of "policies" and "actions" needs to be developed at this stage of the Action Planning. The policy helps to guide the change of specific rules, the development of regulations, budgets or program area plans. They should refer to all sectors of the city activity, typically:

A. Residential Building Stock

B. Public and Tertiary Building Stock

C. Mobility and Transportation

D. Waste and Resources

E. Economic and Financial Tools

F. Information and Training

The detailed description of the actions follows the format:
- action goals
- description
- timing
- financing
- expected results

TORINO - RESET Action Planning
Job creation from Renewable Energies
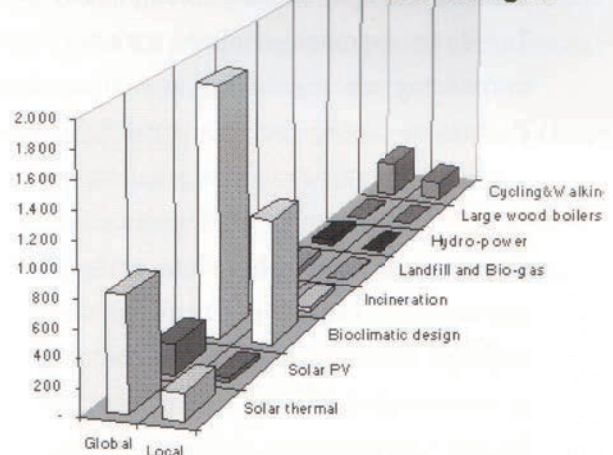
8) "Adoption" of key actions

Stake-holders are invited to focus their action on Key Actions on which they might work and invest, becoming "Action-holders". If these Action-holders are addressed effectively, they will "bend the trend" towards the plan implementation.The RESET Team organises local meetings with representatives from the Councils and with the participation of the "Action holders", in order to illustrate and emend the description of policies and actions emerging from the Action Plan. The RESET Action Plan is officially approved by the Council.

9) Design of actions

- The actions forecast by the Detailed Plan are transformed in individual projects to be carried out.
- The design of the action shows the phases and sub-phases to be carried out, the time scale, the responsibilities for each phase, the disaggregated cost and the financial cover.
- Every action shows arrangements with the various interlocutors involved in the project.

10) Actions Implementation

The transition from planning to action is crucial. The design of actions has articulated specific projects and the lead implementers must build on these commitments and begin their work.

- A minimum number of actions (at least 10% of the actions forecast) are selected.
- The selected actions should cover different sectors of the plan: residential and public buildings, mobility, urban wastes, economy&financing, information&training.
- The implementation phase starts, requiring the formal approval and the "financial cover", from Municipal Resolutions, of the selected projects.
- The Municipal resolutions will certify the implementation of the selected actions.

4. WHY it works ?

The ingredients of an urban strategy

4.1 Playing a real multi-actor game: planning together

The decisional strategies and the urban policies can be summarised into four fundamental approaches:

- Top-down approach - Related mainly to the activity of governments and/or institutions when introducing new regulations, as well as when reducing regulatory and procedural impediments
- Bottom-up approach - Organising the needs of a community and preparing the policies which comply with these needs
- Demand-side approach - Concerning the end-uses of citizens and their needs: mobility, housing, quality of life, economic opportunities, healthy environment, etc.
- Supply-side approach - Refers to the capability of the market in organising the production of goods and technologies which respond to consumers' needs.
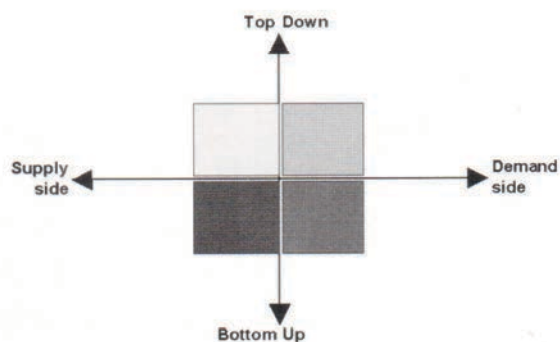
These four approaches create different urban policy consequences. They are neither better nor worse, when choosing either one approach or another, but they can all be equally significant and effective when pursuing objectives for a better urban quality.

As a matter of fact, the urban policies are not exclusively "top down" or "bottom up", or only "supply-side" or "demand-side". The policies are an articulate combination of the four approaches and can be expressed in a Cartesian diagram which refers to, on the X axis, the supply ´ demand and, on the Y axis, the top-down ´ bottom-up.

The successful urban strategies therefore become a combination of policies, in which all four sectors are involved at the same time in order to reach a general or specific goal. Using this framework, we have interpreted **the RESET Project as a multi-actor game with a key-word: planning-together.**

Bottom-up / Demand Side

In each city the strategy concerning renewable energies was formed, by bringing together politicians, decision makers, experts and citizens' representatives. After having created various scenarios for the year 2010, with the selection of a mix of technologies to couple the future quality of life and energy needs, the preferred scenario was detailed.

Top-down / Demand-side

The appropriate actions, as outcomes of Community Planning events, were extracted from the ideas and proposals of such a consultation and were included in the General Action Plan of these cities, with the following procedure:

RESET - Renewable Energies Strategies for European Towns
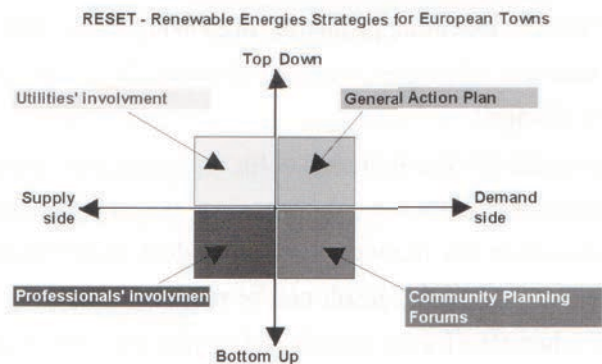
- After having developed the Scenario Workshops in all four cities, a task involving each city consisted of extracting the most promising "energy policies", amongst those discussed in the forum, and to translate them into "possible actions".
- This activity required a screening, made by each city with their consultants, selecting those ideas which were realistically convertible into actions for the administration, in the short, medium and long term
- The translation of policies into actions was helped by an "action form", which included a pre-estimate of the potentiality, in terms of energy conservation or substitution.

Bottom-up / Supply-side

Technology experts and professionals were part of the process, participating in the community planning forums and prospecting their expertise at the service of the action plan. In some cases, such as Lyon, RESET represented a re-compacting of the expertise in the field that the Municipality did not expect to account for.

Top-down / Supply Side

The role of the municipal utilities and manufacturers in the process was relevant, since they were part of the formulation of the R.E. action plan. In some cases, they have detailed the actions, introducing the energy technologies to comply with the expectations detected during the community planning forums.

4.2. Play with boundaries and not within boundaries

Finite players play within boundaries: infinite players play with boundaries. .. The rules of a finite game may not change; the rule of an infinite game must change. And within the infinite game are played many, many finite games, etc.

During the meetings of RESETnet, in coincidence with projects' General Meetings, strong attention is placed on the elaboration of new ideas and on the solicitation of the participants visioning.

In developing projects we are often confronted with external boundaries, which have to be respected for a successful progress of the activities, but not all our time is devoted to controlling the process, revising the projects, checking the state of advancement, improving the quality of the products, managing the incoming problems, organising the technical and financial reporting, and so on.

These are, of course, essential elements for "managing the projects", but not sufficient for "managing the change".

Ideas are the key ingredients for managing the change, and we need to develop new ideas, within our groups, for the essential change we expect for our cities. Then, at least one of our meeting schedule is devoted to the production of new ideas or to learning processes: "discovering something new altogether". When this result can be reached by playing a game, .. we play that game. Here is an example of when RESETnet intends to be "playing with boundaries": We were in Barcelona, in March 1998, for the Third General Meeting of the RE-Start Project. One fourth of the meeting Agenda was reporting:

SUN and beyond

thousands of ECUs for your area

SUN and beyond

thousands of ECUs for your area

Technically Assisted Brainstorming
RE-Start General Meeting
Area Metropolitana of Barcelona, Barcelona, Spain
12 March 1998

Coordinated by
RESET e.e.i.g
via Cernaia 1, 10121 Torino, Italy
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Aims

To devote 1/4 of the meeting to a Technical Assisted Brainstorming, which could help:

- to emphasise the responsibility of each group of the actors living and working in the city
- to define which kind of engagement the different actors of the urban scene choose to perform

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-       to stress the concept of targeted partnership and co-operation
-       to enhance a strategy based on investment and not only on awareness

Game questions within the "role groups":
"You - directly - have the opportunity to have 100 M ECU's in your hands to be addressed to   the most important intervention or interventions never carried out in your city and through which you can give a real, significant, irreversible impulse to the RE application at the urban level.
-     What kind of Action do you have in mind?
Express 1 Action which will put you in the position to spend your money.
-     What you need from the other three categories of actors in order to be fully successful?
Express 3 requirements, one for each category
Presentation of the "top" ideas in the Plenary Session
The facilitators made the presentation of the "BEST ACTIONS" of their Role Group in the Plenary Session. The presentation expressed a certain number of detailed requirements for action targeted to the four groups of actors. The "tris" of requirements become the subject of the second session of the Technical Assisted Brainstorming.

Presentation of the final results
The presentation focused on four micro-Action Plans of a 100 M ECU Programme.
Coming back to the requirements developed at the beginning of the exercise, each "role group" recognised the answers which built-up his Action Programme of 100 M ECU.

5. WHICH framework to work with ?

❑   New operational schemes and tools have been developed, some of them were originally adapted and successfully experimented for the first time on a city scale. The RESET procedure of Action Planning, for the cities having started the process, has shown to be a relevant contribution to the implementation of the Local Agenda 21.
❑   The RESET initiatives, like the Agenda 21 processes, catalyse the appropriate mix of:
-     administrators, planning and regulation promoters (Top-down / Demand-side)
-     entrepreneurs, technology manufacturers, promoters, builders (Top-down / Supply side)
-     experts, designers, professionals, consultants (Bottom-up / Supply side)
-     citizens, community representatives (Bottom-up / Demand side)
      This mix of participants helps to arise the innovation where it can afford to become prevalent enough, without being overwhelmed by the inertia of the system.
❑   There is the need of a framework to work with and within. Strategies need "continuity" of commitment. A framework of action gives "continuity" to a strategy. This is why is so important the role of some European Projects for our action: those projects which are opening the dialogue with the cities and all their actors in an innovative way, without restricting the boundaries to the institutional representatives.

6. WHERE does it work ?

RESETnet

RESETnet is a network of cities' officials, professionals and individuals, identified first by their name and then by the public or private organisation to whom they belong. RESETnet has a site on INTERNET - **http://www.resetters.org**

RESETnet has a Main Office with the same address of RESET g.e.i.e.: via Cernaia,1 I - 10121 Torino tel.+39.11.5622.289 fax +39.11.540219 and 7 Local Offices corresponding to the other 7 countries participating in RE-Start Project.

RESET g.e.i.e. and Associates

Is a European Group of Economic Interest constituted by four leading national research and consultancy groups in the field of energy and environment: SOFTECH (IT), AGORA (FR), ICAEN (ES), ECD (UK). The RESET g.e.i.e. Associate are: W-E (NL), Institut CERDA (ES), ERG-UCD Dublin (IR), DEMEGI (P).

RESET Cities

Generally non-capital industrial cities, RESET Cities are large metropolitan areas with a strong involvement in environmental policies and political commitment for co-operation and European integration:

- Area Metropolitana de Barcelona
- City of Glasgow
- Le Grand Lyon
- Torino City Council
- City of Rotterdam
- City of Copenhagen
- Foundation for the Historic Centre of Porto
- South Dublin County Council