



INTEGRATED ENVIRONMENTAL MANAGEMENT

Guidance in relation to the Thematic Strategy
on the Urban Environment

For more information : http://ec.europa.eu/environment/urban/home_en.htm

Picture credits

Cover page : Eric Sarvan

***Europe Direct is a service to help you find answers
to your questions about the European Union***

**New freephone number:
00 800 6 7 8 9 10 11**

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server (<http://europa.eu>).

Luxembourg: Office for Official Publications of the European Communities, 2007

© European Communities, 2007

Reproduction is authorised provided the source is acknowledged.

Integrated Environmental Management
Guidance in relation to the Thematic Strategy on the
Urban Environment

Disclaimer

This guidance is not legally-binding. It represents a synthesis of the information and experience available to the Commission. It is intended as a summary of the current state of the art with respect to best practice on integrated environmental management. The guidance is not intended to be a rigid set of rules to be followed in all circumstances. The mere fact that there is so much diversity between cities across the EU means that no one solution is applicable nor appropriate for all situations. The guidance should be seen more as a description of the process and a reminder of the key elements that could be considered when developing Integrated Environmental Management Programs at local levels.

Requests for information on this guidance should be sent by e-mail to: env-iemp@ec.europa.eu .

CONTENTS

1. INTRODUCTION	6
2. CHALLENGES FACING THE URBAN ENVIRONMENT & SUSTAINABILITY	6
3. THE STRATEGY & INTEGRATED ENVIRONMENTAL MANAGEMENT	7
3.1. The Strategy.....	7
3.2. Integrated environmental management	7
4. WHY INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)?.....	8
5. DESCRIPTION OF KEY ELEMENTS OF AN IEMS	9
5.1. Issues to cover	9
6. CHALLENGES AND SOLUTIONS TO ESTABLISH AND IMPLEMENT IEMS	10
7. COMMUNITY FINANCIAL INSTRUMENTS TO ASSIST	14
7.1. Cohesion Policy.....	14
7.2. LIFE +	15
7.3. European Research and Development Policy.....	16
8. SUMMARY	16
ANNEX I ENVIRONMENTAL LEGISLATION	18
ANNEX II REFERENCES	22

1. INTRODUCTION

This guidance follows on from the publication in 2006 of the Thematic Strategy on the Urban Environment¹. The Strategy described the problems facing many urban areas of the European Union and recognised the widely divergent circumstances of European cities. As such, the Strategy did not propose uniform binding measures but instead pointed to other ways in which cities' problems could be tackled. The guidance presented below aims to assist municipal authorities in establishing systems for integrated environmental management to improve environmental performance across a broad range of issues. This guidance will be complemented by another on sustainable urban transport planning.

The current guidance is not and cannot be prescriptive. It is based upon examples of best practice developed by cities themselves sometimes with financial assistance from the European Community particularly under the Decision 1411/2001/EC² which has awarded 15 grants worth 14 million euros during the period of 2001-2004. These best practice examples are listed in the attached annex with appropriate links and references.

2. CHALLENGES FACING THE URBAN ENVIRONMENT & SUSTAINABILITY

As four out of every five European citizens live in urban areas, their quality of life and the quality of their environment depends upon how cities look and how they function. Cities are also the places where business is done, investments are made and jobs are created and so cities represent the place where the environmental, The EU's Sustainable Development Strategy³ aims to "encourage local initiatives to economic and social dimensions of sustainable development meet most strongly. tackle the problems faced by urban areas; produce recommendations for integrated development strategies for urban and environmentally-sensitive areas."

European urban areas face a number of environmental challenges. Although the scale and intensity of the problems vary, a common set of issues can be identified. These comprise poor air quality, traffic volumes and congestion, high levels of ambient noise and scarcity of quiet areas as sport, play and recreational areas, neglect of the built environment, high level of greenhouse gas emissions, urban sprawl and generation of large volumes of waste and waste water. These environmental challenges are serious and have significant impacts on health, the environment and economic performance.

These problems are caused, in part, by changes in lifestyle and demography (growing dependence on the private car, increase in one-person households, increasing resource use per capita). Solutions need to be forward-looking and militate against future risks such as the impacts of climate change (e.g. increased flooding) as well as contributing to national, regional and global policies such as progressively reducing dependency on fossil fuels.

The environmental problems in cities are particularly complex and inter-related. Local initiatives to resolve one problem can lead to new problems elsewhere. For example, policies to improve air quality through the purchase of clean buses can be

undermined by private transport growth brought about by land-use decisions which indirectly encourage such growth (e.g. the construction of city-centre car parks).

3. THE STRATEGY & INTEGRATED ENVIRONMENTAL MANAGEMENT

3.1. The Strategy

In response to the challenges facing Europe's cities, the 6th Environment Action Programme⁴ (6th EAP) called for the development of a Thematic Strategy on the Urban Environment with the objective of '*contributing to a better quality of life through an integrated approach concentrating on urban areas*' and to contribute '*to a high level of quality of life and social well-being for citizens by providing an environment where the level of pollution does not give rise to harmful effects on human health and the environment and by encouraging sustainable urban development*'.

The Thematic Strategy was published in late 2005 and constitutes an important step in a series of initiatives that have contributed to the development of Europe's policy on the urban environment. Given the diversity of urban areas and existing national, regional and local circumstances the Strategy does not dictate the solutions that cities should adopt as it would be impossible to propose a "one size fits all" approach. The Commission did however undertake to prepare, in consultation with cities and stakeholders, guidance on sustainable urban transport planning and integrated environmental management. The objectives of the Strategy have, and continue to be, supported by Community funding programmes (see later).

3.2. Integrated environmental management

Sustainable urban development requires an *integrated approach* and the Thematic Strategy advocates that national and regional authorities support municipalities in achieving more integrated management at the local level. This approach is supported by both of the Council and the European Parliament⁵.

Integrated approaches include long-term strategic visions and link different policies at different administrative levels to ensure coherency. Integrated environmental management also means tackling related issues together such as urban management and governance, integrated spatial planning, economic wellbeing and competitiveness, social inclusion, and environmental stewardship. For example, the implementation of Community law on urban air quality not only has implications for pollution control and traffic management, but also requires combined efforts to address city and town centre management, spatial planning and urban design, health impacts and social justice (taking account of the different social groups affected and disproportionate burdens of environmental impacts).

The Thematic Strategy on the Urban Environment calls for the better management of urban areas through integrated environmental management at the local level. This is characterised by a strategic management of the environmental impacts of all activities within the entire functional area of a political authority and/or a built-up city. The approach is built upon cross-departmental and sector cooperation, engagement with all relevant stakeholders and integration of local, regional and national policies. Logically therefore, the aim of this guidance is to assist municipal authorities in considering whether to establish an integrated approach to urban

management which takes a holistic, structured and step-wise approach that identifies key challenges, assesses the status quo, sets targets for policy, assesses available policy options, engages with stakeholders and leads to the implementation of effective policies.

4. WHY INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)?

Municipal authorities are responsible for a range of different functions. These are performed or managed by many different parts of their organisations, often with limited resources. Integrated environmental management (IEM) offers a tool to improve the consistency and coherence between different policies, from an environmental perspective, and a means to maximise the effectiveness of those policies within available budgets. It can also offer greater transparency in policy development and encourage a greater public involvement and acceptance.

Integrated environmental management is entirely consistent with the Lisbon Strategy for innovation, competitiveness, growth and employment and experience demonstrates that establishing a system of IEM can help to promote the objectives of sustainability. Possible benefits of an IEM system may include some or all of the following:

- Achieve compliance with the existing environmental legislation efficiently and cost effectively,
- Improved coherence and cost-effectiveness of different policy measures,
- Improved reputation and "competitiveness" of the city (local authority),
- Enhanced environmental awareness of citizens, local authority staff and stakeholders,
- Enhanced partnership and communication between the citizens and the leaders of the city, creating networks,
- Cost savings through reduced resources and utilities, improving economic competitiveness through cutting costs,
- Harmonisation of reporting responsibilities,
- Contribute to national and European objectives on the Environment and Lisbon Strategy to 'make Europe a more attractive place to work and invest'.

During the period 2000 to 2006, operation of the Cohesion Policy has shown that integrating environmental considerations into economic decisions can produce significant savings and improve profit and productivity. In particular, this has been the case in the areas of improving waste management and resource efficiency including water conservation via metering and reducing energy used for space heating. In addition, the profile, reputation and competitiveness of a city can be enhanced by the adoption of integrated management approaches as has been seen with cities like Aalborg (in respect of the Aalborg commitments⁶) and those in the *Liveable Cities*⁷ project.

5. DESCRIPTION OF KEY ELEMENTS OF AN IEMS

An Integrated Environment Management System (IEMS) aims to improve the environmental performance of an urban area contributing to a better quality of life. From the available case studies and based on the experiences from *Managing Urban Europe - 25* project⁸, the IEM system for managing the whole functional urban area usually consists of five major steps that are repeated in annual cycles:

(1) **Baseline review**

The baseline review documents the current environmental and administrative situation, legal requirements and political priorities. It provides the basis for the later stages of the process including identification of the actions in the strategic programme. A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis has been found to be an appropriate means to assess the baseline administrative situation⁹.

(2) **Target Setting - Preparation of the Strategic Programme and Action Plans**

A Strategic Programme is developed to establish objectives and identify the priorities, initiatives and actions that are necessary in the short, medium and long term. According to the case studies, the programme should aim to build on an active participation of citizens, business, government and non-governmental organizations.

(3) **Political Commitment - Approval of the Strategic Programme**

The Strategic Programme is an agreed document that aims to have widespread support and is an integral part of the strategic planning of the local authority. Experiences show that engaging all relevant local actors in the Programme's development can help avoid conflicts in implementing the Action Plan and the long term vision for the city.

(4) **Implementation of Action Plan, monitoring**

Having approved the Strategic Programme, the next step is the implementation of the different measures and actions in an integrated way.

(5) **Reporting and evaluation**

Experiences show that on-going assessment of the effectiveness of the Action Plan is needed in relation to the strategic objectives for the city. Such assessments can lead to new measures being proposed or to a redefinition of existing actions. Projects have developed tools to assist local governments to measure and report on their environmental performance, thereby contributing to transparency in local governance¹⁰.

5.1. **Issues to cover**

Beyond the key elements it is important to demonstrate what issues could be addressed by an integrated approach. Based upon available information and experience to date, an IEM system could tackle some or all of the following topics

of relevance to sustainable urban development. The list is not exhaustive but illustrates what others have included in their IEM planning:

- Improving water quality
- Improving waste management
- Increasing energy efficiency and use of renewable energy
- Reducing greenhouse gas emissions
- Improving outdoor air quality
- Improving urban transport
- Preventing and reducing noise and protecting quiet areas
- Better local governance
- Better land use and planning
- Increasing biodiversity and green space
- Reducing environmental risks

In *Managing Urban Europe-25*, many cities found it useful to use the Aalborg Commitments as the thematic structure for their system i.e. their baseline reviews and strategic programmes were developed along the Aalborg Commitments⁶ which allowed them to address all dimensions of sustainability. By using the framework of the Aalborg Commitments they are also supported by a strong European process for local sustainability.

There are also other tools like the Eco-Management and Audit Scheme¹¹ (EMAS) which is the EU voluntary instrument for companies and other organisations to evaluate, report and improve their environmental performance on a continuous basis. EMAS could consider as a stepping stone to the IEMS. There are similarities between EMAS and IEMS regarding the main steps of the process. For instance the environmental review of the EMAS could help to carry out a baseline review and the results of the environmental audit are useful for the target setting and to the reporting and evaluation phase of the IEMS.

6. CHALLENGES AND SOLUTIONS TO ESTABLISH AND IMPLEMENT IEMS

Unsurprisingly, experience has shown that there are obstacles to be overcome when establishing an integrated management system.

Perhaps the first and foremost issue is that of political legitimacy or support for the IEM process. Successful schemes appear to have benefited from high level political support and resources to implement the Strategic Programme. As part of the *ENVIPLANS*¹² project, several cities commented that "*the objectives of the Plan need to be supported by the Mayor and the Director General. Their approval may have a driving effect on the administration*" or "*the political involvement of the*

Councillor is crucial: working with a Councillor who is aware of the importance of sustainability and of the meaning of the Plan, benefits internal performance".

The 26th report of the Royal Commission on Environmental Pollution on the urban environment¹³, proposes an environmental contract between central and local government, which would be a high level agreement to promote environmental action at the local level. On the ground, this would mean a local authority developing a strategy containing a small number of mandatory elements, but would also encourage the authority to design a programme to tackle a variety of environmental activities across sectors with the aim of stimulating improvement and innovation. This concept could help bridge gaps between national governments and municipal authorities and provide an opportunity for private and voluntary sectors and citizens to contribute to the design and implementation of the contract.

Learning from the experiences of cities in MUE-25 project shows that introducing an integrated management system may at first seem like an overwhelming task. But any city may succeed by starting small and gradually building up the integrated environmental management system. The most important thing is to start working according to an annual management cycle. All cities already have instruments and processes in use and these can be used to complete an integrated management system consistent with the five steps. Networking can be used for exchange of experiences and for better use of personnel capacity. A city can also consider support from a critical "friend" by using peer review. The Aalborg Commitment and the experience, case studies and networks created around it can be a way of starting off the process. City cases have proven that knowledge, political commitment and further positive effects follow after working practically in an IEMS. Even though there are challenges at the beginning, these obstacles can be overcome with time by working systematically with annual management cycles.

External studies and Community funded projects have helped to highlight some of the more important obstacles to implement integrated environmental management systems. These are described below.

1) Baseline review

If the baseline review is not sufficiently detailed and does not take consider all aspects, the Strategic Programme may fail to integrate the environment into other policies or fail to recognise important regulatory requirements.

In order to avoid these, there are existing tools as *Local Agenda 21*¹⁴, *EMAS* or *SWOT analysis* which are well recognised as being useful to ensure consideration of all relevant policies, information and produce a solid base from which to start the preparation process.

2) Target Setting - Preparation of the Strategic Programme and Action Plan

Experience shows that the definition of objectives and selection of targets can be difficult as is avoiding duplicating existing documents.

In response to these challenges, the MUE 25 project suggests expanding the scope and contents of existing management systems. The first - territorial - expansion will apply integrated management system to the urban area by the

choice of appropriate indicators and targets. The second – actor related – expansion will include stakeholders in the city and co-operation with neighbouring cities. The third – dimension related – expansion will integrate other dimensions of sustainability into the environmental management system and will develop into an integrated management system focusing on environmental, social and economic dimensions. This integration will use the Aalborg Commitments as reference document to identify direct and indirect sustainability aspects of urban areas. According to the ENVIPLANS project a decision framework might be of help in selecting appropriate actions. The framework should be rearranged into a document containing: critical points, preliminary targets, the local authority's budget, existing actions, higher institutional programmes, availability and management of resources. Once the document has been drafted, priority actions are selected according to their suitability for achieving the set targets, their economic feasibility, their level of sustainability, the availability of resources and actors called to participate.

3) Political Commitment - Approval of the Strategic Programme

A long debate and approval of the long-term strategic objectives could stifle the whole process. Stakeholder participation and effective consultation from the outset increases the chances that the Strategic Programme will be accepted more easily. In addition, it is clear from the available case studies, that approval of the Programme is facilitated by it having political legitimacy and support.

To encourage and facilitate the active involvement of citizens, the City of Copenhagen established eight *accessible Local Agenda 21 centres*¹⁵. The Environmental Protection Agency (EPA) facilitates and co-finances the centres which operate as private foundations. The centres permit a dialogue with the general public and the business community. There are also additional smaller neighbourhood based offices which aim to be even closer to people and businesses.

Another example of how public involvement can be encouraged is provided by the LIVEABLE CITIES¹⁶ project which describes open planning processes (OPP) which are very informal partnerships without the contracts, covenants and institutional arrangements of many traditional partnerships. OPP opens up the planning and decision making process to stakeholder influence and involvement. It goes beyond simple consultation and public hearings and fosters public responsibility and commitment to Sustainable Urban Management.

4) Implementation of Action Plan

Insufficient human resources and unclear lines of responsibility for implementation of particular actions are cited as serious challenges by the municipalities. Therefore a clear desire was expressed by the cities to coordinate different action plans and deliver them effectively.

Both the LIVEABLE CITIES and the ENVIPLANS projects identified that "*A common understanding is needed between partners that are involved in the programme, of the tools, that will be used in the programme.*"

Furthermore "Sustainable Urban Management programmes should ideally be implemented by all the partners involved, not just the municipality. In this way, resources are shared between partners and directed at achieving the ambitions and targets."

MUE-25 points to a clear established action plan pointing out the roles, responsibilities and time-frames which allows for monitoring of actions taken continuously over the year. The organisational set-up has to be clear all through the process. Stakeholders' involvement and contribution to implementation measures are crucial and their support should be sought already while preparing the strategic programme but should be confirmed when starting the implementation process.

Several cities participating in MUE-25 develop databases for their management system to support monitoring and evaluation. In bigger cities with a lot of actors involved this may facilitate coordination of responsibilities, deadlines as well as data input.

The evaluation, communication and financial aspects were also recognised as key factors to achieve the targets. Some Italian cities also suggested that it is important to motivate staff members which could be achieved by incorporating the objectives into the administration's management goals. Other factors that were also recognised as important are:

- Objectives should be concrete and feasible.
- Responsibility and leadership must be recognised within the organisational structure
- Another incentive may derive from training opportunities
- An adequate and clearly defined budget which states clearly who provides the necessary resources (it might be European funds, national, local etc.) and how they are to be obtained and transferred (co-financing, "in kind" contributions, etc.).

5) Reporting and evaluation

Assessment of results of the Action Plan is important in order to review the effectiveness of measures already implemented and to assess whether changes need to be made or additional measures are required. Public presentation of the success and results can further consolidate the support and participation of stakeholders. This is supported by the findings of the ENVIPLANS project which pointed to the importance of an "*annual monitoring report*" to avoid misunderstanding and moreover communicate the success achieved by the city. Such a report could be a valuable tool to assist other cities in implementing IEMS to improve environmental performance and to improve quality of life.

Ideally indicators and targets - defined during the 2. step - would describe inter-linkages between consumption or degradation of resources, common goods as well as the accomplishment of human well-being. These indicators would present the economic efficiency to perform this transition – the

economic activities. Therefore it is crucial that indicators selected allow for reporting on progress and performance. If the data for reporting on progress and performance is not available or not appropriate the city has to choose another indicator and instead prioritise creating a basis for achieving good data to use the indicator at a later stage.

Experience shows that successful environmental management is always a matter to cross-sectoral cooperation and communication. To be successful an integrated environmental management system need to involve all relevant stakeholders where and as appropriate (in particular for target setting, implementation of measures and evaluation).

7. COMMUNITY FINANCIAL INSTRUMENTS TO ASSIST

The Renewed EU Sustainable Development Strategy, Adopted by the European Council 15-16 Jun 2006, states that "In order to ensure that EU funding is used and channelled in an optimum way to promote sustainable development, Member States and the Commission should co-ordinate to enhance complementarities and synergies between various strands of Community and other co-financing mechanisms such as Cohesion Policy, rural development, Life+, Research and Technological Development (RTD), the Competitiveness and Innovation Program (CIP) and the European Fisheries Fund (EFF)." The Urban Thematic Strategy also highlighted the funding opportunities available under these mechanisms that could be used to support attainment of the Strategy's objectives.

The European Commission published a Guide¹⁷ on 24 May 2007 called: The urban dimension in Community policies for the period 2007-2013. The guide is for stakeholders and all who are interested in urban issues. It identifies the initiatives that, under various Community policies, have direct and indirect implications for the sustainable development of urban areas. Around a hundred specific documents are referenced. The guide puts each policy in context, and specifies relevant financial resources, exchange mechanisms and information sources available.

7.1. Cohesion Policy

The European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund¹⁸ (CF), the European Investment Bank¹⁹ and the other existing Community financial instruments each contribute towards achieving the following three objectives:

- (a) *Convergence*: i.e. hastening the convergence of the least-developed Member States and regions by improving conditions for growth and employment. This is to be achieved by increasing and improving the quality of investment in physical and human capital, the development of innovation and the knowledge society, adaptability to economic and social changes, the protection and improvement of the environment and administrative efficiency;
- (b) *Regional competitiveness and employment*: i.e. a strengthening of regions' competitiveness and attractiveness as well as employment by anticipating economic and social changes, including those linked to the opening of

trade, through the increasing and improvement of the quality of investment in human capital, innovation and the promotion of the knowledge society, entrepreneurship, the protection and improvement of the environment, and the improvement of accessibility, adaptability of workers and businesses as well as the development of inclusive job markets; and

- (c) *European territorial cooperation*: i.e. a strengthening of cross-border cooperation through joint local and regional initiatives, strengthening transnational cooperation by means of actions conducive to integrated territorial development linked to the Community priorities, and strengthening interregional cooperation and exchange of experience at the appropriate territorial level.

Under the Cohesion Policy different possibilities are available to finance urban measures which could improve the environmental performance of a city. Links between Cohesion Policy and the Strategy on the Urban Environment are shown below.

6th EAP Priority/ Cohesion objectives	<i>Convergence (ERDF/ESF/CF) Eligible actions</i>	<i>Regional Competitiveness and Employment (ERDF/ESF) Eligible actions</i>	<i>Co-operation (ERDF) Eligible actions</i>
<i>UrbanTS</i>	<ul style="list-style-type: none"> – sustainable urban transport – sustainable construction – renewable energies – energy efficiency – assistance to SMEs for environmental technologies – waste and water systems – urban air quality – restoring contaminated sites – tourism and cultural heritage – public health – risk prevention – climate change 	<ul style="list-style-type: none"> – sustainable urban transport – sustainable construction – renewable energies – energy efficiency – assistance to SMEs – restoring contaminated sites and land – tourism and cultural heritage – public health – risk prevention – climate change 	<ul style="list-style-type: none"> – sustainable urban networks – SME networks – exchanges of experience/ best practice on sustainable urban development – statistics/data – joint management of the environment – risk prevention – climate change

7.2. LIFE +

The LIFE+ Programme²⁰ will fund environment projects during the period 2007-2013. It will support the implementation of the 6th EAP, including the thematic

strategy on the urban environment. LIFE+ has three components, including LIFE+ Environment and Governance that are of interest to urban issues.

7.3. European Research and Development Policy

Sustainable urban development requires an integrated approach which can be supported by urban research²¹, for example, in tackling related issues together such as urban management and governance, integrated spatial planning, economic wellbeing and competitiveness, social inclusion, and environmental stewardship.

The broad objectives of the 7th Framework Programme²² for research, technological development and demonstration activities (2007-2013) have been grouped into four categories: Cooperation, Ideas, People and Capacities. Urban-related issues are addressed by five out of the eight different themes of the "Cooperation" Specific Programme²³ which is designed to support transnational cooperation on defined research themes between universities, industry, research centres and public authorities across the European Union as well as the rest of the world.

8. SUMMARY

This brief guidance aims to explain the basic building blocks and procedural steps that are involved in establishing a system of integrated environmental management at the local level. It brings together some of the latest results and experience in this area some of which has been funded at the European level. It is impossible to reproduce all of this material in detail but readers are directed to the references contained in the bibliography where more information can be obtained.

ANNEX I ENVIRONMENTAL LEGISLATION

1. LEGAL FRAMEWORK FOR WATER

The Water Framework Directive (2000/60/EC^{xxiv}) aims to promote sustainable water-use based on a long-term protection of available water resources. Rates of water abstraction for use in cities must be sustainable in order to ensure the protection and management of water resources and the environment. An economic analysis of water use has to be undertaken at river basin level to help assess this. The Directive is discussed in more detail under ‘surface water quality’ in this section.

1.1. Drinking water quality

Directive 98/83/EC^{xxv} on the quality of water intended for human consumption aims to ensure that drinking water is free of any micro-organism, parasite or substance that could potentially endanger human health. The Directive sets minimum requirements for certain parameters for Member States to meet by certain dates (e.g. 2013 for lead). The quality of drinking water is monitored at source (i.e. at the tap for domestic users). Some countries have imposed additional or tighter standards for their drinking water quality and these also need to be incorporated into the environmental management programme. More information: http://ec.europa.eu/environment/water/water-drink/index_en.html

1.2. Urban waste water

EC Directive 91/271/EEC^{xxvi} as amended by Directive 98/15/EC sets out strict requirements for the collection and treatment of urban wastewater. From 31 December 2005, it applies to urban areas producing volumes of wastewater equivalent to 2,000 people. Smaller urban areas must treat their wastewater if connected to the treatment network. Countries that joined the EU in 2004 have longer to meet this requirement.

Waste water and other discharges from major industries in urban areas are controlled by the IPPC Directive (96/61/EC)^{xxvii}. Local authorities may be the authorising body for permits under this law. If not, they should normally be consulted about applications for permits. More information: http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html

1.3. Surface water

Directive 2000/60/EC^{xxviii} requires the management of water resources on the basis of the river basin by a ‘competent authority’ designated by national Governments. The ultimate goal is for all surface water to achieve ‘good ecological status’ and ‘good chemical status’ by 2015. Good ecological

status is defined in the Directive in terms of the quality of the biological community, the hydrological characteristics and the chemical characteristics.

As significant users of water and significant emitters of wastewater, urban areas are likely to have a particular focus in the development of the river basin management plan. The plan is generally being developed by a national or regional body covering the river basin or district. More information: http://ec.europa.eu/environment/water/water-framework/index_en.html

2. WASTE MANAGEMENT

A number of European laws control waste treatment and disposal.

Waste Framework Directive 75/442/EEC (as amended) requires that national Governments prohibit the uncontrolled discarding, discharge and disposal of waste. Governments must also promote the prevention, recycling and conversion of wastes with a view to their reuse. The Directive introduces the concept of the waste hierarchy and that the polluter should pay for the costs in safely treating and disposing of the waste they generate.

The Directive sets out general requirements for waste management planning to allow for the assessment of the existing situation, definition of future objectives, formulation of appropriate strategies and measures to deliver these goals. Waste management plans are to be drawn up by 'competent authorities' decided by the national Governments (usually regional or national waste management authorities but local authorities may also need to prepare local waste management plans).

More information: <http://ec.europa.eu/environment/waste/index.htm>

3. ENERGY EFFICIENCY

European laws exist on technical standards for boilers and construction products to improve energy efficiency but the most relevant European legislation for urban areas is on the energy performance of buildings.

Directive 2002/91/EC provides for a number of elements to promote energy efficiency, many of which will require action at the local level. National Governments have to develop minimum energy efficiency standards for new buildings and certain renovated buildings. A new certificate will be required to inform buyers or tenants about the energy performance of the building they hope to occupy. Large, frequently used public buildings (e.g. public libraries) must display energy performance certificates. Boilers and air conditioning systems above minimum sizes will be inspected regularly to verify their energy efficiency and greenhouse gas emissions.

More information: http://ec.europa.eu/energy/demand/index_en.htm

4. BIODIVERSITY & GREEN SPACE

The 1992 Habitats Directive (92/43/EEC) aims to protect wildlife species and their habitats. Each country is required to identify sites of European importance and to put in place a special management plan to protect them, combining long-term preservation with economic and social activities, as part of a sustainable development strategy. The sites designated under the Birds and Habitats Directives, make up the Natura 2000 network and already comprises more than 18,000 sites, covering over 17% of EU territory.

More information:

http://ec.europa.eu/environment/nature_biodiversity/index_en.htm

5. URBAN TRANSPORT

Around 80% of European citizens live in an urban environment. They share in their daily life the same space, and for their mobility the same infrastructure. Urban mobility accounts for 40% of all CO2 emissions of road transport and up to 70% of other pollutants from transport.

European cities increasingly face problems caused by transport and traffic. The question of how to enhance mobility while at the same time reducing congestion, accidents and pollution is a common challenge to all major cities in Europe. Cities themselves are usually in the best position to find the right answer to this question that takes into account their specific circumstances.

In its Communication on the mid-term review of the 2001 Transport White Paper (Keep Europe moving – Sustainable mobility for our continent. COM (2006) 314 final) the Commission announced the publication of a Green Paper on urban transport in 2007 to identify potential European added value to action that is taken at the local level. The Green Paper on urban transport is foreseen for adoption by the Commission in the autumn of 2007.

The Commission will deliver Guidance on Sustainable Urban Transport Plans in 2007.

More information:

http://ec.europa.eu/transport/index_en.html

http://ec.europa.eu/transport/clean/index_en.htm

6. THE LEGAL FRAMEWORK FOR BETTER LAND USE AND PLANNING

The 1997 Communication on the Competitiveness of the Construction Industry outlined the importance and benefits of integrating environmental concerns into all aspects of construction. The working group on sustainable construction, involving representatives of the Commission, Member States and industry, produced in 2001 a comprehensive report entitled “An agenda for sustainable construction in Europe”^{xxix}, proposing a programme of actions and a set of targeted recommendations.

The 1999 Communication “Sustainable Urban Development in the European Union: a Framework for Action”, and the 2001 EU Expert Group on the Urban Environment’s Report “Towards More Sustainable Land Use” both highlight the importance of land use in achieving a sustainable urban environment for the reasons outlined above. Land use also has a strong role to play in the sustainability of the built environment, for instance by allowing proper alignment to maximise passive solar heating. Moreover and with the aim of improving the land use in urban areas, a greater allocation of sports, recreation areas and play grounds would secure a healthy development of the European citizen.

7. GREENHOUSE GAS EMISSIONS

The European Union is at the forefront of international efforts to combat climate change and has played a key role in the development of the two major treaties addressing the issue, the 1992 United Nations Framework Convention on Climate Change^{xxx} and its Kyoto Protocol^{xxxi}, agreed in 1997.

More information: http://ec.europa.eu/environment/climat/home_en.htm

8. AIR QUALITY

European legislation to reduce air pollution was introduced as long ago as 1970. Current legislation focuses on reducing emissions of pollutants from certain sources (vehicle engines, power plants) and also on setting standards for the quality of the air itself. Technical emission standards are generally applied by manufacturers or industrial operators. Local authorities generally have the strongest role to play in ensuring air quality standards are met.

Directive 96/62/EC on ambient air quality assessment and management sets certain standards for the concentration of pollutants in air. Some standards are legally binding, others are guidelines.

More information: http://ec.europa.eu/environment/air/index_en.htm

9. ENVIRONMENTAL NOISE

Directive 2002/49/EC relating to the assessment and management of environmental noise requires competent authorities to produce strategic noise maps and actions plans for major transport infrastructures (roads, railways, airports) and agglomerations with more than 100 000 inhabitants.

Information regarding the competent authorities responsible for implementing the Directive should have been made available to the Commission and the public by 18 July 2005 (see below weblink for more information on these authorities). The first set of noise maps ought to be completed by 30 June 2007 whereas the first set of action plans has to be adopted by 18 July 2008. A second set of noise maps should be prepared by 30 June 2012 and a second set of action plans adopted by 18 July 2013.

More information: <http://ec.europa.eu/environment/noise/home.htm>

Annex II References

¹ Thematic Strategy on the Urban Environment;
http://ec.europa.eu/environment/urban/pdf/com_2005_0718_en.pdf

² Decision No. 1411/2001/EC of the European Parliament and of the Council; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001D1411:EN:HTML>

Decision 1411/2001/EC establishing a Co-operation Framework to promote Sustainable Urban Development. It was adopted in 2001 to finance primarily networks of cities (as well as supporting work such as studies) and provided for yearly calls of proposals until 2004. The total budget was 14 million€ The 4th and final call organised early 2004 was much more focused on policy needs and aimed at supporting the development of the Thematic Strategy on the Urban Environment. The Co-operation Framework has awarded 15 grants, from which 5 on-going projects that will finish in 2007 and 2008.

List of granted projects:

1. RESOURCITIES

Title of the project: Sustainable Consumption in Cities – European Campaign on Products without Waste and Recycled Products

Priority theme: Urban sustainable development - Waste prevention, recycling, ecolabel

General Objectives, Targets:

- to raise awareness of local and regional authorities (LRA), and through them, of the general public, on the relations between current ways of life and the consumption of natural resources beyond the growing urban waste production,
- to illustrate the economic, social and environmental dimensions of waste prevention at source and recycling through the example of Waste Electrical and Electronic Equipment (WEEE) as it is one of the fastest growing waste stream

2. CAMPAIGN

Title of the project: European Sustainable Cities and Towns Campaign

General Objectives, Targets:

The objective of the project is to support the European Sustainable Cities & Towns Campaign for the period October 2001 to September 2003. The multiple activities of the campaign, with over 1400 members (signatories of the Aalborg Charter) address almost all priority issues indicated in the call, Development, Support and Co-ordination at the European level on co-operation on Local Agenda 21 and Development of an European level award scheme on urban sustainability

3. DISPLAY

Title of the project: "*The municipal buildings climate Campaign*" - A European Campaign for the display of information on the CO₂ and energy performance of municipal buildings open to the public

Priority theme: CO₂ emissions and energy savings in municipal buildings

General Objectives, Targets:

Anticipating and enlarging to environmental aspects the entry into force of "*Energy Performance of Buildings*" Directive by a voluntary initiative,

Developing the *Display label* of CO₂ emissions and energy consumption relative to municipal buildings, simple, easily communicable to the citizens, common for all European cities

4. EMAS PEER REVIEW

Title of the project: *EMAS – Peer Review for Cities*
General Objectives,
Targets: The overall objective of the project is to support sustainable urban management in European cities

5. MIRIAD 21

Title of the project: *Major Industrial Risks Integration in Agendas and Development 21 France*
Intégration of the major industrial risks in the Agendas and development
Priority theme: Sustainable development promotion in the industrial urban areas
General objective,
Targets: the distribution and the exchange of information on sustainable development and the local agendas 21 in the presence of major industrial risks

6. PHASE

Title of the project: Promoting and Supporting integrated approaches for health and sustainable development at the local level across Europe
Priority theme: The goal of the project is to promote the integration of health and social aspects into the sustainable development efforts of cities that have previously committed to sustainable development
General Objectives,
Targets: To develop a health impact assessment (HIA) toolkit for European cities and towns as part of an integrated approach to sustainable development

7. SIPTRAM

Title of the project: Sustainability in the Public Urban Transport Market
Priority theme: Urban Transport
General Objectives,
Targets: To encourage cities across Europe to improve the environmental and social standards through competitive tendering of urban public transport services

8. QUICKSTART

Title of the project: developing and introducing a methodology for a quick start into local climate protection action
Priority theme: tackling barriers to effective implementation of sustainable urban transport solutions (in particular, political, administrative and resource barriers)
General Objectives,
Targets: The main goal of QUICKSTART is to offer a methodology for local authorities to work out an immediate climate policy action programme in a very short time. The methodology will be suited to offer a comprehensive and strategic framework to tackle the relevant sectors in local climate change policy, and to initiate and guide a process of developing and implementing climate change related policies and measures

9. AALBORG +10

Title of the project: Fourth European Conference on Sustainable Cities and Towns
General Objectives,
Targets: Organising a large, high profile conference to promote local sustainable development. Preparation of the Aalborg Commitments, a set of shared

commitments to be jointly implemented by local governments across Europe to

- Strengthen the urban sustainability efforts undertaken throughout Europe
- Set a common framework for the development of Urban sustainability targets

10. SOUTH-EU URBAN ENVIPLANS

Title of the project: Urban Environmental Management Plans for the South-EU-area
Priority theme: Preparation of Urban Environmental Management Plans
General Objectives,
Targets: The project aims at encouraging, particularly in the South European area, the conception, exchange and implementation of good practices in the field of preparation of Urban Environmental Management Plans

11. EUROCIITIES

Title of the project: LIVEABLE CITIES
Priority theme: Preparation of Urban Environment Management Plans
General Objectives,
Targets: develop an integrated Model Plan for local authorities with more than 100,000 inhabitants that will support them in the development of their individual sustainable urban management plans. The Model Plan will consist of a concept outline for a sustainable urban management plan, including chapters and themes to be addressed and practice examples, guidelines and, where relevant support tools that will support cities in the development and implementation process.

12. PILOT

Title of the project: PILOT - PLANNING INTEGRATED LOCAL TRANSPORT
Priority theme: Preparation of Sustainable Urban Transport Plans
General Objectives,
Targets: Test the feasibility, effectiveness and efficiency of integrated and highly innovative approaches to preparing sustainable urban transport plans (UTP) in four cities, combining proven Good Practice methods and tools; Develop a sustainable UTP ready for adoption by the local council in each city; Prepare a practitioner handbook for the preparation of sustainable UTP's in other cities, including practical guidance for the decision making and design process, training materials, and manuals for the use of key

13. MANAGING URBAN EUROPE-25

Title of the project: Managing Urban Europe-25
Priority theme: Preparation of environmental management systems for urban areas
General Objectives,
Targets: to improve the state of the environment and promote sustainable development in European cities through analysing, developing and testing feasible EMS applications and methods. This will be based on improved application of existing systems. The intention is to provide better practical feasibility, improved linkage with stakeholders and coverage of the whole urban area. Improved implementation of European environmental legislation will be one of the key outcomes

14. SUSI-Man

Title of the project: Environment and Sustainable Development Integration in Urban Plans and Management Projects
Priority theme: Preparation of urban environment plans
General Objectives,

Targets: This project aims at disseminating and exchanging at a large scale the good practices, methods, tools and approaches available in the topic of the project

15. GREEN CITY BUILDING

Title of the project: Green City Building
Priority theme: Local strategies to increase the use of sustainable construction methods and techniques

General Objectives,

Targets: Develop and test a “Green City Building” urban management system to be ready for following implementation within 6 local authorities representing Northern, Western, Southern and Eastern European urban areas – to ensure local sustainable building – and to be a showcase for regional dissemination to an extended network of interested local authorities

³ The EU's Sustainable Development Strategy <http://ec.europa.eu/environment/eussd/>

⁴ The 6th Environmental Action Programme <http://ec.europa.eu/environment/newprg/index.htm>

⁵ Resolution of the EP on the Urban Strategy <http://www.europarl.europa.eu/oeil/file.jsp?id=5319622>

⁶ www.aalborgplus10.dk; Aalborg Commitments were developed by the city of Aalborg, CEMR and ICLEI with the support from a drafting group and the partners in the Sustainable Cities & Towns Campaign.

⁷ Liveable Cities project http://www.euocities.org/liveablecities/site/rubrique.php?id_rubrique=1

⁸ The MUE-25 project is co-funded by the European Commission
<http://www.mue25.net/ListFullArtGrp.aspx?m=2>

⁹ Useful examples of baseline review can be found on the Aalborg website: www.aalborgplus10.dk

¹⁰ CLEAR is the first European project on environmental accounting aimed at local authorities. It expects to develop and to approve “green budgets” in a wide sample of Italian municipalities and provinces. The project, which ended in October 2003, has developed a practical method to be used by public administrations and local decision makers in order to make environmental policies more effective and efficient. <http://ww4.comune.fe.it/clear-life/>;

¹¹ http://ec.europa.eu/environment/emas/index_en.htm

¹² ENVIPLANS Project <http://www.a21italy.it/a21italy/enviplans/home.htm>

¹³ 26th Report of the Royal Commission on Environmental Pollution
<http://www.rcep.org.uk/urbanenvironment.htm#background>

¹⁴ Local Agenda 21 <http://www.iclei.org/index.php?id=798>

¹⁵ <http://www.miljoe.kk.dk/dbb2db62-798b-4862-88dd-3ecc7271d418.W5Doc>

¹⁶ http://www.euocities.org/liveablecities/site/IMG/pdf/Liveablecities_ENG.pdf

¹⁷ http://ec.europa.eu/regional_policy/sources/docgener/guides/urban/index_en.htm

¹⁸ http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/newregl0713_en.htm

¹⁹ <http://www.eib.org/>

²⁰ <http://ec.europa.eu/environment/life/news/futureoflife.htm>

²¹ URBAN ERA NET project funded by the EC; <http://cordis.europa.eu/coordination/era-net.htm>

²² <http://ec.europa.eu/research/fp7/>

²³ Council Decision n° 2006/971/EC of 19 December 2006 concerning the Specific Programme Cooperation implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013), OJ L 400/86 of 30.12.2006. http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_400/l_40020061230en00860242.pdf

Annexes

^{xxiv} http://ec.europa.eu/environment/water/water-framework/index_en.html

^{xxv} http://ec.europa.eu/environment/water/water-drink/index_en.html

^{xxvi} [EC Directive 91/271/EEC](#)

^{xxvii} <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996L0061:EN:HTML>

^{xxviii} http://europa.eu.int/eur-lex/pri/en/oj/dat/2000/l_327/l_32720001222en00010072.pdf

^{xxix} <http://ec.europa.eu/enterprise/construction/suscon/sustcon.htm>

^{xxx} United Nations Framework Convention on Climate Change <http://unfccc.int/2860.php>

^{xxxi} Kyoto Protocol http://unfccc.int/kyoto_protocol/items/2830.php

