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*Provincia di Cremona
Settore Ambiente*



GPP Handbook

**PROJECT COFINANCED
BY LIFE ENVIRONMENT**

READING GUIDE

How is the Handbook organised

The Handbook is divided in three sections, a general section, a methodological section, and an operational section.

The general section deals with:

Sustainable development

European and national policies for sustainable development

The strategic role of the GPP instrument

Methods and state of application of GPP

The GPPnet project

The methodological section illustrates:

A guide for the adoption of GPP as a practice of procurement

A guide for the adoption of GPP as an instrument for sustainable development

The supporting tools employed in the GPPnet project

The main ecological labels on the market

The normative process regarding public procurement

The operational section includes:

The ecological criteria for 189 products divided in categories and macro categories

The operational instructions for the introduction of ecological criteria in public tenders

Two examples of service contracts modified in environmental direction

The forms for the self-assessment of the state of application of GPP in an authority

Who is the Handbook addressed to

The specific targets of the GPP Handbook are public decision makers and the persons in charge of purchasing in small, medium and big Local Authorities.

The GPP Handbook can be profitably read by:

PA's suppliers

'responsible' consumers

Citizens

The reasons for reading the Handbook

If you are a PUBLIC DECISION MAKER

- to understand the role of GPP as a tool for sustainability
- to understand the links between GPP and other Integrated Product Policy instruments
- to choose the most suitable and coherent path for introducing GPP according to the objectives of the authority
- to confront with the best practices of other authorities

If you are a PERSON IN CHARGE OF PURCHASING

- to know which process to choose in order to move towards green purchasing
- to know which ecological criteria can be included in the tenders for certain products and services
- to know how to introduce the ecological criteria in tenders and service contracts

If you are a PA's SUPPLIER

- to understand how to adequate to PA requirements

If you are a RESPONSIBLE CONSUMER

- to understand how to recognize a product with a low environmental impact

If you are a CITIZEN

- to know what GPP is
- to know how a public authority can proceed to adopt GPP
- to know how a local authority can account for its GPP activities

Who finds what and where

PUBLIC DECISION MAKERS find:

the reasons for GPP: from paragraph 1.1 to paragraph 1.3;

the field of application of GPP and its relationship with other Integrated Product Policy tools: paragraph 1.4 and Annex 1;

examples of methods and strategies employed by other Local Authorities to spread GPP: paragraphs 1.5 and 1.6 and Annex 2;

in the general section

the alternatives for the introduction of GPP according to the objectives that one wants to achieve: introduction; the supporting instruments employed in the GPPnet project: page 18; **in the methodological section**

the forms for the self-assessment of the state of application of GPP in the Authority
in the operational section

PERSONS IN CHARGE OF PURCHASING find:

the path that the decision maker chose for the introduction of GPP: path 1 page 10; path 2 page 17;
in the methodological section

the list of products for which ecological criteria have been found: pages 15-19
the ecological criteria to be used when purchasing products/services: pages 20-157;
the operational instructions for drawing up 'green' public tenders: pages 160-185;
the examples of services contracts modified in environmental direction: page 187;
in the operational section

SUPPLIERS find:

information on sustainability instruments that can be adopted to satisfy PA's requirements: Annex 1, tables on Life Cycle Assessment, Environmental Management Systems, Environmental Product Declarations, Ecological Labels;
in the general section

information on Ecolabel: Annex 2;
in the methodological section

the ecological criteria that product/services requested by PA must satisfy: pages 20-157;
in the operational section

RESPONSIBLE CONSUMERS find:

the instruments that an enterprise can employ to reduce its own environmental impacts: Annex 1;
in the general section

the ecological labels to distinguish the products with a low environmental impact: Annex 1;
in the methodological section

CITIZENS find:

basic information on GPP and on the other Integrated Product Policy instruments: from paragraph 1.1 to paragraph 1.4 and Annex 1;

information on the methods and on the state of application of GPP: paragraphs 1.5 and 1.6 and Annex 2;

in the general section

the two alternative paths that an authority can follow to introduce GPP;

in the methodological section

the information that an authority has to collect in order to account for its GPP activities;

in the operational section

GPP Handbook

Volume 1

General Section
GPP and Sustainability Strategies

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Introduction

Societies we live in depend more and more on materials and energy flows that sustain the economic process and, through it, the standard of living of the Earth inhabitants.

In the recent past, a few theorists of the information society formed the hypothesis that the solution to environmental problems could receive a propulsive boost from a progressive dematerialization of society but today it is clear that future societies will continue to be based on the availability of material goods and on the absorption capacity of wastes produced.

But the biosphere within which we operate has its own limited carrying capacity, a closed tank of natural, organic and inorganic resources, that, if the pace of our economic behaviour is not reduced, risks being definitely compromised.

To reduce natural resource consumption, to reduce the use of energy, to save water, to reduce waste and chemicals production: in other words to reduce our ecological footprint on the Earth. This is the general purpose of every plan of action for sustainable development.

To reach this objective it is necessary to modify our production and consumption patterns. There is no easy path and the challenge, to be fair, seems to find us still unprepared.

Inadequacy of policies, objectives, instruments and resources, but also the scarce capacity of raising the necessary powers in the sustainability direction.

It would be needed, instead, the maximum involvement of all the actors that represent the engine in this essential process of ecological conversion: enterprises, civil economy, consumers, research, school, citizens and public authorities.

Institutions, local ones in the first place, have the duty of "setting a good example" by orienting all their activities in an ecological direction.

Towards this direction the Plan of Implementation of Johannesburg suggests that public authorities should be encouraged to integrate sustainable development objectives in decision-making processes, including those that regard planning for local development, investments and public purchasing, through the development and the circulation of products and services compatible with the environment (GPP, Green Public Procurement).

Also the National Environmental Action Strategy for Sustainable Development in Italy, approved in 2002 by the Ministry of the Environment and Territory Protection, coherently with this set up, points out objectives and targets, concerning the quantity of ecological goods purchased, that the Public Administration should reach by 2006: at least 30% of goods should respond to specific environmental requirements and 30%-40% of durable goods should be low energy consuming.

How can this target, that is stated in the official documents of the Ministry of the Environment and Territory Protection, be concretely reached?

In which way can the Public Administration exercise in full its role of conscious and sustainable consumer?

The European Union, through the June 2003 Commission Communication on Integrated Product Policy, defines GPP as an important tool for reducing the environmental impact of goods and services along the whole life cycle, encouraging public authorities to direct the market, through public supplying, to environmental conversion.

To facilitate this process the Commission is planning to realise a practical handbook addressed to public authorities, a database on product groups, and a web site dedicated to the integration of environmental requirements in public tenders.

The Handbook here presented, product of the Life Environment Project **GPPnet The Green Public Procurement Network** of the Provincial Administration of Cremona, represents a useful tool in the direction suggested by the European Union.

This handbook shows, step by step, how local authorities can introduce “environmental requirements” in the supply of goods and services at the time of purchasing.

For this purpose, the environmental criteria for 189 kinds of goods and services (drawn out from 14 European environmental labels, besides Guide Lines of competent authorities such as the American and Danish Environmental Protection Agencies) are reported here, specifying how it is possible, through these, to purchase furniture, lamps, computers, copiers, fabrics for uniforms, means of transport, construction materials, paints and other products with a “lower environmental impact”.

This Handbook is organised in three sections: the *general* section mentions the main European principles in support of GPP, the *methodological* section illustrates the methodology used to introduce environmental criteria in the purchases, and finally the *operational* section, the most consistent, which reports on the “ecological criteria” to be introduced in the technical specifications and the operational instructions to do so.

The final objective is to make available to purchasing officers of provinces and town councils an easy to apply tool (in most cases it is sufficient to “cut and paste”) to write “green tenders” in many purchasing sectors, so as to concretely reduce the public administration’s ecological footprint.

It is certainly the first, but necessary step, for public administrations that do not limit themselves to 'preach', but have instead the intention to really modify their own behaviour by taking into account their environmental and social implications.

General Section

The general section has the objective of illustrating the field of action of Green Public Procurement (GPP) in general terms and more specifically of the GPPnet project. The GPPnet project does not consider GPP as a mere green procurement practice, but rather as a tool of and for sustainability. It is therefore necessary for this Handbook to start from the theoretical foundations of sustainability policies to arrive at the description of GPP as an enabling tool for sustainable development.

In this context, not only the strategies adopted for the introduction of GPP at different levels, International, European and National, are described but the contact points between GPP and the other Integrated Product Policy instruments are also highlighted.

Methodological Section

The methodological section reconstructs the path that a local authority has to follow to adopt GPP, either as a mere green procurement practice, or as an instrument to reach sustainability objectives.

For each of the two approaches, answers to the relevant questions that a local administration has to ask itself are provided, such as:

what are the characteristics of a product/service with a lower environmental impact?

how can a product/service with a lower environmental impact be recognised?

how can the ecological criteria be included in a tender?

Moreover, the instruments in support of GPP introduction, used by the local administrations involved in the GPPnet project, are illustrated.

Operational Section

The operational section guides the officer in charge of the purchasing department in elaborating "green" tenders and service contracts. With this purpose, the section contains:

the list of products and services for which ecological criteria to be considered in purchasing procedures have been found;

the ecological criteria regarding the above mentioned products and services;

the operational instructions to modify purchasing procedures in an environmental sense.

Moreover, this section includes reports for the self assessment of the level of application of GPP in the local authority. Self assessment can concern:

the GPP policy of the authority as a whole;

the GPP policy of a specific sector of the organisation;
the application of GPP to a specific product/service.

1.1 Sustainable Development

Taking the road to sustainable development means finding a balance between man and the environment, that is, between human activities and the conservation of environmental functions, with the purpose of avoiding the association of wealth production with a thoughtless use of natural resources and with the decline of the environmental heritage.

The system we live in is finite and, as such, presents some constraints: territorial constraints, constraints of waste and pollutants absorption, constraints concerning global life cycles (air, water, oxygen, etc.). Even the natural resources that we use as input in our production and consumption processes, are not present in nature in infinite quantities and, instead, their excessive exploitation, together with the impoverishment caused by environmental decline, accelerates their exhaustion.

These constraints are a limit to the indiscriminate increase of population and production, and thus determine the necessity to change our production and consumption methods. Only by keeping to this reasoning it will be possible to reach the goal of a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development 1987).

The key to an understanding of this necessary transformation lies above all in the respect of the physics principles that rule the relationship between man and nature, the same principles expressed by the First and Second Laws of Thermodynamics and by the concept of carrying capacity.

According to the First Law of Thermodynamics, matter and energy cannot be created or destroyed. The Second Law of Thermodynamics establishes that as the entropy of a system increases, matter and energy lose utility. The carrying capacity of the Earth is the level of population and of human activities that the Planet can bear: any natural territory has a limited carrying capacity for the animal populations that inhabit it and the substances that are introduced in it.

In essence then, an economy aware of the existing physical and spatial boundaries has to focus the attention mainly, not on the productivity of factors, but on maintaining the capacity of natural resources of continuous renewal, in spite of their withdrawal and pollution.

Therefore, employing less natural resources and manufacturing goods and/or services with a lower environmental impact are fundamental sustainability goals. In order to reach these purposes, economic processes (production and consumption of goods and services) need to be rethought and integrated with eco-efficiency and dematerialization criteria.

Environmental efficiency shows the relation between a good manufactured (or a service supplied) and the quantity of materials and/or energy used to realise that product (or supply that service). Improving efficiency thus means manufacturing the same product using less materials and/or energy.

Dematerialization signifies reducing the intensity of materials and energy that man takes from nature. The objective of the next decades has to be the reduction, by a factor 10, of materials and energy flows employed by human activities. In particular, the main principles for applying the guiding idea of reducing material flows are: reducing wastes, increasing goods' durability and closing production-consumption material cycles.

But are there also available "operative criteria" to lower the possibilities of causing heavy environmental damages, and therefore guarantee a sustainable development for present and future generations?

A few academics (Daly and Costanza) have clearly identified three of these principles:

1. *Principle of sustainable harvesting rates*: renewable resources have to be used at a speed that allows nature the time to replace them;
2. *Principle of absorption capacity*: the production of goods does not have to lead to the production of wastes, refusals and pollutants that can't be absorbed by the system in a reasonably short time and does not have to lead to relevant effects of accumulation;
3. *Principle of "nearly sustainability"*: the nearly sustainable use of non renewable resources requests that any intervention in the exploitation of a non renewable resource be balanced by a compensation investment in a renewable substitute.

In light of this, the objectives of policies and strategies for sustainable development, whether addressed to enterprises, consumers or public authorities, should therefore converge in three directions:

- reducing quantity;
- improving quality;
- reducing speed.

1.2 European policies for Sustainable Development

The principles

Already with the Fifth Environmental Action Programme, the field of European environmental policy stretched from the protection of the environment to sustainable development, going from the improvement of environmental standards and parameters in the sectors of waste, water, soil and air emissions to the definition of systems for global evaluation of scenarios and for the integration of environmental policies in the various sectors.

This approach has been consolidated by the Sixth Environmental Action Programme, which has the following fundamental principles:

the precautionary principle;
the “polluter pays” principle ;
the prevention principle;
the integration principle.

The *precautionary principle* represents a rational answer to the peculiarities of the relationship between man and nature and to the many issues arising from it. All human activities have an impact, more or less negative, on the environment. Not always, however, the entity of this impact, which in some cases can prove to be not only particularly heavy but also irreversible, is known. Uncertainty and the risk of irreversibility have therefore to lead to prudence and thus to avoid causing damages resulting in the permanent loss of some fundamental environmental functions which is impossible to restore.

The *“polluter pays” principle*, already mentioned in the Fifth Environmental Action Programme, expresses the intention of assigning responsibility to the ones causing environmental damage, so that the cost of environmental externalities is not unjustly charged on society.

In plain English, if, for example, an enterprise pollutes a stream, it is the enterprise itself that will have to bear the expenses of protection or environmental restoration, in order to avoid for those costs to fall on the local community.

The *prevention principle* answers to the necessity of preventing negative impacts on the environment, rather than patching them. Acting on the root of the problem and avoiding its occurrence rather than remedying it, is more effective

for the protection of the environment as well as economically more efficient. For this reason, environmental policies should be integrated upstream of the strategies for sustainable development both at a national and European level. In the same way, every enterprise, in order to reduce its environmental impacts, should always prefer measures applied upstream of the production process (cleaner production) rather than downstream (end-of-pipe).

The *integration principle* finally, can be considered the supporting axis of the Community strategy for sustainable development. The Communication to the Commission of the 15th May 2001, "Sustainable development in Europe for a better World: a European Union strategy for sustainable development", is oriented to strengthen the coherence between policies and to enable sustainable development to be the priority for all of them. This direction appears also in the European Council Conclusion of Gothenburg, confirming what is sanctioned by the 6th article of the Amsterdam Treaty: "*Environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities*".

The guidelines: from the Sixth Environment Action Programme to the Integrated Product Policy

According to the integration principle, all sectors must be involved in sustainability action strategies. The Sixth Environment Action Programme outlines four priority areas for intervention:

- climate change;
- nature and biodiversity;
- environment and health and quality of life;
- natural resources and waste.

On the other hand, there are five main action lines with the purpose of achieving sustainability objectives in the different areas:

- 1) implementation of the legislation, through the timely state's control on the application status of the European regulation in the different countries;
- 2) positioning of the environment at the very core of the legislation activity, with the elaboration and publication of regular reports on environmental indicators in order to illustrate the progress made and review the procedures for collection and transmission of environmental information;

- 3) collaboration with the market in order to help companies assess their own environmental performance and understand European regulation; to establish reward mechanisms for companies' environmental performances; to examine tax incentives or other incentives on the purchase of green products; to elaborate criteria for the promotion of green investments;
- 4) helping consumers make environmentally friendly choices by improving citizens' access to information and providing them with practical tools for assessing their own environmental performances as individuals and household members;
- 5) guaranteeing a better land management by supporting and promoting good practices in the Member States with land use planning competences and by developing a web site for architects, town and city planners, building companies and private citizens in order to promote sustainable city planning and the sharing of knowledge.

In order to bring together aspects and objectives apparently so diversified and make environmental policy instruments more efficient and effective towards environmental integration within sector and market policies, it has been necessary to identify a reference point, a common thread. Hence the ever increasing attention towards the product-system, rather than the single production processes, and the adoption of an approach based on the product life cycle.

This process has been gradually absorbed by the Community institutions, which, in February 2001, published a Green Paper on Integrated Product Policy (IPP), aiming to define a framework for the elaboration and development of a community strategy.

The integration in the IPP has a three-fold meaning:

- 1) integration of the policies and instruments by means of which different environmental policies are currently being pursued;
- 2) integration among the various product life cycle phases according to the LCA logic- Life Cycle Analysis;
- 3) integration among the interests of the parties concerned.

Both from the viewpoint of the parties concerned, and from the viewpoint of the policies, the initiatives focused on specific life cycle phases must take into account the overall product impact along the whole of its life cycle and not just limit themselves to transferring the environmental burden from one phase to the next.

The main focus of this new approach entails the interaction among the various players (economic, institutional and social) involved in the product life cycle. The IPP approach thus directs its influence on product environmentally-friendly design, end-consumer information and the introduction of incentives for the adoption of environmentally-friendly products. By adopting the product as its reference operational unit, the integrated policies and their subsequent actions act upon market, production and consumer dynamics in a more effective way.

Essentially, the market can become an important means of environmental improvement, through the increased environmental awareness of its consumers, that privilege 'green' products over ones with a higher impact on the environment.

In order to re-orientate the market towards more environmentally-friendly products it is necessary to act upon the **demand side** by promoting the request for environmentally-friendly products and by aiming to change consumer behaviour, as well as upon the **supply side**, by promoting the use of instruments for encouraging companies to take on an approach which takes into consideration the product's overall life cycle.

In this context, both the IPP Green Paper and the subsequent Commission Communication of June 2003 (*Integrated Product Policy – Building on Environmental Life-Cycle Thinking*) define GPP as an important means of pursuing IPP objectives: to reduce the environmental impact of goods and services along the entire life cycle by acting upon the market both in terms of demand and supply.

Integrated Product Policy instruments

The approach based on the product life cycle enables to identify the various players involved in the different life cycle phases: hence the wide range of instruments that may be used to carry out the integrated product policy.

More specifically, we may refer to three groups of instruments:

1. integrated product policy instruments relating to products and services;
2. integrated product policy instruments acting upon the price mechanism;
3. sustainability instruments for integrated product policy.

Integrated product policy instruments relating to products and services are voluntary instruments impinging upon both the demand and the supply side, contributing to re-orientate manufacturer as well as consumer choices towards products and services with better environmental *performances*.

As shown in the following table, the Green Public Procurement (GPP) falls under these instruments.

TABLE 1 IPP instruments relating to products and services

	RECIPIENTS	INSTRUMENTS
INSTRUMENTS RELATING TO PRODUCTS AND SERVICES	<u>PA</u>	Environmental certification of territorial areas. Green Public Procurement
	<u>Companies</u>	Environmental labels Environmental product declarations EMAS ISO 14001 Eco-design Industrial ecology Company environmental accounting
	<u>Consumers</u>	Sustainable tourism Responsible consumption

The instruments acting upon the pricing mechanism are for the most part a result of decisions at the institutional level aiming to fill the market gaps by applying the “polluter pays” principle in order to internalise environmental costs. The need to internalise costs stems from the fact that often product prices do not reflect the costs of their impact on the environment. As a result, such costs are incurred by the company thus creating a market imbalance. The following instruments fall under this group:

- Environmental taxes
- Insurance against environmental risks
- Incentives
- Extension of producer responsibility
- Credit facilities
- Green finance

Among the integrated product policy instruments, there are also those instruments that can aid the adoption and implementation of Integrated Product Policies. Among those, specifically: Life Cycle Analysis (LCA), Local Agenda 21, environmental accounting.

Annex 1 contains some information sheets relating to these three instruments and other integrated product policy instruments that may be used to support the Green Public Procurement or whose attention may be aided by GPP, as illustrated below.

1.3 Italian policies for Sustainable Development

The Italian Sustainable Development policy principles and guidelines comply with International and European requirements.

In August 2002, CIPE approved the Environmental Action Strategy for Sustainable Development, drawn up by the Ministry for Environment and Territory Protection, which is set out in the same four theme areas outlined in the EU Sixth Action Programme, that is:

- Climate change and ozone layer protection;
- Sustainable protection and enhancement of nature and biodiversity;
- Environment and life quality in urban areas;
- Natural resource extraction and waste production.

For each environmental theme it is necessary to specify priorities, objectives and actions in line with sustainable development principles.

The Strategy highlights the need to adopt new environmental policy instruments supporting an approach which is no longer based on control strategies, but rather on the promotion of *voluntary behaviours* from all social actors, so as to encourage:

- Environmental legislation improvement and application;
- Environmental factor integration within sector and market policies;
- Environmental tax reform implementation;
- Mitigation of environmental external effects and elimination of negative allowances;
- Introduction of Environmental accounting;
- An improved effectiveness in information and public involvement processes;
- The growth of citizens' decision-making role;
- The development of scientific and technological research.

Strategic environmental assessment, green public procurement, environmental taxation, environmental certification, Local Agenda 21, environmental accounting and environmental indicators are among the most significant instruments.

1.4 The role of Green Public Procurement in sustainability strategies

The diffusion of Green Public Procurement is at the same time an objective of sustainability policies and a strategic choice for their implementation.

In order to change the currently unsustainable production and consumption patterns, the **Johannesburg Implementation Plan** indicates that public authorities should be encouraged to integrate sustainable development objectives in decision-making processes, including the ones relating to local development planning, investments and procurement. **In particular, it is necessary to promote public purchase policies in favour of the development and diffusion of environmentally-compatible products and services.**

The VI^o **Environment Action Programme of the European Community** entails economic incentives for environmentally-friendly products, the promotion of a "green" demand by providing consumers with better information, **the development of an objective base for a "green" public procurement policy** and the encouragement of a more environmentally-friendly product design. The Programme also specifies how GPP may contribute to make the market greener by adopting the environmental criteria among the purchasing criteria.

The **Environment Action Strategy for Sustainable Development in Italy** indicates the objectives and targets, in terms of ecological goods purchased, that Public Administrations should reach by 2006:

- within PA, **at least 30% of the goods purchased will have to conform with ecological requirements (GPP);**
- taking into account the substitution and resorting to the scrapping mechanism, **30-40% of durable goods will have to be at low energy consumption.**

Buying green means reviewing purchasing procedures not only on the basis of the product/service monetary cost, but also on the basis of the environmental impacts that this may have during its life cycle, as well as *orientating purchases towards environmentally-compatible products*.

Essentially, GPP is an instrument aimed at reviewing PA purchasing practices in favour of goods and services that reduce the use of natural resources, energy consumption, waste production, pollutant emissions, dangers and risks, thus optimising the “service” offered by the product.

It is important to understand that this ecological review of PA purchasing practices entails some advantages that go beyond the reduction of the environmental impacts of public administration activities and this is why GPP plays an essential role in integrated product policy and, more generically, sustainable development strategies.

GPP is thus capable of :

- Influencing the market, as well as the other actors operating around it (companies, other consumers);
- Favouring the integration of environmental considerations in other sectors’ policies;
- Facilitating the integration and implementation of different instruments within the integrated product policies of local authorities.

The market influence

The ultimate GPP objective is the substitution of the existing products and services with others having a reduced impact on the environment: the substitution starts on the consumer side (PA in this case) choosing to purchase and utilize products and services with a lesser environmental impact, but it falls directly on the manufacturer that must substitute the products and services he manufactures with products and services with a reduced environmental impact if he wants to maintain his market positioning.

Adopting GPP means supporting both ecological demand and supply. Public demand represents 14% of GDP in European Union Countries with peaks equal to 25% in the Scandinavian area. In Italy, a quote of 17% is reached. These few numbers shall give an idea of the role played by the PA as a consumer and of the effect that the adoption of ecological purchasing criteria by public authorities may have on the domestic market.

If PAs decided to substitute products and services they currently use and supply with others having a reduced impact on the environment, GPP would be able to

green the product/service offer without intervening through legislative instruments or bans, but simply by acting on public demand.

Furthermore, GPP, through the example of good practices from the central administration and the local authorities, sets out to trigger a righteous process of environmental improvement towards other subjects such as companies, private institutions and citizens.

This is made possible by the fact that the reasons that make the purchase of low-environmental-impact products interesting for the public sector and for the corporate reality are manifold. These are partly common to corporate and institutional realities: it is the case, for example, of the reduction in waste production, the energy and raw material savings and the *economic* savings related to them.

Other advantages specifically concern one or the other scope: companies can enhance their own image, while Public Administrations avail themselves of a further instrument for tackling issues relating to air, water and soil pollution, as will also be highlighted later on.

The integration of environmental considerations into other policies

GPP is not brought about as a completely new activity but rather as an intervention that modifies the way in which a PA carries out its characteristic activities. This makes of GPP a cross-section instrument capable of involving all sectors/departments of an authority.

The performance of any activity from an authority implies the purchase of certain goods and the supply of a public service. The inclusion of ecological criteria in the purchase of a good or in the supply of a service that are not actually carried out with the purpose of environmental protection, results thus in the integration of environmental considerations in other sectors' policies and strategies. For example, the purchase of an electric bus, aimed to supply a public transport service, contributes at the same time to the reduction of transport environmental impacts.

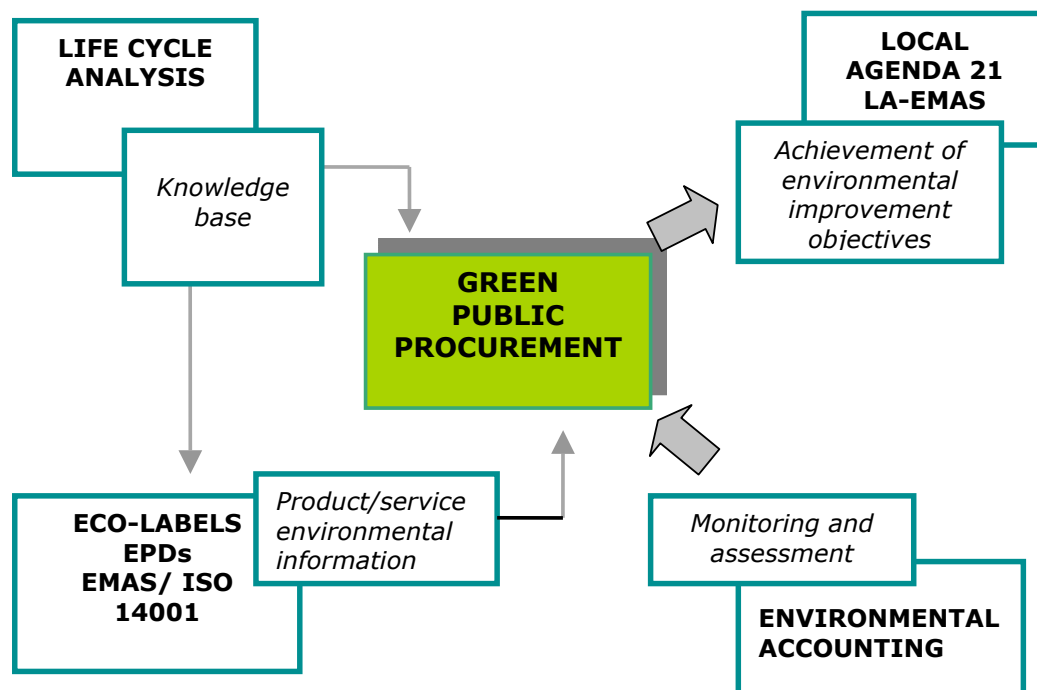
On the other hand, if a sector plan already includes environmental objectives among its objectives, those objectives can be reached via the implementation of GPP. For instance, if the Energy Plan of an authority contemplates energy savings, the purchase of low energy consumption products can become an integral part of the Plan's implementation.

It must be highlighted that in this way GPP becomes the means of implementing integrated environmental protection strategies without the employment of additional resources for the design and implementation of those strategies.

The integration with other instruments

GPP can on one side stimulate the use of different Integrated Product Policy instruments, and on the other side become the instrument for the implementation of some of them, as illustrated in picture 1.

PICTURE 1.
GPP and other Integrated Product Policy instruments



The knowledge base for choosing a product or service with a reduced environmental impact comes from the life cycle analysis of that product or service. This means that a local authority can choose a product/service by looking at the impacts that the latter may have in the phases of raw material extraction and consumption, production, use and disposal. In this regard, an authority can obtain information relating the environmental quality of the various products and services by referring to eco-labels, environmental product

declarations (EPDs), company's environmental certifications, EMAS and ISO 14001.

On the other hand, green purchases can easily represent concrete actions to achieve environmental improvement objectives defined within Local Agenda 21 or within a local authority's Environmental Policy aimed at EMAS registration, as well as objectives and targets included in other plans (e.g. Energy Plan, Urban Traffic Plan) as already mentioned earlier.

Starting from the identification of the environmental impacts of goods and services utilized and supplied by a Public Administration, GPP leads to the substitution of the latter with goods and services with the same function but a reduced environmental impact. Once the nature and the crucial environmental effects of the different goods and services have been identified, GPP can be strategically implemented, by taking into account environmental protection priorities, when choices about the goods/services to be substituted and about the ecological criteria to be used in purchasing procedures are made.

This aspect must not be underestimated: GPP implementation yields immediate, tangible and quantifiable results, and this meets the need for the local authorities to communicate with citizens and to account for their own actions, in particular with respect to programmes such as the Local Agenda 21.

The monitoring and reporting GPP activities can be aided by the adoption of physical and monetary environmental accounting tools. Environmental pressure indicators can help verifying the environmental effectiveness of GPP practices. Monetary environmental accounting can be used to verify the status of implementation in terms of environmental expenditure but also to assess the overall economic efficiency in reaching environmental improvement objectives.

1.5 GPP methods and state of implementation

As for other integrated product policy instruments, GPP is a voluntary instrument, whose introduction procedures and implementation status vary according to the location and the size of the authorities involved, and of the products and services concerned. Furthermore, it must be highlighted that as the GPP concerns the purchasing practices of an authority, it is not always so immediate to recognise an environmental protection policy in GPP.

The choice of buying green can, in some cases, have different underlying reasons from environmental protection, such as economic saving, health protection, or product and service quality. As a result, the state of implementation of GPP is rather changeable and it is virtually impossible to provide a comprehensive picture of all experiences made, in terms of tender notices, specifications and service contracts containing ecological criteria.

Annex 2 contains the description of some of the most significant experiences achieved to date by national as well as local authorities, abroad and in Italy. In particular, at the international level, the Environmental Protection Agency (EPA) of the United States has stood out for the implementation of several pilot projects. At European level, Scandinavian countries can be regarded as the GPP pioneers, both for the experiences realized at national level (see the Swedish Ministry of Environment) and at local level, with the Municipality of Kolding (Denmark) covering 100% of its product purchases with environmentally-friendly products.

In Italy, ANPA (National Environmental Protection Agency), nowadays known as APAT (Agency for the Protection of the Environment and Technical Services) has paved the way to the dissemination of GPP knowledge and practices with the implementation of the project *Experimental Preparation and Application of Instruments for the Diffusion of Fair and Environmentally Sustainable Policies from Public Authorities* (Green Public Procurement). This represented the starting point for different Local Italian Authorities that have subsequently developed GPP strategies. Similarly, this handbook has the integration of the information contained in the ANPA's handbook among its objectives.

Aside from the places of GPP diffusion, it is useful to look at the ongoing experiences in order to verify: what public policies are generally adopted to introduce the GPP, what instruments are available to promote GPP, what obstacles must be tackled and overcome.

In particular, the different strategies for GPP introduction and diffusion can be classified along three main lines of actions, which can also integrate each other:

the first one is based on the use of regulation;
the second one on information and training activities;
the third one on the exchange of good practices and *networking* among authorities.

The regulation approach

While there is no law that prescribes the modification of tenders in an environmental sense, some authorities utilize *ad hoc* regulations in order to encourage GPP introduction. In practice, specific requirements or targets for the purchase and/or use of certain products or services are set.

In this regard, the Decree n.203 of the 8th of May 2003 (OJ n.180 of the 5th August 2003) prescribes that public offices, state-owned companies, and management services companies should cover the annual needs for manufactures and goods with a quota of 30% of products made of recycled material. The decree also prescribes that the recipients should adopt specific criteria when tenders for the supply and installation of manufactures and goods and public works specifications are formulated in order to comply with the decree's requirements.

The regulation in the energy field can also strongly influence GPP diffusion, especially in the construction field, where regulation on buildings' energy efficiency can be applied through the inclusion of energy efficiency criteria in public works specifications.

At regional level, some authorities have laid out standards and regulations relating to environmentally-preferable purchases. Those generally refer to some types of recovered materials: biodegradable materials, paper, plastic, generic materials.

The most widely spread interventions relate to promotional activities for the use of recycled paper with the establishment of targets on the use of recycled material products ranging between 20 and 50%. The following table contains a brief summary of current regional legislation.

TABLE 2. Regional regulations for GPP introduction

Region	Regulation	Authorities involved	Type of intervention
Generic materials			
Lazio	L. 27/98	Region	Use of a quota of at least 15% of recycled materials for carrying out regional public works
Valle d'Aosta	L. 19/95	Miscellaneous	Promotion of the use of recycled stone materials
Organic			
Lazio	L. 27/98	Local authorities	Adoption of measures for satisfying the needs for public gardens organic soil improvers with a quota equal to at least 80% of quality compost taken from damp area deriving from separate waste collection
Abruzzo	L. 83/00	Region, Public Authorities (also economic)	Exclusive use of containers and tableware in biodegradable material for composting or alternatively equivalent materials from an environmental performance viewpoint for the distribution of food and beverages in canteens.
Plastic			
Tuscany	L. 29/02	Region, Provinces, Municipalities, other Authorities, Institutions and Companies under the supervision of the Region, Provinces and Municipalities	Use of a 40% recycled material quota
Lazio	L. 27/98	Companies producing milk and mineral water with manufacturing plants in the regional territory	Promotion and incentive of "returnable" systems with deposit of food liquids and the total or partial substitution of recyclable containers subject to deposit system.
		Local Authorities	Adoption of measures to: devote at least 40% of public garden furniture expenditure to the purchase of items produced with recycled plastic; foresee preferential clauses, in school canteen specifications, to those companies which do not make use of disposable tableware
Lombardia	L. 21/93	Region, Authorities	Habitual purchase of plastic material

		and Companies independent from it	coming from plastic recovery activities
Paper			
Veneto	L. 3/00	Public authorities (also economic)	Use of a 40% recycled paper quota
Valle d'Aosta	L. 5/91	Region- Information magazine on the Region activities	Preferential use of printing recycled paper
Valle d'Aosta	L. 46/91	Region, Authorities and Companies independent from it	Use of a 20% recycled paper quota
Valle d'Aosta	L. 7/94	Region – Official Bulletin	Use of 100% recycled paper for printing the Official Bulletin
Umbria	L. 21/98	Public administrations of dependent authorities or regional institutions operating in the Umbrian territory	Use of a 40% recycled paper quota in the first 2 years, 50% in the 3 rd and 4 th year; 60% starting from the 5 th year
Umbria	L. 39/00	Region – Official Bulletin	Use of printing recycled paper
Provincia autonoma di Trento	L. 5/98	Province, dependent public authorities, local authorities	Use of a 50% recycled paper quota
Tuscany	L. 29/02	Region, Provinces, Municipalities, other Authorities, Institutions and Companies under the supervision of the Region, Provinces and Municipalities	Use of a 40% recycled paper quota
Piemonte	L. 30/90	Region	Pilot experience for the use of recycled paper with the purpose of setting minimum quotas for the coverage of recovery product needs
Marche	L. 28/99	Region, Provinces, Municipalities, other Authorities, Institutions and Companies under the supervision of the Region, Provinces and Municipalities	Promotion of recycled paper use according to regional Council act
Lombardia	L. 21/93	Region, dependent Authorities and Companies	Use of a 30% recycled paper quota

Lazio	L. 27/98	Region, Authorities and Administrations dependent on the Region, Local Authorities	Use of a 30% recycled paper quota
Campania	L. 18/02	Region, dependent Administrations or in any case instituted by the Region with offices operating in the Campano territory	Use of a 40% recycled paper quota in the first year, 50% in the 2nd and 3rd year; 60% starting from the 4 th year. Acquisition of equipment for the use of recycled paper on occasion of substitution and/or increase of existing equipment
Basilicata	L. 25/93	Region, Regional authorities	Use of a 30% recycled paper quota
Abruzzo	L. 83/00	Region, public authorities (also economic)	Use of a 40% recycled paper quota

It must be also underlined that GPP can become a standard process within Environmental Management Systems, requiring the use of products and services with a low environmental impact for the reduction of the environmental impacts of the activities of the authorities involved or it can be adopted within Local Agenda 21' s Action Plans.

Information and training activities

Information and training play an important role in all strategies pursuing the objective of the systematic introduction and implementation of GPP, because the lack of knowledge in the matter is generally the main obstacle to its diffusion.

The information and training activities cover the following issues:

- the possibilities of including ecological criteria in the public administration's purchasing practices without clashing with the principles of free competition and non-discrimination;
- the nature and characteristics of the products and services with a lower impact on the environment;
- the advantages of GPP.

These activities, mainly the information ones, must be addressed not only to the managers and employees of public institutions, but also to the suppliers of goods and services used by the Public Administration. It is necessary to raise awareness and prepare manufacturers to the changes required by GPP introduction, so as to guarantee on one hand the availability on the market of

products and services with a low environmental impact, and on the other hand, the start of a process of continuous environmental improvement.

The most widely spread means of communication for the diffusion of relevant information is surely the electronic one. Thus, there are several authorities using internet sites for the publication of databases containing:

- pilot experiences;
- ecological criteria relating to products and services used by PAs;
- lists of products and services with a low environmental impact.

The approach here described entails also the publication of manuals and guidelines for GPP adoption.

BOX 1

CASE STUDY: THE GPP DIFFUSION IN FRANCE

The National Strategy for Sustainable Development, approved by the Interdepartmental Committee for French Sustainable Development on the 3rd June 2003 presents important references to GPP, which can be found along the whole process leading up to the definition of the Strategy.

From the very start, France identified as its "strategic theme" for intervention the *Perfect State*, that is a Public Administration setting the example of a "careful attitude towards the environment".

The *preliminary document of the Strategy definition*, elaborated on the 28th November 2002, includes ten technical data sheets, relating to as many short-term interventions, which can be referred to the "*Perfect State*" strategic line, among which:

- Sustainable development of products
- Training and raising awareness of eco-responsible practices in the Public Administration
- Integration of sustainable development in public contracts

One of the first concrete initiatives in the direction described in the documents has been the creation of a site, designed by the Ministry of Ecology and Sustainable Development, dedicated to eco-responsibility:

<http://www.ecoresponsabilite.environnement.gouv.fr/>

The objective of the site is to guarantee or support:

- The information destined to public purchasers in terms of sustainability objectives, and the legal problems arising from the inclusion of ecological criteria in public administration purchases;
- The collection and assessment of good public eco-responsible purchasing practices;
- The training of staff employed in the administrative sector of local public administrations.

The site's intervention areas are as follows: Purchases, Waste, Water, Energy, Construction, Other, Mobility.

The Purchases section is in turn divided into: Site's Presentation; General information on eco-responsible purchases; Product information; Legal information; Initiatives, Training.

The following information can be found here:

- Generic environmental information, aiming to raise public purchasers' awareness;
- A database on the environmental and usage features of the products available on the market;
- Legal information relating to the possibility of integrating environmental considerations in public tenders;
- A training module destined to public purchasers, with the purpose of spreading a common culture on environmental integration in public purchases;
- A presentation of current initiatives and good practices.

The core of the site is made up of the *Product information* section which contains indications relating to 17 product categories, among which: office products, office furniture, green areas, free time and sport, communal catering, hygiene and safety, constructions, water supply, transports, educational services, press, archives, thermal appliances, cooling appliances, cleaning, other. For each one of these categories the following information is provided: environmental objectives, market features, environmental aspects, the necessary characteristics to reduce environmental impacts, references to ecological labels.

Sharing good practices

The sharing of good practices represents a key approach of all sustainable development strategies. In the GPP field, the transfer of experiences from a local authority to another may prove to be extremely useful, because the inclusion procedures of ecological criteria in tender notices can be standardised.

The same ecological criteria can be chosen by taking as an example those used by others. It is also possible to identify, through the existing experiences, the best approach to take towards suppliers, both when they have to be involved and informed and when it is necessary to carry out suppliers' control and monitoring activities.

Last but not least, the introduction of green purchasing practices can start from those sectors, or specific products or services, for which there are already some consolidated experiences proving that not only is it possible to buy green from a legislative point of view, but also that the adoption of GPP does not necessarily result in increased costs.

The creation of networks of local authorities choosing to opt for GPP policies is a first step towards the sharing of good practices that can occur through the organization of meetings, the distribution of newsletters, the formation of Round Tables and theme working groups.

It shall be highlighted that networking can lead to further collaboration forms in GPP implementation, for example through the creation of collective competitive tenders, which guarantee the exploitation of scale economies, aiding the authorities from an economic point of view.

BOX 2

CASE STUDY: ICLEI INITIATIVES FOR SUSTAINABLE PROCUREMENT

ICLEI (International Council for Local Environmental Initiatives), in its capacity as the European local authorities organizing body, has activated a programme of specific initiatives for the diffusion of sustainable purchases (Sustainable Procurement). The programme plays an important role as a point of reference for the exchange of information and experiences among local and professional authorities relating to environmentally and socially preferable purchases. The exchange and diffusion of information take place thanks to the organization of conferences and seminars on relevant themes, the publication of studies and researches, the coordination and dissemination of pilot project results.

An integral part of the programme is also the BIG-Net, *Buy It Green Network*, Network for Sustainable Procurement Professionals in Europe, which sees the participation of more than 50 public administrations of around 20 Member States. The main objective of BIG-Net is to exchange information among GPP "pioneering" authorities and those who have been recently approaching the theme. It also favours the comparison between purchase managers of different local authorities and between the latter and environmental experts.

The network participants are regularly updated on the state-of-the-art in the GPP field and relevant issues by means of computerized communications and they have the opportunity to participate in meetings among professionals. The BIG-Net also represents a "technical" reference point for local authorities undertaking the Procura+ Campaign, launched by ICLEI with the purpose of contributing to GPP implementation in Europe starting from 6 key products and services with their relative environmental criteria:

- electricity from renewable resources;
- high energy efficiency computers and electronic equipment;
- organic food for canteens, hospitals and catering in general;
- buildings conforming with the high standards of heating and air-conditioning efficiency;
- cleaning services oriented towards the protection of human health;
- public transport services oriented towards quality and means with minimum emissions.

It has to be noted that the choice of these products and criteria is not arbitrary, but it is the result of the RELIEF project experience, started in 2001 and finished in 2003. RELIEF is a research project financed by the European Commission within the Fifth Framework Programme action *City of Tomorrow and Cultural Heritage*. Behind coordination from ICLEI, 6 local Administrations (Malmo, Kolding, Miskolc, Hamburg, Stuttgart, Zurich) of 5 different European countries and several research institutions participated in the project implementation, with the purpose of identifying and quantifying the environmental benefits that may potentially be obtained thanks to GPP implementation. The following table summarizes the main project results in terms of environmental impact reductions that could be obtained if each product was to be substituted with a green equivalent from all PAs in Europe:

PRODUCT	ENVIRONMENTAL IMPACT TYPE	POTENTIAL BENEFITS
Bus	Ozone formation (t C ₂ H ₄ equivalent)	-3,350
Sanitary equipment	Water consumption (l)	-190,407,539
Computers	Green house effect gas emissions (t CO ₂ equivalent)	-832,320
Food	Eutrofication (t PO ₄ equivalent)	-41,560
Electricity	Green house effect gas emissions (t CO ₂ equivalent)	-61,350,363

The EU approach for GPP promotion

As it has already been illustrated, GPP holds a very important position in the official environmental policy documents of the European Commission, which, in order to foster its diffusion, has adopted a strategy entailing the use of different kinds of instruments and the involvement of stakeholders at different levels.

The community approach has as its starting point the need for concrete action in order to encourage public authorities to take advantage of the opportunities they are offered by the current legislation concerning public contracts. With this purpose, in 2001 the Commission published the Interpretative Communication on the Community law applicable to public procurement and the possibilities of integrating environmental considerations into public procurement (N.2001/274), which underlines the procedures that a public institution can follow to include ecological criteria in its own competitive tenders without incurring any legal matters.

To date, Community Directives on public contracts are currently being revised and hopefully it will be possible to make even more explicit in the statutory texts the use of environmental requirements when choosing the products and services purchased by a PA. In any case, the Commission is already working on a practical Manual aimed at public institutions needing further clarifications on the use of GPP in their purchasing practices.

At the same time, the Commission is trying to facilitate the information flow on GPP and on the products and services with a low environmental impact. In order to reach this objective, at the start of 2004, a database on products and services was created (*European Green Procurement Database*), including in one web site:

- information on the environmental impacts of around 100 groups of products and services that are usually purchased by public and private institutions;
- the ecological criteria that such products and service must comply with in order to be judged as having a low environmental impact;
- information on ecological labels existing at European and international level;
- the relevant legislation in terms of GPP application;
- general notions on GPP objectives and policies.

The database is currently on trial and it is expected to be extended and translated into the various official European languages, as at the moment it is only available in English at the address:

http://europa.eu.int/comm/environment/green_purchasing.

1.6 The GPPnet project

The introduction of GPP in the Province of Cremona is based upon the idea of focusing on GPP as the means to achieve environmental sustainability objectives. Hence the use of the financial instrument LIFE Environment of the European Union for the implementation of the GPPnet, *Green Public Procurement Network* project.

The LIFE Environment programme contributes to the implementation of demonstration and innovative actions for preparatory actions in support of environmental legislation. In particular, the GPPnet falls under the activities for the minimization of the environmental impacts of economic activities.

The GPPnet takes the form of a path leading to the creation of the necessary and lasting conditions for systematic GPP introduction in the purchasing practices of the public administrations involved in the project.

The ultimate purpose of the project is thus to arrive at the creation of a local *eco-procurement* district, in which the local institutions (that is the Province of Cremona and the 13 Municipalities involved in the project) substitute their current goods and services with others having a lower environmental impact, purchased from suppliers that have operated an ecological conversion in order to satisfy public demand.

The strategy for GPP introduction and diffusion, elaborated within the GPPnet project, is set out in the following key points:

- *The creation of a network of “experimental” GPP authorities and recipients of training and information activities.*

The experimental authorities are 14: the Cremona Province and the Municipalities of Casalmaggiore, Castelleone, Crema, Gerre de Caprioli, Motta Baluffi, Pescarolo, Piadena, Pizzighettone, San Bassano, Soresina, Spineda, Stagno Lombardo, Vescovato. The authorities share the GPPnet experience by participating in workshop meetings and training days, as well as directly experimenting the GPP, through the inclusion of ecological criteria within sample calls for tender.

The information and training activities are supported by the distribution of *ad hoc* materials, by the use of the project web site and by the activation of a help line for assistance in carrying out the several project tasks. This handbook is the main supporting instrument for GPP implementation.

- *Analysis of the local authorities' activities and the environmental impacts of these activities;*

The activities carried out by the local authorities are analysed through the use of two checklists, one query checklist and a detail checklist. With the query checklist the characteristics of each institutions are detected in terms of structure, competences, purchasing organization and supply of goods and services. With the detail checklist, specific details are explored with regards to the type and quantity of goods and services purchased/supplied by the single authorities. The information collected with the checklists lays the foundation for the construction of a hierarchy of the environmental impacts of the authorities' activities. Starting from this hierarchy, the authorities can choose to which goods and services GPP should be applied according to their environmental policy priorities.

- *Communication and information addressed to suppliers;*

The suppliers are involved in the project with the purpose of making GPP introduction a common goal. Public demand for green products and services must be interpreted as an incentive towards environmental innovation, followed by an ecological conversion of production activities, rather than a discriminatory activity towards local manufacturers. The communication and information activities have thus the purpose of raising supplier's awareness and putting them in the condition to be able to satisfy local PAs demand. The diffusion of the information and the dialogue with suppliers take place via the distribution of informative material, an internet forum and the organization of Round Tables.

- *The creation of a network for sharing best practices with other Italian local authorities.*

In order to disseminate the GPPnet experience and to acquire at the same time information on best practices of other local authorities, the project has a diffusion committee, the GPPinfoNET, which counts around 30 members among regional, provincial and municipal administrations, scattered around the national territory, Park Authorities, Regional Agencies for Environmental Protection, the Ministry for the Environment and Territory Protection, ICLEI.

The main GPPinfoNET communication tool is a two-monthly bulletin, but "matches" between committee members are also organized. The latter are also encouraged to take part in meetings aimed at spreading the project.

The methodological and operational path, described in the relative handbook sections, are an integral part of the GPPnet strategy and must serve as a guide to the authorities wishing to adopt GPP, both in the project implementation phase and in the future.

BOX 3 DETAIL: THE GPPINFONET

The GPPinfoNET is the GPPnet project's diffusion committee, set up by the Cremona Province with the purpose of spreading the project experience and results, but above all to stimulate the GPP debate in Italy and promote its implementation with other Local Authorities. The GPPinfoNET is supported by the Italian Association for Local Agenda 21.

→ THE GPPINFONET MEMBERS AS OF JANUARY 2004:

MUNICIPALITIES	PROVINCES	REGIONS	PARK AUTHORITIES
Ferrara	Bologna	Liguria	Veio
Lula	Firenze	Marche	Dolomiti Bellunesi
Matera	Genova	Umbria	
Oppido Lucano	Lecco		
Palermo	Modena		
Pavia	Pesaro e Urbino	ARPA	OTHER AUTHORITIES
Roma	Potenza	Lazio	Ministry for the
Rubano	Torino	Lombardia	Environment and
S.Stefano di Calastra		Piemonte	Territory Protection
Sesto San Giovanni		Toscana	ICLEI
Specchia			

→ THE TWO-MONTHLY
BULLETIN :

All bulletin issues can be
downloaded from the
GPPnet project site:
www.provincia.cremona.it/servizi/ambiente/gppnet

For further information
and participation:
Nina Vetri
c/o Ecosistemi s.r.l.
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ANNEX 1

Integrated Product Policy Instruments

INFORMATION SHEET 1

LIFE CYCLE ANALYSIS

What is it?

Life Cycle Analysis (LCA) is to date the most innovative approach available to acknowledge the environmental impacts of a “product system” along its whole Life Cycle. It implies the identification and quantification of materials and energy consumption and of releases into the environment from the extraction of raw materials to the disposal of waste.

Objectives

The main objective of an LCA is the assessment of the environmental impacts associated with the various life cycle phases of a product, process or activity in the scope of an environmental improvement, hence for the identification of potential areas of intervention for the reduction of the environmental impacts of that product, process or activity.

Methods and applications

According to standard ISO 14040, a thorough LCA study for any product type involves 4 phases:

1. *Goal and scope definition*: the study purposes, the functional unit, the borderlines of the analysed system, the data requirement, the basic hypotheses and corresponding representativity limits are established.
2. *Life Cycle Inventory (LCI)*: the energy and raw material flows coming into play in the life cycle of the process and/or activity system considered are analysed; this phase takes into account all transformation and transport processes pertaining to the system, creating the analogue model of the actual system under examination.
3. *Life Cycle Impact Assessment (LCIA)*: it is the study of the environmental impact caused by the process or activity, which has the purpose of highlighting the extent of the modifications generated from the release into the environment and the resource consumption calculated in the inventory.
4. *Life Cycle Interpretation*: it is the final phase of an LCA and has the purpose of identifying the changes necessary to reduce the environmental impact of the processes/activities making up the system analysed.

Links with GPP

The life cycle approach enables an administration to substitute the products and services it uses with products and services that have a lower environmental impact over the entire production process.

INFORMATION SHEET 2

LOCAL AGENDA 21

What is it?

Local Agenda 21 is a strategic policy instrument that local administrations can use in order to manage the areas under their jurisdiction in a coordinated and shared manner and in compliance with the sustainable development principles set out in the *global* Agenda 21, signed by over 170 Countries in Rio de Janeiro in 1992 at the United Nations World Conference on Environment and Development.

In practice, a Local Agenda 21 is characterised as a multi-sector and sharing process where all local community members are expected to take on their own responsibilities towards others and communicate with each other in search of strategies and solutions which satisfy everyone's needs, including the ones of future generation.

Objectives

Ultimate aim of a Local Agenda 21 is the implementation of a Local Action Plan capable of contributing to the achievement of local and global sustainability objectives. This cannot leave aside the promotion of the participation of all local community members in the definition of local development strategies.

Methods and applications

The process of building a Local Agenda 21 is made up of several steps:

- *Process start-up* which is formalised by adhering to the Aalborg Charter, whereby an Administration undertakes to translate on a local scale the sustainable development principles through policies and action plans;
- *Information* of the local community on sustainable development principles; *Forum Activation*, a place for confrontation and debate where all stakeholders are called upon with the task of orientating the Agenda 21 elaboration process and monitoring its application;
- *Drafting of the Report on the State of the Environment*, where all basic data on the physical, social and economic environment are gathered in order to identify the main problems of the area and the relative causes;
- *Definition of the objectives* directly linked to the priorities of the intervention;
- *Construction of the Local Action Plan*;
- *Reporting* that is the permanent control on the Action Plan implementation and effectiveness.

Links with GPP

GPP practices can be used in order to reach the environmental improvement objectives identified in the Local Action Plan, thus becoming one of its executive instruments.

INFORMATION SHEET 3

ENVIRONMENTAL ACCOUNTING

What is it?

The concept of “environmental accounting” embodies practices and methodologies aimed at building a solid knowledge base for the definition of sustainable development strategies and policies. The knowledge should start from the accurate description of the state of the environment and the interactions between human activities and nature to arrive to the quantification of the environmental impacts of human activities. This should serve the purpose of informing not only political decision-makers but also the audience that must be involved in the decision-making process.

Objectives

The aim of environmental accounting is by definition *to take nature into account*, so as to facilitate the integration of environmental considerations in decision-making processes. Operational objectives are: to acknowledge the natural limits that human activities must respect; to quantify current consumption rates and future availability of natural resources; to attribute an adequate value to the natural heritage in order to guarantee its preservation; to identify the underlying causes of the environmental change.

Methods and applications

Environmental accounting can be adopted by both companies and public authorities on a national, regional or local scale. Environmental accounting systems can also review a territory, a natural resource or an activity and be of a physical, monetary or integrated nature.

Physical environmental accounting is made up of an *information* system based on physical environmental accounts that gather data on the flow of resources (input) and of waste and emissions (output). Environmental indicators, Reports on the State of the Environment, Ecological Footprint, Eco-budget, Material Flow Analysis, Emergy Analysis are all physical accounting instruments.

Monetary environmental accounting techniques concern the economic assessment of environmental goods. They are based on the elaboration of economic *accounts* of the territory supported by macroeconomic *performance indicators* for the sustainability assessment of development. The most common method is the calculation of defensive expenditure aimed at determining the expenses incurred by the different agents in order to improve and/or maintain a certain standard of environmental quality.

Integrated economic and environmental accounting entails the integration of traditional economic accounts with physical accounts of natural resources and emissions into air, water and soil. An example is the NAMEA, the National Accounting Matrix Integrated with Environmental Accounts developed by the Dutch National Statistical Office.

Links with GPP

Environmental accounting can be used to monitor GPP implementation both in terms of expenditure for environmental protection, and in terms of environmental effectiveness with the aid of environmental indicators.

INFORMATION SHEET 4

ECOLOGICAL LABELS

What are they?

Eco-labels or environmentally-friendly labels are labels applied directly on to a product or service which provide information on its overall environmental performance, or on one or more specific environmental aspects.

Objectives

For companies, eco-labels are a useful market tool for underlining the environmental performances of their own products in comparison with those of their competitors'. The eco-label is thus an important market lever, as thanks to this, it is possible to direct end consumers' purchases towards goods that are more respectful of the environment. On the other hand, eco-labels are essential in order to promote responsible consumption, as they favour consumers' access to comprehensible, relevant and credible information.

Methods and applications

The labelling systems can be divided into compulsory and voluntary.

Compulsory labelling is applied within the European Union to different sectors and binds manufacturers-users, distributors and other concerned parties to comply with legal requirements. Compulsory labels are mainly applied to the following product groups: toxic and dangerous substances; household appliances (energy label); food; packaging (packaging label); electricity from renewable resources (green certificates).

In the case of *voluntary labelling* the request for a label is completely voluntary, so the manufacturers, importers or distributors can decide to adhere to the labelling system once they have verified the products compliance with the criteria set by that specific system. Voluntary labels can be distinguished on the basis of the definitions given by the international standards of the series 14020:1999. Labels ISO Type I-ISO 14024, based on a multi-criteria system which takes into account the whole product life cycle, certified and managed by an independent third party, indicate the best environmental performances of a product belonging to specific categories. Under this category we can find: the European eco-label; the most widely spread national labels such as Blauer Angel (Germany), White Swan (Denmark, Sweden, Finland and Iceland), Green Seal (United States), NF Environnement (France), Milieukeur (Netherlands), Umweltzeichen (Austria); the labels identifying the products deriving from organic farming; the Forest Stewardship Council (FSC) attesting the traceability of products coming from sustainably managed forests. The labels ISO Type II-ISO 14021 are environmental self-declarations from manufacturers, importers or distributors of products, not certified by an independent organism.

Links with GPP

The PA's can recognise the products with a reduced environmental impact thanks to the presence of eco-labels. Furthermore, the same ecological criteria that a product must respect in order to obtain a certain label can be included as environmental prerequisites that a product or service must possess within public calls for tender.

INFORMATION SHEET 5

ENVIRONMENTAL PRODUCT DECLARATION

What is it?

The environmental product declaration (EPD), based on the ISO 14025 model, is a *voluntary* declaration developed by a manufacturer, using an LCA type instrument which quantifies the environmental impacts of its products or services during the life cycle. The EPD, which can be applied to any product or service, is thus a communication medium able to spread relevant environmental information and to reflect the continuous improvement of the products environmental characteristics. In other words, it represents an informative document, presenting the impacts in such a way as to facilitate comparison among products through the standardisation of some parameters.

Objectives

The objective of an EPD is to provide the base for a fair comparison among products and services through reliable information about environmental performances, so as to: activate competitive mechanisms among companies pursuing sustainable development; direct PA choices in terms of purchases by providing the necessary information to initiate Green Public Procurement; direct companies' choices, for example linked to the management of the products life-end by providing the information necessary to understand the extent of the problems carried by the single product categories.

Methods and applications

This type of environmental labelling is still being examined at the international level. The publication of a standard shared by the different parties involved has not been achieved yet. In general, however, an EPD contains the following information:

Description of the company and product or service covered by the EPD: in this instance, the company may communicate other initiatives, if any (aside from EPD), completed or in progress, in the environmental field, such as the attainment of ISO 14001 or EMAS certification;

Declaration of the product or service environmental performance: this is the "core" of an EPD where the company communicates to the public, through a series of standardised environmental parameters, the environmental profile of its product or service; the objectivity of the results presented in this part is guaranteed by compliance with ISO series 14040 standards for the applied study methodology, that is the LCA;

Additional information coming from the company: in this part, the company communicates a series of additional information, such as indications for an ecologically correct use of the product or its appropriate disposal;

Information coming from the certifying authority: the authority certifying the EPD, and in particular the LCA study, which provides its base, communicates in this part information relating to the certifying authority and the period of EPD's validity.

Links with GPP

PAs can use EPDs in order to compare the environmental impacts of different products/services and identify those with the lowest environmental impact.

INFORMATION SHEET 6

COMPANY'S CERTIFICATIONS: EMAS AND ISO14001

What are they?

EMAS and ISO14001 certifications are issued to the companies which adopt, on a voluntary base, an Environmental Management System (EMS) conforming to environmental management standards recognised at the EU level for the former, and at the international level for the latter. The EMS is a tool for the analysis and control of the company's environmental performances and finds its place within the overall management system, acquiring and coordinating previously existing environmental procedures and responsibilities.

Objectives

EMS have the objective of controlling and reducing the environmental impacts of a company's activities. With the certification, companies can use environmental quality as a competitive factor and improve their image in the eyes of consumers.

Methods and applications

The EMAS Regulation, established with the Community Regulation 1836/93, is adopted on a voluntary base by companies and is provided with a control system which avails itself of independent private subjects (certified environmental inspectors). The activities which a company must carry out in order to obtain the certification are:

- *preliminary analysis* that serves to identify all significant environmental aspects linked to the production process, as well as the relevant environmental laws and regulations;
- *environmental policy adoption* where the objectives of environmental improvement to be pursued by the company are outlined;
- *environmental programme* which defines the objectives and the activities and the measures and the instruments adopted in order to reach them;
- *environmental declaration* which is drafted after the environmental analysis and the audit activities and which represents an information medium for the public.

The ISO14001 certification is conceived on a private base and is issued by authorities operating according to their own rules and procedures.

In order to obtain the certification, the company must carry out the same activities involved in the EMAS with some differences: compliance with the legal system must not necessarily be respected in all its aspects; the environmental analysis is not compulsory but recommended; the environmental declaration to the public is optional.

Links with GPP

The possession of EMAS or ISO14001 certification provides the PA with the guarantee of a supplier's environmental "good conduct".

INFORMATION SHEET 7

EMAS WITHIN LOCAL ADMINISTRATION

What is it?

EMAS is the European Eco-Management and Audit Scheme to which organisations that carry out activities with significant environmental impacts can voluntarily adhere. Following the amendments made in March 2001 with the EC 761/01 Regulation, Local Authorities are to be found among the organisations that can obtain the EMAS registration. The possibility of registration with EMAS allows the Administrations to pursue the objectives of territorial protection and of environmental quality improvement by means of an Environmental Management System, in addition to the required compliance with current legislation.

Objectives

The EMAS objective is to promote and implement Environmental Management Systems (EMS) within organisations so as to obtain: the continuous improvement of the organisation's performances through a more efficient resource management; an increased public's trust through the environmental declaration whereby the organisation's environmental objectives and commitments are made known.

Methods and applications

The start of the certification process according to EMAS regulation is completely voluntary. The introduction of the EMS into the Local Authority must go through the following phases:

- *Initial Environmental Analysis* consisting of an in-depth investigation into the problems and environmental impacts related to the activities managed by the Authority in its territory and to those on which the Authority has influence, in its regulating capacity;
- *Environmental Policy* defining the Municipality's objectives and action principles in the environmental field;
- *Environmental Programme* that contain the details of the Environmental Policy objectives and describes the necessary actions, times and resources to obtain them;
- *Environmental Management System*, that is the Authority's overall management system part that comprises organisation structure, responsibilities, procedures, processes and resources in order to define and implement the Environmental Policy;
- *Audit* consisting of a systematic, periodical, documented and objective assessment of the organisation's performances, the environmental management system and the processes aimed at protecting the environment;
- *Environmental Declaration* directed to the public.

Links with GPP

The GPP can be used as an executive instrument of the Environmental Programme of a Local Authority in order to reach the environmental improvement objectives identified within EMAS.

**ANNEX 2
PILOT PROJECTS AND EXPERIENCES IN THE GPP
FIELD**

1. UNITED STATES: ENVIRONMENTAL PROTECTION AGENCY (EPA) ACTIVITIES

The American EPA started to deal with “green” purchases for federal agencies in 1993 in reply to the *Executive Order* “Federal purchases, waste recycling and prevention” in which it was entrusted with the task of providing public agencies with guidelines in the choice of products and services to purchase.

Thus, EPA came up with the idea of starting the EPP “Environmentally Preferable Purchasing” Programme, officially elaborated in 1995.

In 1998, with a new government order, aimed at making public institutions’ purchasing choices environmentally correct through waste prevention, recycling, etc, the EPA was specifically requested to develop some guidelines in order to orientate purchases in an environmentally correct sense and to implement some pilot and demonstration projects which may serve as an example to public administrations.

The guidelines provided by the EPP programme are of a generic nature and can be easily applied to more product and service categories, as proven by the wide GPP diffusion in all US public offices.

In the guidelines five fundamental principles are highlighted which the public administrations should apply when making their purchasing choices:

- Emphasising pollution prevention already in the purchasing processes;
- Examining the complex environmental characteristics through the product and service life cycle analysis;
- Comparing the relevant environmental impacts of similar products and services;
- Organising and basing purchasing decisions on accurate and reliable environmental performances.

EPA is in any case aware of the fact that the applicability of such principles varies from case to case on the basis of the type and complexity of the products and services that must be purchased, on their commercial availability, on the type of purchasing system used (e.g. negotiated contracts, secret offer, etc).

Furthermore, the environmental criteria to be considered in order to assess different product categories have been defined. The environmental criteria are divided in four groups. For each group different factors are considered:

- Use of natural resources (impacts on ecosystems, energy consumption, water consumption, etc);
- Human health and ecological stress (pollutants subjected to bioaccumulation, chemical agents reducing the ozone layer, outdoor and indoor air pollutants, etc);
- Risk factors associated with materials (toxicity, carcinogenic agent, neurotoxicity, etc.);
- Positive elements (recycled material content, disassembly potential, durability, etc.).

For what concerns the choice of products and services on the basis of the assessment of the different impacts which they generate, EPA suggests considering three fundamental characteristics of the environmental impacts so as to define a hierarchy:

- Persistence time and geographical scale (EPA suggests considering the local impacts of products bought and used in a certain territory);

- Differences between competitive products (in general, preference must be given to the products contemplating a significant environmental improvement compared to other products);
- Human health (the products protecting human health must be preferred as environmentally correct; for this purpose, the following factors are mainly considered: air pollutants, dangerous air pollutants, indoor air pollution, workers' exposure to chemical products, bio accumulative pollution).

In order to orientate public authorities' purchasing policies, EPA has created a large database of pilot projects relating to different product categories: cleaning and varnishing products, constructions, copy and printing paper, printing accessories, electric energy. On the Agency's web site an interactive training tool is also available to those who are about to implement a green purchasing system (General EPP Training Tool).

Another important sector within the EPP programme is the construction one: people are encouraged to use, for the maintenance of old buildings and for the construction of new ones, recycled construction material, non toxic and environmentally friendly paints and colours; people are also requested to respect energy efficiency principles in order to improve the indoor comfort as well as the outdoor environment and the importance of the use of renewable resources is also stressed (photovoltaic roofs, solar energy, etc).

EPA committed itself (December 1997) in this direction, in the design of its two new offices, taking into account the following factors in the construction phase:

- Protection of indoor air quality;
- Maximisation of energy efficiency;
- Reduction of water consumption;
- Promotion of alternative means of transport;
- Pollution prevention starting from construction processes (accurate material selection).

In order to facilitate environmentally compatible choices in the constructions sector, EPA has created a software (BEES, Building for Environmentally and Economic Sustainability) which is used to identify products that reduce energy consumption, improve air quality and other conditions which enhance buildings' environmental performances. The software can be downloaded for free from the web site of the laboratory which created it¹.

¹ <http://www.epa.gov/oppt/epp/tools/bees.htm>

2. UNITED STATES: PILOT PROJECT SELECTION

1993, Cleaning products pilot project

The first EPA pilot project, started in 1993, concerned cleaning products and was applied in the State of Philadelphia. At first, in-depth studies were carried out in order to assess the environmental compatibility of many cleaning products, by taking into account several characteristics: presence of potentially irritating substances, biological degradation time, bio-concentration factor, percentage of volatile organic compound, quantity of packaging materials, etc. The objective of the study, conducted on 29 product samples, was the creation of correct information for subsequent purchasing choices. Once the initial difficulties in obtaining correct and complete information and in carrying out specific analyses on the products had been overcome, they arrived at a catalogue of around a hundred "green" cleaning products, whose first version was published in 1996. Following this publication, many manufacturers asked to be included in the list by voluntarily giving information on their product characteristics. The list is presented in the form of a matrix: each product is assessed on the basis of 7 particularly significant qualities from an environmental viewpoint, such as: skin irritation, food chain exposure (bio-concentration factor), potential air pollution (% Volatile Organic Compound); content of aromas/scent; content of dyes/paints; use of reduced packaging quantity or recycled material packaging; degree of concentrated exposure. The matrix also serves as reference for other products that haven't yet been included. The project underwent examination from suppliers as well as manufacturers: it was felt necessary to consider other elements, the "green" public purchasing system was simplified and the matrix was used in other project specifications on the USA territory. Thus, the first GPP pilot project served the purpose of proving the effectiveness of an integrated action among the different players in this field and a large involvement of all stakeholders. The need to simplify purchasing practices came to the forefront so that purchasing managers in public administrations may easily consider even the environmental aspects of goods and services.

1998, The city of Santa Monica's Environmental Purchasing

The service dealing with environmental programmes in the city of Santa Monica started a project to introduce environmental criteria in the already existing organisation's procurement system, starting from: alternative cleaning products, instruments used by the car fleet management division, integrated management of pesticides used in the city, recycled products (office paper, road maintenance materials, re-refined oil for engines, paints, laser print cartridges, etc). GPP implementation in Santa Monica also contemplates the involvement of end users and training and assessment measures of the specialised staff. The procurement system must thus be performed in distinct phases:

- product search;
- specifications design;
- collection of information from salesmen;
- assessment of the offers and products tests;
- pilot project experimentation;
- end user training;
- product and process assessment.

The tendering procedures and as such the contracts, vary according to the quantity of money spent on the procurement and the volume and frequency with which the work is carried out. The introduction of environmental criteria in the purchasing procedures does not require longer time frames or radical changes in the procedures themselves, only the specifications to be considered change. Santa Monica's procurement decisions are based on three fundamental criteria: environmental and human health, performance and cost. Furthermore, in the municipal town regulation there is a clause which favours the inclusion of environmental criteria within procurement choices. In fact, it is stated that "the lowest and most responsible offers" have to be preferred. The quality of the materials and services offered is one of the criteria used to consider the supplier's "responsibilities": respect towards the environment can be reasonably included here.

Environmentally compatible purchases in Santa Monica are conducted as follows:

- the *Environmental Programme Division* implements the TUR programme, a series of policies aimed at reducing the use of toxic substances in the city, regulating the procurement of any product containing chemical substances. The Environmental Programme Division conducts research, designs specifications, monitors offers and compiles recommendations;
- the *other divisions*, including the designing stage of public works and the management of the car fleet, also conduct research, design specifications, monitor offers and compile recommendations;
- the *Town Council* monitors and approves all offers for contracts over 25.000 \$ including the offers for alternative cleaning products, supporting environmentally responsible procurement;
- the person in charge of purchases in the *Procurement Division* supplies the single departments and the central warehouse. If the products contain chemical substances he/she consults the Environmental Programme Division for recommendations. These individuals are also responsible for the town policy relating to products containing recycled material;
- *each department* in the town contacts the Procurement Division for all purchases over 1000 \$. Furthermore, they make small purchases (under 1000\$) using quick purchase orders. They must be informed about the town policies on the products containing recycled material and chemical substances but they act independently. The single departments obtain several articles, such as cleaning products and recycled office paper, from the central warehouse.

It must be underlined that the city of Santa Monica subsequently committed itself to extending green purchase practices to other product types in 1999 and it was the first American city to purchase 100% of its electricity from renewable energy sources.

2000, Cleaning National Parks: Using Environmentally Preferable Janitorial Product at Yellowstone and Grand Teton National Park.

The aim of the project was to get the staff in charge of cleaning the public areas of these two parks to buy cleaning products and toiletries (toilet paper, soap, etc) which would be safer from an environmental and human health viewpoint. Furthermore, an attempt was made in order to reduce the product types purchased by rationalising the procurement system and to involve employees at all levels, from managers to workers, in order to ensure the initiative success mainly through training measures.

The project started in September 1998 by itemising all cleaning products used in the Yellowstone Park and interviewing all cleaners in order to discover their use procedures. The consultants working on this project already had sound experience in the matter as they had also conducted the pilot project in the city of Santa Monica. In fact, the product choice was made on the basis of the technical specifications contained in the cleaning products procurement tenders of Santa Monica.

Shortly after that, an experimentation phase was started only in two of the Park districts so as to test the use of the new cleaning products and a guide to the purchase of the new products was created. Besides, a guide was provided for the use of every single new product introduced in the purchasing system so as to ensure its correct use, while respecting the environment and human health.

The consultants followed step by step the installation of new tools for the new products (dispensers, diluters, etc) and carried out regular inspection visits in order to verify the ongoing correctness of the programme. From the experimentation phase some positive results emerged and thus after consultation with all individuals concerned it was agreed to extend the whole project to the entire national Park system.

Thanks to the positive results (expenditure reduction, reduction in the number of products purchased, simplification of the purchasing system, use of more environmentally friendly products, etc) the project was also implemented in the Grand Teton Park.

3. EUROPE: SOME STRATEGIES AT NATIONAL LEVEL

GERMANY

The Federal Association for the Environment (BFUB), with the support of the Ministry of the Environment and the Agency for the Environment, has established the internet site www.beschaffung-info.de addressed to both public and private purchasing managers. The site contains a calendar of events, relevant updates, recommendations to follow in order to start purchasing environmentally products and information on products, services and suppliers. Among the various services offered, there is the "buy and sell" forum for the exchange of second-hand products and a section containing the legal references applicable to public procurement. In the section "Firsthand reports" some significant GPP experiences are told, for instance the one made by the Environmental office of the city of Heidelberg which carried out a systematic assessment of construction materials and moved to more environmentally friendly products. The federal law on waste explicitly requires that the Public Administration purchase eco-sustainable products rather than others. Moreover, several regional and municipal Authorities have issued deliberations requiring the use of environmental criteria in contracting procedures, in compliance with the economical and transparency principles.

ICELAND

Act No. 94/2001 on public purchases outlines in article 26 the contract awarding criteria: "Tenders must include a description of the criteria for the selection of a contract in as much detail as possible. The criteria cannot refer to factors other than the ones for which it is possible to demonstrate relevance in relation to the materials supplied, or factors for which an objective measurement methodology does not exist. If the authority issuing the tender wants to award it on the basis of the most advantageous offer this criterion must be specified and listed in order of importance, wherever possible. The environmental factors can be considered in the assessment of the most economically advantageous offer".

NORWAY

The Report No.58 of the Ministry of the Environment (1996-97) says "the public sector must be the first to move in order to direct its efforts towards an environmentally sustainable society, the measures taken must involve also the activities of the sector itself". Such was Norway's response to OECD's 1996 recommendations requiring Member States to systematically introduce green procurement in public administrations. The Government took on the "**Grønn Stat**" (Greening of Government) pilot project which should lead to the creation of methods and procedures to reduce, as far as possible, resource consumption and the environmental impacts associated with public office operations. The project will assess the environmental effects and will implement adequate measures in sectors such as energy, waste, procurement, constructions and transport.

The 'Grønn Stat' experience will provide the base for further environmental interventions from all state institutions involved in the adoption of an environmental management system by 2005. Furthermore, the Ministry of the Environment has founded **GRIP**, a foundation for sustainable production and consumption which is in charge of promoting, in collaboration with industry, an environmental policy aimed at

the continuous increase in the sustainability of production and consumption processes. The GRIP carries out its activities according to 8 programmes: Finance, Dangerous Chemical Substances, Purchases, State Activities, Tourism, Wholesale Commerce, Bio-architecture and Eco-design.

THE NETHERLANDS

Since 1990 the Dutch Government has published three Plans of National Environmental Policy which include Public Purchases as an environmental policy tool. In the First Plan of 1990 public administrations were asked to take an environmentally friendly attitude by using Environmental Management Systems as tools for the implementation of "green" purchasing practices. The Government did not proceed to implement this policy at legal level but financial incentives were offered. The second memorandum, on Products and the Environment published in 1996, emphasised manufacturers, retailers and consumers' collective responsibility in the change towards production methods and sustainable consumption models. For public purchases, it recommended integrating environmental clauses into tenders and implementation procedures and forcing manufacturers to submit documentations on their products environmental performances. The third memorandum on the environment and the economy published in 1997 is focused on the integration of environmental and economic objectives and recognises public purchases as an important way of achieving them. Following this publication, the Government has ordered strong incentives. In particular, the Sustainable Procurement Programme was financed for the introduction of "green" purchasing practices in the Public Administration.

SWEDEN

The Northern Council of Ministers has established a common approach to the Integrated Product Policy and has identified four main activities on which to focus its interventions: GPP, LCA development, labels and product study groups.

The Swedish environmental code authorises the authorities to request information to suppliers and manufacturers on goods and services environmental performances: by taking advantage of this principle, the public procurement should focus more on environmental impacts.

The Swedish Government has entrusted the Committee for Sustainable Purchases with an active GPP promotion for the period 1998-2001. The Committee is composed of Central Government representatives, local authorities and private industries. Some guidelines addressed to Public Administrations for GPP introduction and other informative material have been produced.

GREAT BRITAIN

The initiatives relating to the introduction of environmental considerations in the procurement are taken by the **Ministry of the Environment** and in particular by the Sustainable Development division. In order to favour the progress, an inter-ministry committee was created, "**Ministerial Sub-committee of Green Ministers - ENV(G)**", chaired by the Ministry of the Environment and composed of 20 Ministers representing all Government Departments.

A study is being carried out on the potential of public procurement in contributing to reach sustainable development objectives. Furthermore, the different departments are

engaged on several fronts: keeping to its commitments for the improvement of government buildings environmental performances, using energy coming from renewable sources, enhancement of data collection and monitoring and publication of guidelines to green purchases, introduction of environmental criteria in tenders to assess the origin of trunks and paper manufacturing processes.

The Agency for Environment Protection, in order to give support and encouragement to green purchases has set some objectives for the purchasing sector in the Annual Environmental Report. In 2001/2002 the objectives and results were:

- To conduct environmental risk analyses for all contracts exceeding 10,000 pounds. 750 risk analyses were carried out.
- To meet the 20 main suppliers in order to train them on company environmental management and lay down an improvement plan of their environmental performances.
- To increase the renewable energy supply of 2.4 millions of kWh. The objective was surpassed and 3.1 millions of kWh were purchased from renewable energy sources.

An environmental procurement strategy was developed with tools and techniques used by the Agency for all contracts (goods, services, utilities) over £10,000.

The different environmental strategy phases are:

- Generic assessment of environmental, ethical and sustainability risks;
- Detailed assessment of environmental, ethical and sustainability risks: the risks identified as medium/high in the generic assessment phase undergo a detailed assessment;
- Giving priority to the actions through a matrix considering three elements: environmental risks, ethical risks and organisation expense. According to this logic, the areas for which the risks are greater than the expenses are first acted upon (IT, constructions...)
- Analysis of the ascendant on the supplier: to ensure a correct environmental strategy approach towards the supplier category an attempt was made to assess how the agency influences the suppliers.

This is to establish if the Agency imposes ethical/environmental excellence or if it stimulates it through education.

- Development of the contract's specific strategy: a contract strategy is produced detailing environmental actions and ethics to be carried out.
- Supplier's environmental and ethical assessment: through questionnaires and a scoring methodology the supplier's credibility is evaluated to ensure that he is actually acting in order to limit its environmental and ethical impacts.

SWITZERLAND

Since 1996 within the Product Division of the Ministry of the Environment the "Service for environmentally friendly purchases" was established. The service operates at a national and international level and works on developing the conditions (laws, funding, aids) to favour green public purchases (Federal Council Strategy "Sustainable development in Switzerland", 1997).

In particular, the Service carries out the following activities:

- Training of federal office staff in charge of purchases;

- Collaboration and exchange of information with the 2 major authorities in charge of public purchases, so as to develop and harmonise purchasing ecological criteria;
- Drafting and distribution of informative material on green purchases (for example relating to environmentally friendly labelling);
- Support to purchasing departments in relation to the introduction of federal resource and environmental management;
- Analysis of economic and financial issues related to the life cycle approach.

4. EUROPE: SOME GPP EXPERIENCES AT LOCAL LEVEL

KOLDING (DENMARK)

The Municipal Plan (1998-2009) contains the obligation of including environmental considerations in all municipal activities, including purchases. The framework for green purchases was introduced and integrated in the municipal policies within 3 years. Already in 1998 the ecological criteria had been included in 70% of "framework contracts" for product supplies. To date, a quota equal to 100% has been reached and ecological criteria have been introduced also in the acquisition of services starting from the planning phase of public works.

Besides the commitment and success of the Kolding Municipality in the GPP field, of particular interest is the method for taking into account ecological requirements within purchasing procedures. Some work groups are in charge of coordinating the purchases of products belonging to the same category with the task of deciding on the requirements that the product and the supplier must have, their work is coordinated by the Municipal Logistic Service.

Before preparing the tenders, a specification is sent to the Environment Sector which is in charge of including environmental requirements and questions. The questions form the base for the questionnaires that the suppliers have to fill in when they participate in public tenders and thus represent the way in which the environmental criteria are integrated in all tender notices. The questions relate to the supplier's environmental management systems, product features, raw materials used, packaging and other and are formulated so that positive answers correspond to positive performances in the environmental field.

For each product group there are questions on minimum requirements, whose negative answer implies the contestant's exclusion from the tender from the very start. The other questions provide a criterion for judgment and comparison of the environmental standards of the products offered.

The first products involved were cleaning products and office materials. As from October 2001 there are detailed requirements for the following product groups:

- food (meat and fish; foodstuff; tea and coffee);
- offices (envelopes, forms, printing and photocopying paper, other office material, furniture, graphic work, toner cartridges, photocopiers, faxes and printers);
- sanitary products (plasters, bandages, bands; diabetic products, orthopaedic footwear; incontinence products; gloves)
- cleaning products (detergents, school cleaning, toilet paper)
- service contracts (bus transport, taxis, rat control)
- technical items (textile products: curtains, carpets)
- toys (toys for nursery schools and after-school)
- schools and spare time (make-up, boxes, books)
- other product groups (cleaning of septic tanks, functioning of a day centre for elderly people; cleaning of textile products, machines for domestic nurses; road maintenance in winter).

Furthermore, the following activities are carried out in support of the green purchase policy:

- distribution of a brochure to all employees explaining all the conditions that a buyer must comply with;

- distribution of a brochure on suppliers' selection in order to illustrate purchasing procedures;
- once a year all employees with responsibility in the purchasing sector are invited to a half-day training meeting in which purchasing procedures are discussed, including environmental issues;
- each purchasing manager has access to the municipality's Intranet service where he can find information on framework agreements, suppliers and available products.

MALMO

The municipal administration is made up of 21 Divisions, each one of which is responsible for its own finances. Yet, there is a purchasing sector within the division in charge of the services supplied to the municipality and the various administrative departments. The purchasing sector deals with negotiations with the suppliers and agrees with them on framework contracts. The single departments then purchase according to such agreements. The municipal council decides which products and services must be purchased through the purchasing sector (which has a turnover of 30 million euros).

In 1995 the Association of Local Authorities of Scania ordered that all public purchases should be adapted from an environmental point of view and the municipality of Malmo adhered to such policy: the environmental policy adopted by the city of Malmo in 1997 contemplates the use of guidelines for green purchases.

The guidelines for green purchases are described in a Manual produced by the Association of Local Authorities of the Vasternorrland Region and readapted that of the Scania Region.

The manual contains a definition of the environmental criteria to be included in the calls for tender for many products. The manual prescribes that a tender notice should contain two declarations on environmental criteria: the first concerns the specific environmental criteria for the product that must be purchased, the second is called "generic environmental declaration" and consists of a questionnaire that must be compiled by whoever participates in the tender. The questions relate to the environmental management of supplier companies, but the information obtained is not considered towards the tender's award.

Three levels for environmental criteria are considered:

1. The product *must not be purchased* because it contains forbidden or harmful substances or substances with a negative impact on the environment.
2. The product *should not be purchased* because it has an extremely negative effect on human health and the environment and only if the contrary is seriously proven would it be possible not to follow this line.
3. The products conforming to these criteria *have priority* at the time of assessing the tenders.

The criteria level 3 refers to are environmental characteristics above national standards. The products conforming to level 3 criteria (e.g. in the case of vehicles: use of bio-diesel; in case of plastic products: recyclability) receive priority. If for some reasons, beyond

environmental ones, these products cannot be purchased, level 2 criteria are then assessed.

Level 1 products must not be purchased in any case.

The purchasing sector involvement in the actual purchasing procedures varies according to the nature of the product.

Awarding of the tenders occurs on the basis of a multi-criteria evaluation process. First of all, the criteria to be used are selected (e.g. price, guarantee, environment,...), then each criterion is weighted.

HELSINKI

The Helsinki Municipality experience in the field of green purchases is particularly important because it created a "favourable precedent" from a legal point of view within GPP application.

In the month of September of 1997 the Transport Service of the Helsinki Municipality published a call for tender for the award of a bus line coverage. According to the call, the contract would have been awarded on the basis of the most economically advantageous offer, to be assessed according to three categories of criteria:

- overall service costs;
- quality of the means of transport;
- operator's quality and environmental programme.

In particular, the tender contemplated the award of extra points to the use of means of transport which produced:

- emission of external noise lower than 77 db (A);
- NOx discharges lower than 4g/KWh (2.5 points/bus) or lower than 2g/KWh (3.5 points/bus).

In 1998, the company that came second in the tender appealed to the competent national authority (Tendering Council) as they felt that the awarding criteria used by the Administration of Helsinki, in particular the award of points for reduced noise and NOx emissions had made the evaluation process discriminatory. The Tendering Council rejected the appeal saying that all bus companies could have equipped themselves with the appropriate means of reaching the levels of emissions and noise used by the winning company. The case was subsequently passed to the Finish Supreme Court which consulted the European Court of Justice. The latter, in 2002, finally declared itself in favour of the Helsinki Municipality, by claiming that the contracting authority may take into account ecological criteria when awarding the most economically advantageous offer if such criteria:

- refer to the subject of the contract;
- do not limit the contracting authority's freedom of choice;
- are expressly mentioned in the tendering documents or in the tender notice;
- comply with all fundamental principles of the community law, especially the principle of non-discrimination.

→Taking into account environmental criteria does not mean going against the principle of non-discrimination solely because the company to which the contract is awarded is one of the few, among the ones participating in the tender, that are able to offer means of transport that meet those specific criteria.

In more detail, the European Court of Justice has pinpointed that article 36 (1) (a) of the Directive on Services 92/50/EU does not provide a comprehensive list of the criteria that can be taken into account to evaluate the most economically advantageous offer, but only gives a few examples (quality, technical merit, aesthetical and functional features,...), thus even environmental criteria can be taken into consideration *inter alia*.

VIENNA (AUSTRIA)

The Municipality of Vienna adopted an Eco-Procurement programme in 1999 as part of the Climate Protection programme.

The GPP introduction in the Administration's purchasing policies is carried out in a systematic way thanks to an internal organization involving a Central Direction Cabin and two Commissions. The Central Direction Cabin is headed by 18 work groups, comprising over 200 individuals, among experts of the various Administration departments and external environmental experts (mostly coming from universities and research institutes). Each work group is in charge of developing ecological criteria to be included in tender notices for certain products or product groups.

This strategy has led to positive results also from an economic point of view.

The replacement of conventional light bulbs with low energy consumption bulbs in the Municipality of Vienna has led to a cost reduction of around 110,000 Euros/year (including maintenance costs).

The installation of water saving devices in public offices, schools and nursery schools has resulted in savings of 1.5 millions of Euros/year (including maintenance costs).

In public hospitals:

- the inclusion of environmental criteria in tenders for the purchase of cleaning products has resulted in a 23% reduction of products used with a consequent 10% cost reduction;
- the replacement of washing up powder with washing up liquids and the use of dosing systems has led to an 80% cost reduction.

5. ITALY: GPP PIONEERS (1)

ENVIRONMENTAL PROTECTION NATIONAL AGENCY (ANPA)

ANPA (nowadays known as APAT, *Agency for the Protection of the Environment and for Technical Services*) in 1999 implemented the project "Planning and experimental application of tools for the diffusion of fair and environmentally sustainable purchasing policies by public authorities (Green Public Procurement)". The project, which initially contemplated the implementation of pilot experiences with the involvement of other public authorities (Province of Turin, Municipality of Ferrara, Municipality of Florence, AGAC-municipal company of Reggio Emilia), never reached the GPP implementation phase but still gave a significant boost to the diffusion of this tool in Italy. In particular, an ANPA initiative product was, in its preliminary stage, the Handbook of Characteristics of Environmentally Preferable Products, which contains the description of the environmental issues relating to 14 products and their corresponding recommendations for the purchase of products with the same function but a reduced environmental impact. The following table (reproduced from the Handbook's Draft) reports the list of analysed products:

SECTOR	SUB SECTOR	PRODUCT
Administration and general activities	Furniture and complements	Chair Table
	Office equipment	Printer Photocopier Computer
	Paper products	Printing and photocopying paper
Transport	Fuels	Gasoline GPL
	Means of transport maintenance	Lubricant Tyre
	Means of transport	Car Lorry
Services	Water supply	--
	Gas supply	--
	Collection and treatment of urban solid waste	Refuse container, bottle bank for separate collection
Individual protection devices	Low protection garments	Footwear
	High protection garments	--

6. ITALY: GPP PIONEERS (2)

THE MUNICIPALITY OF FERRARA

Organic food

In 1994 the Municipality of Ferrara took the first step towards what later became, within the Local Agenda 21 process, a real GPP strategy with the implementation of an experimental pilot project for the purchase of organic food in school canteens and two nursery schools. The "ecological" contract was then extended to all nursery school canteens which were supplied with the following organic food: bread, pasta, rice, legumes, peeled tomatoes, pulped tomatoes, flour and marmalade. The following contracts involved all schools and an ever increasing product range, starting from fruit and fresh vegetables to organic farming meat, included in the supply contract relative to 2003-2004. At the end of 2003, organic food in nursery and primary school canteens of Ferrara arrived at an 80% coverage of the total food supply.

Green office

In 1999 the Municipality imposed first the use of reverse paper and then of ecological paper, partly coming from certified woods and partly from recycling. Afterwards, the ecological characteristics of the 100 hired photocopiers were identified: quality printing capability on both sides of 100% recycled paper; economising function; possession of a certification mark recognised within the EU; compliance with standards relating to electromagnetic compatibility; each piece of equipment must be accompanied by a technical safety sheet relating to ozone emissions, dust and heat emissions and noise level.

Lastly, for what concerns the furniture, preference is given to second-hand furniture.

School transport

In the call for tender special emphasis was given, in terms of the score, to the car fleet's age, taking into account the evolution of the regulations reported by the Driver and Vehicle Licensing Centre. This has led to the use of a multiplier: the tendering company was thus given the possibility of offering only vehicles registered after 1.10.96 and of purchasing them within 5 months of the award.

Hygiene and cleaning products

In tender notices for hygiene and cleaning products it is requested that paper products (toilet paper, paper towels) should be made with recycled paper.

For chemical products it is requested that they be packaged with containers made with completely recyclable material. Furthermore, a higher score is given to companies adopting an Environmental Management System.

7. ITALY: OTHER EXPERIENCES IN BRIEF

Those outlined below are some examples of how public authorities in Italy are promoting and/or including GPP in their purchasing practices. The framework cannot be and does not intend to be exhaustive given the continuous occurrence of new experiences.

ARPA PIEMONTE

The ARPA (Regional Environmental Protection Agency) has been including environmental criteria in contract's tenders for a few years. The first phase was the inclusion in the tenders of a clause indicating that, in case of two identical offers, priority would be given to EMAS or ISO certified suppliers.

The second significant initiative was the introduction of environmental criteria in internal operational procedures for supplier's qualification.

Furthermore, as from 1999 attempts have been made to integrate environmental criteria in the tenders; in particular "green" tenders were drafted for the purchase of information technology equipment, copy paper, clothing, furniture, cleaning services and footwear for personal protection. Ecological paper, for copies and publication, is still not easily accepted by employees as they consider it as poor quality paper; tenders notices for cleaning services and individual protection weren't successful because no suppliers submitted offers in compliance with environmental criteria.

ARPA is also collaborating on a GPP project with the Province of Turin and other Municipalities in the area.

MINISTRY OF ENVIRONMENT AND PROTECTION OF THE TERRITORY

As from January 2003 the Ministry of the Environment and Protection of the Territory, more specifically the Environmental Protection General Directorate, Environmental Certification Section, has been involved in the implementation of a programme for promoting GPP at a national level. In particular, among the activities carried out so far the following are highlighted: the monitoring of GPP Italian, European and International experiences; the creation of the CD-Rom *GPP the Public Administration's Green Purchases- A Guided Path* addressed to Italian Local Authorities; the Memorandum of Understanding with CONSIP aimed at aiding the Authority with the introduction of environmental requirements in tender notices. The Ministry also highlighted the importance of GPP both on the occasion of the thirteenth meeting of the *Informal European IPP Network* and in the conclusions on the IPP matter of the semester of the Italian Presidency to the European Council.

PROVINCE OF BOLOGNA

The Province has, for quite some time and successfully, used ecological criteria in tenders for the purchase of paper products (copy paper, printing and hygiene products). Besides, low toners are recovered and delivered to a company that regenerates them to sell them again.

PROVINCE OF MODENA

Recently the council approved the deliberation on the programme of the Province activities, which contemplates an action for the introduction of environmental criteria in

tender notices. In the LA21 action plan for 2001 one of the actions was the treasuring service purchase of products with reduced impacts: ecological paper and organic products were purchased for the canteens.

PROVINCE OF LECCO

In the month of May 2003 the Department of the Environment of the Province of Lecco initiated a GPP project involving all the municipalities in the area, which should come to an end in March 2004. The project is set out in three phases:

- *preliminary analysis phase* of the purchasing system and environmental issues (it is actually a review of the information that had already been collected for the implementation of a project started in 2001 and then interrupted)
- *development, monitoring and training phase*: arrangement of "standard purchasing tenders" and "invite letters" (private treaties) integrated with criteria of environmental preferability; project presentation to the press; organisation of a training seminar for municipal officials in charge of purchasing and administrators; supply of a technical-legal support to the Municipalities interested in experimenting "standard tender notices" for green purchases, taking care of the correct inclusion of GPP criteria in tenders and verifying that the products offered comply with the criteria of environmental preferability outlined in the tender specifications;
- *final communication and diffusion phase*: drafting of a reference manual containing guidelines for the adoption of eco-sustainability criteria within the purchasing system of goods identified by ANPA; presentation of the project results and any developments.

PROVINCE OF TURIN

The Municipality and the Province of Turin, together with other Local Authorities and with the support of ARPA, created a GPP project that saw the selection of some projects for which environmental criteria were drafted to be subsequently formalised in a political act. Currently, a high percentage of recycled paper is purchased and there have been tenders for the purchase of water based paints. Furthermore, a site was created and dedicated to GPP with the purpose of spreading the information and aiding smaller municipalities with the introduction of environmental criteria in purchasing practices.

8. THE EXPERIENCE OF THE PROVINCE OF CREMONA

Energy saving

As from 1998 the environmental awareness of the Province of Cremona has resulted in a concrete action in the administration's energy management with the implementation of a contract for the management of thermal installations of the buildings that are property and competence of the Province. The contract was structured by taking into account also the sustainability profile of the heating management, trying to develop a solution with a reduced environmental impact. The contract was designed with a view to energy efficiency, functionally to energy saving on one hand and to the reduction of pollutant emissions on the other hand.

In 2003, on the basis of the cognitive investigation produced for the Provincial Energy and Environment Plan (PEAP), created an informative brochure addressed to territorial municipal administrations for the management of public lighting and energy certification of buildings. The publication is particularly interesting because it contains a standard specification addressed to the municipalities for the inclusion within contracts relating to lighting management of ecological criteria aimed at energy saving, through the use of high energy efficiency light bulbs, and at the reduction of light pollution. Finally, there are also projects for the application of photovoltaic power systems on buildings owned by the Province.

Information technology equipment and office materials

The provincial administration has designed a sustainable purchasing policy for the acquisition of IT equipment and stationary items. The purchase of computers is thus dependant on the presence of the ecological label "Energy star", which guarantees the machine's energy efficiency. The purchase of printers and photocopiers with the reverse function is prioritized in order to cut down on paper consumption. For what concerns paper, it was decided to buy only recycled paper.

Construction

Some equipment and materials with a strong environmental impact have been replaced with alternative solutions with a low environmental impact. For example, gasoline power stations have been replaced with district heating stations, obsolete lighting equipment with reduced energy consumption bulbs.

Furthermore, options for the use of alternative energy sources in some schooling institutions are currently being investigated.

Cars

The car fleet of the Province is moving towards a sustainable direction with the purchase of hybrid cars (mixed fuel and electric engine).

Public Transport and roads

In September 2002 the Cremona Province issued a tender notice for the release of licenses for carrying out extra urban lines in which, apart from the quantitative elements, two environmental qualitative conditions were outlined: the progressive reduction within the seven contractual years of approved vehicles Euro 0 and Euro 1 and consequent increase of Euro 2 and Euro 3 ones in order to reduce air emissions.

Similarly, it is requested to progressively substitute gasoline vehicles with unconventional vehicles powered by ecological gasoline or other alternative fuels. In the management and maintenance of the road system, the provincial administration has applied an environmental compatibility criterion in the project for the reconstruction of the road mantle of the Crema bypass. The circuit will be reconstructed by re-using the asphalt and gravel layer of which it is currently made of, milled and mixed together with cement, water and high pressure emulsified bitumen. This mixture, obtained with recycled material from the old road mantle, will then be left to stand and rolled in order to build the new bypass road flooring.

Within the provincial area, the **Municipality of Crema**, one of the thirteen members involved in the GPPnet project, has recently contracted the Service of Local Public Transport on the urban area through a competitive public tender, significant at the community level.

In such procedure, besides the purely economic aspect, special emphasis was also given to the improvement of environmental standards. Thus, in the technical assessment aspect of the offer, the introduction of an environmental parameter was experimented which, besides awarding the applicant in possession of ISO 14000 certification, encouraged companies to foresee the use of a modern car fleet powered with conventional low emission fuels, that is alternative gasoline fuels (gas-methane).

The scoring for such parameter turned out to be decisive for awarding purposes.

The **Municipality of Vescovato**, on the other hand, is implementing a tender for the service of preparation and supply of organic food in the school canteen.

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www.environment-agency.gov.uk

Agenzia per la Protezione Ambientale degli Stati Uniti (EPA), Programma EPP
<http://www.epa.gov/opptintr/epp/>

Agenzia per la Protezione dell' Ambiente Svedese
<http://www.internat.viron.se/index.php3>

Commissione Europea, DG Ambiente
http://europa.eu.int/comm/environment/green_purchasing/

ICLEI, Programma EcoProcura
<http://www.iclei.org/ecoprocura>

Life Cycle Assessment Links
<http://www.life-cycle.org/>

Ministero dell' Ambiente Francese
www.ecoresponsabilite.environnement.gouv.fr/index.htm

Ministero dell' Ambiente Giapponese, Piano d' Azione per il GPP
<http://www.env.go.jp/en/pol/g2o/cda.html>

Provincia di Cremona, Progetto GPPnet
<http://www.provincia.cremona.it/servizi/ambiente/gppnet/>

Provincia di Torino, Acquisti Verdi nell' ambito di Agenda 21 Locale
<http://www.buoneinpratica.it/acquisti/>

SETAC
<http://www.setac.org/lca.html>

UNEP DTIE , Production and Consumption Branch
<http://www.uneptie.org/pc/home.htm>