

Europa



# Business Support Programme

Phare Business Support Programme - SMECA

**European environmental policies**



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# 1. Background

## 1.1 The Influence of European Policy on Environmental Protection

It was not until 1972 that environmental protection became an essential component of Community policy—a result of the Paris Summit meeting of Heads of State and Government that was held in conjunction with the Stockholm Environmental Conference. Since then the Council has published five Action Programmes. Although these programmes form no statutory basis for Community environmental regulations, they do, however, form a type of expression of policy intent, that gives impetus to planning, setting priorities and establishing an environmental spirit in a higher context.

### - The Environmental Action Programmes

The First Environmental Action Programme for the years 1973 – 1976 is the most important of the first four Programmes. It defined, for the first time, the basic workings and objectives of European Environmental Policy. They were established in the form of eleven principles:

1. The prevention of environmental pollution at the source of its generation.
2. Taking into account possible environmental impacts as early as possible in technical planning.
3. Prevention of exploitation of natural resources, that can disrupt the balance of natural systems.
4. Improvement in the scientific and technological state of knowledge through targeted research.
5. The „Polluter Pays“ principle through which the polluter is held responsible for redressing or paying damages for the environmental pollution caused.
6. The actions of one State may not have negative environmental consequences within the borders of another State.
7. Taking into account the interests and concerns of Developing Countries
8. A clear definition of a long-term Community Environmental Policy.
9. Taking into account public opinion and concerns.
10. Clear assignment of responsibilities at the respective level (local, regional, national)
11. The co-ordination and harmonisation of pan-European programmes and environmental policy with those of individual Member States.

The Action Programmes that followed drew on the ideas of the First Programme which continue to remain valid even today. Up to 1992 minor amendments were added and new objectives drawn up. In the Third Action Programme (1982 – 1986) we find new concepts for the Integration of Environmental Consciousness also in other areas of policy. And in the Fourth Environmental Action Programme (1987 – 1992) resource management and issues of bio-technology were discussed. In the discussion, particular attention was devoted to economic development.

The Fifth Action Programme (1993 – 2000) introduced, for the first time, decisively new concepts. The Programme followed the UNCED Conference in Rio and its title „Environment and Development“ reflected the issues at hand. One of the main objectives is the enlargement and diversification of legislative instruments – above all, through free-enterprise incentives, financial support, information, education and training. A concrete objective is, through publication of environmentally relevant information, to create public pressure on polluters – including industry and the trades – to voluntarily strive to improve their contribution to environmental protection. The aim being, that all participants (stakeholders) in the economy take upon themselves more responsibility in protecting the environment.

Furthermore, the role of Environmental Management Systems and other forms of voluntary environmental protection are discussed in detail. Using these instruments, industrial environmental protection is to be fostered through publication of environmentally relevant information.

At the same time in 1992, the so-called „Eco-label or Product label Act“ was enacted (Council Decision regarding a Community-wide system for awarding environmental logos). This allowed the awarding of an environmental label for such products that during their entire life-cycle have less impact on the environment than comparable products. Exceptions are foodstuffs, beverages, and medicines.

The eco-balance sheet is thus the benchmark with which the impact of products on the environment is analysed; from the composition of raw-materials, the procurement of materials to production processes, and down to re-use/recycling or final disposal. The implementation of the product-label regulation, as well as Eco-Audit regulation is strictly voluntary.

### Constitutional Background of EU Environmental Legislation

All legislation of the Community requires a direct reference point in their contracts/treaties. Even the first environmental legislation had to show a precise statutory basis. Two general articles of the Treaties of Rome – Article 100 and Article 235 serve as a constitutional basis for a large part of European environmental legislation.

The Treaties of Rome and Maastricht integrated two significantly new approaches and regulations. Sustainable Development and Subsidiarity. Amendment Article 2 of the Treaty of the EU refers to a „harmonised and well-balanced economic development, sustainable growth and respect for the environment“.

The principle of Subsidiarity is increasingly gaining importance. This takes into consideration that Community legislation and standards are to allow Member States sufficient discretion for national decisions, and must demonstrate respect for long-introduced legislation of the individual Member States. This means: Community standards are to be understood as minimum standards. Each Member State, at a national level, can raise these standards – as long as it does not encroach on the principle and right of free-trade.

## **1.2 International Scope**

The European Free Trade Association, EFTA, was set up in 1960 and soon developed, through targeted co-operation, into the so-called „waiting room“ to the Community. An increasing number of former EFTA States have become Members of the EU. Today, only Iceland, Lichtenstein, Norway and Switzerland still belong to EFTA. Two common declarations of environmental protection (from Luxembourg and Nordwijk) were also reflected in a common policy of the EU and EFTA at the Rio Summit.

One of the first results of consciously facing the special challenges in Central and Eastern Europe was the 1990 Dublin Declaration, i.e. the Ecological Imperative. This placed the emphasis not only on remedying and reversing the environmental damage already incurred, but also focused on fostering future sustainable economic development.

Co-operation with developing countries in Africa, the Caribbean and Pacific States (ACP) was established during the Lomé Conferences. The first two Lomé Summits (1975 and 1979) did not include environmental issues. Not until an increasing awareness of the impending danger of famine and desertification developed, did a profound change in attitude come about. The third and fourth Lomé Summits (1984 and 1989) provided clear statements towards environmental protection and the preservation of natural resources.

## **2. Existing Community Legislation**

European Community legislation, first becoming effective through the Maastricht Treaty, November 1 1993, and then the Treaty of Amsterdam, May 1 1999, seems at first glance rather complex.

It consists of primary Community legislation and secondary Community legislation. National laws are subordinate to both primary and secondary Community legislation. Secondary legislation puts the primary legislation into concrete terms and provides the framework for implementation and integration. Today, secondary Community legislation is comprised of four types of legal instruments. (Art. 189 EU Treaty; now Art.24): Regulations, Directives, Recommendations and Decisions.

To date, approximately 300 legal instruments have been enacted in the fields of environment and industrial safety (not including nature conservation). European Environmental Policy is primarily governed by Directives, approximately 50% of the legal instruments are in the form of Directives, approximately 30% are Regulations, followed by Decisions, Recommendations, Conventions and Resolutions.

## **2.1 Regulations**

A regulation has, pursuant to Art. 249 EU Treaty, as amended, „...general application. It is binding in ALL areas and has direct validity in each Member State.“

According to this, a regulation is, in effect, a law in each Member State and is not only binding for Member States, but for all citizens of each State. A regulation is, therefore, an essential component of a national legal system. EU Member States enforce these regulations through their administrative institutions just as any other national law, if the EU itself (through the EU Commission) is not entitled to enforcement (exception). The EU may only enact regulations that are in accordance with primary Community law, i.e., primary Community law (e.g. EU Treaty) must demonstrate provisions of authority for enacting such regulations.

### **2.1.1 The Impact of Regulations on Small and Medium-sized Enterprises (SMEs)**

The EU Environmental Management Audit System Regulation, (EEC) No. 1836/93 of the Council, June 29 1993, in future, EMAS II (Environmental-Management Assessment System) (expected to become effective end of March 2001) should illustrate the impact EU Policy on SMEs.

The objective of the regulation – on a voluntary basis and EU-wide – is the integration of a system for assessment and continuous improvement of environmental protection at an industrial and commercial level. A special characteristic of the regulation is the dissemination of public information as to the environmental relevance of the enterprise and the future potential of optimisation in environmental protection activities. Although the regulation is of voluntary character, there is a clear trend showing that companies (i.e. SMEs) are strengthening their quality management systems. Large enterprises and government employers are increasingly demanding proof from their suppliers that „Environmental Management“ is well anchored in their quality management systems. In future, this trend will put pressure even on SMEs to „voluntarily“ confront this issue, in order to maintain their positions on the market as competitive suppliers. For this, environmentally relevant company data must be gathered, compiled, and an Eco-Balance Sheet drawn up and evaluated; and along with this, a binding catalogue of corrective measures must be developed and implemented. The involvement of company employees and providing the general public with information are also pre-requisites for fulfilling this regulation. The details are precisely covered in the regulation and, meanwhile, have been adapted to the international standard DIN ISO 14001 covering environmental management systems. The Checklists for Companies, attached under Point 6, should serve SMEs as entry (Guidelines for Action) into the issues of environmental protection and essential aspects of industrial safety.

## **2.2 Directives**

Pursuant to Art. 249 EU Treaty as amended, a Directive

„...is binding, for each Member State to which it is directed, regarding the objective to be reached, but leaves the form and the means for implementation and enforcement to the discretion of internal institutions of the Member State.“

This means that the Directive is binding only for the Member State and not for the individual citizens of that State. The essence of the Directive is that the Member State is obliged to integrate the Directive into national law. As a rule, the Directive stipulates the time in which the Directive is to be integrated into the national legal system. The issuance of Directives must, in turn, be supported by constitutional authority as laid down in primary Community law.

The implementation and enforcement of the Directive is executed through legal instruments that are constitutionally anchored in the Member States: in Germany, for example, legislation and ordinance. The Directive becomes binding for individual citizens only through its being transposed into the legal system of the Member State. The incorporation of a Directive does not make it inoperative; it remains effective (secondary) in the form of Community law, and becomes the yardstick (benchmark) for assessing whether the national integration of the Directive has been fully and correctly transposed.

It is important to note that on refusal of one Member State to transpose a Directive, the Directive itself, under certain prerequisites and conditions, as determined by the European Court of Justice (ECJ), can develop direct legal effect without integration into a Member State's legal system. The Directive „enacts itself“. In this event, the Directive is the standard of conduct for all individuals, that means, not only for administrations and courts. A „self-enactment“ of an European Directive occurs when the Directive clearly demonstrates certain content. This is the case for most Directives. In the case of non-implementation, the individual can take reference to the Directive, and in court proceedings this has legal effect. This is not the only reason that it is important for persons (stakeholders) active in the economy, society, administration and legal courts to have a thorough knowledge of Directives. A knowledge of Directives, as already mentioned, is also of essential importance for the question, whether a national implementation of the Directive has been fully and correctly carried out.

Integration and implementation of a Directive is executed in accordance with and on authority of constitutional law of the respective Member State.

European Environmental Policy is primarily shaped by Directives. (1)

### **2.2.1 Impact of Directives on Small and Medium-sized Enterprises (SMEs)**

Directives mostly stipulate very specified data, pollutant volumes and carriers that must be complied with, in order not to further pollute the environment, to protect water systems, to ensure the quality of drinking water, and to prevent destruction of the ozone layer, etc.

**Directive 2000/53/EC** of the European Parliament and the Council of September 18 2000, should provide an example of the impact of Directives on SMEs. This Directive governs **end-of-life vehicles**.

## Article 1 Objectives

In this Directive measures are laid down that primarily focus on the prevention of vehicle waste products and, beyond that, re-utilization, recycling and other forms of recovery of end-of-life vehicles and their components with the aim of reducing waste disposal as well as an improvement in the environmental protection performance of all stakeholders during the life-cycle of the vehicle; and in particular the stakeholders involved in the direct treatment of end-of-life vehicles.

The Directive is directed to the administrative institutions of the Member States, as well as to industry and to SMEs.

Member States must introduce the necessary measures to ensure that all end-of-life vehicles are channelled to authorised recovery plants and that „return/collection facilities“ are set up and made easily accessible.

Vehicle manufacturers should make sure that vehicles are designed and constructed in such a way as to ensure that quantified targets for re-utilization, recycling and recovery can be reasonably achieved.

The operation of „return/collection facilities“ and re-utilization plants should be approved, only when a corresponding authorisation has been issued, or – instead of an authorisation, the facility has been registered – or when precise conditions have been met. Here, vehicle repair shops which wish to operate as „return/collection points“ are required to meet specific criteria. The minimum technical requirements governing operation of such facilities are defined in Annex I of the Directive. Among them govern:

1. the sites for storage (including intermediate storage) of end-of-life vehicles before treatment
2. sites of treatment facilities
3. treatment for disposal of hazardous materials taken from end-of-life vehicles
4. treatment for improving recycling processes and yields
5. indication that during storage, damage to vehicle components that contain fluids, as well as reusable components and replacement parts is to be prevented.

In Annex II, it is stipulated, which materials and components that are taken from end-of-life vehicles are to be identified and labelled.

This means, that in addition to fulfilling minimum technical requirements - as a rule, measures requiring investment - detailed documentation must be guaranteed by the operator of such a facility.

## Risk and Safety Ratings (R and S Ratings/Materials Coding System)

Among other things, in the Directive and its amendment (98/98 EC) there is a list of the existing R and S Ratings for classification and identification of hazardous materials. These profiles describe risks and safety recommendations for materials, preparations and their handling. All companies are responsible for the knowledge of and compliance with these profiles.

The information contained in the R and S Ratings is to be incorporated into operating instructions and every employee who comes into contact with such substances must be instructed in their correct handling.

## **2.3 Recommendations and Opinions**

As provided for in the Treaty, Recommendations and Opinions are not binding legal instruments. Rather, as their designations imply, they take of an advisory character; in European policy they frequently are of special political importance.<sup>(1)</sup>

Example: Recommendations are rarely used as an instrument in environmental legislation. A Recommendation from the Commission regarding environmental agreements towards integration and enforcement of Community Directives (96/733/EC) – 96 X 733 - , is directed primarily to the Member States themselves. And, the Recommendation of the Commission regarding the results of risk assessment and risk containment strategies for various chemical

substances (1999/721/EC) – 99 X 721. Here as well, implementation is left to the Member States.

### 2.3.1 Impact on SMEs

Recommendations and Opinions have no direct impact on companies and their production processes.

## 2.4 Decisions

A Decision, pursuant to Art. 249 of the Treaty, as amended, „...is binding in its entirety for those to whom it is directed“.

A Decision is frequently described as an administrative instrument of the EU. This is true, however, only for individual case decisions, that are issued vis à vis individuals on grounds of authority anchored in Community law (e.g., approvals for certain company activities). Decisions can also be directed to Member States, and with varying legal effects (e.g., approvals for national programmes or activities). Decisions can also affect general legal consequences (e.g., Decisions influencing enforcement).

Very often, Decisions supplement Directives in details and update these through concrete stipulations (e.g., Commission Decisions regarding the stipulation of an identification and marking system for packaging wastes (97/129/EC) – 97 D 129 - )

### 2.4.1 Impact on SMEs

Very often, Decisions put EU environmental objectives into clear terms. Essential Decisions, in which SMEs can currently participate, are, among others,

- the Council Decision regarding the new programme for research, technological development and demonstration in the fields of energy, environment and sustainable development (1998 – 2002) 81999/170/EC –99 D 170 -;
- as well as Decision No. 646/200/EC of the European Parliament and the Council regarding a programme lasting several years towards promoting renewable energy sources in the Community (ALTENER) from 1998 to 2002 –00 D 646 -;
- and, Decision No. 647/200/EC of the European Parliament and the Council regarding a programme lasting several years towards promoting energy efficiency (SAVE) from 1998 to 2002 – 00 D 647.

Companies can directly participate in the programmes together with a project partner. As a legal instrument, a „Decision“ can have a very practical impact on companies.

## 2.5 Standards

Standards that are valid throughout Europe are identified with **EN** in their designations. At the beginning of the designation, there is the respective country specification, e.g., for Germany DIN (German Institute for Standardization), for Great Britain BS (British Standard), in Austria ON (Austrian Institute for Standardization), SNV stands for the Swiss Standards Association, etc.

If ISO is also found in the designation, the standard has international validity.

For example, DIN ISO **EN** 14001 (Environmental Management Systems, with guidance on the use of the specifications) is an international, European standard translated into German.

In Europe there are three standardization bodies, **CEN** (the European Committee for Standardization), **CENELEC** (the European Committee for Electrotechnical Standardization)

and **ETSI** (the European Telecommunications Standards Institute) that jointly work on the harmonisation of European standards in **ESO** (European Standards Organization). Here, no new standards are development, rather, standards of the individual Member States are coordinated and harmonized.

The European Union has developed a new Web site in order to clarify complex questions regarding the harmonization of European standards for industrial products (environmental standards are also covered here). The site „New Approach Standardisation in the European Internal Market“ can be called up at [www.NewApproach.org](http://www.NewApproach.org) and has primarily been developed to enable small and medium-sized enterprises to access information on standards and to guide them through standards accreditation procedures.

### **2.5.1 Impact on SMEs**

Currently, there are approximately 100 standards covering environmental protection with **EN** identification, i.e., with European-wide validity. In the last few years the focus has been placed on environmental issues such as the minimisation of packaging wastes. Among many other issues, the concept of the Eco-Balance Sheet (Environmental Accounting) was developed as an instrument of environmental protection as well as for product optimisation. Towards this end, standards guiding Eco-Balance Sheets, especially the series DIN EN ISO 14040 ff., offer a significant contribution to clarifying impending questions. That means, as soon as companies make public an Eco-Balance Sheet of their products, they must use a standardised, comparable procedure that incorporates the standard as a binding guideline.

## **2.6 Technical Specifications/Regulations**

Technical regulations, in Germany, among others, VDI Guidelines, (Association of German Engineers) explain and supplement in practical terms the European and national regulations, or serve as a national stance in their drafting.

### **2.6.1 Impact on SMEs**

Technical Regulations and VDI Guidelines are guiding work documents for the practical daily work routine of engineers. With their criteria of assessment and evaluation they offer well-founded assistance in decision-making processes and serve as a recognised Canon of Technology.

## **2.7 Others**

A special type of legal instrument are Conventions and Agreements that the EU concludes with third countries having international effect. There are a great number of Conventions and Agreements in the field of International Environmental Protection (e.g., regarding wildlife and plant species, and for protection of the marine environment, etc).

The EU has developed a special legal culture for enacting legislative instruments. This is demonstrated by the fact that each respective legal instrument is not only substantiated by primary Community law, but general considerations are also provided that lay out the reasons for enacting such a legal instrument and its intentional purpose. Often, commentary-like substantiations and explanatory notes are added. Such considerations often provide remarkable assistance in the interpretation of the legal instrument; in such cases, the considerations are printed and attached to the legal instrument.

Primary Community law stipulates which European body may enact the various legal instruments. Thus the legal instruments mentioned can be enacted by

- the Council of the EU (formerly Council of the EC), or
- the Commission of the EU (European Commission

in co-operation with the European Parliament and other institutions and bodies.

The custodian of European law is the European Court of Justice / Court of First Instance.(1)

### **2.7.1 Impact on SMEs**

Conventions and Agreements have no direct impact on SMEs; of course, however, individual Member States enact regulations in order to fulfill the Conventions and Agreements entered into by the EU. Thus at first sight, general obligations regarding, for example, the protection of wildlife, would have impact on future commercial use of land in certain regions.

## **2.8 Ethics of Environmental Legislation**

In European environmental legislation, dominating roles are played by the precautionary principle (stewardship), sound environmental policy, the principle of integrated environmental protection, the responsibility of the State, the principle of co-operation at all levels, broadest possible public involvement, as well as the „polluter pays“ principle.

The current characteristic feature of international environmental law is marked by the tendency towards comprehensive universally applicable agreements and regulations. This results in an ever increasing distancing of legal philosophy from a strict anthropo-centric concept (places current human needs in the forefront) and leans towards a trans-generational tutelary spirit (extended philosophy takes into account the concerns of coming generations, precautionary stewardship principle), often in conjunction with the objective of protecting biological diversity. (self-rights of nature).

### **2.8.1 Impact on SMEs**

The new philosophy of European Environmental Legislation demands independent accountability on the part of companies. The precautionary principle forces preservation of resources and sustainable economic operation. This is possible only when figures, data and facts regarding material and energy streams within a company are known, balanced and evaluated. Then, measures for improving the above-mentioned „sustainable economic operation“ can be defined and implemented.

**The Checklists for Companies under Point 6 offer an entry into an Input/Output Balance Sheet of Materials and Energy Streams.**

## **3. Outlook**

In the Fifth Environmental Action Programme, the groundwork was laid for a voluntary European strategy towards „sustainable and environmentally sound development“. This began the integration of an environmental policy into all areas of Community policy which has become an obligation for all Community institutions. This, of course, is a long-term process. To start with, the Commission has proposed a step-by-step approach, in which Agenda 2000 and the Kyoto Protocol have been set as top priorities.

The spectrum of environmental policy instruments has been broadened in conjunction with further developments of environmental policy. In addition to enacting framework legislation that

provides a high degree of environmental protection and at the same time guarantees a viable single market, the Community has created a financial instrument (LIFE programme) and technical instruments, eco-labelling, a Community system for environmental management and auditing, and a system for assessment of the effects of public and private projects on the environment.

The European Environmental Agency has gained increasing importance in the course of the years. Originally, the Agency was set up for collecting and disseminating comparable environmental data. Although the Agency has only an advisory function, its activities play an ever increasingly important role in the adoption of new measures or the assessment of the efficiency of current legislation. **The 6<sup>th</sup> Environmental Action Plan, introduced in January 2001 as well as the Green Paper on Integrated product Policy are explained under chapter 3.2..**

### **3.1 Reform of the Treaties**

Currently, there is an emphasis on broadening the spectrum of environmental instruments, in particular, introducing a system of environmental taxation („polluter pays“ principle), environmental accounting and voluntary agreements. Progress cannot be made, however, without actual implementation of environmental legislation. Effective implementation requires introducing incentives for economic stakeholders (businesses and consumers).

#### **Waste Management**

Community waste management policy involves three complementary strategies:

- Avoidance of waste by improving product design
- Developing and promoting the recycling and re-use of waste
- Reducing pollution arising from waste incineration.

The Community's approach has been to consign more responsibility to the manufacturer. For example, a 1997 draft Directive regarding end-of-life vehicles stipulates the introduction of a manufacturer-run system for collecting such vehicles. (2)

The Community is a signatory to the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basle Convention) which has been signed by more than 100 countries. The Community has already ratified an amendment to this Convention which prohibits exporting hazardous wastes from the OECD countries, the Community and Lichtenstein to non-OECD countries, regardless of whether such waste is for re-use, recycling or final disposal. (2)

#### **Noise Pollution**

The main focus of Community strategy has been, for a long time, on adopting maximum permissible noise levels emitted by certain types of machinery, e.g. lawnmowers. In a 1996 Green Paper, the Commission proposed to extend this strategy by reducing noise emissions at source, improving exchanges of information and applying greater force and harmonisation to Community programmes designed to reduce noise pollution.

#### **Water Pollution**

Member States have adopted numerous Directives for introducing water quality standards (drinking water, bathing water) and for monitoring emissions of pollutants.

The Community is a party to various international conventions whose objectives are to protect the marine environment, watercourses and international lakes. Aims of the current proposals for directives are; on-going improvement in the ecological quality of surface water, introducing measures to protect fresh water and surface water, estuaries, coastal waters and groundwater in the Community.

## Air Pollution

Improving air quality is a priority worldwide. Co-ordinated national and international efforts are necessary to achieve a significant reduction in emissions of the gases responsible for global warming and air pollution in general.

Towards this, measures were adopted by the United Nations Framework Convention, 1992, and the Kyoto Protocol, 1997. The Parties have committed themselves to reduce their emissions of greenhouse gases by at least 5% of their 1990 levels within the timeframe 2008 – 2012. In order to achieve this, the Commission's strategy is that of introducing measures in all economic sectors which produce gaseous pollutants; mainly in transport, energy, industry and agriculture.

At Kyoto, the Parties agreed to a conference that took place in November 1998 in Buenos Aires, where the details for applying the results from Kyoto were discussed. At this conference a plan of action was initiated and the Community again showed its steadfastness in pushing forward a worldwide policy on climate.

The Community is also a signatory to the Geneva Convention on Long-Range Transboundary Air Pollution (Council Decision 81/462/EEC – OJ L 171, 27.6.1981) as well as to several of its Protocols.

In this field of Community legislation, primary aims are towards reducing emissions from industrial activities and vehicles. Regarding transport, the strategy is:

- to reduce polluting emissions (catalytic converter, roadworthiness inspections),
- to reduce fuel consumption of private vehicles (in collaboration with automobile manufacturers),
- to promote „clean“ vehicles (tax incentives).

## Nature Conservation

In Europe, there are some 1,000 plant species and more than 150 species of birds that are seriously threatened or on the verge of extinction. In order to counteract this dire situation, the Community has introduced legislation providing measures to conserve wildlife and plant species.

The Community is Party to numerous conventions, among them, the Bern Convention (the Conservation of European Wildlife and Natural Habitats) and the Bonn Convention (the Convention of Migratory Species).

## Natural and Technological Hazards

Nowadays, societies are increasingly exposed to all kinds of hazards, be they natural, technological or environmental. In order to help prevent such hazards and be prepared to manage emergency situations arising from them, the Community has drawn up an action programme on civil protection and a Directive on the prevention of major industrial accidents.

Concerning nuclear safety, the Community has introduced a series of measures and other instruments, e.g., the Directive on protection against radiation and an action plan for the management of radioactive waste. In addition, technical co-operation has been introduced to ensure the safety of nuclear facilities.

## Enlargement

Currently, the environment in the countries of Central and Eastern Europe (CCEE) is in a very dire state. The enlargement of the EU to include these countries presents environmental challenges far greater than those of previous accessions.

The Applicant Countries must transpose all existing Community environmental legislation into their national legislation. This can only be done over the long term.

The Applicant Countries themselves will have to find the necessary means to transpose this environmental legislation. But, the Community and its Member States have an influential role to play within the framework of the bilateral programmes. Under the PHARE programme, the

Commission has done a great deal of environmental work and has encouraged Applicant Countries to participate in the LIFE programme. In the environmental sector, Community pre-accession assistance will be considerably intensified after the year 2000. This will mainly be in form of a pre-accession structural instrument (PASI) relating to the environment and transport.

### 3.2 New Provisions in Preparation

In its work programme for 1999 (OJ C 366, 26.11.1998) the Commission defined environmental protection as being one of the fundamental challenges facing the European Union. According to the Commission, increasing industrialisation, food hazards and the accelerated deterioration of the natural environment demands a strategy of **sustainable development and balanced resource management**.

The European Council in Vienna emphasized that the only way such a strategy can be successful is to **integrate the concept of environment and sustainable development into all Community policies**, as provided for by the Amsterdam Treaty. Therefore, the European Council called on the Council to detail strategies to take fuller account of the environment aspects of transport, energy and agriculture policy, and to involve these aspects in the development, energy and single market policies. Major emphasis should be placed on **climate change and the environmental aspects of employment and enlargement**.

National authorities of the Member States and the general public have come to understand that environmental aspects must be integrated into all areas of policy. The concept of sustainable development, originally considered as a purely environmental issue, is now considered to be the only feasible social and economic model.

In the meantime, technological progress has provided better environmental protection. It is not only economically viable and creates added value to products, but can also lead to creating new workplaces.

Successfully introducing an environmentally compatible model of economic development demands commitment on the part of everyone. Measures have been taken to assign greater responsibility to economic forces (stakeholders) and to sensitize public awareness of environmental issues (easier access to information and greater participation in decision-making processes). (2)

### **Sixth Environmental Action Programme „Environment 2010: Our Future, Our Choice“**

On January 24 2001, the Commission accepted a proposal for a unique environmental strategy (6), in which priorities are set for the next five to ten years.

This new draft for the EU environmental policy continues to pursue several of the objectives of the Fifth Environmental Action Programme which had begun in 1992 and was assessed in 1998.

The strategic concept for achieving the objectives of the New Programme requires that:

- Member States must improve the implementation of environmental regulations and directives,
- environmental issues must be more deeply embedded in other areas of policy,
- environmental policy is to increasingly use market mechanisms more to its advantage,
- information regarding the environment is to be made more easily accessible to citizens,
- decisions concerning land use and its environmental impact are thoroughly evaluated.

The concept, as outlined, applies for the entire spectrum of environmental issues. Particular emphasis is placed on the following four policy measures.

#### 1. Climate Change

Objective: Stabilisation of the concentrations of greenhouse gas emissions in the atmosphere to a level that does not cause unnatural changes in the climate.

#### 2. Nature and Bio-diversity

Objective: The protection and restoration of natural systems as well as preserving biodiversity in the European Union and worldwide; protection of the soil from erosion and pollution. (A thematic strategy on soil protection opens a new area of activity for Community Environmental Policy).

3. Environment and Health

Objective: Achieving an environmental quality that ensures that human produced hazardous substances, including various types of radiation, do not lead to significant impairment of health and the environment

4. Sustainable Use of Natural Resources and Management of Wastes

Objective: Achieving a situation where the capability of the environment to support the use of renewable and non-renewable resources is not exceeded; decoupling economic growth and exploitation of natural resources by more rational use of resources; dematerialization of the economy, and waste prevention.

Enlargement and the Role of the Community on the International Stage

The Accession Countries are called upon to fully implement EU environmental legislation.

At the international level, it must be ensured that environmental issues are fully and appropriately integrated into all aspects of Community external policies.

Policy based on the integration of participants and sound knowledge

Successful implementation of the Sixth Environmental Action Programme is only possible when those affected by proposals are widely and extensively consulted at all stages. A basis for policy measures will be sound scientific knowledge and economic evaluation. Monitoring will be further developed using indicators, whereby the Commission will work closely together with the European Environmental agency.

An advertising video for the Sixth Environmental Action Programme is available at:

[www.tvlink.org/environment/home.htm](http://www.tvlink.org/environment/home.htm)

**The Green Paper on Integrated Product Policy (published 08.02.2001)**

The Integrated Product Policy (IPP) is one of the innovative elements of the Sixth Environmental Action Programme. Through implementation of the new product policy, the Commission wishes to shape a more environmentally sound future. A core objective is the improvement in the environmental impact of products throughout their entire life-cycle. Priority is also given to the creation and development of market-demand for greener products. With the publication of the Green Paper, a far-reaching debate is to be initiated as to how to achieve a new economic growth paradigm, and at the same time raise the quality of life by ensuring prosperity and competitiveness based on environmentally friendly products.

The IPP has three overriding objectives that are based on fundamental economic principles:

1. Stimulating consumer demand for environmentally friendly products. The Green Paper suggests various types of eco-labelling as suitable instruments.
2. Creating incentives for companies to broaden their offer of environmentally friendly products. Towards this, suggested instruments are compiling and dissemination of life-cycle information, guidelines for eco-design and consideration of environmental aspects in drawing up specifications and standards. Setting up Product Panels where major stakeholders are represented.
3. Using price mechanisms for developing markets for green products. Suggested instruments are differentiated taxation, e.g. reduced VAT rates for eco-labelled products.

The purpose of the Green Paper is to provide the foundation for a dialogue among all stakeholders. For the future, various „Stakeholder Consultation Events“ and Working Groups are planned, in which Accession Candidates are also to actively participate. This dialogue

process is to be actively pursued up to the end of the first half of 2001. The Commission will then review the results and publish a Communication in the latter half of 2001.

The schedule of forthcoming Stakeholder Events can be found at the following Web site:  
[europa.eu.int/comm/environment/ipp](http://europa.eu.int/comm/environment/ipp)

## **4. Impact on SMEs**

### **4.1 Market Entry**

The demand on companies to deal with the issues of environmental protection and sound management of resources will steadily increase. Pressure will also be exerted by the main focus points of future EU policy and the resulting legislation. Emphasis will also be on companies to take on more responsibility as well as to adopt the principle of precaution (stewardship). That means, environmental resources water, air and soil will no longer be available free of charge, rather, careful and mindful management of the planet's resources will be required. Future generations should also be given the chance to use these resources, and nature will be given its due right, independent of human utilization.

In future, market entry will be granted only to those companies which are able to provide evidence to the general public that their operations and products are as environmentally compatible as possible. In several sectors, e.g. textiles, market entry is already particularly regimented through product labels. Product labels that rule out the use of certain substances or production processes can be voluntarily applied for. If a manufacturer cannot present such a label, he is often no longer accepted as a supplier. Companies are also encouraged to organise their management structure in accordance with environmental principles, in particular, in environmentally sensitive sectors, e.g. suppliers in the chemical industry. This tendency, as in quality management, will also spread to other sectors. That means, that companies will have to adopt the requirements set forth in the EU Environmental Management Assessment System or DIN ISO 14001.

### **4.2 Additional Costs** (adaptation of products, product documentation, training)

In the early stages companies will be faced with additional costs as they adapt to the requirements of the market. In several sectors there will be the need to invest significant amounts of money in clean technologies. However, by productive operations and efficient management of raw-materials and production resources, there will soon be compensatory effects, i.e. tangible savings. When adapting products, emphasis must always be put on marketability. Durable consumer goods also need suitable consumers. To retain market position, companies will have to keep a keen eye on such developments.

A great hurdle for SMEs is „product traceability“ that is stipulated in statutory provisions. Here, rethinking is required in order to integrate product documentation as a matter-of-course task into the day-to-day operations of a company. It is absolutely necessary to integrate this knowledge and simple forms of documentation into training schemes. It will also be imperative for those companies who wish to participate in future markets to invest in additional training of their employees.

## 5. Strategies for Adaptation

In order to motivate SMEs to incorporate environmental protection and to practise industrial safety, tangible benefits must be clearly identifiable. Introduction of environmental legislation and regulations is not sufficient to achieve sustainable environment-oriented company management. SMEs must be provided with cost-efficient instruments that are easy to apply in order to raise their awareness of environmental issues.

One effective instrument for bringing about environment-oriented company management is the EU Environment Management Assessment System, in future EMAS II. Also DIN ISO 14001, an international standard, is an essential element towards implementation of optimised environment-related processes in a company.

Even without a profound understanding of EU legislation and that of individual Member States, companies are able to work towards sustainable environmental operations and strive for long-term continuous improvement.

### 5.1 Opportunities for SMEs

The Checklists found in Section 6 offer a first step towards entry to every small and medium-sized company. In just a short time, any company can make a self-diagnosis of its streams. With the help of a Materials and Energy Balance Sheet (Input/Output Balance Sheet) a company is presented with figures, data and facts with which an effective approach can be drawn up towards planning savings in energy and costs. By means of detailed examination of materials and energy intensive streams within a company, cost savings and positive environmental impacts can be quickly and easily linked, very often only by introducing simple organisational restructuring.

A company is on the way to sustainability only if it can adopt and implement a fully integrated philosophy of eco-efficient operations, i.e. a commitment to strive for continuous improvement in its work methods and processes, to substitute problematic materials wherever possible, to introduce clean technologies and products, and to search for new ways of using and re-using resources.

A fundamental step towards this philosophy is to adopt the following eleven working principles of „**Good Practice**“:

1. Develop and foster environmental awareness among employees
2. Prior assessment of the effects of new business activities and products on the environment
3. Assessment and monitoring of environmental impacts arising from company activities
4. Reduce environmental pollution to a minimum by introducing preventive measures
5. Introduce precautionary measures to prevent accidents with environmental impact
6. Introduce procedures for reviewing conformity of all measures with company agreed environmental policy and/or in-house standards
7. Strict compliance with company standards (environmental policy/objectives)
8. Strive for co-operation with local and regional authorities, crisis management
9. Develop dialogue with the general public
10. Advise customers of the environmental aspects of products
11. Motivate business partners and suppliers to also introduce eco-efficient methods, processes and products

Company tools to assist in adaptation:

1. **Take the first step by using the Checklists found in Section 6.**
2. Collect and compile environmental-relevant company data by using the Materials and Energy Balance Sheet.
3. Coaching of companies to multipliers.
4. Initiate exchange of experience among companies
5. Training in development of a system of documentation, statutory fundamentals.
6. Develop a concept of „good practical and simple technical“ solutions and „organisational approaches“ towards environmental protection in various areas.
7. Communicate with national authorities regarding future developments involving economic issues and concerns.

# Checklists for Companies



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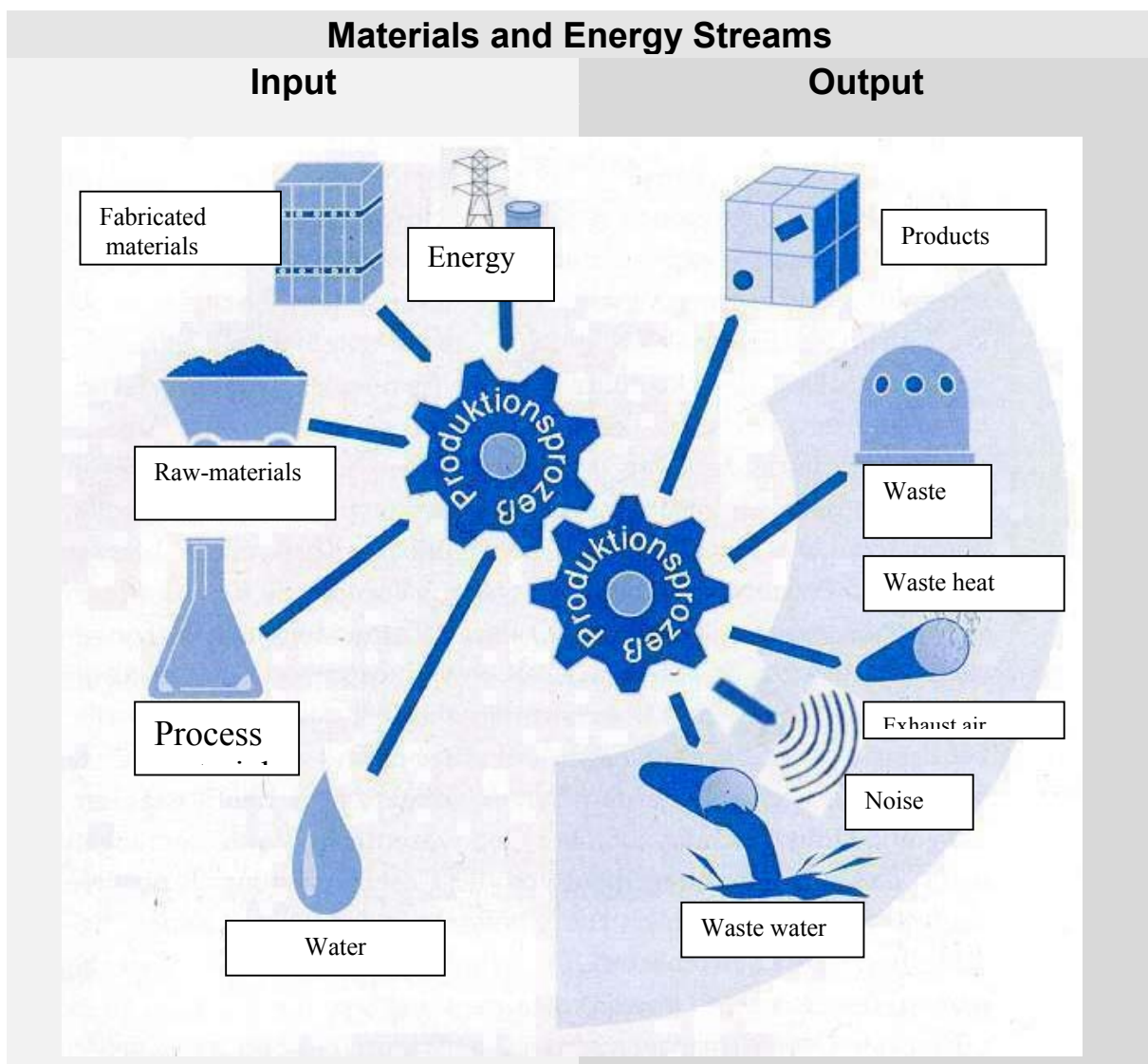
## Preface

The subject, environmental protection has been – and is – all too often reduced to the „classical“ environmental issues of waste, waste water, air pollution and saving energy. However, whoever wants to successfully reduce their company’s pollutants must do some basic rethinking:

Environmental considerations must be extended to include all business activities. Sustainable environmental protection must go beyond isolated actions; it must be anchored in all areas of business operations.

This, of course, can be costly and time-consuming. A systematic approach is to monitor materials and energy streams within a company. „What comes in? – What goes out?“ The Input/Output Analysis has proven itself useful for monitoring environmentally relevant operations and processes taking place in a company; and it serves as the first step towards a comprehensive Environmental Management System.

An important instrument for collecting the necessary data are the following Checklists. They form the basis for selecting appropriate measures to be taken for reducing environmental pollution.



## 1. General

### 1.1 Company Data

Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Address: \_\_\_\_\_

Sector: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Mobile: \_\_\_\_\_

Email: \_\_\_\_\_ Web site: \_\_\_\_\_

Comp. formation: \_\_\_\_\_ Company acquisition: \_\_\_\_\_

### 1.2 Number of Employees

Office/Administr. \_\_\_\_\_ of which \_\_\_\_\_ Trainees/Interns

Wkshop/Const.site \_\_\_\_\_ of which \_\_\_\_\_ Apprentices

Other \_\_\_\_\_ of which \_\_\_\_\_ Trainees

Temps \_\_\_\_\_

Total                     

### 1.3 Areas of Activities

<b>7 Area</b>	<b><u>Activities</u> in the respective Areas</b>	<b><u>Machinery and Equipment</u> in the respective Areas</b>
Office/Administr.		
Workshops		
Construction sites		
Warehouse		
Other		

## 1.4 Land and Buildings

Size of land \_\_\_\_\_ m<sup>2</sup>

Size of building(s) \_\_\_\_\_ m<sup>2</sup>

Form of Occupancy

<input type="checkbox"/>	Property of company owner
<input type="checkbox"/>	Company-owned
<input type="checkbox"/>	Leased
<input type="checkbox"/>	Rented

Surroundings/  
Neighbourhood

<input type="checkbox"/>	Residential area	Distance from own property line	_____ m
<input type="checkbox"/>	Commercial area	Distance from own property line	_____ m
<input type="checkbox"/>	Industrial area	Distance from own property line	_____ m
<input type="checkbox"/>	Not developed		

Plans/Floor plans of the building(s)/ Description of building:

## 2. Input

### 2.1 Input Materials

Goal: Through economical and conscious management of all materials used, resources and be saved and harmful environmental effects prevented.

#### 2.1.1 Input Materials

What materials or substances are used for the various work processes?

8 Area	<u>Activities, processes In the respective areas</u>	<u>Input materials used</u>	<u>Amounts in kg, litre or m<sup>3</sup></u>
Office/Administr			
Workshops			
Construction sites			
Warehouse			
Other			

#### 2.1.2 Amount/volume reduction and input materials

	y/n	Action needed
Is there information on the environmental compatibility of the materials used? <i>e.g. literature, newspaper articles...</i>	yes	
	no	
Have you checked whether the amounts of the input materials can be reduced without effects on results? <i>e.g. process optimisation, better control technology ...</i>	yes	
	no	
Have you checked whether environmentally hazardous materials can substituted with other materials? <i>e.g. mineral oil replaced with rape seed oil...</i>	yes	
	no	
	yes	
	no	

## 2. Input

### 2.2 Hazardous materials

Goal: Through proper storage and handling of water-contaminating, flammable and noxious substances, pollution of the environment as well as adverse health effects can be avoided.

#### 2.2.1 Volume of hazardous materials

What hazardous materials are used at your company?

Material description	Quantity	Storage	Remarks
<i>e.g. battery acids</i>	<i>Approx. 250 litres /year</i>	<i>Individual acid cisterns are stored in a large plastic catch pan.</i>	<i>Employees are instructed to wear protective goggles and gloves when handling acids</i>

#### 2.2.2 Storage and handling

	y/n	Action needed
Is there information available on the properties of the hazardous materials used? <i>e.g. manufacturer's information/specifications...</i>	yes	
	no	
Are the employees well informed about the dangers and proper handling of the hazardous materials used?	yes	
	no	
Are hazardous materials stored in such a manner that neither the employees nor the environment are endangered? <i>e.g. double-walled container, catch pans...</i>	yes	
	no	
	yes	
	no	

## 2. Input

### 2.3 Energy supply

Goal: Through conserving energy and rational use of energy as well as the careful selection of the source of energy, not only can costs be saved or reduced, but environmental pollution can be prevented as well.

#### 2.3.1 Sources of energy

What sources of energy are used at your company?

<input type="checkbox"/>	wood	consumption _____	stacked m <sup>2</sup> /year
<input type="checkbox"/>	brown coal	consumption _____	kg/year
<input type="checkbox"/>	hard coal	consumption _____	kg/year
<input type="checkbox"/>	oil	consumption _____	litre/year
<input type="checkbox"/>	gas	consumption _____	m <sup>3</sup> /year
<input type="checkbox"/>	electricity	consumption _____	kWh/year
<input type="checkbox"/>	solar energy	consumption _____	kWh/year
<input type="checkbox"/>	other	consumption _____	

#### 2.3.2 Energy conservation

	y/n	Action needed
Are energy-saving machines and equipment used? <i>e.g. vehicles with low fuel-consumption, ...</i>	yes	
	no	
Have energy-saving measures been implemented in buildings? <i>e.g. insulating plaster, double/triple-glazed windows...</i>	yes	
	no	
Have modern energy-saving heating systems been installed? <i>e.g. useful output technology...</i>	yes	
	no	
Are more „environmentally-friendly sources of energy used? <i>e.g. natural gas, liquefied petroleum gas ...</i>	yes	
	no	
Are renewable sources of energy used? <i>e.g. solar energy, hydrodynamic power, biomass, ...</i>	yes	
	no	

### 3. Output

#### 3.1 Waste

Goal: Avoidance of soil, water and air pollution through proper storage and disposal of waste materials as well as preserving resources through recycling of feedstock and residual waste.

##### 3.1.1 Volume of Waste

What is the volume of waste produced by your company?

Description of waste	Quantity	Waste disposal company	Remarks
<i>e.g. waste oil</i>	<i>1000 litres/year</i>	<i>„Waste Oil Ltd.“</i>	<i>Storage in double-walled special containers</i>

##### 3.1.2 Waste Disposal

	y/n	Action needed
Are hazardous wastes separately collected and disposed of? <i>(e.g. waste oil, paint, solvents ...)</i>	yes	
	no	
At your company, are wastes stored in a manner, that would exclude any danger to employees and the environment? <i>(e.g. sealed containers, proper filling ...)</i>	yes	
	no	
Do you receive written evidence of proper disposal of wastes and quantities of which? <i>(e.g. invoices, disposal receipts...)</i>	yes	
	no	
Do you know what happens to the waste and where the waste is taken? <i>(e.g. landfill site, incineration, treatment plant...)</i>	yes	
	no	
Are recoverable wastes separately collected and sent for recycling? <i>(e.g. paper/cardboard, metals, wood ...)</i>	yes	
	no	

### 3. Output

#### 3.2 Sewage/waste water

Goal: Prevention of soil and water contamination by means of avoiding or reducing waste-water.

### 3.2.1 Areas of waste water occurrence

What areas generate waste water at your company?

<input type="checkbox"/>	Sanitary ( <i>e.g. toilets, sinks for employees</i> )	appr. _____	m <sup>3</sup> /year
<input type="checkbox"/>	Production/Services ( <i>cooling water ...</i> )	appr. _____	m <sup>3</sup> /year
<input type="checkbox"/>	Outside area ( <i>e.g. washing vehicles</i> )	appr. _____	m <sup>3</sup> /year
<input type="checkbox"/>	Other sources of waste water	Appr. _____	m <sup>3</sup> /year

### 3.2.2 Sewage system

Where is the waste water channelled to?

- Combined sewers (rain water and plant waste water)
- Separate sewer (plant waste water only)
- Seepage pit/soakaway
- Lakes and rivers

### 3.2.3 Waste-water contaminants

What substances contribute to waste-water contamination?

Sanitary area	<i>e.g. acids or alkaline and caustic solutions from detergents ...</i>
Producton/Services	<i>e.g. oils from coolants and lubricants, heavy metals from machining processes...</i>
Outside area	<i>e.g. tenside from cleaning detergents, waste oil from vehicles...</i>
Other sources of waster-water	

### 3.2.4 Wate-water treatment

	y/n	Action needed
Are the statutory limit values for these substances known? <i>e.g. national limit values, EU directives...</i>	yes	
	no	
Are waste-water treatment plants used? <i>e.g. light-liquids separator, sedimentation basin...</i>	yes	
	no	
Is compliance with the limit values and/or the functioning of the treatment plant monitored/inspected? <i>e.g. visual inspection, analysis instruments...</i>	yes	
	no	

## 3. Output

### 3.3 Exhaust air

Goal: Through ventilation and filtering of toxic dusts and vapours, air pollution can be reduced and adverse health effects on employees and residents can be prevented

### 3.3.1 Areas of occurrence

What possible dusts and emissions are generated at your company?

Producton/Services	<i>e.g. solvents from paint and varnishes, metal dusts, saw dust...</i>
Others	

### 3.3.2 Exhaust air treatment

	y/n	Action needed
Are dusts and emissions extracted at the source or site of where they are generated? <i>e.g. grinding machine with vacuum extractor...</i>	yes	
	no	
Are the limit values for these substances known?	yes	
	no	
Is air treatment equipment being used? <i>e.g. dust filters, gas purifiers...</i>	yes	
	no	
Is compliance with the limit values and/or the functioning of the equipment monitored/inspected? <i>e.g. using own measuring instruments, engineering office audits...</i>	yes	
	no	

### 3. Output

#### 3.4. Noise

Goal: Noise reduction lowers the incidence of impaired hearing among employees and avoids complaints from neighbourhood residents.

##### 3.4.1 Sources of noise

What are the sources of noise at your company?

Office/Administration	<i>e.g. printers, photocopiers ...</i>
Production/Services	<i>e.g. machining processes, circular buzz saws...</i>
Outside area	<i>e.g. vehicles...</i>
Others	

##### 3.4.2 Noise reduction

	y/n	Action needed
Have especially loud machines/equipment been determined? <i>See point 2.4.1</i>	yes	
	no	
Have any measures been taken to reduce noise? <i>e.g. insulated equipment enclosures...</i>	yes	
	no	
Are employees given personal protective equipment? <i>e.g. ear plugs, protective headphones...</i>	yes	
	no	
Have neighbourhood residents complained against noise pollution?	no	
	yes	

## 4. Industrial Safety

### 4.1 Fire protection

Goal: Fire protection measures can save not only lives, but can preserve company assets and prevent severe environmental pollution as well.

#### 4.1.1 Technical fire protection

Is there fire-alarm and fire-fighting equipment at your company?

- Fire alarms (fire detector, smoke detector...)
- Fire extinguishers (water extinguisher, foam/powder/CO2 extinguisher)
- Fire blankets
- Stationary fire-extinguishing installations (water/CO2 installation...)

#### 4.1.2 Structural fire protection

What structural fire protection measures have been taken or installed at your company?

- Fire lobby
- Fire doors
- Smoke exhaust ventilators
- Fire protection flaps in ventilation ducts
- Emergency exits
- Fire-proof escape routes (*e.g. staircases...*)
- Fire-proof separation of rooms with high fire-hazard rating

#### 4.1.3 Organisational fire protection

	y/n	Action needed
Has it been investigated in what rooms or during what activities there is an increased danger of fire? <i>e.g. warehouse for flammable liquids, flying sparks during welding...</i>	yes	
	no	
Have fire-fighting regulations and rescue plans been created, in which actions to be taken in the event of fire have been stipulated? <i>e.g. emergency phone numbers, rules of conduct...</i>	yes	
	no	
Are fire-extinguishing equipment, rescue routes and emergency exits sufficiently and clearly marked? <i>e.g.</i>	yes	
	no	
Is fire-extinguishing equipment regularly checked for proper functioning? <i>e.g. annual maintenance carried out by specialists...</i>	yes	
	no	
Are employees regularly instructed in the use of fire-protection equipment, rescue plans and proper conduct and actions to be taken in the event of a fire? <i>e.g. fire drills..</i>	yes	
	no	

## 4. Industrial Safety

### 4.2 Hazards

Goal: Environmental protection measures frequently relate to industrial safety. Therefore, a well functioning industrial safety organisation also indirectly benefits environmental protection.

#### 4.2.1 What possible industrial hazards exist at your company?

- Mechanical, *e.g. unprotected moving machine parts, parts with dangerous surfaces, moving transport equipment, moving production materials, uncontrollable moving parts, falling, slipping, stumbling, dropping)*
- Electrical, *e.g. dangerous electrical shocks, arcing*
- Hazardous substances, *e.g. gases, vapours, airborne particles, liquids, solids*
- Risks of fire and explosion, *e.g. through flying sparks, contact with flammable materials*
- Danger of burns, *e.g. sparks landing on persons*
- Risk through physical effects, *e.g. noise, hand/arm vibrations (e.g. grinding wheel, reduced vibration)*
- Risk through ambient conditions at the workplace, *e.g. air, heating, lighting*
- Physical stress/work drudgery, *e.g. hard, tedious work*
- Perception and manipulability
- Other hazards and stresses, *e.g. PSA, skin problems*

#### 4.2.2 Organisation

	y/n	Action needed
Has a potential hazards analysis been carried out at your company? <i>See point 3.1 Hazards</i>	yes	
	no	
Have persons been appointed from management or individual departments to be responsible for safety? <i>e.g. industrial safety engineer, safety officer...</i>	yes	
	no	
Do the persons responsible have sufficient information on industrial safety and environmental protection? <i>e.g. statutory laws, accident prevention regulations, EU Directives</i>	yes	
	no	
Are the employees regularly instructed in industrial safety and environmental protection? <i>e.g. written operating instructions, annual training courses...</i>	yes	
	no	
Are environmental and industrial safety issues taken into account when planning and procurement of machinery, equipment and buildings?	Yes	
	no	

## 9 Useful Internet Addresses „Europe“

### European Parliament EUROPARL

EP information in German, English, French, Spanish, Italian, Dutch, Danish, Portuguese, Finnish, Swedish, and Greek

[www.Europarl.eu.int/sg/tree](http://www.Europarl.eu.int/sg/tree)

### European Union

Information in German, English, French, Spanish and Italian

[www.Europa.eu.int](http://www.Europa.eu.int)

### Council of the European Union

[www.ue.eu.int](http://www.ue.eu.int)

### Court of Justice of the European Communities

[www.europa.eu.int/cj](http://www.europa.eu.int/cj)

### Europarat

Information in English and French

[www.stars.coe.fr](http://www.stars.coe.fr)

### European Environmental Agency

[www.eea.eu.int/](http://www.eea.eu.int/)

### Harmonization of European Standards

[www.NewApproach.org](http://www.NewApproach.org)

## 10 Bibliography

- (1) Deutsche Umweltschutzgesetze, Sammlung des gesamten Umweltschutzrechts des Bundes und der Länder mit Europäischem Umweltschutzrecht; Losebl.-Ausgabe. 239 Ergänzungslieferung, bearb. von Rolf S.Schulz, Verlag Schulz, ISBN 3-7962-0314-0
- (2) [www.europa.eu.int/scadplus/leg/de/lvb/128066.htm](http://www.europa.eu.int/scadplus/leg/de/lvb/128066.htm), researched on 11.12.00
- (3) Umweltwissen, Daten Fakten, Zusammenhänge; Zweite Auflage; Verf. Hartmut Bossel; Springer Verlag, ISBN 3-540-57225-2
- (4) Europäisches Umweltrecht, 3.überarbeitete Auflage, PF Umweltrecht 5 Studienbriefe; Autor: Prof. Dr. Gyula Bandi, Faculty of Law, University Eötvös Lorand Budapest; Herausgeber: Zentrum für Fernstudien und Universitäre Weiterbildung Universität Koblenz-Landau, Abt. Koblenz
- (5) Handbuch Umweltcontrolling; Herausgeber Bundesumweltministerium und Umweltbundesamt; Verlag Vahlen; 1995; ISBN 3-8006-1929-6
- (6) [www.europa.eu.int/comm/environment/newprg/index.htm](http://www.europa.eu.int/comm/environment/newprg/index.htm), researched on 19.02.01