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# European innovation and exchange of information about BAT

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\* The content of this speech reflects the personal views of M. Gislev, desk officer for the IPPC Directive at the European Commission, and not necessarily those of the European Commission or the European Court of Justice.

## 1 The role of 'BAT' as a promoter of innovation in Europe

The most fundamental element of integrated pollution prevention and control (IPPC) is the concept of Best Available Techniques (BAT) as defined in the IPPC Directive. For all the polluting point sources covered by the Directive, appropriate preventive measures must be taken, in particular through application of BAT.

However, in order to ensure flexibility and to encourage technological and operational innovations, the Directive expressly forbids authorities to prescribe the use of any specific BAT in permits issued to operators. Instead, permits must contain conditions, such as emission limit values, which are sufficient to ensure that BAT requirements are met taking account of the particular characteristics and circumstances of the installation. This flexible approach recognises the fact that different techniques can be combined to achieve equivalent environmental performance. One of the purposes of IPPC is thus to promote innovation in Europe, thereby contributing to technological and economic development.

The starting point of the IPPC approach is that continuous process innovation, in combination with resource management and enforcement of environmental quality standards, will lead to both sustainable development and economic growth.

The importance of technological development for competitiveness is generally accepted by the scientific community, industry and policy-makers. Consequently, the European Community and its Member States seek to develop policy instruments that foster innovation. In parallel, the scientific community and industry invest large sums in pursuit of technological progress. Over the last decades, pollution control and cleaner technology have increasingly become major factors in R&D programmes. Originally, environment-related investments were mainly the result of regulatory requirements. Nowadays, it is increasingly consumer demand that drives companies (and thus the focus is gradually shifting to the environmental performance of products rather than processes). Development projects can either be primarily motivated by environmental considerations or only partially so, but today, projects that would cause increased pollution are usually discontinued at an early stage.

These strong trends also imply that if a competent authority chooses to set permit conditions that are weaker than BAT based conditions, it may well be that it does the company and the region where it is located a disservice in the longer run, since it hinders natural and desirable modernisation and structural transformation.

In the context of BAT and innovation, the importance of pollution prevention (also called primary or process-integrated measures) should be highlighted. A weakness in traditional environmental regulation was the over-emphasis on end-of-pipe abatement techniques (also called secondary measures). As opposed to most end-of-pipe measures, pollution prevention is not only good for the environment, but its development and implementation is also helped by the fact that it often represents

a profitable measure, because the generation of pollution and waste, including heat, reveals an inefficiency in the production process. (If pollution is controlled by end-of-pipe abatement, the economic cost of an inefficient process is supplemented by the additional cost of the abatement. If instead, pollution prevention and resource efficiency are integrated into the entire production process, the operator can often experience the double gain of saving on raw materials and energy and avoiding the need for costly abatement technologies.)

From a supply-side perspective, the regulatory requirement to apply BAT is essential if the European eco-industry is to see strong growth and fight off global competition (from countries such as the United States). The core eco-industry in the European Union represents about half of the world market. This world market is expected to grow to 300 billion Euros by the year 2000 and to around 570 billion Euros by 2010. It comprises

- air pollution control,
- water and waste water treatment,
- waste management,
- contaminated land treatment,
- noise and vibration control,
- environmental monitoring and
- environmental consultancy/services.

The BAT approach should also be seen as a tool for creating a more level playing field in Europe and promoting economic and social cohesion. According to the Directive, the exchange of information at EU level about best available techniques will help to redress technological imbalances in the Union and promote the world-wide dissemination of techniques used in the Union.

## **2 The exchange of information on BAT**

Article 16(2) of the IPPC Directive requires the Commission to “organise an exchange of information between Member States and the industries concerned on best available techniques, associated monitoring, and developments in them” and to publish the results of this information exchange.

The information published in this way is one of the considerations to be taken into account by permitting authorities when they determine BAT for a particular installation, and will thus have a considerable influence on the way in which the IPPC Directive is implemented. The active involvement of industry at all stages is the key to making the information exchange a success. A proactive, environmentally conscious industry has nothing to fear and everything to gain from informing the authorities and the public and thus avoiding misconceptions and distrust which can lead to bad public relations.

The purpose of the information exchange is to assist Member States and competent authorities when determining BAT for specific installations. The published results will take the form of BAT Reference Documents (BREFs) for each sector covered by the Directive. In addition, a number of cross-sectoral issues have been identified as worthy of particular attention and will result in "horizontal" reference documents. Each BREF will contain a list of techniques which are considered to qualify as BAT, along with the environmental performance that they can achieve. Of course, these are not to be regarded as exclusive lists of techniques to be applied in every installation - this would be in contradiction with the requirement not to prescribe particular techniques. Rather, the idea of listing techniques and specifying reference values for environmental performance is to provide benchmarks that will assist the authorities in determining BAT.

The European Commission has set an ambitious goal for this process: we aspire to produce high-quality reference documents that will exert a kind of a magnetic force on EU Member States and their authorities so that they will really *want* to use them when determining BAT and BAT-based permit conditions, apart from their legal obligation to do so (because, regrettably, legal obligations in the environmental field have not always been strictly honoured by Member States).

## **2.1 How work was organised**

In the past, there had been previous information exchanges on BAT concerning both discharges to water (under Directive 76/464/EEC) and emissions to air (under Directive 84/360/EEC). The outcome was a series of BAT Technical Notes which identified the technology or technologies that could be considered as 'best'. The notes were drafted by sectoral working groups with the contribution of industrial representatives and the final approval decisions were taken by consensus in a non-regulatory committee chaired by the Commission and comprising Member State nationals and industry. The Member State nationals in the committee essentially had the status of national experts who did not formally represent their national administration. The Commission was responsible for the co-ordination and it was assisted by a technical consultant for each working group.

In 1995, one year before the IPPC Directive was adopted, the European Commission decided to propose a similar two-level system. The first level would be the expert level, whereas the second would have a central co-ordinating function in which each member would have a true representative role. Apart from EU Member States and industry, environmental NGOs would also be invited to take part in the information exchange.

Right from the beginning, the Commission was of the view that, since its obligation would be to report on the exchange of information, it did not necessarily need agreement or approval of Member States (or industry or environmental NGOs) in issuing the reference document. The purpose of the meetings at the second level would be to oversee the process and ensure the full exchange of opinions with

the view to reaching consensus, but if this was to prove unrealistic, the Commission would issue its document reflecting the outstanding disagreements. Final responsibility for publication of the BREFs would rest with the Commission.

The substantial work would be done within working groups for each sector, largely organised and run by a special bureau, possibly to be founded at the Commission's Institute for Prospective Technological Studies (the European IPPC Bureau). Such a cooperation was deemed appropriate since the IPTS was providing technical support to other parts of the Commission and in particular support to "the management of change" enhancing industrial innovation and competitiveness.

Once the Directive was adopted, the Information Exchange Forum had its first meeting in December 1996 (with EU Members State delegations, a UNICE delegation and representatives from the European Environmental Bureau and EFTA countries). Among the issues discussed was a draft multi-annual work programme covering more than 30 BREFs each to be completed in one year's time. The European IPPC Bureau was also established in December that year.

## **2.2 How the system has developed**

The Sevilla process started when the first technical working group meetings were held in May 1997. It has to be admitted that the information exchange experienced some teething problems in the beginning, such as insufficient input to the process in particular from Member State experts. It should be stressed that throughout the exercise this has been a dynamic learning process, where previous decisions have been frequently adjusted in the light of experience gained. A good example of this is the work programme, where activities have been merged or cancelled and where the starting dates have either been brought forward or postponed for various kinds of reasons.

These are some of the most significant developments in the exchange of information so far:

- In 1998, it was decided that all drafts for consultation would be available to the public on the Internet.
- In 1999, a decision was made to produce a BREF on economic and cross-media issues (February 1998: workshop on cross-media aspects in Berlin, February 2000: workshop on economic aspects in Brussels).
- Early last year, it was formally recognised that one year to complete each BREF was not a realistic target and a new time scale of two years was set.
- Electronic communication using the Internet has gradually become more advanced and better exploited by members of the working groups.
- The European IPPC Bureau has grown steadily and it now employs 16 people.

- At the last meeting of the Information Exchange Forum in February 2000, a standardised BREF preface clarifying the context and status of BREFs was fixed and the two first BREFs (Cement and Lime, Iron and Steel) were finally completed.

### **2.3 Future developments (?)**

At the moment, no major operational changes are planned. We hope to be able to finalise six more BREFs this year. Those involved in the information exchange have now gained more experience so, at least in theory, work should run more and more smoothly.

Naturally, it will be interesting to see to what extent it will be possible to reach broad consensus and avoid split views in the BREFs. While split views generally take away some of the value of the BREFs, it is likely that watered-down political compromises would have a worse effect on the credibility of the EU's BAT determination, which is intended to be a predominantly technical (and not a political) process.

In the medium term, a new work programme for the updating of the first generation of BREFs will need to be established. Finally, in the first half of 2004, the whole directive will be evaluated and possibly reviewed as the Commission analyses and presents the replies of Member States to the first implementation questionnaire.

In conclusion, this has been an evolutionary process but the learning curve is now flattening out to the benefit of productivity. In 2004, we will have a first good idea of how the EU Member States perceive the quality of the BREFs and the degree of importance they attach to them within their national permitting systems.