



*European Economic and Social Committee*

**NAT/190**  
**Action plan for**  
**environmental technology**

Brussels, 29 October 2003

**OPINION**

of the European Economic and Social Committee  
on the

**Communication from the Commission on Developing an action plan  
for environmental technology**

COM(2003) 131 final

---

On 25 March 2003 the Commission decided to consult the European Economic and Social Committee, under Article 262 of the Treaty establishing the European Community, on the

*Communication from the Commission on Developing an action plan for environmental technology*  
(COM(2003) 131 final).

The Section for Agriculture, Rural Development and the Environment, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 14 October 2003. The rapporteur was **Mr Nilsson**.

At its 403rd plenary session on 29 and 30 October 2003 (meeting of 29 October), the European Economic and Social Committee adopted the following opinion by 116 votes to 3, with 5 abstentions.

## 1. Introduction

1.1 The Lisbon European Council meeting in March 2000 established what is now known as the Lisbon Strategy: to develop "*the most competitive and dynamic knowledge-based economy in the world*". The Stockholm Council meeting in March 2001 called for an investigation into how the environmental technology sector might contribute to growth and employment. The June 2001 Council meeting in Gothenburg set out the "*strategy for sustainable development*". All the above underpin the Commission's ongoing efforts to frame a strategy and action plan for environmental technology.

1.2 The Commission's work is divided into three stages. The first was a report presented in March 2002 on Environmental Technology for Sustainable Development (COM(2002) 122 final). The second is the present communication on Developing an action plan for environmental technology. The third stage is the action plan that the Commission intends to present by the end of 2003. This procedure includes an interactive phase in which all interest groups are able to submit proposals and ideas for the final draft.

1.3 Environmental technology must be seen as a continuous process that brings together research and development, expertise and practical application. While the market is able to develop the sector on a purely commercial basis, there may be a need for various forms of support to enable it to push ahead with development. The EESC wishes to be a strong player in this respect.

1.4 The strategy and action plan can also be seen in relation to other Commission initiatives in which environmental technology can provide an important tool, e.g.

- The Commission Communication on *Integrated Product Policy*, which addresses the environmental impact of products from a life-cycle perspective<sup>1</sup>.
- The Commission Communication *On The Road to Sustainable Production*, which aims to coordinate measures to prevent and contain pollution, and where "best available technology" ties in closely with a future action plan for environmental technology<sup>2</sup>.
- The Commission Communication *Towards a Thematic Strategy on the Prevention and Recycling of Waste*<sup>3</sup>.

1.5 Another important piece of work in this area is the own-initiative opinion currently being drawn up by the EESC. Starting from the premise that there are special obstacles to the implementation of environmental technologies in the new member states, the Committee will address the question of how appropriate small-scale environmental technologies can be used, or their use promoted, in these countries. Particular attention will be paid to an assessment of the EU's aid programmes under the pre-accession programmes and the future use of Structural and Cohesion Fund resources<sup>4</sup>.

## 2. Gist of the Commission communication

2.1 In its March 2002 report, the Commission defines environmental technologies as "all technologies whose use is less environmentally harmful than relevant alternatives". However, the Commission extends the definition from covering only technology that cleans emissions to include technology that prevents pollution during the production process, such as new materials, energy- and resource-efficient production, environmental science and new methodologies. The extended definition thus includes technology and know-how.

2.2 Environmental technology is a growing market both within the EU and internationally. The EU's eco-industries directly provided around 1.6 million jobs in 1999 and supply some €183 billion of goods and services per year. Pollution management and cleaner technologies account for around €127 billion and resource management (excluding renewable energy plants) around €56 billion. In the candidate countries, pollution management and cleaner technologies' eco-industries supply around €10.3 billion of goods and services a year (equivalent to 1.9% of their GDP). The Commission provides an important contribution to the development of new environment-friendly technologies through the Research Framework Programme.

---

1 COM(2003) 302 final, EESC opinion under preparation

2 COM(2003) 354 final, EESC opinion under preparation

3 COM(2003) 301 final, EESC opinion under preparation

4 EESC own-initiative opinion on *Prospects and realities for appropriate environmental technologies in the candidate countries* under preparation

2.3 Many barriers, such as red tape, higher costs and public attitudes, continue to prevent the full development and use of environmental technologies. In particular, economic barriers are consistently a problem unless true environmental costs are taken into account. Poor access to finance coupled with long investment cycles as well as poor dissemination of new technologies are also issues. Technical barriers show the need for targeted and more effective research efforts. Also, technology entry into the market is slowed down by organisational barriers, and a lack of awareness and skills.

2.4 The Commission has decided to focus on four environmental issues: **climate change, sustainable production and consumption, water and soil protection**. The work is carried out by four different "Issue Groups", each dealing with its own specific area. These issues are also linked to the priority areas identified in the 6th Environmental Action Programme. This work will form the basis of the future action plan.

2.5 The Communication is meant to kick off a wide stakeholders' consultation on the barriers holding back the take-up of environmental technologies. All stakeholders have been asked to provide input for the drafting stage, and their responses will help prepare an action plan by the end of the year.

### 3. **EESC comments on the Commission communication**

3.1 The EESC endorses the focus of the Commission's efforts to use various means to promote the development and commercialisation of technologies that reduce environmental impact or improve use of resources. Work is ongoing in a number of Member States, but a European approach is needed to achieve optimum success through wider dissemination of best practice. The EESC welcomes the Commission's approach to the action plan, involving an open consultation process in which the EESC, Member State experts and various organisations are invited to take part.

3.2 The EESC believes it is important and extremely positive that the Commission gives a broader definition of environmental technology instead of confining it to "cleaning" technology. The economic statistics provided by the Commission refer only to the "eco-industry". These 1999 figures – which, moreover, need updating – only provide a partial picture of environmental technology's economic potential. The challenge for the environmental technology sector is to gradually improve all production and goods in terms of environmental performance and resources. It is also important to appreciate that a significant number of the rolling improvements and efficiency gains that the industry continues to make have yielded major environmental benefits without the term "new environmental technology" ever being used. Given that we are striving to achieve sustainable growth, it is important to define environmental technology if we are to be able to support it. The broader definition, in which environmental technology also involves know-how, research and new production methods, thus becomes a necessity.

3.3 The EESC also sees environmental technology as a strategically important business sector for European firms, which can eventually enhance European corporate competitiveness, contribute to economic growth and boost employment. The overall strategy for promoting environmental technology should be to make it profitable for firms and provide value added for consumers.

3.4 Environmental technology promotion measures provide a back-up instrument that dovetails with other instruments. Other environmental instruments such as tax and regulations often increase costs for businesses and can impair their international competitiveness in the short term. European corporate competitiveness must be improved if the Lisbon strategy objectives are to be achieved. Consequently, promotion of environmental technology is a positive step, since it will enable us to secure environmental gains whilst maintaining or even improving competitiveness.

3.5 The four issue groups would seem to be a relevant choice since they represent the three basic elements of **air, water and earth**, and the societal activity of **production and consumption**. The EESC does not believe, however, that "air" should be restricted to climate change, as all air emissions pose a considerable environmental problem and major environmental technology development and business opportunities are most certainly to be found in other air-related environmental issues. It is also important to realise that these areas impact on other areas and that solutions and innovations must also be able to cope with the horizontal perspective. The Committee also calls for the contribution of environmental technologies to noise prevention to be included in the work as soon as possible.

3.6 In a scenario in which environmental technology is being developed and commercialised in the Community, it is important to manage exports from earlier (and from an environmental standpoint, worse) production processes. For example, there might be legislation that makes a certain product profitable in the EU, but for which older technology is more profitable in third countries, and therefore the most widely used. This reduces environmental gains and restricts opportunities for exporting the new technology. Consequently, international cooperation on the environment should also continue to push for optimum harmonisation for environmental development, whilst third countries and, more especially, developing countries must be provided with expertise and real opportunities to harness the technology.

3.7 The development and commercialisation of environmental technology should be bolstered through various forms of support. In a scenario in which environmental technology is pushed through by means of robust economic or legislative instruments, there is a risk of it leading to reduced export potential, and to production being transferred beyond European borders where restrictions are less severe. In practice, this would lead to fewer overall environmental gains and to Europe exporting its environmental problems to other countries. The EESC feels this is morally dubious. Moreover, it would reduce growth potential.

3.8 Public procurement is a major player and can be readily used to develop environmental technology and exploit it commercially. It should be made clear that it is possible and desirable for tender documentation to include explicit environmental requirements. The environmental impact of a product should be assessed from a lifecycle perspective that includes all impacting factors, e.g. transport. It must be possible to ensure that new environmental technologies really do offer an improvement over existing technology. The Member States should also be able to arrange specific technology tenders to encourage firms to develop their products, in exchange for the "winning" concept securing more orders, as has been done successfully in some countries. According to the Commission Communication on Integrated Product Policy, legislation on public procurement provides ample opportunity to include an environmental perspective in calls for tender, and the real challenge is for the purchaser to exploit existing opportunities. The EESC believes that both the Commission and the Member States should be at the forefront in meeting this challenge.

3.9 The efforts of the Commission, aided by the issue groups, to identify the various barriers to continued development, are important. Stakeholders are best placed to describe the obstacles they experience.

3.10 The EESC would like to see the action plan suggest how the European and national level can continue to identify barriers and get to work on removing them. In many cases, large scale technical research is needed to achieve environmental gains, e.g. development of fuel cells for vehicles. However, work is also needed on problem areas for smaller firms and for small-scale environmental technology breakthroughs. Providing SMEs with support for environmental investment could be a suitable way of encouraging development.

3.11 As the Commission has pointed out, there are legal and administrative obstacles to developing environmental technology. The European Ombudsman is investigating complaints about administrative shortcomings within the EU's institutions and bodies. An administrative shortcoming occurs when a Community institution omits to act in accordance with binding Community legislation. Whilst legal obstacles to developing environmental technology can hardly be considered a matter for the European Ombudsman, the EESC would like the Commission to suggest where or to whom individual firms (large or small) might turn if they feel that either a piece of legislation or action on the part of the authorities is impacting negatively on the environment. This "environmental ombudsman" should not only ascertain whether the authorities have complied with legal requirements, but also identify any shortcomings in existing regulations. The EESC suggests that the Commission should investigate the case for establishing an ombudsman in this area.

3.12 The Commission communication gives an update of current research. The EESC would stress the importance of research, and the need for it to take place in close cooperation with stakeholders. Companies and their organisations must be involved when research funds are being earmarked for their field. Corporate research efforts are crucial for product development and innovation, but EU research programmes also highlight the difficulties that small and medium-sized enterprises come up against in this area. The action plan should place great importance on developing models for corporate applications of environmental research.

## **Production and consumption**

3.13 The EESC notes that the Commission focuses on waste-management issues in production and consumption. The Committee feels, however, that there is more to this area than waste issues. If the latter are to be addressed, the policy focus must be on reducing the amount of waste produced, more recycling for any remaining waste, and recovery of materials and energy. Experience from countries such as France has shown that transport and, consequently, energy requirements rise if unsuitable waste-sorting systems are put in place. Product development should therefore be encouraged to use materials in a resource-friendly manner. Similarly, waste issues must be addressed from a local/regional perspective in which solutions are assessed in terms of overall environmental benefit.

3.14 If environmental technology is to be a successful factor in achieving better, cheaper processes, treatment and know-how, that impact less negatively on the environment, then new methodologies and techniques will have to be looked at from a lifecycle perspective. A lifecycle analysis for goods and products provides a good understanding of how and where environmental damage occurs in the production chain. New technology must use a comprehensive approach to show that products and methodologies really can provide across-the-board environmental gains. Consequently, the Commission should include such an approach in its future work on an action plan for environmental technology.

3.15 The EESC notes the fact that the Commission has produced a Communication on *Integrated Product Policy* (IPP)<sup>5</sup> which can play an important role in developing environmental technology. For other EESC comments on the IPP communication, the Committee would refer to its opinion on the subject.

3.16 The Commission mentions ongoing research to persuade the public to adopt a more resource-based approach and to focus on quality rather than quantity. This is the correct approach and would have an immediate, major impact if individuals could see the significance of their own behaviour in a wider context. The EESC would also underline here, the problems in deciding what the consumer should understand as quality. It is not up to society to interfere and decide what should be understood as "quality", or when quantity becomes negative.

3.16.1 On the other hand, a product-labelling system could be developed to give consumers the information they need to make an informed decision on environmental performance, including criteria such as taste, colour, size, image, price, accessibility and function. A common labelling system already exists for white goods. These labels tend to focus on energy efficiency, although they also include criteria such as noise levels, wash efficiency and water consumption. For office equipment, there is a labelling system for energy consumption.

---

<sup>5</sup> COM(2003) 302 final

3.16.2 In the section on climate change, the Commission writes that public-awareness campaigns are an important factor in cutting emissions. In order to enhance the effectiveness of such campaigns, the consumer needs to be able to use this new information constructively when making different types of purchase. The EESC therefore suggests that the action plan should state how existing product-labelling systems might be extended to partially include other groups of product.

3.16.3 A wealth of experience also shows that market developments can drive through rapid, major change just as successfully as regulation and legislation. For this to happen, consumers and purchasers must be informed and critically aware. Consumer organisations should be given a bigger role in disseminating knowledge and information. The Commission refers to an example of good practice in which industry has replaced chlorine bleach in paper production with other more environmentally-friendly methods that do not use chlorine. This is, however, more an example of a demand- and market-driven shift towards more environmentally-friendly production. Industry had long argued that it was difficult or impossible to change the production process, but as the market required paper manufacturing to be chlorine free, these new processes and methods began to take shape, with the result that chlorine bleach is no longer used in paper production.

## **Water**

3.17 Turning to the "water" issue group, the focus is on waste and sewage-sludge treatment. The Commission points out some key research areas that are relevant but wide-ranging. Two very important strands of research should also be mentioned:

- the impact of materials in contact with water, bearing in mind that tests recognised by all Member States would be helpful, as would a single EU standard for conformity of materials;
- real-time analysis, which would permit almost instant reaction to incidents.

3.18 With regard to the obstacles, the Commission laments the somewhat conservative approach to technology of public and private actors in the water sector. This is doubtless due to the way the contract documents are drawn up, often with very specific requirements and leaving little scope for innovative or recourse to consultants, who tend to recommend tried and tested technology. More widespread use of **performance tenders** would doubtless lead to greater use of more innovative technology.

3.19 The EESC notes that considerable investments remain to be made for the installation of new sewage plants and new networks capable of implementing the objectives of the Waste Water Directive. Therefore, the EESC supports the focus on waste water and sewage-sludge treatment. The EESC also believes that the basic question should be whether the systems currently in use – whereby we use clean water as a means of transport, and mix household and industrial pollution together – are the right ones, or whether we should seek new systems for the sake of long-term sustainability. In the short term, however, environmental technology can help achieve lower material flows and cleaner emissions, but there is also a risk of maintaining structures that are less than environmentally friendly.



## **Climate change**

3.20 One way of complying with the Kyoto Protocol is to step up use of biofuel, and the Commission communication refers to previous proposals to encourage the development of such fuels. The EESC would point to two examples that are of considerable practical importance to the development of biofuel, yet which the proposal sees as hindering it.

3.20.1 In its proposal for a new agricultural policy<sup>6</sup>, the Commission suggested that it should no longer be possible to use set-aside land to grow crops for biofuel use, for example. This would have led to a drastic reduction in biofuel production. The EESC argued against this in its opinion<sup>7</sup> on the subject. The Council followed the EESC's suggestion at its meeting in June 2003, so it will continue to be possible to grow biofuel crops on set-aside land. In addition, a carbon-dioxide premium for growing biofuel crops will also be possible under the common agricultural policy. The agricultural sector is also developing more precise methods and systems that make more accurate use environmental technology in order to reduce chemical use and make more efficient use of nutrients.

3.20.2 Under the proposed directive to give Member States the option to make biofuel exempt from duty<sup>8</sup>, the exemption must only apply six years at a time. This means that investment in biofuel plant is less certain, as write-off time is considerably greater than six years. Longer term financial certainty would make investment a more attractive prospect and encourage environmental technology. The EESC calls on the European Parliament and the Council to bear this in mind in the current deliberations.

3.20.3 Large amounts of carbon dioxide are continuously seeping into and accumulating in the ground. The balance between accumulation and breakdown of organic material determines whether there will be carbon-dioxide emissions or net absorption. In order to shore up efforts to reduce greenhouse-gas emissions, we need to study the potential for sequestering carbon dioxide in organic carbon sinks, and the action plan should mention ways of exploiting this commercially in agriculture and forestry.

## **Soil protection**

3.21 The Commission communication's treatment of soil protection is limited. The EESC hopes that the somewhat delayed thematic treatment of soil protection will result in concrete proposals for environmental technology. We can also see how closely related the soil and air issues are when, for example, air-borne acid emissions pollute the ground. There is also a strong connection

---

<sup>6</sup> COM(2003) 23 final – CNS 2003/0006

<sup>7</sup> EESC opinion 591/2003, OJ C 208, 3.9.2003; pp. 64-71

<sup>8</sup> COM(2001) 547 final, OJ C 103, 30.4.2002

with climate change, since one of the greatest threats to the planet is the loss of organic materials, which also leads to emissions of carbon dioxide – a greenhouse gas. The EESC would therefore stress once again the importance of development in this area, and the need for all issue groups to be included in a horizontal strategy.

#### 4. Conclusion

- The EESC endorses the Commission's plans for a European initiative to develop and support environmental technology, and its choice of four thematic areas: climate change, sustainable production and consumption, water and soil protection.
- The EESC endorses the broader definition of environmental technology as encompassing knowledge, research and production techniques.
- Environmental technology can be developed into a strategically important business sector if European corporate competitiveness is enhanced in line with the Lisbon Strategy.
- Development and commercialisation of environmental technology should be enhanced through various forms of support, rather than through economic and legislative requirements that might hinder exports and lead to production being moved to third countries.
- Public procurement can already be exploited to encourage demand for products and services with an environmental technology slant.
- Support can also be provided in areas that create problems for smaller firms, and for small-scale environmental technology successes, perhaps through investment support.
- The EESC suggests the Commission should indicate to whom or where individual firms can turn in order to draw attention to any obstacles posed by legal frameworks or authorities that lead to environmental deterioration.
- Waste issues must be addressed from a global perspective in which solutions are also assessed from the local and regional standpoint.
- Life-cycle analyses must be used to assess whether a new environmental technology is likely to yield environmental gains.
- The EESC would stress the difficulty in establishing what consumers consider to be quality or otherwise, and that it is not up to society to decide what constitutes "quality", or when quantity should be considered a negative factor. A product-labelling system is preferable.
- The EESC believes that market-driven development often leads to change just as quickly as when change is a result of regulation and legislation. Consumer organisations can play a significant role here.

- In the main, clean water must owe its existence to a lack of pollution in the first place. In the short term, environmental technology can help to achieve cleaner emissions.
- The EESC notes that there are still obstacles to ensuring long-term stability for biofuel production.

Brussels, 29 October 2003.

The President  
of the European Economic and Social Committee

The Secretary-General  
of the  
European Economic and Social Committee

**Roger Briesch**

**Patrick Venturini**

---