

3.4.2.2 Furthermore, the EESC endorses the proposal by the European Parliament's Committee on Constitutional Affairs to hold the ratifications on or around a symbolic date (such as 8 or 9 May), insofar as is possible.

3.4.3 Therefore the EESC calls for active involvement by the European Institutions in the drawing up and implementation of the communication strategy on the Constitutional Treaty. It is

important to work alongside the Member States and to send out a strong and positive signal to citizens about Europe.

3.4.4 For its part, the EESC undertakes to convey clear messages to European civil society about the democratic achievements of the Constitutional Treaty, in terms of, inter alia, citizenship and participation.

Brussels, 28 October 2004.

The President
of the European Economic and Social Committee
Anne-Marie SIGMUND

Opinion of the European Economic and Social Committee on 'The environment as an economic opportunity'

(2005/C 120/24)

In a letter from Mr Atzo Nicolai, Minister for European Affairs, the future Netherlands presidency of the Council requested the European Economic and Social Committee on 22 April 2004, in accordance with Article 262 of the Treaty establishing the European Community, to draw up an opinion on: 'The environment as an economic opportunity'.

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 21 September 2004. The rapporteur was Mr Buffetaut.

At its 412th plenary session (meeting of 28 October 2004), the European Economic and Social Committee adopted the following opinion by 130 votes to two with two abstentions.

1. Introduction

1.1 In a letter of April 2004, the future Netherlands presidency asked the EESC to draw up an exploratory opinion on the environment as an economic opportunity. The Netherlands presidency would like to focus on win-win opportunities where progress in environmental technology and environmental protection could help to achieve the economic and social objectives of the Lisbon Strategy.

1.2 When setting the European Union the very ambitious objective of becoming 'the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion', the European Council made little mention of environmental aspects. Only the term sustainable could be interpreted as a reference to the concept of sustainable development.

1.3 Not until two years later did the European Council take the decisions which led to the formulation of a strategy for sustainable development, thus adding to the Lisbon Strategy.

1.4 However, is environmental protection really a mainstream issue for the Lisbon Strategy? The stagnation which has afflicted some European economies has resulted in economic growth and job creation becoming the top priority, with environmental protection taking second place on the Roman principle of 'primum vivere, deinde philosophare'. But, given that the environment is of such fundamental importance to our lives, could it not be argued that it is of concern to everyone, and not only to experts?

1.5 In this context, major European economic sectors have been concerned that the determination of the European Union, and the Commission in particular, to set exemplary international environmental standards incurs the risk of them going it alone.

1.6 For example, the determination to apply the Kyoto Protocol regardless of whether it is ratified by our major competitors has aroused a strong reaction from some European industries, where this determination is seen as reflecting a dangerously naive approach which threatens the competitiveness of the European economy, faced with the pressures of fierce global competition. In other quarters, the Kyoto objectives are seen as making a potential contribution a) to increasing the efficiency of manufacturing processes, cutting costs and reducing the pressure on supplies of raw materials and energy and, as a result, b) to making the European economy more competitive. A debate is therefore underway on the subject, which should be underpinned with specific examples.

1.7 Similarly, industries using chemicals are concerned about the proposal concerning the registration, evaluation, authorisation and restrictions of chemicals (REACH), and the Commission impact study for the proposal was very heavily criticised.

1.8 These concerns and criticisms cannot simply be brushed aside. They are not directed against principles or politics. Rather, they reflect the belief that there is a conflict between, on the one hand, current practices, with their emphasis on the demands of economic growth and job creation, and, on the other, environmental concerns reflected in excessive regulation, which ignore the reality of economic competition. The problems appear to arise from underestimation and mismanagement of tools, procedures and implementation strategies.

1.9 However, at the same time, certain companies, including some very large companies, and even entire economic sectors, have made the concept of sustainable development a key element of their strategy. For example, the chairman of the French Veolia Environnement Group stated at a government seminar that: 'The performance of a company measured in terms of sustainable development has become not only an element of legitimacy in the eyes of civil society, but also an increasingly valued asset in global competition and for attracting investors.' This attitude is becoming increasingly widespread in economic circles.

1.10 There is thus an ongoing debate on the subject, a debate which is intense and reflects the whole social spectrum, particularly economic and social stakeholders and environmental organisations. The issue is clear: does taking the environment into account merely hinder companies from competing effectively, or does it offer opportunities for developing new types of jobs, new markets, and new technologies?

1.11 For public opinion, governments, trade unionists, economic decision-makers, consumers and environmentalists, theoretical discussions which are full of good intentions but do not lead to practical results are no longer enough. For them, exact analysis and specific examples are needed now, given that politics is the art of the real, even if such a pragmatic approach should be informed by some kind of a vision to give it

purpose. A good example of such an approach is that of the European paper industry and its sustainable development strategy.

2. Can the environment be an economic opportunity?

2.1 To answer this question we first need to ask ourselves (i) whether the development of certain economic sectors is dependent on the existence of a high-quality environment in which both nature and cultural heritage are conserved, and (ii) whether environmental technologies are capable of making a genuine contribution to the objectives for social and economic development set by the Lisbon Strategy. It also means honestly trying to determine whether environmental standards and restrictions are merely an obstacle to economic growth, to competitiveness, and consequently to employment.

2.2 Obviously, the tourism and leisure sectors depend on the quality of the environment. Entire European regions and even countries are heavily dependent on tourism for their social and economic development. In these countries and regions, protection of the environment is an essential precondition for social stability. The economic consequences of the visual pollution of the countryside, of cities ravaged by unbridled property speculation, of a degraded natural environment and polluted seas, would be severe and irreversible. Sectors such as agriculture, fishing, and even hunting, would also be affected. As for environmental technologies, their role in promoting growth and innovation should be evaluated, and their development and use should be encouraged without delay, though without any unwarranted distortion of competition.

2.3 Faced with the legitimate aspiration of the inhabitants of developing countries to achieve lifestyles comparable to ours, and given the pressures on natural resources and the environment which would arise if this were to happen under the current technological and economic conditions, there is a need for a real technological revolution. Peripheral innovations will not be sufficient to deal with the problem. The challenge we are facing is that 80 % of the world's population is aspiring to the same living standards as those of the top 20 %. We cannot afford to continue living as at present since this would have catastrophic results, though at the same time it is important to refrain from making overly pessimistic predictions. Some phenomena (such as melting glaciers, threats to biodiversity, deforestation, flooding, etc.), do, when taken together, signal a global environmental change, arising from a combination of natural causes and human activity. Action taken to remedy adverse environmental effects, for example minimising acid rain through sulphur scrubbing techniques, has significantly contributed to preventing the demise of European forests. Timely warnings from environmentalists, though sometimes overstated, have often had the effect of obliging both the public and the authorities to react. All stakeholders must have an interest in working towards balanced solutions in preventive environmental protection.

2.4 Although it is natural to think of industrial manufacture in this context, it is important to remember that agricultural production techniques, transport and energy production also have a significant impact on the environment and public health. These key economic sectors can also benefit from innovation and environmental technologies.

2.5 Scientific and technological progress and innovation inevitably have social consequences. The same principle applies to environmental technologies as to all other innovation, particularly if they are intended to replace conventional, tried-and-tested — but not particularly environmentally friendly — technologies. It is important to prepare in advance for such changes, which should be accompanied by new basic training and vocational training measures. Provided it is based on sound and well-designed strategies and processes, environmental protection should not be seen to entail increased unemployment and de-industrialisation. It is therefore essential for environmental legislators to engage in ongoing dialogue with representatives of social and economic interest groups, so that the impact of planned measures on economic activity and employment, including any possible problems, can be anticipated and measured.

2.6 We are therefore faced with a major technological challenge. Given the political will, Europe could use its scientific and technological capacity to act as a trailblazer in the development of profound environmental innovations. While it is true that environmental protection has an economic cost, action is less costly than failure to act.

3. What is meant by environmental technologies?

3.1 In practice, it is possible to distinguish between two types of environmental technologies:

- environmental technologies intended to improve technical processes or production methods, in order to make them cleaner and more environmentally friendly. Examples of these are catalytic converters, filtration systems on factory chimneys, technologies for more efficient use of energy, etc.;
- technological innovations which were specifically conceived with the environment and sustainable development in mind, for example, wind energy, cogeneration of heat and power, fuel cells, new-generation electric bulbs (LED), etc.

3.1.1 It is not always easy to distinguish between prevention and cure in technological innovations. The highly relevant, useful principles set out in the integrated product policies (IPPs) ⁽¹⁾ and the Directive on integrated pollution prevention

and control (IPPC) ⁽¹⁾ reflect both a concern to solve existing problems and an attempt to prevent them in the first place, which fits in perfectly with a strategy for sustainable development. Clearly, product design which takes that product's full life cycle into account leads to the development of technologies more compatible with a desire to secure sustainable development.

3.2 It should be emphasised that both these types of technology have a beneficial impact on the environment, and both can stimulate economic activity and job creation.

3.3 Incidentally, the EESC has repeatedly emphasised the importance of considering the 'eco-industry' as a whole and of keeping sight of the fact that part of the challenge is to gradually improve all production methods and all products, from the perspective of both the environment and resources ⁽²⁾.

3.4 Four kinds of environmental technologies can be identified: end-of-process technologies, integrated technologies, evolving technologies and radical innovations (for example, chlorine-free chemical processes). Integrated and radical technologies are often deemed to confer potential long-term competitive advantages. The problem is that in very competitive markets, companies do not always have the option of making long-term choices. They are more inclined to favour gradual processes which still ensure that environmental improvements are adopted extensively within their regular investment cycles.

3.5 In practice, the progress in environmental efficiency which industrial and service sectors have already achieved and are continuing to achieve has enabled continuous improvement of the environment. However, particularly in emerging economies, the pace of economic growth is such that the pressure on the environment and on natural resources is constantly increasing, in spite of technological progress.

4. Are environmental demands an obstacle to economic development?

4.1 Over the last thirty years, a period during which the factors determining economic growth have become more complex than during the so-called golden years following the Second World War, the ability of a company to innovate and to guarantee the quality of its products and production methods for clients, for the environment and for employees has become the best guarantee of the future for a company and consequently of the interests of its shareholders.

⁽¹⁾ OJ C 80 of 30.3.2004.

⁽²⁾ OJ C 32 of 5.2.2004.

4.2 Even before any legislation in this field, an increasing number of companies have committed themselves to sustainable development and have resolved to publicly account for their actions and outcomes in this sphere, while coming under ever closer scrutiny from their clients, civil society, the markets and public opinion.

4.3 In the context of fierce competition arising from economic globalisation, the quality of the environment and social balance have also become decisive factors in attracting and retaining human resources and capital, which WTO negotiations should take into account.

4.4 It is for this reason that, as stated earlier, the performance of a company in terms of sustainable development has increasingly been considered as an asset in global competition and attracting investors.

4.5 Therefore, the glib statement that environmental demands impair competitiveness and economic development is not generally true. The market has already taken on board numerous challenges posed by environmental legislation, for example requirements for waste management and water quality. In these two sectors, environmental technologies are constantly evolving. In providing an economic response to these challenges, environmental service companies have created and preserved jobs. For example, an estimated 300 000 jobs have been created by the waste management industry in France.

4.6 The concern to save natural resources has led to technical innovations tending to favour thrifty management and reduce costs. For example, the paper industry has cut back on water consumption considerably in recent years: whereas production of one ton of paper required almost one hundred cubic metres of water fifteen years ago, on average only 48 cubic metres are needed now. In addition, discharge of pollutants has been reduced by almost 90 %. The benefits are both economic and environmental.

4.7 As already mentioned, the tourism and leisure sectors are heavily dependent on the quality of both the natural and built environment. Far from hindering economic development and competitiveness, environmental protection is an essential pre-condition, especially in view of the fact that tourism is a vital economic sector in many EU countries. For example, in 2003 tourism earnings amounted to \$41,7 billion in Spain, \$36,6 billion in France, \$31,3 billion in Italy, \$23 billion in Germany, \$19,4 billion in the United Kingdom, \$13,6 billion in Austria, and \$10,7 billion in Greece. It should be borne in mind that environmental objectives may conflict with one another. For example, wind farms can have a negative impact on the environment and the appearance of the countryside.

Besides, in many Member States tourism, which by its very nature is tied to particular locations, helps to create jobs and maintain balance of payments' equilibrium.

4.8 However, it is vital that environmental regulations comply with the proportionality rule; in other words, the economic costs of legislation must not outweigh the expected social and environmental benefits. But the EESC is well aware of the difficulty of making calculations of this kind: how for instance, do we evaluate the cost of human health? It is clear that a balance must be struck between the cost and benefits of an environmental measure. At the same time, the procedures for implementing legislation should be manageable for all concerned. Failure to take these aspects into account could result in the opposite of the intended effect: a situation where it is difficult to apply the law for economic and social reasons, and because of resistance on the part of consumers.

4.8.1 Companies in the automotive sector, which have to operate in a very restricted environment with little room for manoeuvre due to intense competitive pressure and the behaviour of consumers, who are less interested in environmental aspects than in considerations such as price, comfort, and safety, are an interesting example. Under conditions such as these, environmental technologies are introduced gradually, more through gradual improvements than revolutionary technological changes which are still too costly to find a proper market. However, the petrol-electric hybrid car, the Toyota Prius, is a good example of changing consumer attitudes, where output has recently had to be increased by 50 % to meet worldwide demand. Although this still only represents a small proportion of global production, it is an encouraging development.

4.8.2 An interesting example is that of particle filters. Diesel engines produce 25 % less CO₂ than petrol engines, but the particles which they emit are a health hazard. A particle filter costs about EUR 500 extra (5-10 % of the cost of a small car). As long as particle filters are not required by law car manufacturers have the choice between offering them as an optional extra or including them as standard and cutting their profit margins, since market conditions make it difficult to raise prices. In practice, whereas 90 % of German customers would opt for a particle filter, the equivalent figure for the rest of Europe would be a mere 5%! Some manufacturers (!) have therefore decided to phase in particle filters for their vehicles gradually and reduce profit margins, but it is clear that this situation cannot continue indefinitely, especially against the backdrop of fierce international competition. The natural tendency will be for particle filters to become more widespread, but the pace at which this happens will depend on customers' purchasing power, particularly in the case of small cars.

(!) e.g. PSA and Opel.

This example clearly shows how environmental technology markets come into being: either because of growing awareness among consumers that they or their environment stand to gain from the investment, or as a result of legislative measures. Much of the environmental protection success achieved to date is the result of appropriate legislation. The motor vehicle sector in particular is a good case in point (including, among other things, the introduction of the three-way catalytic converter.

4.8.3 There are other options for environmentally friendly technological innovations in this sector: for example, vehicles with electrical starting, improved recycling procedures, reduced noise pollution, and increased safety. The cost of new technology continues to be the key issue.

4.8.4 The example of the car-manufacturing sector shows that environmental technologies will not be widely used unless they are economically viable, and that for them to be effective, they have to be adopted in mass production. Practice shows that in a highly competitive market, environmental technologies are adopted gradually and continuously. It follows that what are needed are sound, well-documented impact studies which take into consideration not only the environmental and market situation in the European Union, but also international factors.

4.8.5 The proportionality rule also applies to the challenges faced by processing industries, such as pulp and paper, metallurgical, and chemical industries. These industries work under fierce global competition and have a particularly close interaction with the environment. Comparative studies have shown that production units of these industries located in the EU are usually very eco-efficient, that is, their use of raw materials and energy as well as their emissions are as low as technologically possible. The environmental legislation which applies to them is the strictest in the world. Better environmental results can be achieved gradually by investing in more modern and efficient technologies, but at the same time companies need to remain competitive in global markets. Requirements for better environmental performance must be synchronised with the technological development and investment cycles of each sector. If standards are raised too quickly, the additional cost burden on the non-availability of viable technology can undermine competitiveness, and thus put continuing operation of European industries at risk.

5. How should innovative environmental technologies be developed?

5.1 If innovative environmental technologies are understood as technologies which are specifically conceived with the needs of the environment and less heavy use of resources in mind, as opposed to those which merely deal with the effects of

pollution, it has to be acknowledged that many of them are still in the launch or even testing stage.

5.2 Indeed, the results achieved by such technologies vary enormously. Technologies to harness wind energy and cogeneration of heat and power have already proved their worth and have reached the stage of industrial development, thanks to market support from very favourable legislation; however, they are still only marginal energy sources. New-generation LED lights have only just arrived on the market, but if technological development continues, their future looks promising. For example, they are being used to illuminate the Shanghai Oriental Pearl Tower (480m) at night — a project which was managed by a European SME ⁽¹⁾ using banks of LED lights manufactured by a Chinese company ⁽²⁾. Membrane water purification systems are still at the research stage. Other technologies, despite being useful, have found only limited application.

5.3 This wide range of outcomes calls for strategies which are sufficiently flexible in terms of funding, information exchange and networking, and legal and fiscal tools. It is also important to bear in mind the necessity for a selective approach in order to identify genuinely promising environmental technologies, so as not to waste funding.

5.4 There is a close correlation between the range of possible funding, taxation, and regulatory strategies and the various stages of implementing innovative environmental technologies:

- subsidies for research, feasibility studies, and business incubators;
- venture capital for the launch phase;
- subsidised or conventional loans for the development phase;
- financial incentives for market consolidation;
- environmental taxes to discourage use of non-environmentally-friendly technologies where alternative technologies exist, and to contribute to environmental research.

For example, the development of fuels of agricultural origin (such as diester) in France has reached a standstill due to the fact that they are subject to the same heavy taxation as petroleum products, which are cheaper to produce. In order to promote their production and use, tax incentives could be applied, or it could be made compulsory to add a certain proportion of such fuels to conventional fuels. In this case, a balance has to be struck between the economic cost and the environmental and other benefits.

⁽¹⁾ Citélum.

⁽²⁾ Shanghai Communication Technology Developments Co. Ltd.

5.5 Networks for the exchange of information on best practice and new technologies should also be developed. This is particularly relevant both to businesses and to government officials, who need reliable and effective resources in order to help them make informed choices between conventional, tried-and-tested technologies, and new technologies which are more environmentally friendly but also less familiar and less extensively tested.

5.6 This is all the more important if public procurement is to serve as a means of disseminating and developing environmental technologies. While close attention needs to be paid to public procurement, the private sector, which is more flexible and responsive, also need to be taken into consideration. Some companies have already made sustainable development a criterion for selecting suppliers, adopting standard clauses linked to sustainable development and gradually incorporating these into their contracts with suppliers, and improved training in sustainable development for their buyers.

5.7 Environmental labelling and various pricing and reward systems should be used to develop and promote environmental technology.

5.7.1 At the initiative of the Finnish presidency in 1999, a debate was launched on the development of a European vision for quality, which continued under the Portuguese and French presidencies throughout 2000. This debate gave rise to the publication of an important document under the aegis of the European Organisation for Quality. Some of the points raised then could be relevant to environmental technologies.

6. An issue which affects everybody

6.1 It is not only up to environmental specialists to turn protection of the environment into a real economic opportunity. Environmental activity is already a key factor in the economically important tourism and leisure sectors. In the case of environmental technologies, success is dependent on the creation of a genuine market and the capability of business to respond. There is also a need to do more to build on voluntary initiatives in environmental protection and technological innovation by companies and industries.

6.2 It is clear that if environmental technologies permit production costs to be cut as a result of reduced consumption of energy and raw materials, enhance the image of companies and their products, boost sales and lower environmental costs, then companies will be interested in them and will ensure their

development. However, companies still need to be made aware of such technologies so that they can appreciate the benefits of using them, and therefore it is essential to set up an effective network for the exchange of information on best practice and environmental technology, which might involve public authorities, trade associations, technical centres, and research centres.

6.3 It is essential to gain the support of the industries concerned. Clients and consumers also need to be won over, because without them there can be no market. Environmental technologies must be perceived by the general public as effective both in terms of environmental protection and of production, otherwise they will remain a well-intentioned sideshow to economic development, which will continue independently of them.

6.3.1 It is vital for environmental policies to take economic implications into consideration, just as economic policies need to take environmental needs into account. One way or another there must be an interplay between economic and environmental considerations, as policies which lose sight of economic viability and positive environmental effects cannot be successful.

6.3.2 At the same time, the social impact of environmental standards and the introduction of environmental technologies should be anticipated as far ahead as possible, and vocational training should be provided so that the employees can implement them as efficiently as possible, and without their jobs being put at risk.

6.4 Large-scale development of effective environmental technologies is crucial to the modernisation and economic growth of densely populated, dynamic countries. This is a new model of economic, social and environmental development which requires specific planning and implementation. Thanks to its expertise in the field of environmental technology, the European Union could become the first-choice partner of emerging economies and benefit from the opening-up of new markets.

6.5 Research and development in the field of environmental technology already represent an economic asset and have the potential to make even more of a contribution, as is illustrated by concrete examples of the application of progressive, integrated and even radical technologies. Indeed, they are a necessity since it is the future of our world that is at stake. No-one can, in good conscience, afford to look away. We are responsible for the world which our children will inherit.

Brussels, 28 October 2004.

The President
of the European Economic and Social Committee
Anne-Marie SIGMUND

APPENDIX

to the opinion of the European Economic and Social Committee

The following amendment was defeated but obtained at least a quarter of the votes cast:

Amend point 1.8. as follows:

The concerns and criticisms voiced in some quarters cannot simply be brushed aside. ~~They are not directed against principles or politics. Rather~~ They reflect the belief amongst some economic players that there is a conflict between, on the one hand, current practices, with their emphasis on the demands of economic growth and job creation, and, on the other, environmental concerns reflected in excessive regulation, which ignore the reality of economic competition. The problems appear to arise from underestimation and mismanagement of tools, procedures and implementation strategies.

Result of vote

For: 46

Against: 71

Abstentions: 9
