Opinion of the Economic and Social Committee on the 'Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions regarding the information society and development: the role of the European Union'

(98/C 95/14)

On 16 July 1997 the Council decided to consult the Economic and Social Committee, under Article 198 of the Treaty establishing the European Community, on the above-mentioned communication.

The Section for External Relations, Trade and Development Policy, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 17 December 1997. The rapporteur was Mr Lindmark.

At its 351st plenary session on 28 and 29 January 1998 (meeting of 29 January), the Economic and Social Committee adopted the following opinion by 70 votes in favour, with 15 dissenting votes and 20 abstentions.

1. Introduction

1.1. The Commission has presented a communication concerning a programme of the role of the European Union in the information society. The communication is accompanied by a proposal for adopting a programme of Community action in its relations with developing countries. The Commission underlines that recent trends towards the information society concern most human activities, including learning, communication, work and leisure. This applies equally to the developing countries. The communication presents a number of guidelines and mechanisms to encourage the participation of developing countries in the information society, not only as consumers but also in an active role.

1.2. The Commission refers to the G7 Conference on the information society held in Brussels in 1995 that expressed concern about the need to avoid further widening of the gap separating the industrial countries from the developing countries and called for 'a shared vision of human enrichment'. 'Our action must contribute to the integration of all countries into a global effort'. The conference on the information society and development organized in Midrand in 1996 also focused on the specific needs of the developing countries and highlighted the potential of the new technologies.

1.3. The EU has embarked upon redefining and modernizing its relationship with each of the main developing regions, providing an opportunity to take account of the information society concept in relations with them. The Community strives for coordination with the activities of the Member States and of the international organizations concerned. The Commission stresses that the message for external partners should be realistic and it should draw their attention to what is at stake in the current upheavals and to the efforts they have to make.

1.4. The Committee notes that development is a complex process in which ICT play a key — but not exclusive — role. Despite the rapid urban population growth in the developing countries, these countries are often mainly agricultural communities where rural development is fundamental both to ensure food supply and to alleviate strain on urban infrastructure, which often leaves much to be desired. Infrastructure per se is a priority area; here telecom infrastructure is one component. Modern ICT provide broad scope for improving telecommunications and should be channelled to promote overall development and to reduce, rather than exacerbate, existing disparities.

1.5. The Committee would point out that the very scale of the task is clearly formidable. Already the provision and modernizing of the basic telecommunications infrastructure call for investments on a scale difficult to finance from government budgets alone. Active commitment and financing from the business community is often a sheer necessity. Moreover, it is a crucial condition to ensure that the most cost-effective solutions are put into the most productive use thereby enabling the telecom sector to get into a positive spiral of increasing degree of self-financing out of market acceptance and current cash-flow derived. Accordingly, in order to enable the necessary investments, it is of the utmost importance that developing countries eliminate any remaining barriers or limits to foreign ownership. This is particularly necessary as the major developing countries unfortunately cut back their aid from US$ 56 billion to US$ 41 billion between 1990 and 1996, while private investment in the developing countries shot up over the same period (though this investment was undoubtedly spread in a very uneven fashion between the countries in question).

1.6. The Economic and Social Committee thinks that the report — rightfully — underlines the importance of speedy and full implementation of the WTO agreement.

Liberalization and the opening up of national as well as international markets for telecom services are crucial conditions if technological advances are to come into productive use, enhancing quality of life and economic growth by offering freedom of choice at all levels.

But freedom of choice implies financial resources, which is precisely what most citizens in developing countries lack. This means that, even after liberalization of the markets, they will still be of no interest, economically speaking. There is therefore a need for political initiatives, along the lines of those implemented at European level, to ensure the various regions within the developing countries are provided with equal access.

The Committee underlines that the Commission's foremost task is, on the one hand, to increase awareness among developing countries of the benefits and the necessity of being part of the information society and on the other hand to convince European industry to be a part of this development.

The Committee agrees with the Commission that community actions should be included in other programmes already discussed in the Committee. The Committee also notes that no further funds will be available and, if necessary, existing funds will be reallocated.

1.7. However, technology per se does not constitute an information society. Education is necessary in order to make full and productive use of the new opportunities and so is the freedom in providing information and content. Many remaining restrictions have to be reviewed if the full benefits are to be reaped.

1.8. There are customs regulations in most countries — not to forget the EU countries themselves. It is of course crucial that liberalization of all EU markets, due 1 January 1998, is rapidly and fully implemented. Otherwise any worldwide mission such as implementing the WTO agreement will not get the credibility needed.

1.9. Fortunately, new technologies offer the developing countries important opportunities to leapfrog into state-of-the-art levels. One example is that not only satellites but also terrestrial radio systems can be rapidly deployed providing coverage of large areas. The costs for providing national infrastructures can hence be kept far lower compared to traditional wire-bound networks. On international routes optical fibre provides dramatic capacity increases at rapidly falling costs. Given the rate of dramatic technological progress, it is no longer feasible to rely on traditional long-term plans where deployment of network capacity was specified years ahead. Rather, it has to be a market and customer-led development where a number of operators and entrepreneurs risk their investments to reach new customers by launching new applications based on new technologies.

1.10. Sweden, and some of the other Scandinavian countries, are cases in point. Competition between three, and soon four nationwide mobile operators in Sweden has led to a penetration above 30/100 pop, which translates to about every household. What started as an exclusive service for the business sector has rapidly transformed into services within reach of most citizens.

1.11. Among the criteria used for measuring liberalization are:

— full liberalization of tele- and data services:

— full liberalization of mobile services (two or more operators);

— use of alternative infrastructure to provide services (railways, energy companies);

— independent regulation (clear separation from dominant operators);

— licensing regime (clarity of rules, licensing conditions);

— rules on combined transport (clarity, licensing conditions);

— access to markets, including the dismantling of barriers to foreign ownership;

— number portability;

— public service criteria taking heed of each country's specific economic, social, human and geographical data; so as to ensure practical implementation of the right to communication.

2. The challenge of integrating the developing countries into the global information society

2.1. Like the Commission, the Economic and Social Committee emphasizes that the information society profoundly alters the organization of work, education and society at large. It presents a panoply of new tools with unparalleled capacities enabling the developing countries to make some great leaps forward in tech-

nology by cutting out certain stages in development through which the industrialized countries have gone.

2.2. The Economic and Social Committee shares the view that countries that shut themselves off from these changes isolating themselves from international trade network and investment flows and from networks of scientific and cultural creativity, would risk being marginalized.

2.3. The new information technology has caused wide-ranging changes in the business world, both nationally and internationally. It is like 'starting all over again'. Production, organization management and stakeholders' relations are being re-designed. Dramatic changes are also happening among consumers. Computers are entering the domestic domain. Some observers claim that digitalization will give rise to changes that are even more radical and visible than those in the business world. Interactive technology, it is predicted, will change the way we communicate or do our shopping, how we manage our financial affairs and provide information. The importance of being a part of the information society is well documented in several of the Commission reports, e.g. the report on electronic commerce, as well as in earlier ESC comments.

3. IT contribution to development

3.1. In technological terms, the moves towards the information society mobilize a panoply of new tools which are spreading throughout the developing countries. Many of the new technologies are less capital-intensive and better adapted to remote regions and sparsely populated areas. The EU should support activities that make new technologies available to the developing countries.

3.2. The Internet and WWW provide a platform for integrating other technologies, including ISDN lines and ATM servers. Teleports serve as 'reception centres' for teleworking, in particular for highly labour-intensive types of services such as statistics, accounting, software production and airline reservation systems.

3.3. Industrial cooperation is one important strand in the drive to provide the developing countries with the benefits of ICT in the context of action to promote economic development.

Cooperation in such an advanced sector as information technology and telecommunications should not be confined to the traditional 'outsourcing' approach to local production or subcontracting where the goal is to take advantage of lower labour costs and cheaper local services.

European firms in developing countries should instead focus on genuinely forward-looking cooperation aiming to create and subsequently utilize local software and technical know-how.

Dramatic advances in microelectronics bring in their wake a steady decline in manual labour. The use of sophisticated and efficient industrial robots in production has cut manufacturing costs so radically that developing countries find it hard to compete by offering their traditional cheap labour. Further, increased involvement on other markets is heavily influenced by firms' attempts to secure advantageous terms of competition on these markets. Obviously the EU as a whole stands to benefit from the success of EU firms on this front.

4. Priority areas of action

4.1. The Commission rightfully stresses the importance that ICT have for the SMEs. Through information society applications, new opportunities present themselves for the developing countries with advantages comparable to those accruing in the industrialized countries, e.g. more efficient management for SMEs and access to economic information, training, interactive user/server networks and international markets, and also enhanced efficiency for governments and administrations.

4.2. The Committee underlines that the new technologies for education and training (in particular distance learning), as an adjunct to traditional methods, open up enormous possibilities for the developing countries. Tele-education, which is increasingly used within the business community enables employees to use the new skills in the daily work and saves the need to spend long periods away from the daily duties. The Swedish experience is that this is especially important for small- and medium-size companies as any absence is particularly difficult for them to handle, irrespective of being located in a remote area or not. This combines learning and practical implementation.

4.3. This is in line with the Commission's report on lifelong learning and has the support of the Committee, which stresses the vital importance of human resources. Relatively simple and cheap solutions, such as PC video used in conjunction with the Internet could prove effective for certain forms of access to the network. Rapidly falling costs (for international transmission too) will make the benefits — including access to international experts — more widely available. The EU can support

this in various ways, e.g. by making experts available and by supporting demonstration projects, hence providing active assistance in the shape of cooperation as opposed to exploitation.

4.4. The Economic and Social Committee proposes that European governments move ahead with ambitious and long-term programmes to bring the information society revolution to the classrooms both within the EU and in the developing countries. Governments and industry should collaborate in providing educational material and equipment. Governments should create conditions conducive to ensuring close association of industry with educational institutes so as to train up experts in information technology.

4.5. The Economic and Social Committee supports the proposal from the European Ministerial Conference held in Bonn on 6-8 July 1997 that European global players together with governments and international organizations should constitute a 'Global Information Superhighschool' for global sustainability as a new concept for education in the 21st century. The Commission report should reflect this initiative.

4.6. An important field that is not mentioned in the Commission report is the possibilities ITC opens for women to participate in cultural, social activities, working life and education. The Committee calls for this aspect to be heeded and highlighted — with particular emphasis on an equal gender balance — as a basic feature of an operational information society. ICT can be a major component in the drive to end the isolation of women, especially in rural areas.

4.7. In the field of 'telemedicine', according to the Commission report, ICT again play an almost revolutionary role dealing with all kinds of challenges in the field of health care and medicine. ICT open up a large range of possibilities for the industrialized countries to assist developing countries via telemedicine. ICT provide access to medical expertise through teleconsultation and medical advice in connection with surgeries, etc.

4.8. The Committee considers it important to understand that telemedicine can no longer be perceived as a substitute for 'the real thing', or be of importance in remote areas only. On the contrary, the Swedish experience is that some of the more successful uses of telemedicine can now be found in the major cities. Among the cases in point are transmission of ECG and other vital data by radio from the ambulances to the hospital thereby greatly shortening the time needed for treatment and hence also the longer-term consequences of a heart-attack. Less dramatic, but equally important, is that security alarm systems enable patients to stay at their own home with full access to acute treatment should the need arise. The possibility of stressing the humanitarian aspects of ICT use, not only in existing hospital structures but also, and above all, in the promotion of primary health services and health protection should be considered by the Commission in its programmes.

4.9. In industry and international trade, ICT, as indicated in the Commission report, play a decisive role in improving competitiveness by raising production quality or by integrating production in a complex process and generally participating in commerce, especially in public commerce as most public procurement will be handled by electronic commerce in the near future.

4.10. Like the Commission, the Committee believes that ICT play an extremely important role in the domain of research. In most fields ICT enable researchers in the developing countries to have the necessary information at their disposal and get access to documents only available on electronic media.

4.11. The Commission mentions — rightly, in the Committee's view — that the emergence in many developing countries of a new independent press and the explosive growth of the Internet contributes to strengthening civilian society and consolidating the democratization process.

4.12. The Committee asks the Commission to assist the developing countries in boosting consumer protection in the ICT sphere. Rules are needed to regulate Internet and other transactions as regards matters of close concern to consumers (contract validity, liability, protection of human dignity).

4.13. The Committee feels that ICT constitute an essential tool for strengthening democracy in most parts of the world provided that censorship is curbed. ICT can also contribute in developing and fostering an understanding of the multicultural society.

5. **ICT facilitate structural changes**

5.1. The Commission stresses that ICT are not the sole instrument to give an impetus to structural development. These instruments can only be used with optimum efficiency if the societies where they are applied manage to master them properly. The Committee emphasizes that there must always be an understanding of economic, social, cultural, and religious differences, not only between developed and developing countries, but also between developing countries.

5.2. The Committee believes that there is no need to hide that the very transformation into the information society, that is mentioned in the Commission report, necessitates some difficult political decisions in every country. In order to reap the full benefits of the market mechanisms as well as of any aid programmes, it is important for developing countries to deal with aid and trade as separate matters. A case in point is given by the rates for international telecom traffic, which should be seen as a pure trade matter, not a vehicle for conveying financial aid.

5.3. One example is that international telecommunication services have been priced far above costs in most countries, whereas other parts of the network, especially the local loop, have been underpriced or even heavily subsidized. This was possible under monopoly conditions, but will prove disastrous with the new technologies now being deployed. Prices not related to costs of provisioning is an overgenerous invitation card for competitors to cream-skim on the over-lucrative routes, leaving lesser and lesser revenues left to pay subsidies in other segments. With Internet soon carrying not only data but voice, radically lower rates for long-haul and international communications will be offered. That distance no longer counts is good news, not only for the business community, but for society at large.

5.4. Still, the transition also proved difficult in many EU Member States until all customers saw that their total telecom bill had dropped. It is therefore important that the Commission actively highlight the price savings achieved in certain countries (e.g. the UK and Sweden) due to the opening up of their markets.

6. **The challenges facing the developing countries**

6.1. According to the Commission report, the level of telecommunication infrastructure in the developing countries is highly diverse, but mostly far behind from that in the industrialized countries. Using teledensity as an indicator (number of mainlines per 100 inhabitants), the figure for the industrialized countries is over 48, that for middle-income countries around 10 while the least advanced countries are about 1,5 and the world average is 11,5. The infrastructures fail to meet local demand and cannot guarantee access to global communication networks.

6.2. However, there are, in the Committee's view, a large number of growth factors. There is a significant pent-up demand which manifests itself and in practice is often covered by services that, in some countries, are regarded as illegal. This explains why in many countries there has been a sustained growth in telecommunications. The drop in the cost of technologies and competition from new global operators using call-back procedures and the like have led to a decrease in traditional revenue from international communication causing concern to the developing countries and raising their awareness of current changes.

6.3. The Committee considers it important that governments and private operators cooperate to control any irregularities in an appropriate way. There must be agreements that revenues from international communications should be used for investments in ICT and not used for irrelevant purposes.

7. **PC density**

7.1. For the other information infrastructures, the Commission report shows clearly that the PC ratio per 100 inhabitants reflects the informatics gap, ranging from 18 for high-income countries, to 2,3 for medium-income and 0,01 for low-income countries. In terms of the market share in information technology, the United States account for 35 %, Europe for 29 %, Japan for 15 % and the rest of the world only for 21 %. The PC market is dynamic and could follow in the footsteps of television which is now wide-spread in low-income countries, with 46 % of homes having a TV set. Considerable inequalities between countries still exist, however, both in Europe and in the developing countries.

7.2. The Committee believes that people's desire and need for communication even in the developing world will increase. This need will be enhanced by the fact that PCs will gradually become increasingly user-friendly, inexpensive and available everywhere. This trend will also facilitate realization of the Commission's premise that the PC market is following in the footsteps of TV even if the differences between a 'passive' medium (TV) and an active one (PC) should not be underestimated. Internet will be a strong force. The Commission should recognize and support this development.

8. **Investment demand**

8.1. According to the World Bank, the annual investment necessary for the growth of telecommunications in the developing countries over the next five years amounts to US $60 billion. Financing in the form of international public aid would not exceed US$ 2,3 billion and most countries cannot make up the difference. This extensive demand necessitates a call for national and foreign private investment and the establishment of international cooperation.

8.2. In view of the pent-up demand, people's desire and need to be a part of the information society, the Committee believes that the private sector will recognize the market potential and also mobilize private investors. Governments and international organizations must, however, push for a legislative and regulatory framework to enable such investments and establish stable, predictable and basis for rational economic decisions among private investors. In the general interest, systems guaranteeing fair competition must also exist (for instance along the lines of EU competition rules preventing abuse of dominant position). Governments must also ensure that all private persons and firms have access to adequate and reasonably-priced communications services. The developing countries must be convinced of the need for a set of rules offering security and easy access to markets to mobilize the private sector to participate in new costly and risky investments. The Commission should convince developing countries that this is in their best interest.

8.3. The Committee wants the Union to push harder and intensify its efforts for market access and regulatory principles within the framework of the WTO negotiations. Both by convincing more countries to join WTO as members and by facilitating market access for basic telecom services. Such activities will enhance investors' interest in these countries.

9. **Human resources**

9.1. The Committee fully endorses the Commission's view that human resources are decisive in coping with change. This includes technical staff in telecommunication and computing and, above all, in the software sector, offering prospects for new jobs. This sector is particularly well suited to cooperation between developing and industrialized countries.

9.2. The Committee asks for a concrete training program for people in developing countries working within the information field, from teachers to professional managers. Experts' working conditions in the developing countries must also be taken into account. The Committee finds it important to inform the public that the information society does not only create new opportunities and new jobs in the field of information technology, but also in related service sectors. The right environment will attract outsourcing.

COMMUNITY ACTION

10. **The European Union's contribution to promoting the information society in the developing countries**

10.1. European Union action on cooperation in telecommunications and information technologies has progressively increased over the years. New cooperation agreements have been signed with developing non-member countries including formal provisions on the information society and associated technologies.

10.2. Economic, financial and technical cooperation has led to significant activities in the various partner regions of the Union. The Commission lists different activities including the Member States' bilateral programmes.

11. **Giving a new impetus to Community action for developing countries**

11.1. The Commission thinks that there has been increasing awareness in the Community and in the recipient countries of the strategic character of the integration of the developing countries in the information society. The information society dimension should, with the agreement of the partner countries, be systematically incorporated in the existing programmes, re-channelling the funds made available. Promoting the establishment of an economic and regulatory framework remains a first priority target, mobilizing local and international capital to ensure access for the developing countries to ICT for their benefit. The second target is to put technology at the service of development.

11.2. The Committee underlines that regulations should be as light-handed and flexible as possible. Legal rules applicable to global information networks and to business transactions carried out on networks should be consistent across the borders. Telecommunication markets should be opened up rapidly to effective competition thereby reducing national and cross border telecommunication costs. Conditions must be created, on the basis of which industry can have confidence in the security, privacy, and the authenticity of transactions to its consumers. There must be a pragmatical approach to global technical standards. Discriminatory taxes should not be imposed on the use of networks. A high level of intellectual property protection is necessary for the creation, storage and distribution of content and software protection. Satisfactory regulation of personal data is also needed so as, for instance, to avoid cross-border communication being impeded by discrepancies in such rules. It is also important that oppor-

tunities for becoming computer literate should be available to people of all ages and from across the social spectrum which makes education essential for the use of global information networks.

11.3. In order to account for the specific economic, political and cultural characteristics of the developing countries and their requirements, the action contemplated should be modulated according to the particular features specific for each major region and the nature of the dialogue the Community conducts with each one of these.

12. **Conclusions**

12.1. The overall task for the European Union is to convince not only the less advanced countries, but also Member States that the information society is here. Everything we wish to do in the field of communications is now technically feasible through modern electronics. The only restrictions are of financial, legal and political nature. Those countries wanting to participate in the economic development must increase their awareness of this development, otherwise the gap will widen further. Considering the huge potential the developing countries offer, the private sector must have the opportunity to involve itself in the wide field of necessary actions that information technology requires, bearing in mind differences in economic, political, social, cultural and religious development.

12.2. The Committee emphasizes that the rapid access to the information society requires specific actions, both in the Union and the developing countries. Over the past 12 to 18 months, the Commission has passed a whole range of Directives aimed at achieving its 1998 objectives. However, merely passing the legislation is not enough: enforcing it is the real issue. For the mutual benefit of both the developing countries and EU countries, the Commission should emphasize the dual challenge of bringing the developing countries into the information society and promote participation of European industry in this development.

Brussels, 29 January 1998.

The President

of the Economic and Social Committee

Tom JENKINS