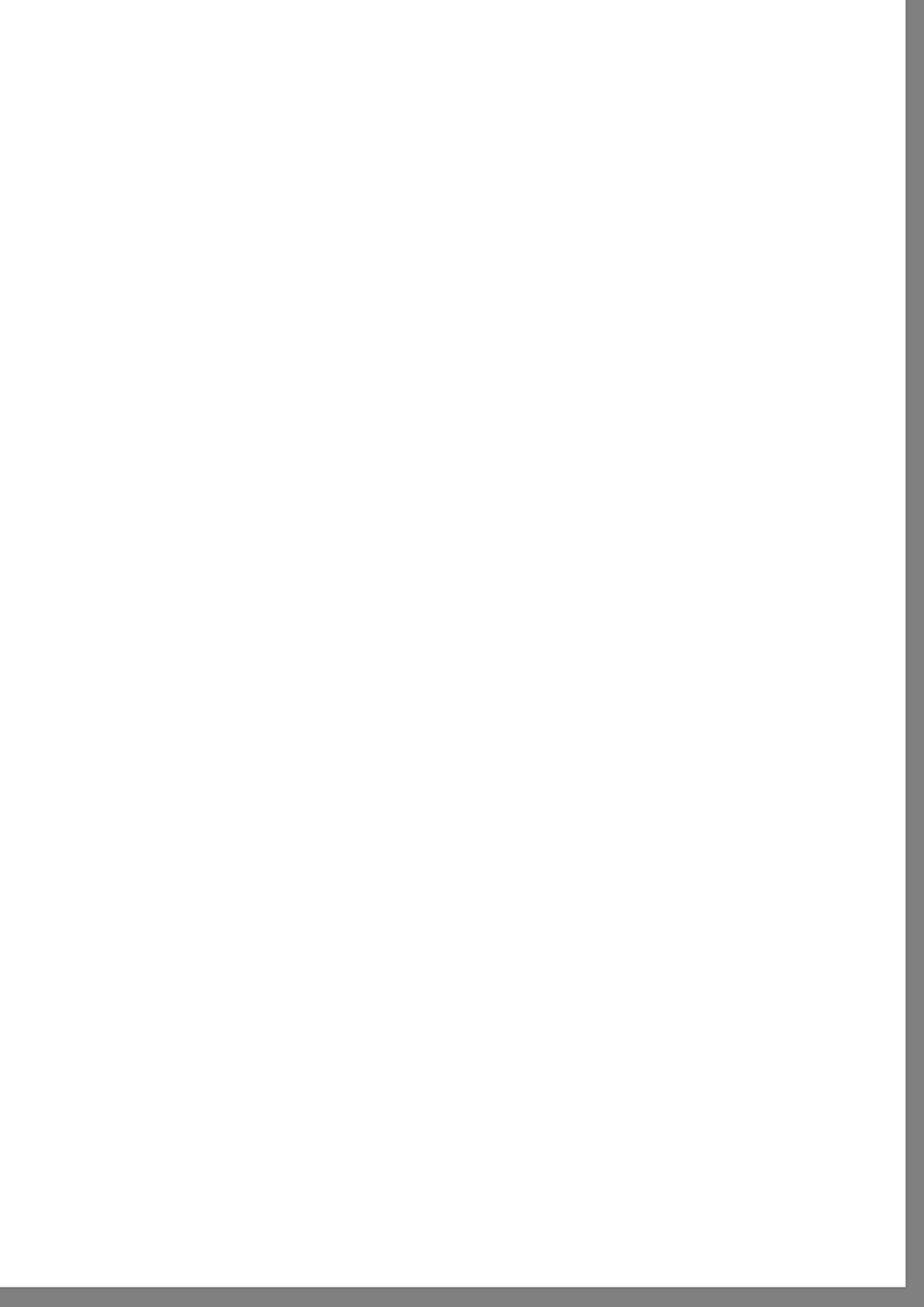


**FORUM**  
Information Society







# 1997 REPORT

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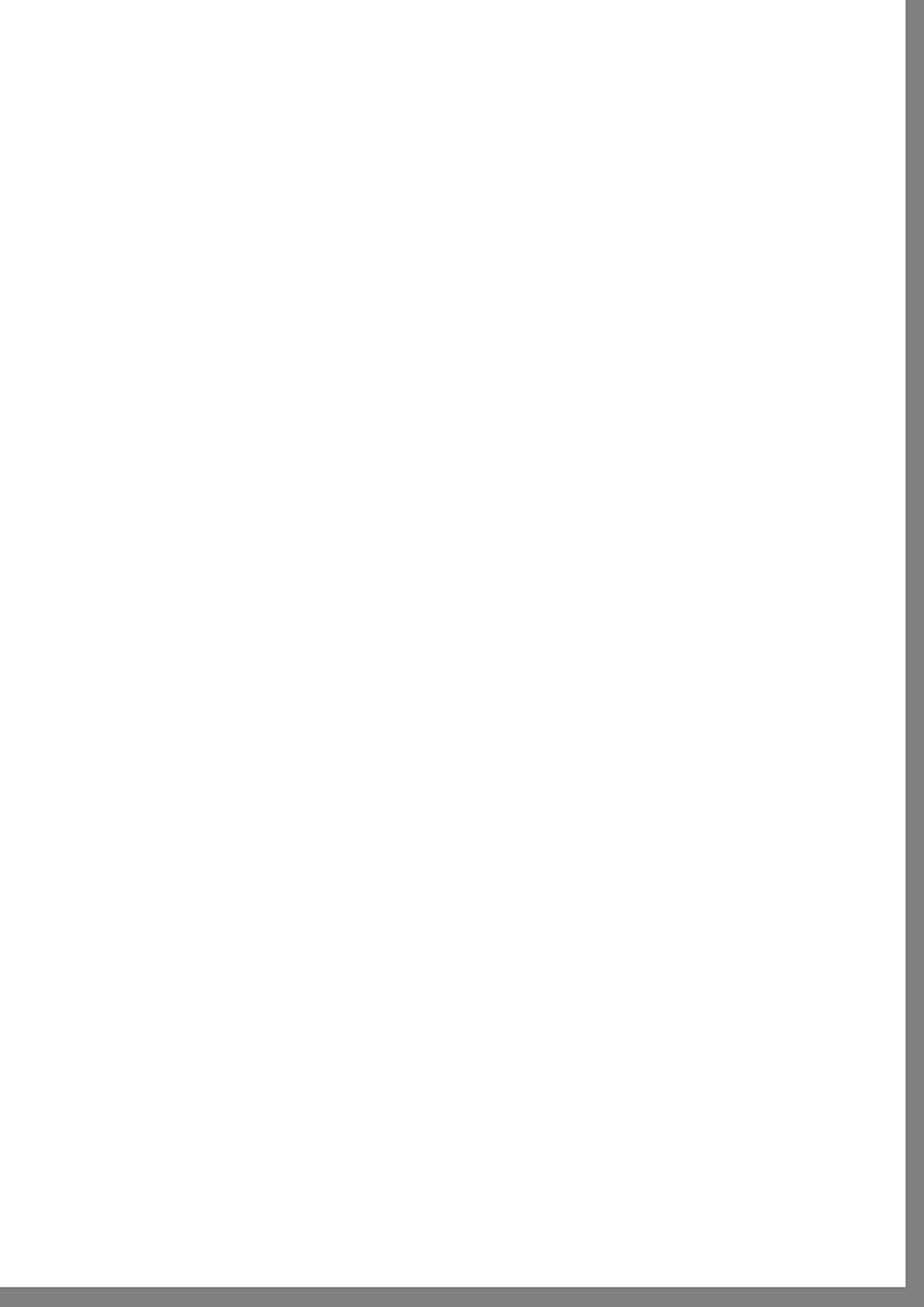
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## The Information Society Forum

### **Past, present and future:** a view from Chairman **Claudio Carrelli**



We are not approaching the Information Society - We already live in it. The Information Society has long been approaching gradually and the question is no longer whether we want it, but how we want it to develop.

The Information Society Forum (ISF) has passed its second anniversary, but in the forward looking spirit of the Information Society, it would be more precise to say that the Forum has entered its third year.

During the first year the Forum's work was primarily devoted to developing a 'vision' of the IS. The highly interdisciplinary expertise that this group brought together allowed us to tackle the complex aspects of the Information Society. Starting from this vision, the Forum began an intense interaction with the Commission's activities and ensured a strong presence in all the major IS events.

The future will be even more challenging, as the Forum has the firm intention of playing a more proactive role - not only within public debate and with all the major players - but also in the organisation and promotion of key Information Society-related events.

A priority for the coming year is to considerably expand the Forum's membership. The dual purpose behind this is to involve the central and eastern European countries and to inject fresh blood and new ideas to stimulate the coming debates.

Our first annual report served as constructive input to support the activities of the European Commission, and its impact has significantly influenced the programme's current and foreseen actions. The Commission Services published a comprehensive report analysing all the Forum recommendations and highlighting corresponding actions which it thinks should be put in motion or furthered. However, this was only the first effect of the Forum growing 'voice'.

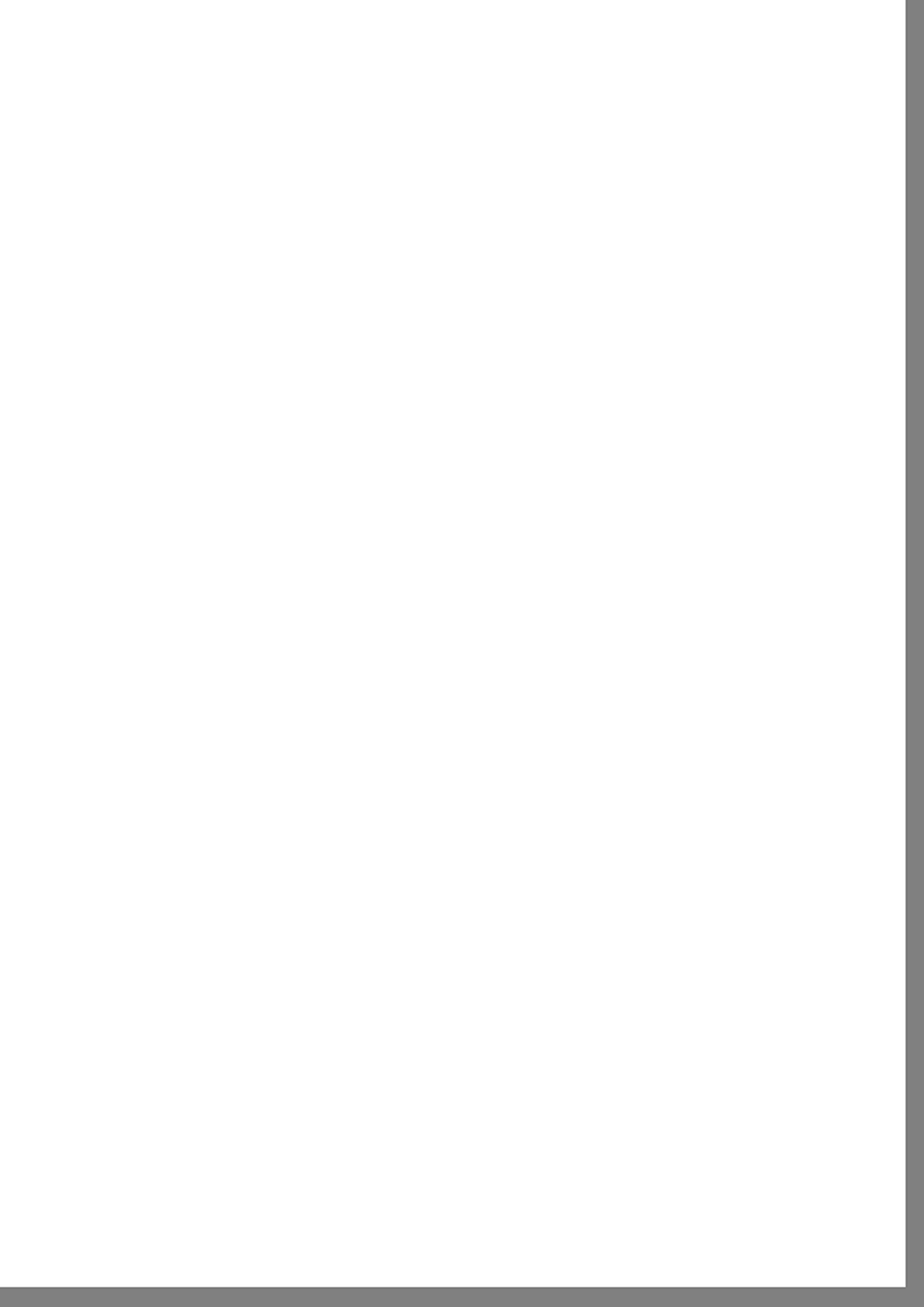
The second year has been characterised by much tighter interrelationship with the Services of the European Commission. The goal of this approach is to allow on-line interaction with the work in progress. Having progressed to this stage after just two years, the Forum has strengthened its fundamental role and it has since been able to broaden its target audience well beyond the EU Institutions.

1997 has also been a year of awareness-building for the IS Forum. Events have been organised in a number of European cities - including Barcelona, Brussels, Lisbon, Venice and Cologne. These events promoted and disseminated the benefits and results of the Forum's efforts. All of this meant that the Forum's 'voice' was considerably louder this year. Probably the most striking examples were the role played at the Bonn Ministerial Conference in July (where the Forum co-ordinated the users' declaration), and the input given for the Employment Summit in Luxembourg last December - known as the 'Barcelona Declaration'.

**The important questions on the table for the coming year will spread far beyond the Internet. The main debates will be focused on the closely linked issues of convergence and globalisation, and the complex and extremely delicate issue of sustainable development, with particular reference to the 'Model European'.**

The organisation and the promotion of an 'European Information Society day' will also be one of the major agenda items for 1998, together with other events to be held across Europe, that are organised by the different working groups. The Information Society day will be a special awareness event, with a goal to reach society as a whole rather than any specific group.

The Forum will continue to play its role as an authoritative source of reflection, debate and advice, and will broaden its scope and visibility, interacting with all EU Institutions, national Governments, sectors and interest groups in order to support and represent the needs of citizens and society.





## Introduction

*The present document is based on the experience gained with the Information Society Forum activities for more than two years and is intended as a follow up of the first annual report.*

*The purpose of the report is twofold: on one side to offer proposals and recommendations as a result of the activities performed so far, and on the other side to stimulate external input for successive debates to assess the procedures followed up to now, in order to upgrade the future work.*

### PRESENT CONTEXT

#### THE NEW REVOLUTION

The recently achieved liberalisation of telecommunications network and services, together with the development of the international WTO agreements, constitute a fundamental milestone in the process for the deployment of the Information Society.

The old equilibrium no longer holds, nevertheless a new one is not yet established. The convergence of the different sectors (mainly telecom, ICT and TV) will certainly generate new markets, but will also gradually lead to the complete fall of the traditional barriers which have for long time been established among the responsibilities and fields of activities of the different players.

A new evolution is coming and "information" is becoming the essential element for our existence.

Are we entering the information "age"? We prefer to talk about Information "Society", because such term much better presents the involvement and the impact on the society as a whole, and particularly on all the citizens.

It should be noted in fact that in spite of the last century industrial revolution, which took place within, and only inside, the factories, with main consequences essentially in the production processes, the new revolution is much more pervasive and will gradually involve everybody, affecting all aspects of our lives (living, working, learning, entertaining,...).

However Information Society should not be seen as a new add-on concept to what already exists and we are already familiar with, but rather as a continuous evolution of Information/communication technology (ICT) and as a consequence of digitalisation and sectors convergence.

The new ways of communication ( e.g. Internet and its capabilities as a forerunner of multimedia services) are still in an infancy state and is difficult to foresee clear developments or to impose specific policies.

It is therefore essential to identify the principal actors, to analyse interactions, and to identify possible bottlenecks and/or deadlocks of different nature (technical, social, regulatory, market, foreign trade, economic, need of funding,...) with the aim to follow a pragmatic approach, avoiding the risks of excessive dogmatism on contradictory issues (e.g. telecom vs. information technology, network vs. services, monopolies vs. liberalisation, policy push vs. market pull, central vs. local Administration, ....).

#### THE MULTIDIMENSIONAL ASPECT OF INFORMATION SOCIETY

The development of the so called information highways, together with the evolution of the IT sector and the tremendous growth of number and type of user terminal equipment, has drawn particular attention to the "visible" dimension of the Information Society. The "hardware" component is certainly playing a fundamental role, but even in this case it should be emphasised that info-highways should not be seen as a "new" network, but rather as a merge and an interconnection of all existing networks (the result, exactly like for physical ways, will include highways, main and secondary roads, city and country streets, slums, with all what might be associated with them: e. g. sex, violence,...).

But network evolution, as well as product, services and market upgrades, associated with their relevant massive investment, only represent one side of the coming Information Society. Another invisible or "soft" dimension, is gradually expanding its role and becoming more and more pervasive. It is the dimension associated with the real concept of "society",

with the concepts of democracy, people, citizenship, sense of cohesion, with the prevailing dominance of the elements of "content".

Networks and content, "hard" and "soft" dimensions, do represent different worlds with different traditions and rules. But beyond them, another dimension to be considered and evaluated: it is the "political" dimension, whose role is becoming more and more relevant, not only for the interactions with the above mentioned issues, but also for the emerging and extremely important problems related to employment, sustainable development, and world globalisation of Information Society. Several debates do occur at EU Institutions and Member state level related to the mentioned dimensions, but very often they are kept in separate environments, losing in such a way the fundamental interrelationships and links which do exist among them. It is then essential to try to get together all the different actors in an open and constructive dialogue and debate, which is the core of the mission of the forum.

#### **MISSION AND ROLE OF THE INFORMATION SOCIETY FORUM**

The Forum was originally set-up as an independent advisory body and must continue to be seen as such. It should not be considered as a policy making steering group.

In order to completely fulfil such requirement it is essential that it represent all the actors involved in the development process of the Information Society.

And this was indeed the real objective when the Forum was established. At that time the main purpose was to.. "...provide the opportunity for representatives from a variety of different groups, including the social partners, to contribute to open debate and reflection on the challenges of the Information Society including the social and societal aspects as well as to raise the level of public awareness. The Forum will work on the framework for implementing the Information Society. The Forum should also indicate to the Commission the priority projects that need to be implemented...".

The membership of the Forum was appointed with this mission and role in mind, and after more than two years of activity all involved actors are convinced of the validity of such initiative.

Therefore the Forum will continue to play its role of authoritative source of reflection, debate and advice, and will broaden its scope and visibility interacting with all EU Institutions, as well as with the other sectors and national Governments with the final aim to support and represent the European citizens needs.

#### **ISF WORKING METHOD AND PRIORITIES**

In the Plenary meeting of October 1996 The Forum has reorganised itself in 6 new working groups focused respectively on the following issues:

WG 1: Employment & job creation

WG 2: Social and democratic values, culture and the future of new services and the media

WG 3 : Universal access and consumer protection and support

WG 4: Sustainability in an Information Society

WG 5: Public services : bringing administration closer to citizens

WG 6: Lifelong learning and training

The different working groups have been acting in a very dynamic way, with no strict procedural rules, (providing also combined meetings whenever necessary), and always allowing open debate, with the main purpose of a constructive exchange of views, rather than the continuous pursuit of general consensus.

Such approach is definitely peculiar for ISF and certainly stresses its very nature of open Forum, where each member is completely free to assess its own commitment, regarding attendance and participation.

A second characteristics is the strong interrelationship with the Commission services which has been a distinctive element with respect to the previous year. In its first report the Forum essentially presented its "vision" regardless of the specific activities performed by the Commission within its action plan. In the second year the major objective has been to strictly interact with the Commission activities, analysing and debating all the major issues in the "pipeline", in order to offer immediate comments and proposals. In such context a fundamental role has also been played by the Commission correspondents, present in each working group, with the main purpose to guarantee that all the necessary information

from the Commission services be forwarded to the debate.

The "awareness building" has also been a major objective of 1997, and special events have been organised in specific cities (e.g. Barcelona, Lisbon, Venice and Cologne) with the aim to promote and disseminate the role of the Forum and its achievements.

Particular attention has also been given to the opportunity of funding mechanisms for the take off of Information Society, and a need to review the structural funds procedures is highly recommended. Moreover the co-operation of Public and private sectors for new applications promotion and development has strongly been stressed, highlighting the central role of the Regions and the fundamental involvement of small and medium size (SMEs) enterprises.

### THE ISF "VOICE"

The Bonn Ministerial Conference in 1997 is one example of how loudly and proactively the Forum is expressing its opinion. The Forum was asked to co-ordinate and prepare the "Users Declaration" (Annex 1) which was seen very positively by all. In fact the "Ministerial Declaration" (Annex 2) calls upon the Forum to organise a "European IS-awareness Day". This is a challenge the Forum is looking forward to, and the idea is to bring the IS to the citizen.

The "Barcelona Declaration" on the other hand, was the Forum's contribution to the Employment Council Meeting in Luxembourg. It was the result of two years work and met with great approval from the addressed parties.

In late 1997 the Commission Services also published a report which directly takes issue with the twenty-seven recommendations of the Forum's first annual Report.

The events that will be organised by the working groups in 1998 will also further contribute to the

increased visibility of the issues at stake in the information society.

### FUTURE TRENDS AND ACTIONS OF THE ISF

The main objective is to continue to benefit from the experienced gained so far and to maintain the Forum in life and vital.

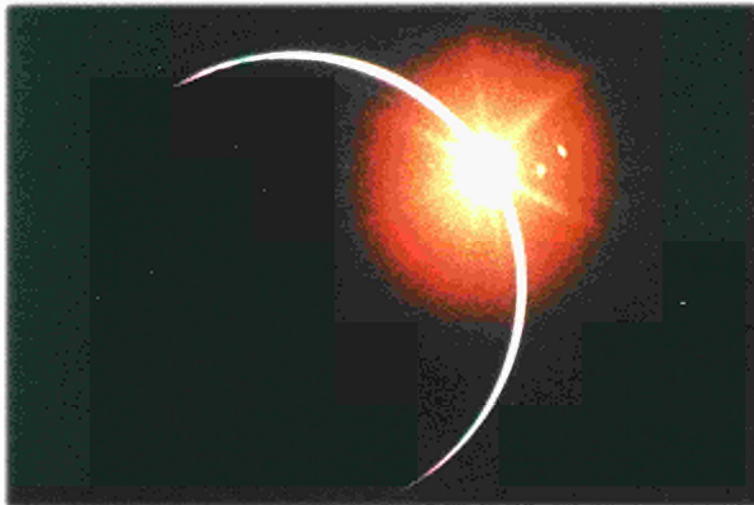
New members will be appointed to guarantee a proactive presence of all the interested parties, and experts on different topics will be invited to attend working groups meetings as well as plenary sessions, in order to expand the debate and take into account all the necessary issues.

In view of the foreseen expansion of the EU, the Forum membership will also be extended to central eastern European countries (CEEC), and new members will be appointed from such countries. This approach is also in line with the objective to guarantee an adequate follow-up of the CEE information Society Forum, which concluded its activities on November 1997. The main purpose is to guarantee a balanced representation of all interested sectors, with the

objective to continue to keep the nature of the Forum as an authoritative source of reflection, debate and advice on the challenges of the Information Society. In such context the external relations of the Forum will have to substantially increase, and

ad-hoc meetings are envisaged on a timely basis (e.g. once a year) with specific sectors (e.g. industry, unions, users groups,...) and with parallel organisations also outside Europe (e.g. north America and Japan).

As mentioned earlier, the Forum has also been asked by the Ministerial Conference held in Bonn in July 1997, to organise for the second half of 1998 an "Information Society day", a special Information Society awareness event, involving politicians, industry, and citizens, with visibility and impact all over Europe.



## WORKING GROUP 1

### Employment and Job creation

#### BARCELONA DECLARATION November 1997

##### CONTRIBUTION of the INFORMATION SOCIETY FORUM to the EUROPEAN SUMMIT ON EMPLOYMENT IN LUXEMBOURG

*"Final text of the Information Society Forum Group under the chairmanship of Mr. Majo"*

The Information Society is a society in formation. Only the first signs of this future knowledge-based society are evident, and yet they already cause great concern about its impact. In the current European context of high unemployment, whose unacceptable level may put in jeopardy the very structure of European societies, legitimate fears arise: to what extent and how can the information society contribute to job creation in Europe?

The Information Society Forum has been working on this issue for two years. Representatives of a wide range of social and economic groups have taken part in the exchange of information, analyses and debates organised in the framework of this Forum. This Barcelona declaration expresses the intellectual consensus built up through this consultation.

1. *The relationships between technology, productivity, growth and employment are complex. Any simplistic approach to the problem is dangerous.* Globalisation, new business strategies, and the relation between technology, productivity and employment are at the heart of economic growth and the improvement of living standards. Their complexity precludes any simplistic approach to the problem. Technological innovation and diffusion is a process of "creative destruction". It does involve job destruction through sectoral shifts from industry to services, changes in skills pro-

files, and new division of labour between industrialised and developing countries. But at the same time, it leads to job creation in new emerging activities, and, above all, in the whole economy, because technical progress has proved to be a major engine of economic growth and increase in real income, and is even more so to-day with globalisation.

2. *The promotion of the Information Society could be and has to be a key pillar of European employment policy.* According to the best available knowledge and state-of-the-art economic analysis, empirical evidence points to the potential positive impact of the emergence of the Information Society on employment in the medium term. The group is convinced that the promotion of the Information Society could be and has to be a key pillar of European employment policy.

3. *The challenge is to develop the necessary conditions to fully exploit the job potentialities of Information Society.* The challenge for Europe consists of building up the best conditions to fully exploit the job potentialities of the Information Society.

Urgent actions are required to raise the awareness of current and future managers, to improve the business environment that will allow companies to develop and create jobs through the best usage of the new technologies, and stimulate the required changes in the work conditions and skills. The social partners



should act, be involved and commit themselves. Government should favour their involvement. Because of the global nature of the Information Society, international dimension should be taken into account.

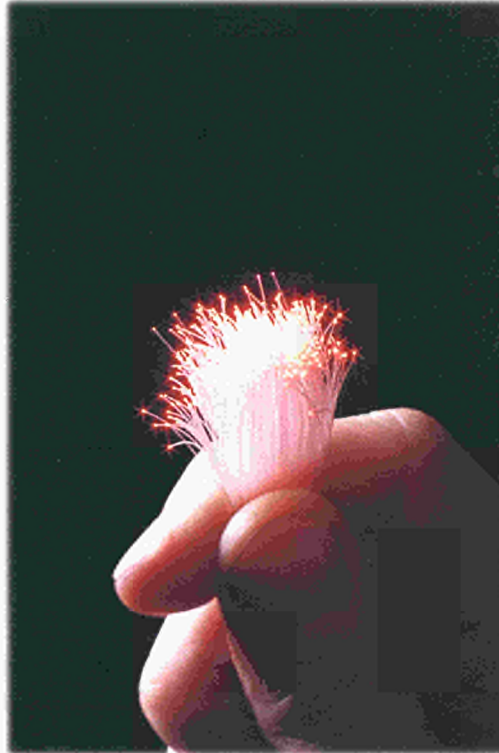
*4. The modalities of growth in coming years should be different as different economic conditions are present. Among these new modalities and mechanisms:*

Economic growth as observed in past decades was too aggressive to the environment, causing resource depletion, environmental destruction and extreme energy consumption. Future growth will be conditioned by the capability of European economies to strike a better balance between a hard, manufacturing and material-intensive economy and a soft, information-rich service economy based on human capital.

The export of products to developing countries will compensate less and less for the lack of domestic demand. The products consumed by the developing countries will be manufactured on the spot with our exported technology, our know-how, and our capital.

The general decrease in working time now being experienced by Western economies will lead to the development of more part-time employment, better fitting the need of companies for flexibility and the desire of individuals for free time.

*5. Growth alone will not solve Europe's unemployment problems.* Productivity will probably increase at a rate very close to the increasing rate of output, leaving no room for important new employment. In addition, it is estimated that some 8-9 million European citizens are discouraged from seeking a job because of the level of unemployment. Any upturn in growth is likely in the first place to increase the rate of participation and only partially affect the unemployment rate. Growth is indeed a necessary condition, but not a sufficient one. Structural adaptations already underway have to be strengthened and enlarged, and growth will smooth its social and economic costs.



*6. In this context, the development of the Information Society is at the root of sustainable growth.* It will reinforce intangible investment as a factor of competitiveness; it will accelerate the shift from physical consumption to the usage of information, from products to dematerialised services, from investment in productive capital to investment in human capital, and from transport to tele-working or teleconferencing. It will cause the development of a totally new marketplace: electronic commerce. Consequently, the substitution of labour by capital, whose excess has been so detrimental to European employment over the last decades, will slow down, if not reverse. The Information Society will contribute to more labour-intensive growth in Europe which is not harmful to the environment.

*7. Market forces alone will not solve Europe's delay in entering the Information Society nor eliminate unemployment.* All the mechanisms at work are far from being clearly understood. Further studies

are required. However, the group is convinced that market forces alone will not solve the Europe's delay in entering the Information Society, nor eliminate unemployment.

*8. Public authorities have a key role to play in this domain.* Public authorities at all levels - European, national, regional, and local - have a key and urgent role to play in this domain in order to speed up the transition. The adaptation of the regulatory and legal framework has indeed to be achieved, but structural reforms have also to be implemented. Barriers to entry, conditions to start-up, impediments to innovation, and shortage of specific skills are particularly detrimental in this domain because the Information Society is just emerging and, as any new phenomenon, is more sensitive to factors impeding new business initiatives and innovation.

*9. Budgetary resources exist at all levels for new active employment measures related to preparing people and organisations for the*

*Information Society.* Currently public resources are used in a wrong way. The 200.000 million ECU spent by Member-States on their labour market policies, as well as the Community funds at their disposal, offer enough budgetary resources for active measures: installing computers at school and enabling everyone to become IT-literate, multiplying the resources to teach and train specific high-tech skills, promoting best practices and diffusing them, speeding up the uptake of tele-working and other new forms of productive organisation, giving incentives to investment in new multimedia services and applications, developing pan-European venture capital and secondary capital markets to finance start-ups in multimedia, content and information services sectors.

10. *The Luxembourg Summit should establish lines of action for European as well as national policies in this domain.* The Forum urges European authorities as well as national governments to consider such measures as priorities of European employment policy, and expects clear lines of action from the next European summit in Luxembourg in that direction.

11. *The Information Society Forum is ready, at the request of the Luxembourg Summit, to provide further insight into the contribution of Information Society to more-labour intensive growth in Europe.*



## Barcelona Declaration Headlines

*"Final text of the Information Society Forum Group under the chairmanship of Mr. Majo"*

1. The relationships between technology, productivity, growth and employment are complex. Any simplistic approach to the problem is dangerous.
2. The promotion of the Information Society could be and has to be a key pillar of European employment policy.
3. The challenge is to develop the necessary conditions to fully exploit the job potentialities of Information Society.
4. The modalities of growth in coming years should be different as different economic conditions are present.
5. Growth alone will not solve Europe's unemployment problems.
6. Information Society is at the root of sustainable growth.
7. Market forces alone will not solve Europe's delay in entering the Information Society nor eliminate unemployment.
8. Public authorities have a key role to play in this domain.
9. Budgetary resources exist at all levels for new active employment measures related to preparing people and organisations for the Information Society.
10. The Luxembourg Summit should establish lines of action for European as well as national policies in this domain.
11. The Information Society Forum is ready, at the request of the Luxembourg Summit, to provide further insight.

## WORKING GROUP 2

### Social and democratic values, culture, the future of new service and the media

Working Group Two in a number of meetings considered in detail public policy issues which arise from the convergence of the traditional telecommunications and broadcasting industries. The process of technological change is creating new information society services and leading to restructuring of industry.

The Working Group's considerations are to help the European Commission in their deliberations and, specifically, to offer some reflections in consideration of the recently-published Green Book.

The Working Group agreed that there are many potential benefits for the European Union and its citizens in technological convergence. Nevertheless, there are concerns which may require regulatory or legal changes by the Commission and/or member states of the European Union.

The Working Group adopted the following statement of policy concerning the impact of convergence and agreed that the European Commission should adopt the following objectives in the formulation of policy:

- That the European Commission and member states should be proactive, rather than reactive regarding regulation;
- That the current variety of national legal conditions, which differ across the different sectors of the converging industries, is an obstacle to market development and should be reviewed urgently;
- That there is a need for policy to be shaped according to international developments which requires a harmonised, pan-European approach.

The Working Group has concluded that regulation should reflect three primary and equal considerations:

#### 1. FAIR RULES OF COMPETITION

The Working Group believes that competition policy must take account of the dangers of market dominance and pay attention to the potential distortions which may be caused by vertical integration. Policy must guard against the creation of "gatekeepers" or monopolistic control of access at any stage of the communication chain.

New rules need to define European Union-wide rules for limits on market share, while ensuring that thresholds do not create anomalies, such as undue levels of concentration of ownership at national level.

Limits on ownership are essential to ensure pluralism. In this regard it is important to maintain and enhance public service principles in broadcasting and other information services. The right to

provide services should be elaborated in the context of continuing and developing public service responsibilities.

#### 2. PROTECTION AND PROMOTION OF SOCIAL AND DEMOCRATIC VALUES

The Working Group is convinced that while a single regulatory framework should be designed to cater for technical standards and competition policy, this should not be tied to rules governing content.

Economic imperatives and social and cultural objectives are not always compatible and need





to be dealt with separately in the process of regulation. Therefore, while the Working Group notes that regulation of economic conditions and regulation of content of information services are closely linked, they should be separated to ensure efficiency and quality. Regulation of content should be coherent and may have a legal base, but should be implemented according to recognised standards of self-regulation;

The problem of reliability of self-regulation may be addressed by looking at new ways of strengthening self-regulation and enforcing industry-wide codes of conduct and professional codes of practice. It will be necessary to test the feasibility of systems of self-regulation and to monitor voluntary codes and standards. This will be of particular importance in dealing with issues of content, where flexible and less intrusive forms of control are to be preferred.

### 3. NEEDS OF USERS, BOTH AS CITIZENS AND CONSUMERS.

The Working Group recognises, too, that there is a public duty to avoid and prohibit the exclusion of any group or section of society from access to or participation in the use of new information services. Therefore, convergence should be guided to ensure that all citizens have access to services and to the technology through which they are provided.

The fundamental rights of citizens to exercise freedom of expression, to enjoy personal privacy, and to have confidence that the general law covering matters of cultural and social responsibility applies to all ? requires that policy must flow from the conviction that existing standards, at the very least, will be maintained in the new information environment. Regulators must work to a framework which reaffirms international and European legal, cultural and social standards.



The question of affordability for consumers is a matter of the highest priority for the Working Group and needs to be addressed by policy-makers. In particular, the European Commission should examine the cost implications of switching from analogue to digital services and their impact on consumers.

### 4. ANONYMITY AND PROTECTION OF THE INDIVIDUAL

The issues of privacy, the right to anonymity and the protection of the individual have continued to be topics of detailed consideration by the Working Group. This issue was covered extensively in Section 4 of the Working Group? submission to the first Annual Report of the Information Society Forum. After further reflection, the Working Group, meeting on 25.6.97 in Paris, adopted the following additional conclusions.

1. The Working Group reaffirms the principles regarding Privacy and the Protection of the Individual set out in its submission to the First Annual Report of the Information Society Forum.

2. The Working Group has not found consensus on the question of a fundamental right to anonymity, but a majority of members are strongly of the view that any dilution of existing standards of privacy would be unacceptable and where possible, including the use of technical means, all opportunities to strengthen rights of privacy should be taken. As a rule, individuals have a right to anonymity.

3. In this regard, the Working Group considers that extra emphasis needs to be given to the need for transparent, effective and reliable structures for self-regulation in the area of privacy protection through the use of recognised codes of conduct and codes of practise. In particular, the Working Group believes that self-regulation should be organised within an effective legal framework

which provides the basis for voluntary compliance.

4. The Working Group believes that data gatherers should be required to obtain the consent of citizens before personal information about them is gathered except in certain specific cases where there is an over-riding public interest.

5. The Working Group concludes that service providers and not access providers should be held responsible for matters of privacy and security in network communications. At the same time, policy-makers must give priority to the definition of public and private space for the purposes of privacy and data protection.

6. The Working Group further states that the rights of citizens should be further protected by regulations which specify exemptions from standard rules of privacy protection.

7. The identification of Internet users involved in criminal or other illegal activities, which is acknowledged as a matter of great public concern, should not lead to intrusive or inflexible rules which prejudice the right to privacy in the bona-fide use of information technologies.

8. The Working Group reaffirms that while individuals are routinely and properly obliged to reveal personal information in certain aspects of their everyday life it is important to define and respect the limits of disclosure. In general, individuals living and working in an on-line information environment must be granted the same levels of protection they currently enjoy in terms of data protection in the off-line world.

9. Where data protection rules create legal barriers to the free flow of information they should be defined precisely and explicitly by law. The identification of users, where it is necessary, requires that clear and precise exceptions to the principle of anonymity are established. Such exceptions must take into account the qualitative and quantitative differences between the processing of information in an on-line and an off-line environment.

10. It must be noted, for instance, that users of new information technologies leave electronic traces along the path of their communication and there is a higher risk of infringement of personal privacy. This means that conditions for identification must be more sharply and effectively defined.

11. The Working Group recommends that European Commission efforts to develop anonymity in personal commercial transactions and anonymous access systems ? through public points of access to the Internet or pre-paid access cards ? should be reinforced and supported.

12. Encryption of information by users is at the moment the most efficient means for protection of the privacy of communication. It is the Working Group's view that greater consumer confidence in the use of Internet will only follow from the improvement of methods, such as encryption services, which secure the inaccessibility of documents.

13. It is necessary, therefore, to secure the anonymous sending of electronic mail and passive browsing of electronic information sources such as those available on world-wide web sites. Nevertheless, the need for unhindered access to certain information, in the public interest, cannot be ignored. In such cases rules and procedures are required which determine, precisely and clearly, the right of decryption.

14. The Working Group strongly believes that Governments should not have the right of direct access to master "keys" for purposes of decryption. They must follow rules for indirect access through independent agencies which are established to make available information necessary for decryption under a transparent and independent process defined by law. All cases of authorised decryption should be registered and subject to regular review.

15. The Working Group has considered the specific and unusual circumstances of "news-groups" and "chat" services whereby identification is required to take part in electronic discussions which are open to all. However, while it is reasonable to request that contributors to such discussions identify themselves, it should not preclude anonymous contributions as, for instance, may happen in public meetings where unidentified speakers or anonymous voices are tolerated. The responsibility for the preservation of such rights in the context of electronic discussions should rest with the service provider.

## WORKING GROUP 3

### Universal Service and Consumer Protection

#### CONTRIBUTION : 1996-1997

*During the second year of the Forum's work, Working Group 3 has put efforts into examining in more detail the concept of universal service, and also the implications of electronic commerce for consumers, in order to make them more concrete and practical. The Group has explored, as well, other issues, such as the information gap between groups of individuals; factors relating to gender; and the importance for consumers of clear technical standards; and the ramifications of these for the future development of the information society. Some of these topics have been discussed together with Working Group 2, as it has been logical on occasions to combine the meetings of the two Working Groups where issues have clearly overlapped.*

#### CHAPTER I - UNIVERSAL SERVICE : FROM THE PERSPECTIVE OF CON- SUMERS AND CITIZENS

##### SUMMARY OF RECOMMENDATIONS

1. The Commission and member states should propose policies for both universal service and public service. These services should not be blurred, for instance, by buying off the necessary extension of universal service obligations of private Telecom operators with orders to connect and serve public bodies such as schools, libraries, and hospitals. The extension of universal service to include with information technology connections to every household and business location remains a policy of prime importance to develop the information society.

2. The Commission and member states should develop a separate public information policy for the range of public services to enable participation in the information society by the 'information poor', including disabled people. Most often this will mean traditional public funding.

3. The Commission and member states should not base the definition and extension of universal service, or the modernisation of public service, on technical specifications but on basic social functions and user requirements. In the context of this report, these requirements are the services every citizen and consumer should have to participate in the information society :

- basic private and public communication connections
- public information and communication (public administration and public information services)
- health communication and information
- educational information and communication.

4. The Commission should ensure that national regulators adopt a tariff policy for basic services, including special tariff packages, price caps and other mechanisms, to prevent services becoming unaffordable for a large part of the population (see COM 9(96)73). These services comprise basic line services (connection costs and charges for calls), not advanced information and communication services (so-called content).

5. The Commission should propose that universal service is extended to include the provision of electronic mail connections and services as soon as possible.

6. In the medium term, as technologies converge, the Commission should propose that universal service, which has been traditionally founded in telecommunications, should be extended to include connections and services to broadcasting and new audio-visual on-line services as well. In the short term, measures to prevent monopolistic/oligopolistic practices are urgently needed, particularly regarding the exclusive appropriation of the rights of broad- and narrowcasting public events, following the line of protection of major national events in the directive, Television without Frontiers.

7. In the context of convergence and regulation, the Commission could consider the adoption of a horizontal model of regulation, instead of the traditional vertical approach to telecommunications, data communications, and broadcasting.

##### INTRODUCTION

In this contribution from Working Group 3, the following most common distinctions are made following a contemporary European definition (although these four concepts are historically subject to

change and are interpreted differently in Europe and the US):

- **UNIVERSAL SERVICE** is the broadest concept, as it incorporates the general needs and demands of information and communication in society, for private and public interests. A fairly good definition is the one in the Commission's Communication regarding Universal Service for telecommunications (12 March 1996, COM (96)73 and in the Interconnection Directive): access to a defined minimum service of specified quality to all users independent of their geographical location and, in the light of specific national conditions, at an affordable price.

Universal service comprises four basic principles:

1. universality (independent of geographical location, including interconnectivity);
2. equality (a defined minimum of service including equal tariffs for all users of a different kind (business or private));
3. continuity (services of a specified quality, including measures to safeguard the state and quality of networks);
4. affordability (reasonable prices, to be paid by all users according to specific national conditions).

- **UNIVERSAL ACCESS** is the narrower concept, and is only part of the basic principles of universality and equality as listed above. It means the supply of a connection on equal terms to anyone.

- **PUBLIC SERVICE** is about the specific needs of information and communication of a given society, that is the public interest. It is especially promoted and defended by governments and other public institutions in the field of social services, public information, education, and healthcare. On the condition that the principles of universality and equality are met for the communication system in question, in the norms of public service the continuity and affordability of specific public services are stressed. This is the reason why these services

often are supplied by governments and public institutions, although this is not a matter of necessity.

- **PUBLIC ACCESS** is the narrower concept, compared to public service, and is part of the conditions listed above: universality and equality. It covers requirements for private suppliers to offer basic facilities (such as public pay-phones and connections to public buildings), and public bodies (governments, schools, libraries, hospitals etc.) to offer more specific facilities for all citizens.

Having separated out these definitions, the Working Group presented seven thesis to the Plenary Meeting of the Forum, and to the Commission which has promised to carry out a comprehensive review of the scope, level, quality and affordability of universal service in the European Community in 1998:

#### [POLICIES FOR BOTH UNIVERSAL AND PUBLIC ACCESS/ SERVICE](#)

The Commission needs to take a clear approach to universal service/access and public service/access. For instance, when it is considered unrealistic or uneconomic in the short term to extend the universal service concept to the supply of connections for E-mail, the Internet or even broadband communications, it is proposed to offer these facilities in public institutions (community centres, libraries,

schools, hospitals). In these cases the universal service concept is replaced by a concept of public service. For some people this is to be seen as a first step which would be very suitable to citizens in remote locations or relatively backward regions and, secondly, to offer the opportunity of assistance for people first using information technology. To others it is a step backwards from the basic principle to supply every household and business location with connections actually deemed necessary. Moreover, it is a case of unloading the burden from the market sector onto the shoulders of the public sector.



**The Working Group recommends that the Commission should propose distinct and separate policies for both universal service and public service, and not blur them. The extension of universal service with information technology connections to every household and business location remains a policy of prime importance to develop the information society.**

#### SEPARATION OF POLICIES

The need to distinguish and propose policies and regulations for both universal and public service is becoming clear from the way they are blurred in some proposals and actual policies in the US and Europe. Most often, private Telecom operators and other communication businesses are given ample room in a fully liberalised environment. They are frequently not given obligations to supply extended universal services, provided that they connect schools, libraries, hospitals etc. but this means a public service. It amounts to buying off the necessary extension of existing universal service obligations.

**Instead, Working Group 3 recommends that the full range of public services - to promote the information society and ensure the participation of 'the information poor', including disabled people -should be developed within a separate public information policy. Most often this will mean traditional public funding.**

With regard to universal service in the new telecommunications, one option could be a universal service fund for operators, or a system of extra interconnection charges. It is vital to understand that these means do not necessarily involve some kind of extra tax or a publicly provided amount of money for redistribution, a very common misunderstanding. Such a fund and/or extra interconnection charges could be managed by the private corporations in communications themselves, only following public rules for a fair distribution of the new universal service obligations among incumbent operators and new entrants to the market. These rules also need to prevent new monopolistic/oligopolistic practices of the incumbents as well as the practice of cherry picking by new entrants. Finally, safeguards are needed to prevent the main burden of these costs being passed through to consumers via higher tariffs. The purpose of this fund and charges should be the application by the market operators themselves of the universal service principles of universal-

ty and equality outlined above, not a means of financing a public service principle like affordability (see tariff policies below).

This recommendation means that private operators and service providers are not forced to offer extra facilities for regions, sectors, and people who need specific services, but, instead, that they are restricted to their universal service obligations. Such obligations will need to be developed and enlarged in the new liberalised and technologically advancing, converging media environment (see below). They should include connections at a universal and equal basis, first of all. They will have to offer the connection and the possibility of extra services, like emergency services. With regard to the quality of their services they should be treated as all other market operators offering a vital service for society. Affordability has to be defined at the national level, following national conditions, according to the Commission. However, the Commission will need to recognise the importance of general European tariff policies, which will become increasingly become vital (see below).

These recommendations are fully compatible with the current policy of liberalisation in (tele)communications in the EU. It does not entail more responsibilities for governments. On the contrary, the main axiom is a clearer division of responsibilities between the private and the public sectors, instead of the present confusion of universal and public service.

#### SOCIAL FUNCTIONS: AS BASIS FOR UNIVERSAL SERVICE

In many universal service policy documents there is a tendency to use technical specifications as the basis for extension of universal service obligations, for instance, ISDN or specific broadband facilities. But the future of such services is uncertain and they might be obsolete in a few years. Even the expression Internet-connection is a dangerous one, as no-one knows the future of this once completely public network of networks. It would be preferable to refer instead to an Internet-TYPE connection.

**Working Group 3 recommends that universal service should be founded on basic social functions and user requirements, that is, the services all citizens and consumers should have to enable them to par-**

**participate in the information society, rather than technical specifications. Many information and communication needs can be met with several technical facilities (hardware and software).**

In our opinion, universal service should be based on the following general social functions for every consumer and citizen of the European Union:

a) Basic private and public communication connections (to be able to participate in society and social life generally). Until now this function, along with face-to-face communications, has been realised to a large degree by the telephone and printed mail. In the new media environment it should be extended to electronic mail and audio-visual channels of broadcasting (see below).

b) Public information and communication (to enable people to function as citizens who are meant to know the law and are able to participate in a democratic society). In the new media environment the means of public administration have to be extended to - not replaced by - electronic access. As citizens have a duty to know the law and the right to inspect official documents adopted by public bodies, all documents (which have been financed by tax) or decisions of official bodies - and sources of information used for these decisions - should be supplied in electronic form free of charge or at very low prices. Any charge should be restricted to the price of real extra costs of electronic supply. Moreover, citizens will require the opportunity to react to these documents through electronic channels of communication. In terms of public broadcasting, policy-makers need to ensure that all citizens have access to a diversity of services and feedback channels, in the context of the trends towards narrowcasting and pay-TV.

c) Health communication and information (for obvious vital reasons, including emergency services)

d) Educational information and communication focus on the interrelationship between education, participation and employability.

The first and most basic function is a matter of universal service and the second, third and fourth are cases of public service, provided that the necessary communication infrastructure (the first function) is available to everyone on an equal basis, in one or other technical form (fixed or mobile telecommunication, infor-

mation services via cable or telephone networks or stand-alone multimedia, broadcasting via cable, air or satellites in space).

#### INCREASING IMPORTANCE OF TARIFF POLICIES

For the development of universal service/access and public service/access regulations the size and composition of tariffs will become increasingly vital. Within a short period of time tariffs will become more significant for the actual usage opportunities of citizens and consumers than the mere existence of a connection or the possession of hardware and software. The current regulatory framework of the EU does not yet impose explicit obligations for services to be provided at an affordable price. The need for specific policies to ensure the affordability of tariffs is exemplified by remaining monopolistic/ oligopolistic practices, which lead to increasing prices for local phone calls in some countries, despite all measures of liberalisation.

New policies are also needed to ensure the unbundling of packages of services, as bundling hinders choice and competition and, in general, to deal with the problem of the costs of universal service and interconnection charges being passed through to household consumers.

**The Working Group recommends that the Commission should ensure that national regulators adopt a tariff policy for basic services including special tariff packages, price caps and other mechanisms to prevent services becoming unaffordable for a large part of the population (see COM 9(96)73). This covers basic services (connection costs and charges for calls), not all kinds of information and communication services (so-called content).**

#### HORIZONTAL APPROACH TO REGULATION

Hitherto universal service and universal access were matters for telecommunications policy, and public service was primarily first of all for matter of broadcasting and the printed press. Now, in the inescapable context of convergence in the media sector both policies have to be extended, increasingly entering in each other's territory.

Recent policies for universal service in telecommunications are already being extended to encompass information services, Internet-access and even the beginning of broadband communications. Policies for public service in

broadcasting, will have to move in the same direction with the development of all kinds of interactive information and communication services. Telecommunications and broadcasting are converging. It is evident that the present attachment of policies to specific media or technologies will become untenable within a short period of time, as soon as new media like WEB-TV are entering the market. These policies will need to be based upon basic functions of information and communication.

**The Working Group recommends the adoption of a horizontal approach to regulation of the various sectors, replacing the traditional vertical columns of telecommunications, data communications and broadcasting.**

One option could be the following horizontal layer approach to regulation:

*APPLICATION LAYER;*

PRESENTATION LAYER: information and communication services (content)

*SESSION LAYER;*

TRANSPORT LAYER: transport & operation (services)

*NETWORK LAYER;*

DATA LINK LAYER: instalment & maintenance (services)

PHYSICAL LAYER: production & distribution of infrastructures

Increasingly, telecommunications, information services, and broadcasting will be regulated by the same means for each of these layers. It is not so difficult to adapt current regulation of universal service/access and public service/access to one or more of these layers. For instance, universal service in remote locations is a matter of provision (network and datalink layer); the supply of special terminals for disabled people belongs to the production of infrastructure; encryption is part of the session layer (transport & operation), as well as emergency services. The conversion of messages in E-mail is a task of the presentation layer.

#### UNIVERSAL SERVICE: ELECTRONIC MAIL

The Working Group recommends that the definition of universal service is extended to include electronic mail as soon as possible.

Presently, the components of universal service in telecommunications in the EU-member

states still vary a lot, in spite of the ONP-directives (see annex 1). Most of them only include basic voice telephony. However, developments in Sweden (fax and data to 2400 band) and Denmark (ISDN and leased lines) show that more components are possible already. Some European telephone operators offer electronic mail and voice mail services at very low prices for all their subscribers. AT&T has offered subscribers free Internet access, (free according to the American tariff system). So, it does not appear to be a big step to extend universal service to include Email within a few years.

We do not have to wait until a particular service reaches a 75% market penetration all by itself, as is recommended by Prof. Mansell in a February 1997 report. She argues that universal service should not be used as a means of initiating the roll-out of new services which have yet to find wide market acceptance. If we adopt this passive attitude, and only promote universal access by the improvement of public access, Europe will become considerably disadvantaged compared to the US and Japan on its way to the information society. Moreover, for citizens and consumers, this attitude will lead to increasing gaps between the information rich and poor. It is likely that a 75% market penetration for new information and communication services will not happen for a very long time to come. In addition, the percentages of market penetration deemed necessary by people trying to find an objective yardstick for the inclusion of new services - some say 70 or 75 per cent, others 50 per cent - are in fact completely arbitrary. It has to be recognised that this inclusion is and always will be a political decision, as was the introduction of universal service in telecommunications in the past.

The choice of electronic mail as a service to be included as fast as possible in universal service is a case of technological politics indeed. Such politics are put into practice by all major actors in the world market (USA, Europe and Eastern Asia) notwithstanding policies of market liberalisation.

Specific reasons for the choice of E-mail are:

- a) it is, and increasingly will be the most popular application of electronic information technology for consumers in households and workplaces;
- b) it is very likely to be a trigger-application for other information society services and to help people across the threshold of the information society;

c) it is not substitutable with alternative services of comparable quality : E-mail has some extra qualities compared to paper mail and telephone calls;

d) it is relatively cheap and rather easy to add to present universal service: telephone connections are available already: extra costs apply only for the supply of E-mail addresses, directory enquiry, operator assistance and automatic conversions of messages written in different E-mail systems;

e) current access providers to the Internet, are forced to go into more advanced value added services; simple access provision will be overtaken by incumbent and new Telecom operators in the integrated networks anyway; the general access providers' markets are already getting less profitable; and a shake-out is inevitable.

Adopting E-mail as a component of universal service would still mean that consumers have to buy the necessary hardware and software themselves. The Telecom operators, to be followed by the cable and satellite operators offering telephony (in the future) only have to provide the extra services listed above. It would be a matter of public service to supply public buildings with the necessary hardware and software to enable people who cannot afford the hardware to get E-mail. In the US it has been calculated that it would cost about 1 billion dollars each year to supply every American with electronic mail by means of universal and public service. (And Corporation, see Anderson R., a/o., Universal Access to E-mail: [www.rand.org/publications /MR/MR650](http://www.rand.org/publications/MR/MR650))

#### UNIVERSAL SERVICE : BROADCASTING AND NEW AUDIOVISUAL SERVICES

In the medium term, it will prove necessary to go even further. Convergence is progressing; and will be very significant for the integration of media regulation, as is shown by a recent KPMG- study. The discussion about the implications is just beginning. However, urgent problems have already arisen. One example is to be found in the directive of Television without Frontiers (April 1997). It offers the possibility for member states to protect national major events (in sports etc.) from being encoded in pay-TV. This clearly testifies to the need to enlarge the concept of universal service, traditionally founded in telecommunications, to broadcasting and new audio-visual on-line services. In the new liberalised and technologically converging environment this need

will grow as an increasing number of citizens and consumers are threatened with exclusion from vital on-line audio-visual services in society.

A major problem is the appearance of all kinds of new monopolistic or oligopolistic practices in the liberalised environment of broadcasting as well. This is exemplified by the appropriation of the exclusive rights of broadcasting public events, first of all the most popular ones. The inevitable discussion about the acceptability of the exclusive appropriation of these rights has triggered fundamental discussions about intellectual property rights in general. Two electronic means of hardware and software will be decisive for the future of accessibility and usability of digital broadcasting and narrow-casting: the set-top box and the electronic programme guide.

Who controls these means (their design, standards and choices offered) will control all communications in future: broadcasting and audio-visual services and a large part of all communication in society. It is a matter of prime importance for society to keep these means open to ensure free communication among all citizens, free competition on the market, and universal access to consumers.

The conceptual distinctions of universal and public service made above can be used to classify a host of new problems arising in the field of digital broadcasting and new audio-visual services:

Universal service and access: the general interest

**-UNIVERSALITY:** One problem involves the increasing numbers and kinds of audio-visual distribution channels which are closed to specific geographic locations and subscriber populations: cable, satellite (analogue and digital), air-antenna channels and telephone lines. Other problems arise from the design and standards of set-top boxes which make them closed in practice to the users of specific programmes and to users of other kinds of boxes. Interconnectivity, interoperability, and open standards will be the solutions here as well as in telecommunications.

**-EQUALITY:** Another problem is created by unequal tariffs for the same channels, subscriptions and individual programmes of pay-TV for different member states and even regions within



them, unequal tariffs exceeding reasonable extra costs in far transmissions. A future solution will be equal tariffing for basic broadcasting services, as in telecommunications, first nationwide, then on an European scale. For instance, viewing a sports programme like the Tour de France should not be priced differently in the future in European countries outside of France, while perhaps in France it will remain free as a so-called major national event.

**-CONTINUITY:** A problem that is already urgent right now is the sudden impending switch from analogue to digital broadcasting, burdening viewers and listeners with a lot of extra costs of hardware (decoders) if they want to continue to receive the service. It is a matter of continuity of service to give the audience the time to switch their connections and to force the suppliers to transmit their programmes for a reasonable number of years in both analogue and digital signals, perhaps using the opportunities (often to be created) of the interconnectivity of networks.

**-AFFORDABILITY:** For consumers one of the biggest problems will be the rapidly increasing costs of television viewing, particularly as a consequence of the rise of pay-TV. This is detrimental to the development of a broad market of new audio-visual services and the information society generally, which are matters of general interest. Also, it might increase the differences between information haves and have-nots (or want nots), the last ones in effect being excluded from the democratic polity of society in general. This is a matter of public interest. Therefore, except for policies of equal tariffing on an European scale and policies to prevent the abuse of dominant positions (monopoly, oligopoly), tariffing on this score remains a matter of public service in the member states themselves.

Public service/access: the public interest

**-UNIVERSALITY:** Audio-visual services, to be received by everyone, are not simply products like any other on the market. They are not even equal to printed material. The (near to) real-time transmission of audio-visual programmes is a vital condition of modern society, culture, and democracy. It is part of the cement of social cohesion offering shared experiences. Therefore, very conspicuous problems of public access are created by the possibilities to bar people from an increasing number of major national events in sports (Olympic finals etc.) and in the future perhaps public ceremonies

(like royal weddings), culture (traditional days of customs), sensation or even politics (election nights). All programmes in demand can be separated by decoders, in principle. However, it is a matter of vital public interest for society and democracy that every citizen and consumer has access to:

- a) the major events listed above, to be agreed by member states
- b) not just a single source, but a diversity of sources to create well-informed public opinion.

The possibility offered by the directive Television without Frontiers, of member states protecting some major events themselves is a first step in the right direction. However, it is far more difficult to safeguard access to a diversity of sources. For this purpose, excessive horizontal and vertical integration/concentration in the converging media sectors should be prevented and interconnectivity strongly supported.

**- EQUALITY:** Design and content of electronic programme guides are matters for universality as well as equality. Their design has to be open (not benefiting own programmes of the supplier); their navigation systems have to give easy and equal access to all available channels and programmes (of commercial and public supply). The Commission should devise regulations for accessible and open standards for these guides.

**- CONTINUITY AND AFFORDABILITY:** National regulatory bodies should ensure that at least the present level of provisions in public broadcasting is protected in the new environment. This is not only characterised by a growing market orientation but also by the gradual displacement of continually broadcasting channels by a supply of programmes to be selected individually from separate broadcasters. The quality and affordability of audio-visual services deemed necessary in the public interest will be, and has to be, safeguarded by public subsidies increasingly for specific programme categories of a certain quality.

The selection of these categories and the quality criteria for them remain a matter for public bodies in the member states.

## **CHAPTER II - ELECTRONIC COMMERCE: THE CONSUMER PERSPECTIVE**

### **SUMMARY OF RECOMMENDATIONS**

- 1. The consumer interest:** The specific interests of individual consumers regarding electronic commerce need to be recognised by the EU and Member States in policy making and legislation.
- 2. Regulatory framework:** A coherent regulatory framework should be developed for electronic commerce which takes account of the consumer interest.
- 3. Enforcement of rules:** Whilst the Distance Selling Directive offers the possibility for a basic regulatory framework, the Commission should ensure that rules can be effectively enforced not only for commerce within the EU but also for commerce originating outside the EU. The rules of the Unfair Contract Terms Directive also need to be enforced.
- 4. Security and integrity:** technologies and policies need to be put in place by industry and policy-makers which ensure the security and integrity of on-line information and transactions, including effective encryption and authentication systems.
- 5. Privacy:** The Directive on privacy and data protection should be fully applied, and accompanying measures developed. More effective safeguards are needed to ensure anonymity, including privacy-enhancing technological solutions. A code of practice should be developed for E-mail preference (similar to those for mailing and telephone preference services).
- 6. Liability:** Regulatory measures are needed at EU level to clarify the extent of liability in electronic commerce and where responsibility lies.
- 7. Redress:** The EU should develop effective cross-border complaints- handling and redress systems for electronic commerce, including adequate dispute-resolution schemes.
- 8. Free speech:** A regulatory framework is needed at EU level to protect consumers who wish to exchange their subjective experiences of the electronic purchase of products and services.

**9. Education:** Consumer education at EU level and in Member States should be revised to take account of the electronic market place. EU pilot projects on this issue should be encouraged and the results made public.

**10. Law enforcement:** Jurisdictional rules should be clarified in terms of their application to electronic commerce. Agreements are needed at an international level to foster co-operation in this context between enforcement authorities.

**11. Regulation/voluntary codes of conduct :** Independent regulation should be developed. In addition, the viability of self-regulation in some areas should be explored, including codes of conduct and how voluntary codes of conduct can be enforced.

### **INTRODUCTION**

The promotion, offer, order and purchase of goods and services electronically is developing and growing quickly. This is particularly the case in relation to business transactions using closed proprietary networks, which has gone on for many years. However, electronic commerce using the Internet as an open market is still in its infancy.

Here the practice of business-to-consumers E-commerce is about the least developed one.

This means that there is no single economic phenomenon of E-commerce. The problems and opportunities for business-to-business transactions are quite different for business-to-consumer and user-to-user transactions.

Unfortunately these distinctions are not sufficiently made in the Communication of the Commission "A European Initiative in Electronic Commerce". Different types of E-commerce are mentioned (business-to-business only, business-to-business (open market), business-to-consumers, business-to-public administration, user-to-user). However, E-commerce continues to be regarded as a single phenomenon clearly viewed from a business perspective. Matters of consumer policy are subsumed under the heading of "Promoting a favourable business environment" (Chapter 4 of the Communication). The impression is given that the main problem is to create awareness and confidence among consumers.

This is a serious underestimation of the special problems and opportunities of E-commerce for individual and household consumers. Moreover, the Communication states, that in order to boost business and consumer confidence to make use of E-commerce, there is a need for a coherent regulatory framework, but sees such a framework to be achieved only by dismantling regulatory barriers and preventing the creation of new obstacles. This seriously underestimates the positive role of appropriate laws and regulations to enhance consumer confidence, and the need for a coherent regulatory framework which takes account of the consumer interest.

As a matter of fact, many issues are identical for business and consumer applications of E-commerce: security, possibilities of redress, problems of contracts, pricing and taxation etc.

However, others are fundamentally different for consumers, in particular, the following :

First, business enterprise is forced to use E-commerce by market competitors. However, consumers still have a choice (which will hopefully last) and, therefore, have to be much more convinced of the surplus value of E-commerce, which appears to be a very difficult thing at the moment.

Secondly, consumers are confronted with offerings in E-commerce as individuals. They have to deal with the special opportunities of interactivity and selectivity all by themselves. They are in a position of dependency and do not possess the collective support of business organisation. Consequently, they are very vulnerable to aggressive marketing techniques and are sometimes urged to order too fast without sufficient possibility of redress in their individualised household environments.

Third, as a result of the above points, individual consumers lack experience, compared to business organisations, and do not have not the

knowledge of who's responsible in the completely abstract market of E-commerce.

Finally, the problem of privacy is very much an issue of concern for individuals and households in principle. It is not an issue for the collective level of business organisations.

The first issue strengthens the consumer position but the last three place consumers in a weak and vulnerable situation.



This report views E-commerce from a consumer perspective, and discusses these and other special issues for consumers. Whilst some of the opportunities and problems are not particularly novel to E-commerce compared to conventional

commerce, the specific (global, electronic) context surrounding E-commerce can enhance or reinforce the opportunities and problems. Therefore these issues still deserve particular attention.

#### MAJOR ISSUES :

##### A. ADVERTISING AND MARKETING PRACTICES

*Opportunities:* The interactive nature of electronic highways permits a more prominent role for the consumer. It can widen choice about what information to see or to receive and allows consumers to receive advertising and information in general that they are interested in (this allows a more individualised approach).

*Problems:* The potential for aggressive marketing techniques generated by individual interactivity (for example on-line marketing practices aimed at children). Junk e-mail, and "cold e-mailing". The identification of commercial communications as such. The blurring of the distinction between information and advertising. The enhanced possibilities for tracking and tracing of individuals, with related problems of privacy and protection of data. The risk of misuse-use of consumption "profiles". The lack of cross-border redress.

## B. CONTRACTS

*Opportunities:* It becomes easier for consumers to enter into contacts at a distance (without meeting the person with whom they are establishing a legal relationship or a representative), cross-border, and in real time (or at least much faster than traditional mail, for instance). More information can be provided (for instance, information which cannot be fitted on conventional product labels).

*Problems:* The usual issues of clarity of contracts, price/service information, fairness of contractual conditions, unfair contract terms and fraudulent practices. The difficulty of identification of parties (no physical address). The lack of effective complaints-handling and redress systems. How to document parties' consent. Risk of rushed decisions. Difficulties with evidence and proof. How to enforce consumer protection.

## C. PRICING AND BILLING

*Opportunities:* Enhanced possibility of price and billing information.

Increased opportunity for cost-orientated rates, as well as unbundling of packages.

*Problems:* The risk of increase in prices (for instance, as a result of copyright, pay-per-use schemes). The need for transparent billing, transparency of price display, availability of tariff information on an easily comparable basis and separate billing for separate services.

## D. SECURITY OF PAYMENTS

*Opportunities:* The development of new payment systems (I-pay, digicash, etc.). Enhanced facility/possibility for cross-border payment as a result of the introduction of the Euro.

*Problems:* Payments for the purchase of goods and services are still largely carried out through the use of credit cards (with corresponding problems, such as burden of proof). The need for protection for pre-payment. The obligation for pre-payment implies that the supplier has no confidence vis-à-vis the consumer: consumers should have the freedom to choose to pay in advance or not. The risk of fraud. The use/abuse of data. Trace-ability. The need for redress for transactional defaults. The disappearance of traditional payment systems. The acceptance of common standards. It will prove to be essential for all parties that new payment systems are developed which are secure.

## E. SECURITY OF INFORMATION, DATA AND PRIVACY

*Opportunities:* The enhanced possibility of control. The possibility of specific technology which enhances privacy. Encryption, TTP etc.: technological solutions to protect privacy and prevent the electronic tracing of identifiable personal information. Technology as a tool to provide security and integrity of information.

*Problems:* Uncertainty as to the reliability, authenticity, integrity, origin of on-line information. Technologies and policies to meet these uncertainties are required, if electronic commerce is to develop. Electronic commerce involves transferring a wealth of data electronically (through all stages of the purchase), often without the person releasing the data, or leaving a trace, being aware of this. There is a great risk of misuse of data "collected" from various sources (registration pages, click-stream data, payment etc.). There is a risk of losing control over use of personal data, with far-reaching consequences, not only related to privacy, but also more generally in relation to consumer profiling, and the denial of access to products and services.

There is a growing problem of personal data becoming a tradable commodity. If users are to be encouraged to engage in electronic commerce, they will need to be reassured that the risk of fraud is minimal, and that any (personal) data they make available is secure. This includes knowledge of what data is collected, for what purpose, etc. Users will also need to be equipped with the knowledge at what stage their "actions" can be electronically traced. They will need to understand the potential consequences of providing personal information to others electronically.

## F. LIABILITY

Many actors are involved in the chain: equipment suppliers, network operators, service providers, content providers, companies which offer goods or service: their independence favours a dilution of liability which creates insecurity. Also consumers-becoming-producers are not always aware of the liabilities involved.

## G. REDRESS

Cross border distance transactions are increasing with the development of electronic commerce. The lack of an adequate legal framework for seeking redress in cross border electronic commerce is a cause for concern.

Also, the more specific questions of redress, vis-à-vis the delivery of goods and services in electronic form, need to be addressed. The question of how redress can be achieved in an electronic environment will need to be solved. It is not sufficient to have national rules in place, if the cross-border context is not regulated as well. The best rules remain useless if they are not enforced. Systems must exist to lodge complaints and to obtain adequate redress.

#### H. LAW ENFORCEMENT

International electronic commerce will require clarification of jurisdictional rules, dispute resolution schemes for international commercial transactions, recognition and acceptance of norms and standards developed (such as authentication procedures, electronic contract performance, electronic signatures, electronic payments etc.). Enhanced international cooperation between national enforcement authorities will be crucial as well for the development of international electronic commerce.

The question of which rules apply to which transactions is becoming very difficult to solve along traditional models of civil international law as territoriality becomes irrelevant. As regards electronic commerce, existing rules pursuant to the Brussels and Rome Convention apply (consumers national law / court). In general terms it is practical neither to apply only home country control or to apply only host country control. A balance between the two will be needed. It is important to maintain standards to which consumers are accustomed. A (perceived) lack of protection against electronic commerce that does not respect national standards can easily lead to a distrust of that commerce by consumers.

#### WAYS FORWARD

There is a need for a coherent regulatory framework (legislation, self-regulation, standards, technical measures), which takes account of the consumer interest.

##### A. DISTANCE SELLING DIRECTIVE

A basic regulatory framework for consumer protection in electronic commerce is envisaged by the Distance Selling Directive which has been recently adopted. This Directive, which should be implemented in national legislation within three years, clearly covers contracts concluded by electronic means. This piece of legislation

solves many (although not all) problems, as the Directive requires:

- prior information to be given to consumers (such as: identity of the supplier, main characteristics, price, delivery costs, arrangement for payment, delivery or performance, cooling-off period, cost of using the means of communication at a distance, period for which the offer remains valid)
- confirmation (in written form, or via a durable medium) of information (see above + geographical address of supplier, information on after sales services and guarantees)
- 7-day cooling off period
- performance within 30 days
- inertia selling prohibition
- prior consent for automatic calls and fax; other means of communication may be used only where there is no clear objection from consumers
- judicial and administrative redress (possibility for representative actions; burden of proof may be placed on supplier)
- elaboration of complaints system.

A major drawback however, is that the Directive does not cover contracts related to financial services. However, a proposal for a Directive on contracts negotiated at a distance for financial services should be published by the Commission soon.

Attention furthermore needs to be given to enforcement of the rules, not only the enforcement of rules within the EU, but also the application of rules to commerce originating from outside the EU.

Moreover, the rules of the Unfair Contract Terms Directive should be applied.

##### B. SECURITY ISSUES

Technologies and policies need to be in place to ensure the security and integrity of on-line information as well as of on-line transactions. Effective encryption systems should be developed as an important tool for providing security (with due regard to the various interests and consequences of these systems). Authentication systems (including identification tags etc.) should be developed to guarantee the originator and the reliability of the message/material (copyright) etc. Secure electronic signatures, authorisation systems (i.e. electronic documentation of consent) must be

developed and standardised. Secure electronic payments systems need to be put into place.

### C. SECURITY OF DATA AND PRIVACY

Hidden functions in services or technology must be prevented. The Directive on privacy and data protection should be applied, and accompanying measures should be developed. Privacy-enhancing technologies must be developed. A coherent and balanced encryption policy must be pursued. (see recommendations by Working Group 2 of the first year of the ISF). There must be safeguards with regard to anonymity (see paper developed on anonymity by Working Group 2 during the second year of the ISF). A code of practice similar to mailing preference and telephone preference services needs to be developed for electronic mail (E-mail preference system).

### D. LIABILITY

The focus should not only be on technology, but also on how mass-markets will be organised and structured. We need to consider whether there is a need for responsibility for carriers/ site operators for content/advertising, as well as the question of obligations on payment systems operators to vouch for identity, to identify bank accounts or to provide for redress for transactional defaults. There is a need for regulatory measures at EU Level to clarify the extent of responsibility and where it lies, without prejudice to the end-user.

### E. REDRESS

Effective (cross-border) complaints-handling and redress systems must be established.

Adequate dispute resolution schemes for international electronic transactions should be put into place.

### F. PROTECTION OF FREE SPEECH OF CONSUMERS

There is a need for a regulatory framework to protect consumers who wish to exchange their subjective experiences of (the electronic purchase of) products and services.

### G. EDUCATION

Consumer education (the effort of learning to identify and avoid the pitfalls of the old market place) must be revised to suit the new market place. There is a need for Electronic literacy and awareness campaigns. In this context, EU

pilot projects have been carried out in several areas. Such projects should be encouraged, and their results should be publicised, in order to raise public awareness of the possibilities and to spur public debate on users' needs (see recommendations developed by Working Group 2 of the first year of the ISF).

### H. LAW ENFORCEMENT

A clarification of jurisdictional rules, as well as the recognition and acceptance of norms and standards is important. Agreements to foster international co-operation between enforcement authorities are needed.

### I. REGULATION / VOLUNTARY CODES OF CONDUCT

Independent regulation should be developed. The viability of self-regulation should also be examined: do we need (more) codes of conduct (e.g. ICC Guidelines on interactive marketing communication)? We need to consider what methods of enforcement should be introduced in this context which would be effective.

December 1997

## WORKING GROUP 4

### Sustainability in the Information Society

#### ABSTRACT

Since the Rio World Conference on Environment and Development in 1992, the concept of sustainability is at the centre of the political debate. In the language of the Brundtland Commission, sustainability means „that current generations should meet their needs without compromising the ability of future generations to meet their own needs“. In this concept, economic, social and environmental aspects are closely tied to each other. The principal question is how to fulfil human rights and allow development in a world moving towards 10 billion people and one global market, while at the same time keeping the environment intact.

The topic of sustainability is most closely tied to the development of a world-wide information and knowledge society. On one hand, information and communication technology is the major enabler and driver of globalisation. This adds substantially to environmental burdens and also puts the social systems and labour systems of the developed countries under enormous stress. On the other hand, information and communication technologies offer completely new solutions for many of our problems, from global awareness raising to world-wide education systems and an eventual dematerialisation of most of our economic activities.

The present paper, summarising intensive discussions within and outside the Information Society Forum, gives a detailed outline of some major issues. It describes the sustainability concept, its connection with the Information Society and arenas in which the European Commission is addressing these issues. It describes what the concept of dematerialisation is about and why it offers great hopes but at the same time, the document addresses the rebound effect. This effect is maybe the greatest challenge ahead, because—historically speaking—it always seems to eat up all the positive potential, for a better protection of the environment, that technology seems to offer by allowing ever more people to live on the earth who, on the average, always generate more activities per person.

The Information Society, today, is at the centre of these processes, driving dematerialisation

as well as rebound effects. The text gives a number of hints for possible strategies to maximise the sustainability impact of Information Society developments, but also makes clear, that a central key to overcoming poverty and achieving human rights for all and to sustainability is the evolution of global economic and social regimes to meet urgent world-wide ecological and social requirements better. Since by now there are no world market prices reflecting the scarcity of ecological and primary resources, there is a need for frameworks and institutions enforcing suitable price regimes in order to bring exhaustion rates into balance with sustainability. This might be implemented e.g. by world-wide tradable CO<sub>2</sub> emission certificates, where the Kyoto Summit just led to a first step in the right direction. In addition to that, there is the need of world-wide social systems, e.g. education systems, which we all have to invest in, as raising human resources world-wide is one of the most important instruments for improvement available to us. In order to establish such regimes, it seems natural to integrate these aims into existing regimes, e.g. by improving GATT/WTO, UNESCO, World Bank, and the like.

The text, finally, also addresses the question of how Europe should deal with these issues politically at the moment. This concerns a double strategy of staying competitive in the world market—even if, for the time being, this requires actions that are contrary to our long-term aims—while at the same time fighting for a better world-wide orientation in the longer run. That such efforts can be successful, and that Europeans do sometimes have a major impact, was just demonstrated in the World Climate Summit in Kyoto and its outcome—even if it was only a first step. With respect to this long-term perspective, the text closes with a first outline of what might be a European Vision of global governance, a new social contract, sustainability and a better world.

## I. WHAT IS SUSTAINABILITY ALL ABOUT?

In the **World Conference on Environment and Development in Rio in 1992**, the principle of sustainable development was formulated as the principle that current generations should meet their needs without compromising the ability of future generations to meet their own needs. In this concept, which is at the centre of the present international debate, economic and social developments are closely connected with the environmental topic. The principal point is that in order to fulfil human rights in the long run, we need an intact biosphere, and this is by now not self-understood anymore. So whatever we do now, world-wide, has to take this long-term aspect into account. Within that framework social requirements are a challenge of greatest importance, but have to be balanced with economic possibilities and considerations. In the long run the aim is to have economic production and distribution patterns that correspond to social requirements and to ecological needs. To find a solution to this issue is the real challenge



for the future. To deal with that challenge is also the topic that the Information Society Forum is addressing in its Working Group 4. In the following these aspects will culminate in the discussion of a **Model Europe** as a vision for global governance, a new social contract, a sustainable future and a better world.

Sustainability as a concept has developed broadly over the last 20 years. From the Seventies on, there was a growing public and political awareness that our world-wide development and economic growth are on a track that can not be sustained for longer time periods into the future. There is a high level of resource depletion, environmental destruction and energy consumption. Obviously, the approach to environmental problems which consists in regulation combined with end-of-pipe policy is not adequate to avoid the problems. These problems concern a wide range of issues, from CO<sub>2</sub> and other emissions into the atmosphere, to climate problems,

deforestation, desertification, surface water, soil degradation, marine resources, food production, biodiversity and others.

In Rio the concept of sustainability was generally recognised as embracing aspects of resource utilisation and of socio-economic development. On one hand, it acknowledges the right of all people and all countries in the world to develop to a better state of living. On the other hand it recognises that our present lifestyle in the North cannot be extended to a world of soon 10 billion people.

The background against which the following considerations have to be seen is the growing public and political awareness that **economic prosperity and growth at present are unsustainable.**

The most immediate critical constraints we have to deal with are environmental and associated with material use and transfers. We have more than doubled natural material transfers into the environment in recent years and released into nature tens

of thousands of new chemical and biochemical products with often surprising results. For example ozone layer depletion is an artefact of industrial chemical use and release, greenhouse gas accumulation is a material transfer problem more than an energy use problem. Legislation on dioxine and DDT are responses to industrial and medico-agro-industrial material use. Dematerialisation in the sense of reducing the amount of material extracted from, synthesized and dispersed into the environment per unit GDP is now the key to long-term sustainability.

## II. WHY ARE THE SUSTAINABILITY ISSUE AND THE TOPIC OF THE INFORMATION SOCIETY SO CLOSELY CONNECTED?

The major driving force of change in the world of today is **globalisation** which can be understood as the transition into **one single unbounded world market**. This change can be attributed in part to the new international order after the end



of the Soviet era, the spread of democracy in many countries, a willingness to open borders and to do business with each other. Also, certain technical developments, be it television, be it modern logistics and transport systems have had a major impact, too. But more than anything else it is the **information and communication technology (ICT)** which is bringing about the biggest changes, a technology that allows the fast and world-wide exchange of information, everybody to be connected to everybody else almost instantaneously, money to float around the globe, knowledge to be transferred, world-wide chains of wealth generation to be organised.

If we talk about sustainability, then we have to think about resource use and social needs and aspirations, we have to think about what people are able to do for themselves and how much stress they can inflict on the environment. Taking globalisation and economic growth in the North and in the South into account, we see that ICT is at the very centre of present globalisation and thus at the very centre of a process in which resource requirements and environmental burdens are continuing to be extended in the North while at the same time the South starts creating similar burdens. Actually, the world today can be described as being on track to a **world population of 10 billion people** that all aspire to the **over-excessive resource use we have in the North**. The accepted answer to these challenges everywhere around the globe is to increase innovation speed, but at the same time we as persons have problems to stay in touch with these changes, and people who are 55 years old are often already regarded as too old to be further involved in this process. Our social institutions are not able to cope with the change at all, adding to social disruptions and other effects. All this is driven by technology and certainly not sustainable. At the same time, we cannot avoid the problems by just closing borders in Europe.

In this situation the Information Society, which is the driver of all these processes, also offers the greatest opportunities for solutions. We see that with ICT technology, we can do what in a broader frame is called **dematerialisation (increased resource productivity)**, i.e. we can have the same value added with much less resource input and environmental burdens. We observe this when we see a mainframe computer being replaced by a powerful PC, which is much less resource-intensive, or when copper networks are replaced by mobile telecom-

munication systems, or when telework is used as an alternative to commuting to a workplace daily, or when co-operation around the globe becomes possible without people jetting around the globe, and when for instance we, for the first time, can think about a global education system. This last topic is particularly important, as human **resources**—due to a recent study of the World Bank—make up 60 percent of the wealth of nations. Education is at the centre of all social and human rights, a point strongly argued for by the Information Society Forum and its Working Group 6 on „Lifelong Learning“. Education is also a prerequisite to reverse the trends in population development in order to gradually come to a shrinking world population instead of a world of ever more people. Education, then, is at the centre of a path to a sustainable future.

In all these arenas the Information Society is the most effective driver of globalisation and –indirectly– of all the corresponding additional burdens for the environment as well as certain additional social inequalities. But at the same time it is also the motor that could bring upon the changes we so urgently need. One thing seems to be certain: if there is at all a sustainable future then it will be in the context of the Information Society.

### III. IN WHICH FRAMEWORKS IS THE EUROPEAN COMMISSION ADDRESSING THESE TOPICS?

The European Commission was very early in taking up the concept of sustainability. It adheres very much to a European tradition to take environmental and social issues into deep consideration. Sustainable development was explicitly addressed in the Commission's White Paper on Growth, Competitiveness and Employment of 1993. Building on exploratory research in 1994 and 1995, DG XIII of the European Commission supported an expert working group which has been charged with the task of clarifying the potential contribution of advanced communications to sustainability. This consideration was also incorporated into the work of the Information Society Forum which already broadly addressed the issue in its First Annual report of 1996. In the meantime, our Working Group, in co-operation with others, has invested further into awareness raising, built contacts with other „players“ in the field, did more analysis on topics such as dematerialisation, rebound effects, world population and the role of education, gave advice concerning the 5th Framework Programme, pointed to the importance of

EXPO 2000 as a world-wide forum and initiated steps towards building a strong European position concerning the global regimes of politics and of the economy.

Since then, also an interservice co-ordination group of the Commission was set up to address the issue and to combine considerations coming from the Information Society point of view with those from the fields of environment, infrastructure, regional development and others. DG XIII in its RTD programme on Advanced Communications Technologies and Services (ACTS) has now a group of projects that deal with sustainability issues in the context of the Information Society and has generated a number of considerations on what might be done to mobilise more commitment, be it the idea of an industrial sustainability charter modelled on the Agenda 21 success, creating a „club of clubs“ of organisations (such as the Factor 10 Club, the Club of Rome, NGOs such as Friends of the Earth etc.) that deal with the issue, the idea to support trans-European networks with sustainability goals regarding better transport logistics, substitution of material goods by services and so forth. Another topic addressed is innovative city planning, combining clean transport with new working practices to reduce transport demand and to increase the intensity of use of buildings. The topic of sustainability also pervades all parts of the **5th Framework Programme**. In addition, in the present report, some considerations are given concerning the formulation of a **European Vision** on how to achieve a sustainable future and on how the European Commission might adopt and promote such a vision in its efforts to contribute to a sustainable world order and global governance.

#### IV. WHAT IS THE DEMATERIALISATION ISSUE? WHY IS IT SO IMPORTANT AND HOW IS IT CONNECTED WITH THE INFORMATION SOCIETY?

**Dematerialisation** means producing more efficiently more goods and more services from fewer resources and with less burdens on the environment. Historically speaking, this is not all that new. Achieving more efficiency is what technological progress typically does, and this in turn implies that innovative modification of established technologies often brings about some degree of dematerialisation, i.e. the ability to offer the same service (or the same product) with less input of resources. In addition, by designing new technical “ser-

vice delivery machines“, which meet service demands with much less resource inputs per unit service, we may be able to achieve “orders of magnitude“ improvements in resource productivity. It is not inconceivable that, in spite of using fewer resources, everyone on this globe might ultimately be better off, and that in addition the world will be burdened with much less pollution. In fact, just such a global objective for the future would be compatible with trying to **solve the main issue we will have to cope with, namely the population issue**, since the resulting enhancement of economic and social security and hopefully also the **empowerment of women all around the globe**, and better nutrition, education and extended legal rights would tend to **reduce birth rates**.

**Dematerialisation** therefore is a key for meeting the needs of the future, and it can be realised e.g. by process improvement, product improvement, product to service conversion and structural change. All this **will be influenced by the information and communication revolution**, but in different ways and to different degrees.

**Process re-engineering management** has been given a major stimulus by the emergence of **multimedia information infrastructures**. All the Fortune 500 multinationals have been through at least one „re-engineering“ exercise in the last five years under competitive pressures to improve their use of skills and resources.

Product improvement has been driven by market forces and material technology: new materials, better suited to the product's function. But, the „information content“ of products in terms of their market value has risen faster than their material content has fallen.

With advanced communications, many products become services. A newspaper becomes an on-line service; an instruction manual becomes an interactive technical advice service; cinema film reproduction and cinema chain management become a „video-on-demand“ service in the home; a post-operation recuperation institution becomes a medical surveillance service in the home. The dematerialization is evident, as are the implications for the future of labour where always more job opportunities are in one way or another closely linked with the Information Society and the corresponding new technologies.

**Structural changes** are hardest to achieve. They concern e.g. the way markets are organised, the way our transport infrastructures are organised and used, the way we work and live. As difficult as it may be to change structures, it is here that the greatest benefits in sustainability are to be realised, e.g. by allowing a stronger emphasis **on regional solutions and networks**. The emergence of information infrastructures as the new element in economic and social development changes all the ground rules of an industrialised materialist society. This is obvious for all tasks related to information management. Now consider the „end-point“ of material production which is retailing - buying food, cleaning products, clothes, shoes, and „do-it-yourself“ products account for over 90 per cent of everyday purchases. Again, we tend to see only the tip of the material iceberg - the food itself or the pair of shoes, and since you cannot dematerialise food or shoes, the immediate reaction is that there are no opportunities for dematerialisation. However, this is not true for the hidden bulk of the iceberg.

Recent trends in retailing have increased the material iceberg of retailing: large hypermarkets, with large car parks have considerably increased the traffic associated with shopping - people „commute“ to hypermarkets in the same way they commute to work. The stores themselves, with their car parks, restaurants and access roads, use more materials (building, plumbing, wiring and packaging) per unit sold than ever before. Even worse; this has not been associated with any reduction in traffic and infrastructure associated with provisioning the stores. Global provisioning, with over 10,000 separate items has increased customer choice, but also has increased material use and the environmental impact of the production, wholesale and retailing process. Here, information infrastructures can, in principle, reverse this trend. This is similarly true in the broad field of **mobility and transport**, and also in **housing**, which again is a field with enormous impacts on resource use, material throughput and environmental burden. Actually, the transition to ever more **single-person households** is one of the biggest drivers to more environmental degradation, world-wide.

#### V. THE REBOUND EFFECT - THE GREATEST CHALLENGE AHEAD

Examining the history of technological development, we see that the seemingly sensible path just described, i.e. - dematerialisation for

meeting the challenges of the future, is definitely not the path we have actually been following up to now. While there has always been the hope of handling imminent problems by applying powerful new technical solutions, this route has only been successful in the short term; in the long term, it has almost invariably led to a worsening of the situation. It is perhaps an inevitable consequence of world market conditions, and maybe also of human nature, that technological progress is generally „abused.“ The accompanying (potential for) dematerialisation always ends up in a **growing world population** and **growing average consumption level per person** in the generation of ever more products, more services, more energy use and so forth, and to such an extent that it massively overcompensates for the original technological progress made, and essentially eliminates the potential overall reduction in resource use. This trend, referred to as the **“rebound effect,”** turns out to be a dominant feature of the present economic system. Technological progress is in this sense the very mechanism by which additional efficiency has been translated directly into ever more people consuming **ever more energy and resources**, and this under the additional burden of an **ever increasing rate of change**.

In a sense, technological progress has been the very means by which natural resources have been transformed with increasing rapidity into goods, services, and functions. Dematerialisation has, unfortunately, been one of the primary inputs into this acceleration process. Never have humans been so successful and so prepared to change and modify their world by technology, and never have we created more waste and flows of material than we do today. This also holds for the ICT field itself. For instance, there are today more than 100 million personal computers in use worldwide compared to less than 10,000 mainframes in the old days. These have eaten up any resource savings which might have been achievable, had not more computing “needs“ been created. If one then takes into account the fact that the production of personal computers is relatively more toxic than the production of the old mainframes, the picture deteriorates even further if we limit our point of view to this branch of the economy in isolation. A similar situation applies with respect to the consumption of electrical energy, not to speak of the vast amounts of printer paper that are wasted, given that users are today easily able (and willing) to print out countless drafts of their

own textual and graphical production. **Actually the “paperless office” uses more paper than ever before.** In any case, all of these effects taken together completely eradicate the benefits of any specific dematerialisation effects that have been realised. The same is true with communication technologies, including the telephone, fax, and mobile communication. These new forms of dematerialised contacts between people have by no means lead to overall reductions in personal physical mobility. In fact, even the opposite may be true: we tend to use technically-supported communication systems so as to set up and co-ordinate even more and better organised conventional (i.e. physical) meetings between people.

Of course, also the concepts of **telework, teleshopping, tele-education, telemedicine** and so forth will, by themselves, not automatically provide a route to a sustainable future either. Rebound effects have been observed in that some people who telework actually travel more than they did before, due to the additional contacts they now have and must manage. Furthermore, by teleworking they increasingly have opportunities for travel because, due to advanced telecommunications, they can now work essentially anywhere. For example, **they do not have to be present at their company.** Here again, changes in the prevailing economic frameworks will be required if we are to avoid rebound effects and to realise the potential environmental benefits of telework. If we do not do that our best intentions for dematerialisation will in the end be only a step towards more environmental degradation.



## VI. THE INFORMATION SOCIETY: TASKS AND RISKS FOR THE FUTURE

Given these observations, let us take a second look at the enormous opportunities created by telecommunication and computer power that are on the horizon. Actually, all countries will be forced to pursue this course into the

Information Society, because under the pressure of international competition there is simply no other way to go. Teleworking, teleshopping, telelearning, tele-teaching, etc. all hold tremendous promise for the future. Actually, it is here where great new **job opportunities** are to be expected that might compensate for the losses of jobs resulting from globalisation, automation, re-engineering and other ways to adapt to world market pressures. In fact, it has never before seemed so easy from an economic and infrastructural point of view to achieve **reasonably equitable living conditions anywhere on the globe**, to integrate every country fully into the world trading system, and to allow everybody to bring their competitive advantages into this process. And, certainly, there are going to be interesting markets which e.g. we in Europe can develop and service. In fact, concepts such as **global services** might gain acceptance and achieve a practical dimension.

The Information Society, therefore, is our line to follow in Europe, be it for ecological or social considerations and for the issue of future jobs, as also discussed in the **Barcelona Declaration** of the Information Society Forum and its Working Group 1 on „The Impact on the Economy and Employment“. The Declaration promotes proactive measures like the ones that emerged from the Luxembourg Summit and are therefore welcomed by the Forum.

But, as positive as all this is, one has to recognise the following danger: if this transition is not handled properly, it might lead to even tougher international competition, with eager industrial people around the globe willing to work under much less attractive social and environmental conditions than we do - people who are very flexible, who require less income, and so forth. This could, in turn, further exacerbate the difficulties we experience today in employment, in our social security systems, and with regard to economic stability within the developed world. If this transition went wrong it could mean

tough confrontations both within the group of OECD countries, and between the OECD and other parts of the world.

Moreover, in the long run it would certainly **not** be a good solution if the use of e.g. telework, which we strongly recommend, were to **erode the social benefits** we have achieved in Europe and other OECD countries, only to be able to compete head-on with teleworkers in other, less well-endowed, parts of the world, where workers are willing to work under much worse conditions than are the workers in the OECD countries. Here it becomes obvious that there is a need for a **global framework of a world economy** that is **socially and ecologically oriented**, a topic that will be discussed in more detail below. There is a need for a world economic system that is based on certain (minimal) social and ecological standards, which may, of course, depend on the developmental state of a particular country. Of course, it is clear that those standards have to be financed, and that this will, to a considerable extent, have to be done, by the richer countries. The latter may well be willing to do this if for no other reason than to protect their national social standards, which may otherwise be jeopardised.

#### VII. POSSIBLE STRATEGIES TO MAXIMISE THE SUSTAINABILITY IMPACT OF INFORMATION SOCIETY DEVELOPMENTS

In the following, we discuss some available strategies to promote sustainability. All the topics discussed here operate on a European level, assume that the basic principles of WTO are not (yet) changed, and show promising directions for change. Concerning the implementation of proposals, the restriction that Europe has to stay competitive has to be observed, which consequently limits the extent of certain proposed changes. In this context some key issues have received a strong focus of attention, e.g. in the past activities of the Information Society Forum and in the guideline development work of the project group in ACTS looking at contributions of ICT to Sustainable Development. Some of these strategies are discussed next.

## INDUSTRIAL STRATEGIES FOR SUSTAINABILITY

### DEMATERIALIZATION

- Maximise the „information content“ of products and services - the proportion of their value associated with immaterial input and design/intelligence - and minimise their material content.
- Shift to use of materials with the least „life-cycle“ environmental impact, measured as the total material use associated with their production, recycling and disposal, and as the total toxicity of environmental emissions.
- Maximise the recyclable, repairable, and upgradeable content of products.

### TRANSPORT

- Minimise transport of low value materials and concentrate transport onto high-value products
- Re-engineer supply-chains to minimise total km/tonnes of road and air freight transport.
- Convert products to services which can be offered to the point of use over communication networks.
- Minimise business travel by increased use of videoconferencing, mobile working and telecommuting.

### USE OF BUILDINGS

- Maximise effective use of office space and shared space for meetings and team-work, „hot-desking“ and videoconferencing.
- Maximise use of shared facilities - regional and local telecentres; bookable furnished / equipped office centres; hotel business centres, etc.
- Maximise the re-usable potential of office and factory buildings, such that when the nature of business or of manufacturing activities change, buildings can easily be adapted to other uses
- Locate business premises close to the materials or skills required, and in locations well connected to global communications infrastructures.

### PUBLIC AUTHORITY STRATEGIES FOR SUSTAINABILITY

- Maximise effective use of public buildings and resources - with greater sharing of

facilities: schools, adult education and training, and community activities.

- Replace public information brochures and forms with on-line access and interactive help services whenever possible.
- Promote and implement telework and telecommuting as part of demand-reduction in sustainable mobility strategies for major cities and congested regions.
- Promote and support multi-use telecentres in all communities as public information centres, as well as focal points for telework, job/skill matching and access points to Information Society services for the whole community.
- Promote and use electronic tendering for public services to widen competition and to reduce overhead costs. Include sustainability assessments in all tenders for public service activities.

### REGIONAL STRATEGIES

- Strengthen the power of regional authorities in promoting sustainable lifestyles and production networks for their people.
- Re-direct the use of Structural Funds towards more investments into ICT instead of „older“ infrastructures.
- Make sustainability a general issue for guiding decisions on the use of Structural Funds and other funding mechanisms of the EU, particularly also in the field of agriculture.
- Promote activities of European Regions towards implementing principles of the Agenda 21.

### CONSUMER STRATEGIES FOR SUSTAINABILITY

- Recycle and repair material and equipment whenever possible.
- Reduce car use by using public transport or shared transport (taxis or car pools) whenever possible, and by using home-delivery services whenever available.
- Minimise business travel by telework, telecommuting and videoconferencing whenever possible.
- Minimise energy and water use by effective heat insulation, regular maintenance and usage monitoring to eliminate waste and leaks.

## VIII. THE CENTRAL ASPECT OF A NEW WORLD ORDER

In this chapter, we come to the root of the sustainability topic. As persuasive as the approaches discussed in Chapter VII may be, such opportunities will, for the time being, not lead to world-wide sustainability, because the world trading system only sets motives to be efficient, which certainly is a prerequisite for a rational use of resources, but sets no incentives to behave according to the ideal of sustainability (due to the absence of scarcity-oriented prices for primary and environmental resources). Therefore, Europe's options to act on its own are quite limited, if we want to stay competitive in the world market. Consequently, today's world trade order has to be changed. This is because, under present market conditions, people in all countries must strive to make the best out of the opportunities of technological progress, even if this increases resource use and overcompensates for any dematerialisation effect. Therefore, over and above technological progress, we must work on modifying **the conditions of the world-wide economic systems**. In particular, the conditions prevailing in the so-called global free trade system seem no longer to be adjusted to the developmental status of the different nations, nor to **the number of people on earth** and their consumption levels and expectations, nor to the present speed of technical innovation. Therefore, we have to think about modifying the world-wide constraints which govern the way we do business. Somehow we will have to „cool down“ the system in the sense of limiting global resource use in a very deliberate way. Simultaneously, we have to make sure that resource use, energy use, and pollution per person, are reduced in the years to come on a world-wide scale, in accordance with technological progress and dematerialisation potential.

There are different ways of achieving this. One would be, in to extend the first step done in the Kyoto World Climate Conference by global resource taxation or the trading of (limited) CO<sub>2</sub> emission rights, as a way to impose world-wide limits to total CO<sub>2</sub> emissions and corresponding **ecological standards**. Such global financial taxation schemes could, at the same time, supply the financial resources needed to stabilise the world-wide situation via the co-financing of **social standards**. Here, one has to think about of all kinds of joint activities: Protecting rain forests, getting the

best environmental technologies into the developing countries (joint implementation), tele-education (**investing in human resources**), telemedicine and **improvements of the situation of women**. It should be mentioned here again that human resources make up for a considerable part of the wealth of nations and life-long learning, a position taken by UNESCO, the World Bank and many other institutions. Making use of the potential that ICT offers, is at the heart of the proposals made by the Information Society Forum and its Working Group 6 „Lifelong Learning“ in this respect. Note also that in the industrial declaration for the Ministerial Conference on Global Information Networks in Bonn, 6-8 July 1997, already the requirement was formulated that the global players - private and public enterprises together with governments and international organisations like the EU and the G7 - should launch a **“Global Information Superhighschool“** (a multimedia networked (high)school) for **world-wide sustainability**, as a new concept for 21st century education. An adequate organisation form for the Information Superhighschool, as far as global distribution, delivery, and co-operation with local educational institutes are concerned, would have to be found.

The many different steps discussed would all help to make a **business case for sustainability**, as well as for related **infrastructure industries**, e.g. in Europe. It would also mean that our skills would finally be invested in long-term durable contributions to the world's sustainable future and no longer merely in marginal improvements. Moreover, a kind of global eco-taxation, e.g. in the form of trading CO<sub>2</sub> emission rights, would **moderate rebound effects** and push the use of telecommunication forward in a dramatic way. Of course, it is then equally important to think about how to best allocate the corresponding revenues to different investments for improving global societal and ecological frame conditions.

A major stabilising step would be to improve **social security systems** (education, health, pension schemes) world-wide, partly financed from these eco-funds and primarily targeted, in accordance with requirements specified by moral institutions and the religious sector, towards **families with a small number of children**. Such steps would guarantee social minimum standards and facilitate their practical implementation world-wide, again preferably based on telematics infrastructures such as

telework, telemedicine, tele-education, tele-health services, etc. All these measures, in combination with strict world-wide limits on resource use and huge financial transfers to poorer countries made possible by global eco-taxes or trade of eco-certificates, would eventually permit us to translate technological progress into the right direction: economic development from an ecological perspective, i.e. **qua-litative instead of quantitative growth**. This would imply a future with shrinking per capita resource utilisation, accentuated by having ever fewer people using resources; people who would then more easily find stimulating and rewarding jobs and be able to enjoy an increasingly better standard of living. This might, in turn, help to slow down that aspect of the whole innovation process which has in the past accelerated our consumption of material resources, and thus allow people all over the world to enjoy a more peaceful co-existence on this planet.

It is clear that the Information Society and the corresponding potential of information and communication technologies will be essential driving factors on this path. More specifically, telecommunication will very likely play a major role in this context, and there will be no sustainability without heavy use of information and communication technology.

#### IX. WHAT DO WE EUROPEANS HAVE TO DO FOR THE MOMENT?

The Information Society is our fate, for better or worse. Modern information and communication technologies drive the world-wide economic system and the process of globalisation. In this process we see **enormous growth world-wide** with opportunities for overcoming poverty and promoting human rights, but also with **extreme threats to sustainability and to social justice**. At the moment, our European citizens are witnessing that - inspite of economic growth and enormous wealth being generated by many companies and individuals - jobs flow away from us and unemployment is on the rise, social standards have to be given up and tax income from global companies is shrinking considerably. This means that our way into the future is not only splendid, but under present world-wide frameworks and systems of political governance has enormous and sometimes painful consequences for many individuals. **Not only people but also the ecosystem is suffering**. However, we also know that there is no easy way to shield ourselves against those unwelcome side effects of

global developments. In fact, we are now one world market and, consequently, basic problems have to be solved world-wide, or they cannot be solved at all.

The Information Society offers many opportunities as well as risks, e.g. a **potential for inclusion** but also **risks of exclusion**, and this not only on a national or European level but on a global level as well. So when we talk about a **gap of justice in Europe**, then we have to see this against the background of a much larger **world-wide gap of justice** between the North and the South and within a globalised economy, larger than we ever found such a gap in Europe. There is no chance of avoiding the consequences of this broader international issue. We Europeans furthermore know that - for the time being - we have to adapt to the world market as it is, that we have to stay competitive and that we have to take the right decisions, even where they hurt, even where they might force us to cut back standards and the social and ecological framework which we took for granted for so long as the model for the world, and which we never wanted to give up. This then leads to certain unavoidable reactions to world market pressures in order to stay competitive.

However, we as Europeans, even when doing these adaptations **will not give up our ultimate goals**. These goals come from ethics and politics, and they have to do with the aim of achieving a **fair world-wide society which lives in harmony with the ecosystem**, which **incorporates human rights for all**, and which will achieve a control of the developments so that the pace of change will again be in accordance with what humans can cope with and what organisations are able to adapt to. Even if it seems a dream today, we must again implement **the priority of ethics and politics over the economy**. Actually, our world-wide economy seems to develop more and more into a kind of turbo-capitalism which is itself a consequence of a situation where technology brought about a globalisation for which a proper social and ecological framework was missing. The frameworks we have, namely the world trade order (GATT/WTO), were never designed as the basis for a world market. But the WTO rules, together with the framework of the financial markets, now determine the rules of a "game" in which we compete against each other world-wide in a way



that may lead us into downward spirals in which, in the end, we all might have to pay a **high price in social deprivation and ecological destruction.**

#### X. MODEL EUROPE - A EUROPEAN VISION FOR GLOBAL GOVERNANCE, A NEW SOCIAL CONTRACT, SUSTAINABILITY AND A BETTER WORLD

Against the harsh background described, Europeans are formulating their vision of the future. This is a vision that aims at world-wide co-operation, at implementing reasonable social standards everywhere on the globe, at implementing measures to incorporate the major ecological dimensions into new world market rules of the „game“. An example is CO2 emission certificates. Thus it will be possible to limit resource use, to limit environmental burdens but have the market then optimise the way in which we adapt. Certainly, all this can only be done if there is a mutual agreement at least between the dominating economic areas of the world, which are **North America, Japan, China, South-East Asia and Europe**, about the rules that should apply within such an improved framework—and, fortunately, the **Kyoto World Climate Summit** brought a first step in this direction. The major long-term idea for the European position is to have cross-financing between the ecological and the social side of the topic in a kind of **win-win scenario**. In this scenario, the North and South accept certain ecological and social standards and trade the usage of resources. Here, the North will, for a long time, still do considerable transfers to the South as a compensation for the reduced resource use in the South, which the South in turn invests into environmental technology and education systems, which will create interesting market opportunities for the North within a reasonable framework of co-operation.

In the long run, this is probably the only way to sustainability. Note again that **sustainability is a world-wide topic** which we can only master together, and which we can only reach if we accept that the North and the South, i.e. **all the humans on this earth, have similar rights of exploiting the resources of the globe** and in particular of **inflicting strains on the environment**. Only if limitations are properly incorporated into the economic systems, there will be a solution. This is a topic of hot intellectual debate at the moment, where e.g. the US stands for a quite unregulated

market and an extreme degree of personal freedom. This is an approach that is able to generate growth and many jobs (though in part not particularly socially attractive ones), however, at the price of extremely high resource consumption and, particularly, CO2 emissions, and at the price of extreme social disparities. As an alternative, the Asian perspective puts much more emphasis on group responsibilities and family ties and has a somewhat lower emphasis on personal freedom and human rights (without being able to avoid resource depletion and social disparities). Finally Europe, with its thousands of years of tradition of **balancing the aspects of freedom and equity** and a **strong focus on justice**, is somehow on a middle ground (with relatively high social and ecological standards achieved).

There is a lot of work to be done here, and this is essentially an **ethical question**, a question that has to do with justice and perspective, respect for nature but also respect for **every human on the planet**. Europeans should fight stronger for that point of view, even if, for the time being, they have to and will adapt to the world market as it is, even if we play the „world market game“ presently to the wrong rules. We have to be successful in these markets in order to be able to later change the rules, and to change the rules should be a major focus in this respect. **We have to formulate the European Model and Vision, we have to market it, and events such as EXPO 2000 offer us a chance to make such a European Vision better known around the world.**

Contrary to what should be expected at first sight, it might be easier to find agreement with Asian partners on such a new world order and global governance than with the US, a picture that could also be observed in the recent **Rio+5 and Kyoto Summits**, where Europe took a clear lead. We have to keep course and concentrate on introducing ecological aspects and social concerns into the world market order. Business will always concentrate on economic success, and they have to do so as long as their competitors do. And we should take advantage of the efficiency promoted by "neo-liberal" rules. But we have to change the framework in which these rules are being applied: Given scarcity-oriented prices and fair social frameworks, profit maximising behaviour would also always take ecological aspects into account. That is why

the world economic and social regimes have to be developed towards sustainability. Failing in this respect means to follow a dangerous route into the future. We have to address this challenge with **intelligence, courage and fairness**. This is at the heart of a European Mission at the beginning of a new millennium.

## WORKING GROUP 5

### Public service: Bringing the administration closer to the citizens

Contribution: 1996-1997

#### FOREWORD

*In due course, it became clear to Group 5 (initially called Group 3) that useful work requires a stepwise approach. The initial problem it confronted related to, in the most general manner, the determining influence of the Information Society on the behaviour of public services.*

*From the systematic analysis of this influence, of which the mutual character immediately surfaced, the contribution published as an appendix to the first annual report of the Forum (June 1996) was issued. On top of recommendations, the text, which we subscribe totally today, insisted on the urgency of a collective reflection on two exemplary and information-sensitive working sectors: healthcare and transport services.*

*During its second year of activity, Group 5 has analysed the essential notions in relation to the indispensable transparency of and the access to information held by the public services as well as the essential notions regarding their required internal reorganisation. Group 5 has sought the advice of experts and has communicated with other working groups; it has also analysed current developments in some Member States.*

*Two main themes have emerged: the concept of "vital information" and that of "universal service". These two themes, already identified during the very first working reunions, correspond to familiar but mostly highly confusing notions. They overlap and make up the whole nervous system of a political philosophy, the considerations of which we submit in the working document here below.*

*Meanwhile, the Group's opinion is that more than purely theoretical recommendations is needed, even more in the context of the multicultural diversity of Europe conceiving multiple solutions to common problems. Working Group 5, in its third working year, intends to define, or, when impossible, to circumscribe concrete actions in particular domains in order to thoroughly inform the Commission on the one hand and the Member States on the other. The*

*Group also intends to stimulate further thoughts on the addressed problem which amplitude, complexity and urgency deserve the united efforts of all European actors.*

#### RATIONALE

Man has always been a social being, using language to acquire information. In that sense, human groups were always based on shared information, which creates group spirit and thus general consensus. The advent of the new Information Society is in fact the explosive development of that unique characteristic of the species. Any observer can see in this revolution a great opportunity for the civilised world and at the same time a formidable risk for the ill-adapted.

Since a political State is basically a guarantor of freedom and since, in all developed countries, equal rights is considered a constitutional principle, it follows that any State where the rule of law applies has a duty to follow the development of information and communications technology. There are two facets to this duty.

On the one hand information, as a competitive tool, has to be accurate and rapidly available, otherwise the State loses its autonomy. It is a fact, frequently proven in the past, that when a country has failed to develop its own system, it depends on others not only for the communications technology but also for the information content.

On the other hand, when individuals can obtain all kinds of information through technology which alleviates their intellectual effort but requires costly investments, this may be considered a new source of inequality; hence the additional role of the State, as a subsidiary provider of vital or essential information to the citizen and to the social and economic actors.

#### SUMMARY

The difficulty is that no practical rules can be formulated from these philosophical principles. The advent of the information society cannot be used to challenge the State's prime function, nor to level out differences between countries

resulting from their fundamental options about the role of the State, which is the image of their past, their political and constitutional system, their culture and also their social and economic situation.

In this problematic context, however, there is an emerging need to clarify the functions of the public services and examine how they can play an effective part in the Information Society.

This immediately raises a number of issues:

- How should we ensure universal access to public data (local, national) in practice?
- How should we set up national public agencies to provide all European public data?
- How should we standardise those services from the technical and administrative points of view, based on the concepts of "single window" and a "one non-stop shop"?
- Public authorities should pursue the idea of new intermediate functions between public resources and the demand of the citizen: in an Information Society, it is assumed that everything is wanted and that every piece of information can be found. This intermediate function consists in identifying the citizens' need, and it can be exercised either by public or by private operators.
- The general public must be educated to know and use current and future information tools and instruments; in this respect, first-level disseminators, such as the postman and the teacher, should be specially trained, promoted and supported.
- The relationship between public services and the users of those services should evolve towards mutual respect and confidence (assuming an improved attitude on both sides); a "virtual magistrate" able to respond rapidly to all disputes should be able to settle any conflicts.



- Most of the information techniques developed in private industry have immediate applications in the public sector; e.g. "expert systems" could facilitate two-way communication between public services and the citizen, by providing algorithms for automatic tax calculations or computerised forms. This seems to be clear to everybody: however the introduction and adaptation of such facilities is held up not by budget questions but rather by a lack of information culture.

### COMMON EUROPEAN CONCEPTION OF THE CIVIL SERVICE

Our countries have differing conceptions of the State and hence of the civil service. One could distinguish the administrative, social and pragmatic approaches characterising the Latino-Germanic, Scandinavian and Anglo-Saxon political philosophies respectively.

However, most of the basic principles are similar and, in comparison with other parts of the world, it can be claimed that there is such as thing

as European political culture.

The civil service is viewed primarily as an organ acting on behalf of the political authority but also as a provider of services for the individuals it is responsible for.

### PRINCIPLES

The common principles of a European public service have been identified as follows:

- equality of the members of the group concerned (whether a community, nation, region or municipality), i.e. equal treatment for anybody in a comparable situation;
- neutrality in respect of peculiarities of any kind;
- adaptability to changing needs (previous habits do not constitute acquired rights);
- continuity or permanence;

- obligation to function effectively (implying that the public service must respond to users' criticisms).

### ORGAN OF THE STATE

As an organ of the State, a public service is subject to the political authorities. Its authority, therefore, emanates from the citizen, i.e. the main user. In commercial language the user of a public service would be termed both a customer and a shareholder.

### RELATIONSHIP WITH THE PRIVATE SECTOR

There is an intricate web of dependence and competition between public services and the private sector. The private sector cannot develop without government support while the stability of the State relies mainly on the wealth of the private economy. But activities which are traditionally reserved as public-sector monopolies (post, transport, telephone, radio, etc.) are natural prey for free enterprise.

### PUBLIC SERVICES IN THE INFORMATION SOCIETY

In an Information Society, the common principles set out above take on special significance. The State has a much greater role as guardian of public freedom and equality since information has become the substance of life. Public services are nothing more than information processing agencies. Where access to information is concerned, they are the natural providers of "universal service" considered below.

It is clear that the development of information technology has depended in the past on the huge demands of the civil service. At the same time our national governments have taken little part in the conceptual approach of the information systems, except notably the experience of the Internet, leaving it to the international competition to propose systems as provisional standards. Now that they are forced to adapt to the tremendous avalanche that is changing our view of civilisation as we know it, they must think the matter over and solve new kinds of problems.

### "UNIVERSAL SERVICE" OF ACCESS TO INFORMATION

#### SCOPE

##### General concept

When viewed under the magnifying glass of the Information Society, the concept of "universal service" not only justifies the public service being active in fields where the private sector is also present: it is also the yardstick for determining what is essential or vital information.

When we state as a rule that any item of information should be available to anyone, we have to add that such a rule cannot be effective without exceptions and limitations. Over and above technical, financial and cultural conditions, Group 5 has underlined the technological, legal and ideological changes that a developed Information Society must make.

##### What is vital information?

Referring to the proceedings of this Forum, we assume that the concept of "information" is clear. However, within Group 5, we decided to study the hierarchy of the various objects covered by the concept and to classify some of them as "essential": information without which individuals or groups cannot adapt to the requirements of today's physical or social life. Based on this analysis, basic needs such as eating, sleeping, walking and working can be considered to be based on preliminary information, generally termed "way of life".

With reference to the transparency and the access right, a special care should be paid to the information held and maintained in the course of their activity as records.

Where the public service is concerned, its own functioning constitutes vital information: as its field of action is often unknown, if the public service fails to inform people about the advantages it can provide this becomes a potential source of inequality.

In the Information Society, the State as a whole and the public services offered under State's control therefore have a duty of information, on a par with the duties of security and general welfare. If market forces do not prompt the private sector to respond spontaneously by offering a "universal service" in return for profit, then the public service has to take its place, which is especially the case for services provided and data collected by the public service.

### Conditions

The problem lies in the fact that today's communications infrastructure is beyond the previously secure State control and has become so cosmopolitan that public services, anywhere in the world, must adapt and conform to ever-changing standards that they have no real power to define or fix. The ideal public service that uses every modern technique to place vital information at the disposal of the people is an objective for the future: it would first have to overcome many obstacles and satisfy a multitude of conditions. But one thing which is now possible and yet seems to be lacking is the will to inform. Of course, information technology is understood to be the necessary starting point, but what use is a technological revolution unless the public service is aware that its purpose is to provide information for the citizen?

### Technical aspects

The public sector must be re-engineered. Any functionality (which, as we have said, is information processing) should be rethought from a new technological perspective. Rather than seeing the new information tools as a means of saving manpower, they should be considered for their ability to keep the public fully informed. This means that a new function should grow up within the public services, e.g. "information system management", carried out by officials who know precisely what is the role of the administration they serve and what technological solutions are appropriate to enable the ordinary citizen to access public resources.

In addition to the techniques for collecting, classifying, referencing, retrieving, earmarking or updating data, which have been in use by the public administration and industry for half a century in response to private and public demand, the new means of communication, whose strength lies in their broad appeal and unification into a single technological system, challenge the public service. If, through failing to commit budget, the public service keeps

working with obsolete systems and methods, not only will it be inefficient and uncompetitive, but it will also be ridiculed and be accused of incompetence.

### Financial aspects

The Group has looked in depth at the financial implications of the information-oriented public service. Preliminary audits seem to be necessary, considering the cost of investment against return (public satisfaction). While most services could be free of charge, there are cases where public services are entitled to charge for providing certain information, where it is intended for commercial or private purposes, especially if they make use of chargeable communications facilities and of new investments that add value to existing systems.



However, even when information is distributed free of charge, its costs should be calculated. Analytical accountancy can be expected to encourage optimisation.

In this context of financial issues and budgetary priorities, the European Union will probably have to extend its competence, namely in the field of standardisation and uniform criteria of pricing for the provision of services.

### Cultural aspects

The relationship between public services and their "customers" is likely to change appreciably. In the Information Society, the technological revolution is accompanied by cultural change. Transparency, which characterises democracy, becomes more real than symbolic. The citizen (in the broad sense) is more likely to question the public service and demand explanations as to why it acts the way it does. However, transparency will bring a closer understanding between the public service and its customer.

### Widespread access

We know that the European Union aims to develop the Information Society in the Member

States and to create a favourable environment that protects and stimulates creative development of new products and services, starting with national markets and spreading to the European market.

### Technological environment

The future of Europe clearly depends on its capacity to harness the opportunities created by the rapid development of information and communications technology. All intellectual and financial means are concentrated on this project, which involves universities, industry and public initiative.

Whether change occurs in Europe or is imported from abroad, the fact remains that our future will be radically influenced by the perceivable technological revolution. The extremely rapid response of the market to new information and communications technology products demonstrates that the man in the street has an extraordinary capacity to adapt.

### Legal environment

The States concerned will have to ensure legal certainty, particularly with regard to copyright, privacy and publicity of public information. In this respect, European consultation will be unavoidable, since fragmented national regulations would limit competition and curb creativity and dynamism.

The problem has already been described in the Commission's communication "Copyright and related rights in the Information Society".

Another difficulty to be solved at European level is the electronic equivalent of hand-written signatures. Since confidential personal information needs to be provided on-line by public services, a general solution is needed.

### Models for consideration

Before we can generalise about the characteristics of public service in an Information Society, it is worth considering by analogy several models in which its role is particularly required and exercised.

### Transport

In examining the role of the public service in transport, one can see that, even in a pure market society, its obligation is to ensure that each individual can travel, without walking more than a certain distance  $x$ , from A to B

using an appropriate mode of transport within an acceptable time  $t$ , for a fare  $f$ .

By analogy, every person therefore has the right, provided that he or she is legally resident, to obtain at minimum cost and effort the information needed to live normally in that particular territory.

### Basic Utilities and Telecommunications

It is now acknowledged that any citizen with a particular need for support is entitled to basic minimum utilities (water, gas, electricity, etc.) and that the public service must ensure that he has access to telecommunications facilities within a reasonable distance. This applies in particular to disabled people whose life may be at risk if they cannot obtain medical care. It is recognised that they should have a means of calling for help.

By analogy, anyone legally resident, according to a principle which might be termed the "right to information", may require the public service to make all vital or essential information available to him without travelling or excessive cost. The communications facilities being developed today can only help to satisfy this requirement.

### Cultural activities

In any major civilised community, art, theatre, music, archives and libraries are regarded as so essential to individual progress and the elevation of that community that the public authorities allocate a large part of the budget to the upkeep of museums and art galleries and to subsidising theatres and concert halls, to enable more people to share the cultural heritage.

By analogy, the need for particular information, relating to matters of immediate personal interest, and the immediate and orderly satisfaction of that need, pose the same problems and require the same type of commitment by the public services.

### Specific applications

Over the years the European Commission has launched a number of programmes in areas of common interest, such as the Telematics Applications Programme, Trans-European Telecommunications Networks (TEN-Telecom), Interchange of Data between Administrations (IDA), Information Society Projects Office (ISPO), the programme aiming to stimulate the

European multimedia content industry and to encourage the use of multimedia content in the information society (INFO 2000), Information System for Public Procurement (SIMAP).

These programmes demonstrate a move towards common customised solutions to problems linked to the Information Society, being it access to community information, interchange of data, improve efficiency of services in the public interest, improve the functioning of the internal market.

## CRITICAL AREAS

### HEALTH CARE

A minimum universal communication service must not only improve the quality and harmonisation of health care but also cut total costs thanks to better harmonisation of resources and improved general organisation.

The Working Group has been particularly interested in the application of universal service to health care, principally oriented towards people living on their own and also in the event of a disaster.

### TRANSPORT AND MOBILITY

In a world increasingly on the move, the concepts of space and time are changing: accessibility is replacing proximity (see "tele-working" and "distance learning").

This could in fact cut the cost of the public service. But such is not the purpose: the real aim is that the adaptation of the public services, especially in the fields of communication and personal transport, should improve availability and ensure continuity. All kinds of systems enabling the relevant data to be retrieved from appropriate systems will allow people to stay in touch and contribute to the development of ideas, projects and work without commuting.



## RECOMMENDATIONS

During the course of the debate, it became very clear to the Working Group that there were widely differing conceptions of the two issues (Information and Public Service). Therefore, in order to reach a consensus, rather than allowing ambiguity, the Working Group decided to choose the middle way, which developed countries have already surpassed and which the others will be able to attain in the near future, at the cost of an effort that will be beneficial to them.

We would therefore like to make the following recommendations, some to the Commission, others directly to the Member States. Where the word "information" appears in these recommendations, unless otherwise stated it should be taken to mean what the Working Group has classed as "vital information", i.e. that without which it is difficult to live with dignity in our civilisation. Note that all information is presumed to be vital. The onus is on anybody refusing to release information to prove that the other party will not suffer from not knowing it.

### 1. RECOMMENDATIONS TO THE COMMISSION

In order to usher in a society that is fully and properly informed, which presupposes intelligent use of all the means available via new technology, the Commission should:

#### INFORMATION SOCIETY

1. proclaim that in principle everyone's has the right to access to and use of information; all information should therefore be transparent to all, except for restrictions justified by the needs of living in society; this universal right has no limits other than public order or morality, as defined by the courts;

2. confirm that the European Union is actually an information union where everything is done to ensure that everyone has access to vital information;

3. extend the concept of universal service currently applied in telecommunications to "vital information"; "vital information" is the set of information considered essential which must be accessible to everyone either free of charge or at an affordable price;

4. identify the requirements for the maintenance of authenticity and integrity of the recorded information;

5. in order to allow unrestricted access to information, guarantee interoperability and interfacing between networks and make established standards available to the public;

#### PUBLIC SERVICE

1. aim to unify ordinary law in the Member States to ensure equal competition between them in terms of access to information;

2. define the concept of public service in European law as all services provided to the population;

3. affirm that the policy whereby man is recognised as the ultimate aim of political action is the only way for public authorities to justify that citizens and residents contribute to the costs of their operation;

4. adopt this policy itself for its own purposes and for the sphere of competence of the European institutions.

### 2. RECOMMENDATIONS TO THE MEMBER STATES

The Working Group recommends that the following should be considered for inclusion in the criteria adopted by the Union to characterise a Member State:

#### INFORMATION SOCIETY

1. acceptance of the principle of freedom and accessibility of information;

2. opening-up to all technologies ensuring accurate and rapid movement of information;

3. a commitment to promote and adopt available standards;

#### PUBLIC SERVICE

1. a genuine will to rethink and reorganise the public service in the spirit that it exists for the citizen (or user);

2. a truly and completely transparent public service, whose function is to provide information classed as essential;

3. a real intention to allocate all necessary budgetary resources to the immediate adaptation of public services to the new requirements of the information society; this criterion is particularly important since any expenditure in the information sector, far from being non-refundable, is rather an investment with a

measurable "return" in terms of public satisfaction;

4. the setting-up, at the various levels of the civil service, of information management responsible for understanding and organising the whole operation of the public service concerned and making its "vital" information available to the public;

5. the adoption of the principle of public responsibility in situations where an individual is seriously harmed through not having been properly informed.

### 3. RECOMMENDATIONS CONCERNING SPECIFIC CASES

The Working Group has analysed a number of specific cases and approved several Community instruments.

#### The Group

1. supports the proposal of the Board for Administration Requirements and Strategy, the advisory group of the Telematics Applications Programme in the context of the fifth framework programme for research and development, and underlines the importance of theme 2 "creating a user-friendly Information Society";

2. encourages the development of the IDA 2 programme, which should be followed by national projects;

3. wishes the TEN-Telecom programme to be stimulated;

4. endorses the conclusion of the communication "Cohesion and the Information Society", and advocates for a doubling of the use of the Structural Funds (i.e. from 2 to 4 % of the total budget) for information society related activities until 1999;

5. proposes to analyse the communication "The Social and Labour Market Dimension of the Information Society" specifically the aspect concerning the public policies.

## WORKING GROUP 6

### Life-long learning and training

#### Statement of Issues and Progress,

*December 1997 (Based on original verbal report at Venice Plenary, September 1997)*

#### YEAR 1 REPORT REVISITED

1. *At the end of the first year of the Forum's operation our working group provided to the Information Society Forum Chair & Plenary in summer 1996 a series of short, medium and long term recommendations.*

2. *Several of the group's recommendations were incorporated directly into the Forum's overall report. Specifically, Recommendations 1 & 2 of the overall report were drawn from our group's work. These became the platform for the way we approached our work during Year 2 of the Forum's operations.*

3. *In addition, our Year 1 report recommended that we needed to;*

- *acquire or create a fuller understanding of the patterns of current activity experienced by users of our European schools and colleges;*
- *establish connections between our group's work and that of national and other EU initiatives;*
- *ensure that our group membership reflects the ultimate target for our initiative - involving the broad spread of schools, colleges, homes and firms in creating the 'Lifelong Learning' society;*
- *focus on the critical leverage points for change rather than identifying a long list of interventions that the EU 'could/should' make.*

4. *The programmes for our meetings during 1996/7 were built around these recommendations. A wide-ranging series of inputs (from both Commission and Member State sources) has been received at the group's meetings in Brussels; a great deal of debate has taken place; and the awareness of the role of ICT in building a Learning Society has been extended by inputs to events in Portugal, Germany, UK, Hungary and Estonia. The numerous references to the critical role of addressing the role of ICT in education, training & lifelong learning at the Ministerial Conference in Bonn during July 1997 indicated the profile that these issues now occupy.*

#### WORK UNDERTAKEN IN 1996-97

5. Working Group 6 began its second year of activity in September 1996 by concentrating on recommendations 1 and 2 from the First Annual Report of the Information Society Forum, July 1996. These recommendations concerned:

- Establishing what Member States are doing to introduce the new technologies in the public education and training sectors, so that the Commission's activities (and those of the Information Society Forum) can co-ordinate with them;
- Examining the education and training implications of the EU's range of Information Society activities, and disseminating to educators a view of the issues and initiatives.

6. WG 6 sees itself primarily as "a catalyst for conversations that should take place between others". In practice, and in line with the general objectives of the Information Society Forum in year 2 of its activity, the objectives for WG 6 therefore have been:

- to analyse current on-going EU-level initiatives, where considered appropriate by the WG,
- to survey examples from Member States and third countries of best practice activities in lifelong learning, and future plans/needs, including from industry,
- to prepare a synthesis of the WG's views on the EU-level activities, comparing these with generic elements distilled from Member State/third country information, and make recommendations accordingly to the Commission, to Member States, and to the regions,
- to disseminate the results of this to EU institutions and to those who have responsibilities in education in the Member States and at regional level, making use of suitable dissemination media.

7. Throughout the year, samples of Member State activity in the areas of both education and training have been taken. Evidence of best

practice has been drawn from the public and private sectors, from governmental and non-governmental organisations, and from several Member States (Portugal, Sweden, Germany, and the UK) where experience exists of lifelong learning using the tools of the information society.

8. A start has been made on examining Commission activity in lifelong learning in the information society, through progress reports on research and development, on the Task Force for Educational Software and Multimedia, on the "Learning in the Information Society" Action Plan, and on the Structural Funds.

### LIFELONG LEARNING

9. The concept of lifelong learning implies a wholeness in the approach to learning. Information and communication technologies (ICT's) will broaden access to a variety of ways of learning, and prolong the learning span. In fact ICT's will encourage a re-engineering of the learning process, a turning of a vicious circle of barriers to change to a virtuous circle of self-sustaining development. Lifelong learning will help mould people of the future.



### UK'S "LEARNING FOR THE 21ST CENTURY" – SOME DEVELOPING THINKING

10. The very recent publication of the first report from the UK's new National Advisory Group On Continuing Education & Lifelong Learning is a very significant event. The report opens with a quotation that sets the UK initiative in an OECD context:-

*"Continuing to expand education and training systems that rely upon learning opportunities limited to early life - 'more of the same' - will not suffice as a strategy for meeting today's challenges. Much has been said over the years about life-long learning but, in truth, it is still a reality only for a tiny segment of the popula-*

*tions of the OECD countries. The huge task now facing OECD Governments is to make it a reality for a progressively expanding part of the population, so that it eventually becomes a reality for all. Jean-Claude Paye, Secretary-General of the OECD (1995), Making Life-Long Learning a Reality for All"*

11. The role of the New Technologies of Broadcasting & Communication in this way in its introduction:

The new technologies of communication and information should be effectively harnessed to support lifelong learning wherever it occurs. Government should initiate discussions with broadcasters and the appropriate regulatory authorities to explore the best ways for broadcasting to promote learning, through both mainstream and dedicated learning channels. The discussions should include arrangements

to ensure that, as digital broadcasting is introduced, it is deployed to support learners and learning as a major contribution to the development of a learning culture for all.

Particular attention should be given to widening

access to new information technology and to ensuring that individuals acquire the relevant skills and knowledge to access and be able to make full use of it. Funding should be made available to establish and equip local learning centres, linked to the proposed National Grid for Learning. Skills and standards in using information technology should be established by all awarding bodies and plans should be laid for these to be included in the national curriculum, in all NVQs and GNVQs, in A levels and all programmes of further and higher education.

Resources should be devoted by founders and senior managers in providing institutions to the development of staff competence in the use and teaching of new technology through appropriate programmes of staff development and, where helpful, qualification. Inspection frameworks should be revised to include a review of institutions' progress in supporting

this work. In developing a new national network of information technology provision, use should be made wherever possible of the systems already established in further and higher education, through JANET, SUPER JANET and through the competitiveness fund.

12. There may be an opportunity to take advantage of this initiative in the ISF business as we enter the 6-month presidency of the UK.

13. At the Luxembourg summit in November a clear emphasis on the need to combat unemployment emerged. Aspects of this emphasis at Luxembourg included:

- the need to improve employability, developing entrepreneurship, encouraging adaptability of employees and businesses.
- Information society is mentioned specifically: the Council wants a report before the end of 1998 on use of multimedia in education and teaching.
- Partnership approach: Member States and the social partners to develop possibilities for lifelong training. Schools to improve in quality so that fewer students drop out early. Apprenticeship training to be encouraged to improve adaptability to technological and economic change.
- Adaptability in business/employees: lifelong training to be encouraged, tax or other incentives for the development of in-house training.

14. Globalisation of economies and of the information society implies a faster turnover and greater variety of skill needs than in the past. Regular "re-skilling" costs more than traditional education provision, therefore new ways need to be found of providing education and training.

#### MEETING CITIZENS' REQUIREMENTS

15. The European citizen will increasingly look to systems and services which will deliver education/training where they want, when they want, in the way they want, and which will give opportunity to pay for the training there and then. Research and technological development (RTD) will be needed to create a new generation of products with the potential to provide interoperable, user-friendly, and cost-effective training, which will cover networking, software, hardware, appliances, services, and content, in a multimedia environment. Intelligent interfaces and agents will be particularly important for cus-

tomised service delivery, as will the protection of privacy and security.

#### LEARNING IN A COMMUNITY CONTEXT

16. The use of information and communication technologies makes learning in a community context a reality. An urban or rural locality which widens use of its education and culture resources through high bandwidth interconnection of schools, colleges, libraries, museums, specialist service providers, and industry is an example of this. Public-private partnership with local ownership is a key factor, and the evolving community context encourages re-engineering of the organisations concerned as they adapt to new technologies, new ways of working and new responsibilities. The new alliances will create new contacts between technical advisors, educators, those producing a syllabus, and those to be educated. This is a "learning community" where IST learning facilities can be made available 24 hours a day, 365 days a year.

17. Companies can also provide examples of communities which are distributed through many geographical locations. Similarly, people with like professions or cultural or language backgrounds form distributed communities where ICT-based lifelong learning can make education viable when it was not previously. This form of community can help preserve Europe's rich cultural heritage in addition, and even contribute to competitive advantage in the international environment.

#### ENCOURAGING CREATIVITY AND INITIATIVE

18. Lifelong learning implies a personal development process which begins with formal education, and continues subsequently at different times to encourage flexibility and initiative in the working environment, often associated with a people focus. Use of information society technologies, particularly interactive multimedia products, encourage a particular kind of personal development which involves the individual in "learning to learn" in new ways. This leads to a better understanding of one's role in the company, for example, or to a new creativity and initiative in a school group learning environment. A particular challenge faces teachers who may need to re-learn their role in a new learning environment.

19. The flexibility of information society technologies enables lifelong learning to take place

in a wider cultural context, where greater understanding is a key element. European cultures are significant in their influence on the development of a number of other cultures world-wide. Lifelong learning should be encouraged in schools, universities and working life to stimulate interest both within Europe of its cultural heritage, so furthering understanding and cohesion, and outside Europe, especially those regions with any historical link with Europe.

20. There is thus a need for broader-based, more creative teaching methods, which encourage a societal and economic evaluation of learning, leading to better quality of life in general. Any tendency to concentrate overmuch solely on the media rather than the message should be avoided, as this may continue to draw Europe along behind the US. Rather, technologies should be appropriate for the new learning environment, which begins with the means of learning basic skills, the content of this learning and its presentation.



#### ICT SKILLS CERTIFICATION

21. A system of accreditation is needed which will track an individual's progress in acquiring core ICT skills, and verify their progress. The aim would be to provide an on-going lifelong learning qualification which would increase employability, making an individual increasingly mobile within business and across the community, and more able to play a part in the development of the information society. It would clarify to the user what standard a potential employer is looking for, and would give structure to a new area of learning.

22. An example of such skills accreditation exists in the form of a European Computer Driving Licence (ECDL), adopted by a number of multinational companies through CEPIS (Council of European Professional Informatics Societies). The licence is used to clarify the needs of both

staff and employers in its clear definition of essential computer skills, and therefore acts as a performance benchmark. The ECDL functions on the basis of a skills card, which records progress against seven modules based on mainly practical skills. The ECDL operates through local test centres arranged by Member Organisations within each participating country.

#### AFFORDABLE ACCESS

23. Access for all in lifelong learning ICT's implies balancing a market approach and social needs in new learning systems which are cost-effective, and able to compete with international offers of education. In particular, high bandwidth network connections within European Member States, between Member States, and beyond Member States are needed. Widespread high bandwidth coverage means that standardisation and economies of scale are both more possible and likely, although means of retaining local content input is needed. Costs of connection and access should be affordable, bearing in mind maintenance and replacement needs.

24. In the USA, from January 1998 onwards, for example, schools will be able to access telecommunications services by paying a reduced tariff (up to 90% less for the least-favoured schools). A Universal Service Fund and the telecom operators will make up the difference.

#### EMERGING ISSUES FOR WG 6

25. It is clear that the examination of Commission activity in lifelong learning will need to continue with a sharpened focus, to concentrate on the areas of Commission activity likely to bear the most fruit. There are now a number of avenues of exploration possible:

### FIFTH FRAMEWORK PROGRAMME OF RESEARCH AND TECHNOLOGICAL DEVELOPMENT.

26. Lifelong learning-related research will help the transition from the teacher-centred pedagogy of the past to genuinely learner-centred activity. It will stimulate a user-friendly information society that will fulfil citizens', companies' and teachers'/learners' needs in the medium-term. Seamless implementation of quality educational technologies is needed that will balance efficiency, cost-effectiveness, and equity.

### THE ACTION PLAN "LEARNING IN THE INFORMATION SOCIETY"

27. This plan is in the course of implementation, seeks to increase the synergy between European and national levels in promoting the use of new technologies in school education. Training will also be covered.

### STRUCTURAL FUND REFORM IN 1998-99.

28. With only 2% of Structural Funding allocated at present to information society initiatives, the challenge concerning the infrastructure and services for lifelong learning deployment in Europe's less-favoured, outer-lying regions is considerable.

### CENTRAL & EASTERN EUROPEAN COUNTRIES

29. The Central and Eastern European Countries and the EU need to have access to interconnected networks, to be able to share experience and be able to trade with each other, as part of the CEEC's pre-accession strategy.

30. Having examined what is happening now in EU initiatives and good practice in Member States, Working Group 6 has been able to compare this with its own appreciation of what is needed for effective lifelong learning in the information society. The resulting analysis has enabled Working Group 6 to identify what issues it should explore further in work to come, with the aim of optimising the balance between Commission and Member State initiatives. Preliminary priorities are outlined below.

### THE PARTICULAR IMPORTANCE OF SUSTAINABILITY

31. The elements outlined above point to a model of an information society where the contribution of lifelong learning provides the

greatest benefits to the greatest number of people. On the one hand, concerning the world of work, both younger and older individuals are trained in new ways so that they are able to make an economic contribution to working life, or are able to enhance the quality of their daily occupations. On the other hand, concerning the rest of our lives, individuals are provided with new learning materials and new ways of learning, in order to enhance their life experience, and their quality of life, through cultural appreciation and use of leisure time. These are the essentials of an information society where lifelong learning contributes to its equitable, or sustainable, development.

32. If "lifelong" learning is indeed taken to mean all forms of learning - formal and informal, system-based or experiential - where one form of learning builds on the next throughout a whole lifespan, then the tools of the information society increase the ability of people to learn throughout their lives, they increase the appeal of learning, and they increase the flexibility of its provision.

33. In a time of globalisation of economies and the search for competitiveness, learning enables individuals to contribute economically: the better the learning, the greater the economic contribution and perhaps the ability to achieve a competitive edge. Conversely, without learning, the sustainability of the economic contribution is threatened. Lifelong learning increases employability, therefore increases sustainability of employment. Lifelong learning can improve well-being at work.

34. Lifelong learning would aim to provide skill levels sufficient to meet existing market demand in the world of work, and to create new market opportunities. The following are a few suggested specific links between the world of work, lifelong learning and a sustainable information society.

- In this context, consideration needs to be given to what skills are needed, whether information society technologies (IST) skills or whether IST should be used to fulfil other skill needs. The present and future IST priorities in training for work need to be identified, as do the related technologies which would be necessary to provision of the training.
- Where globalisation works in tandem with localisation in economies, learning in IST to

bring about innovation is a key factor. This in turn is directly linked to the nature of organisational re-engineering.

- In an economy increasingly driven by the search for knowledge in order to gain a competitive edge, more and more value is attached to IST skills. This implies the need for IST qualifications in recognition of the potential contribution of IST-skilled individuals (see above).

35. Concerning our lives beyond work or our daily occupations, lifelong learning can be seen as a way of life, as noted above, where - through the encouragement of ICT's - individuals are moulded and re-moulded on a continuous basis. This is a personal development process, where "learning to learn" in new ways fosters a new creativity inside or outside work, on a group basis or individually. Learning in this context can be the basis of an economic contribution, but is equally a social and cultural force. The following are suggested specific links between lifelong learning, leisure time, and a sustainable information society.

- Lifelong learning would aim to provide a certain level of lifelong learning for all, and to encourage greater valuing of the individual.
- Schools, colleges, and universities are the mainstay of lifelong learning. They need affordable access to IST if they are to provide for attractive, flexible learning, and therefore help mould creative people for a rich working life and leisure time. Such institutions will increasingly interrelate with other organisations in their localities which can provide enhanced learning and cultural facilities. This learning in a community context will benefit from IST provision in the learning institution, in the library or museum, and in the home.
- The increasing value placed on IST skills noted above links sustainability with increased employability, as a result of possessing such skills. Lifelong learning through use of IST to remain up-to-date also adds to one's well-being, and therefore the capacity to contribute in the workplace or to enhance overall life experience.

36. Consideration will need to be given as to how to take forward the concept of a sustainable information society. It might be based on

- the development of new ways of working

- evolving patterns of education, training, and lifelong learning

- sustainable socio-economic development

37. At the threshold to the 21st century, Europe needs a 'Model Europe', equivalent to a concept for a sustainable human-centred information society. Cross-impacts between the above will need to be studied. Synergy between policies for employment, education, environment will need to be looked for, combined in an integrated effort towards sustainability on European, national, and regional level. Policy recommendations will need to be worked out, and actions proposed, to be taken by the Commission, by other governmental key European players on national and regional level, by industry, unions etc. in a concerted approach.



## RECOMMENDATIONS

### AN AWARENESS PROGRAMME

38. There is no doubt awareness-raising needs to continue of the advantages and the risks of the information society to development of life-long learning.

39. Education continues to receive the new technologies with a certain inertia (they are seen as a threat). Or, new technologies are misunderstood (there is confusion, for example, in whether the technology itself should be taught, or whether the technology is to be used as a teaching aid). Where new teaching methods are beginning to emerge, often the content is not available to match. The organisational impact is perhaps the greatest challenge. On the other hand, best practice from "learning companies" is ripe material for dissemination.

40. It is in the area of awareness-raising that Working Group 6 thinks it could play a useful role, particularly as a communicator of ideas and views between European, national and regional levels, and between the variety of actors it represents.

41. Our group made proposals, at the end of Year 1, for a proposed Autumn 1996 campaign to raise the profile of "ICT in Education, Training & Learning" issues amongst the education community across the European Union. Allowing for the fast moving circumstances we live in, it remains the case that early action could profitably include :

- production and distribution of an Education, Training & Learning focused leaflet to be published by the Information Society Forum;
- production of a short "good practice" video, or CD-ROM;
- in addition to the dissemination of information about European Union documentation through its WWW servers, ISPO should bring together Web content consisting of indexes and Web pointers to "ICT in Education, Training & Learning" materials hosted by Member State departments and organisations.

### A WEB DIRECTORY OF MEMBER STATE INITIATIVES

42. We should prompt the following to provide Web references that ISPO would use to create a "one stop shop" of information which would in

itself be a valuable indicator of the powerful use of ICT as an aid to research:

i) Each education department/ministry in the member states with a specific request for summary information on developments and programmes for future developments in the member states.

ii) Teachers' organisations.

iii) Head teacher/college manager representative bodies.

iv) The employment and industry departments of each of the member countries concerned with the transition from compulsory education into the work place is not adequately enabled in terms of ILT developments in most countries.

v) Organisations such as CEDEFOP and the European Training Agency.

### A CONFERENCE, LATE SPRING 1998

43. As a central feature of our group's Year 3 activity it is recommended that there should be, within the period of the UK Presidency, an event which:-

- builds on the request of the Commission that there should be an IS Day as an "operational" outlet of ISF work
- combines with the 'best practice' emphasis of Working Group 6
- provides an opportunity to reach the users/practitioners and encourage awareness-raising

44. A suggested format for the event is:-

**Day 1 Demonstration of IS best practice (all sectors), contributions from users**

**Day 2 Issues for lifelong learning, European overview including work of WG 6, examples of policy and practice in the Member States**

**Day 3 IS Day, work of the Information Society Forum, EU overview, CEEC contribution**

45. The objective of the conference should (as originally proposed as a long term recommendation at the end of Year 1) be to:-

Seek to establish a European network of "Learning Community" projects in which schools and colleges work alongside regional

universities, and with parents and a variety of Public/Private/Voluntary sector organisations, to explore and exploit the potential of Information And Communications Technology to assist a process in which "The Information Society Becomes The Learning Society".

# **ANNEXES**

## European Ministerial Conference

### Ministerial declaration

Bonn 6-8 July 1997

The Federal Republic of Germany and the European Commission have jointly organised the European Ministerial Conference entitled "Global Information Networks: Realising the Potential", held in Bonn from 6-8 July 1997.

Ministers from the Member States of the European Union, members of the European Free Trade Association and countries of the Central and Eastern Europe and Cyprus, members of the European Commission, distinguished guests from the United States of America, Canada, Japan and Russia and representatives from industry, users and European and international organisations have attended the Conference.

The objective of this conference has been to broaden the common understanding of the use of Global Information Networks, to identify barriers to their use, to discuss possible solutions and to undertake an open dialogue on further possibilities for European and international co-operation.

The participating Ministers from the Member States of the European Union, Ministers of countries of the European Free Trade Association and Ministers of countries of the Central and Eastern Europe and Cyprus hereby DECLARE:

#### AN OPPORTUNITY FOR ALL

1. Ministers consider the emergence of Global Information Networks a highly positive development. This is an issue of crucial importance for Europe's future and an opportunity for all, businesses small and large, citizens and public administrations.

2. Ministers recognise that advances in Global Information Networks have the potential to affect every aspect of our society - from commerce to health care, from education to leisure, from the practice of government to the exercise of democracy. They consider that opportunities offered by Global Information Networks must be seized most energetically and speedily in order to reap the benefits in terms of competitiveness, growth and employment. In this respect, they note that the Internet is already starting to create new busi-

nesses, new high-value services and, most importantly, new jobs.

3. They stress the special characteristics and fundamentally transnational nature of the Internet, the most striking example of such networks, which set it apart in almost every way from traditional means of communication. They note the pioneering role played by the European scientific community in the development of the World Wide Web, and by European companies and users in its global growth.

4. Global Networks represent a powerful influence in the social, educational and cultural fields - empowering educators, lowering the barriers of entry for the creation and dissemination of content in different languages, offsetting the effect of distance for more remote users and offering users access to ever richer sources of information.

5. Equally importantly, they note, Global Information Networks give practical reality to freedom of expression and access to information. Global Information Networks contribute to democracy by improving communication between citizens and their administrations and facilitating active participation in the democratic process.

6. Ministers recognise that these new opportunities come with new challenges. In particular the sheer pace of development may create technological and legal uncertainties. Such concerns, if not answered, will delay investments by businesses and slow down take-up by users.

7. They call therefore upon all European actors - businesses, consumers and governments - to work constructively together to answer these challenges and fully realise the economic and social potential of Global Information Networks. In particular, they commit themselves to maximise opportunities for the creation of new jobs, the exploitation of new forms of employment (such as teleworking), the maintenance of social standards, greater economic integration and social cohesion. They consider it essential to avoid a division between information "haves" and "have nots" in Europe and globally.

## FOSTERING ECONOMIC GROWTH: DEVELOPING CONTENT AND COMMERCE

8. Ministers recognise the considerable potential of Global Information Networks to foster economic growth, in particular through more efficient communications, the development of new forms of content and the take-off of electronic commerce. They consider that seizing the opportunities is vital for Europe's future competitiveness and stress Europe's commitment to play its part in the dynamic expansion of global electronic commerce.

9. Ministers recognise that content is an important sector in its own right as well as a key driver of electronic commerce. They consider, therefore, that the provision of high-quality European content and services constitutes a high economic and industrial priority. They stress that rich and diverse content and services will not only answer the needs of European consumers, but, in a digital environment which favours diversity, prove equally appealing to users in other parts of the world.

10. Ministers note with satisfaction the commitment of European companies - large operators as well as innovative SMEs - who have harnessed considerable expertise and investment to position themselves successfully on global multimedia and information markets. These initiatives should be vigorously encouraged. Rapid take-up of use of Global Information Networks, especially by SMEs, is of crucial importance to their competitiveness.

11. Ministers underline the opportunities which electronic commerce offers for both European enterprises and consumers. For enterprises, it brings greater efficiency, increased responsiveness and cost reductions. It allows small companies and newcomers on the market to extend their reach far beyond what was previously possible. Ministers recognise that European consumers also stand to gain from wider choice, increased availability of specialised products, more comprehensive product information, lower costs and more responsive service.

12. Ministers stress the importance of Internet domain names for the development of electronic commerce. They support the principle of an internationally recognised and transparent system of management of the Domain Name System. They consider it imperative to ensure adequate European representation in this system.

## A KEY ROLE FOR THE PRIVATE SECTOR

13. Ministers recognise the key role which the private sector is playing in the emergence of Global Information Networks, in particular through investments in infrastructures and services.

14. Ministers consider that the expansion of Global Information Networks must essentially be market-led and left to private initiative. They consider, in particular, that private enterprise should drive the expansion of electronic commerce in Europe.

15. Ministers note with satisfaction the pioneering role taken by the European industries, notably through the Trans-Atlantic Business Dialogue, in the process leading to WTO agreements on the opening of global communication markets and to the removal of tariff and non-tariff barriers on Information Technology products. They call upon all actors to build on this momentum and to take a similar leading role in the development of new information content and electronic commerce, thus ensuring that Europe fully benefits from the shift from infrastructure to content.

16. Ministers note with satisfaction the key role taken by the industry itself in the process of standards setting. They consider that technological and commercial interoperability in a competitive environment is a vital factor for the future development of Global Information Networks. They therefore encourage European companies not only to participate actively in international standardisation efforts, but also to leverage specific European strengths at a global level.

17. Ministers underline the crucial role of entrepreneurship in the emergence of Global Information Networks. Ministers therefore challenge European industry to mobilise their considerable resources in this field and to maximise innovation and creativity with the aim of creating wealth and employment.

18. Ministers recognise that access to capital, notably to "seed money" and venture capital, is crucial for new, high-growth, information business companies. They call upon the financial community to provide promising European start ups and SMEs, with flexible, efficient mechanisms to raise capital, in particular in the early and intermediate stages of their development. They will encourage innovative ways to channel investment into this key sector.

19. Ministers stress the role which the private sector can play in protecting the interests of consumers and in promoting and respecting ethical standards, through properly-functioning systems of self-regulation in compliance with and supported by the legal system. Ministers encourage industry to implement open, platform-independent content rating systems, and to propose rating services which meet the needs of different users and take account of Europe's cultural and linguistic diversity. They note that the EU Council Resolution of 17 February 1997 on illegal and harmful content on the Internet strongly supports such an approach.

## TWO IMPORTANT ROLES FOR GOVERNMENTS: PROVIDING THE FRAMEWORK AND STIMULATING NEW SERVICES

### PROVIDING THE FRAMEWORK

20. Ministers recognise that the public sector will need to play an active part in order to ensure that Global Information Networks fulfil their potential.

21. Ministers agree that any regulatory framework for electronic commerce should be clear and predictable, pro-competitive, strike the right balance between the freedom of expression and the protection of private and public interests, in particular the protection of minors, and ensure consumer protection.

22. Ministers stress that the general legal frameworks should be applied on-line as they are off-line. In view of the speed at which new technologies are developing, they will strive to frame regulations which are technology-neutral, whilst bearing in mind the need to avoid unnecessary regulation.

23. Ministers agree to work towards the establishment of such frameworks, which will give consumers confidence and encourage business to invest.

24. Ministers support the principle of non-discriminatory taxes on use of Global Information Networks. They agree that tax issues of electronic commerce call for international co-operation and where appropriate co-ordination in order to avoid distortion of competition.

### STIMULATING NEW SERVICES

25. Ministers encourage the use of networks in public services such as education, health care and the environment. They will promote their

use so as to foster "electronic democracy" by providing information to and facilitating responses by the citizen. They will use networks to bring citizens and businesses closer to the administration, for instance by allowing completion of administrative formalities electronically.

26. Ministers recognise the key role that competition plays in stimulating new services and also the importance of encouraging provision of access to Global Information Networks and services at affordable prices. They will also work towards easy and wide access for all through public facilities such as libraries. They stress that public sector information represents considerable value for citizens and industry and will be a substantial driver of Global Information Networks. They will work to ensure its wider availability through the use of new technologies.

27. Ministers will leverage the procurement activities of the public sector, itself a major purchaser and user of Global Information Networks, in order to improve the quality of services to the public, the effectiveness of public administrations, and the participation of citizens. They will encourage the creation of public/private partnerships in order to facilitate the development of new technology and services.

28. Ministers will stimulate research and development so as to foster innovation and create a user-friendly information society. Ministers urge research centres to further co-operative research using Global Information Networks, by linking up throughout Europe and interconnecting to the "Global Research Village".

### THE NEED TO BUILD CONFIDENCE

29. Ministers recognise that it is crucial to build trust and confidence in Global Information Networks by ensuring that basic human rights are respected and by safeguarding the interests of society in general, including producers and consumers, particularly through fair and transparent offers of service. They underline the need to ensure that rules on the applicable law and the competent court, particularly in cases involving consumers, are appropriate.

### PROTECTION OF CREATIVITY AND INVESTMENT

30. Intellectual property rights, in particular copyright and related rights, play a key role in

encouraging creativity and the availability of a critical mass of content and in enabling electronic commerce on the Global Information Networks.

31. Ministers will work towards a rapid completion of suitable adaptations to the legislative framework for copyright and related rights in order to recognise the new phenomena of the Information Society and bring about a coherent and favourable environment for creativity and investment in Europe.

32. Ministers welcome the two WIPO Treaties adopted in December 1996 and will work towards their rapid ratification and entry into force. Ministers emphasise the need for full and timely implementation of the TRIPS agreement.

33. Ministers will also work towards global consensus, through active involvement in current international negotiations, notably in the framework of WIPO, on the issues under negotiation (such as protection of audiovisual performances, sui generis protection of databases requiring substantial investment, and trademarks and domain names).

34. Ministers reiterate their commitment to fighting piracy, including piracy in the area of conditional access services. They commit themselves to reinforcing international co-operation in that area, and to pursue this form of criminality as a matter of priority.

#### SECURITY AND CONFIDENTIALITY

35. Ministers consider that Information Security is one of the key issues for the emergence of the Global Information Society and recognise the importance of the availability of strong encryption technology for electronic commerce.

36. They will work to achieve international availability and free choice of cryptography products and interoperable services, subject to applicable law, thus effectively contributing to data security and the confidentiality of personal and business information. If countries take measures in order to protect legitimate needs of lawful access, they should be proportionate and effective and respect applicable provisions relating to privacy. Ministers take note of the recently agreed OECD Guidelines on Cryptography Policy as a basis for national policies and international co-operation.

37. Ministers strongly encourage industry to promote the development of secure technologies for information and communication systems.

#### DIGITAL SIGNATURES

38. Ministers emphasise the need for a legal and technical framework at European and international level which ensures compatibility and creates confidence in digital signatures, a reliable and transparent way of ensuring data, document and message integrity and authentication both for electronic commerce and for electronic transactions between public bodies and citizens.

39. Ministers call upon industry and international standards organisations to develop technical and infrastructure standards for digital signatures to ensure secure and trustworthy use of networks and respect privacy and data protection requirements.

40. Ministers will initiate the necessary steps to remove barriers to the use of digital signatures in law, business and public administration, and to provide legal and mutual recognition of certificates.

#### RESPONSIBILITY OF THE ACTORS

41. Ministers underline the importance of clearly defining the relevant legal rules on responsibility for content of the various actors in the chain between creation and use. They recognise the need to make a clear distinction between the responsibility of those who produce and place content in circulation and that of intermediaries.

42. Ministers stress that the rules on responsibility for content should be based on a set of common principles so as to ensure a level playing field. Therefore, intermediaries like network operators and access providers should, in general, not be responsible for content. This principle should be applied in such a way that intermediaries like network operators and access providers are not subject to unreasonable, disproportionate or discriminatory rules. In any case, third-party content hosting services should not be expected to exercise prior control on content which they have no reason to believe is illegal. Due account should be taken of whether such intermediaries had reasonable grounds to know and reasonable possibility to control content.

43. Ministers consider that rules on responsibility should give effect to the principle of freedom of speech, respect public and private interests and not impose disproportionate burdens on actors.

#### EMPOWERING THE USERS

##### ENABLING PARTICIPATION BY ALL

44. Ministers are in favour of actions to encourage awareness and electronic literacy among all age-groups and sections of society. Ministers uphold the right of users to decide how they wish to use Global Networks as part of their daily lives.

45. Ministers stress the importance of wide accessibility of information technology to citizens of both sexes and of all ages and backgrounds, including those in remote regions and disadvantaged groups, e.g. the long-term unemployed, people with disabilities and elderly people. Ministers will encourage actions to make content available in users' own languages thus fostering linguistic diversity.

##### ELECTRONIC LITERACY AND EDUCATION

46. Global Information Networks can achieve their maximum potential if all citizens and enterprises not only have the means of accessing the services provided, but are also able to use them with confidence. Ministers therefore call on industry to accelerate development of user-friendly interfaces in order to simplify usage, raise computer literacy and tackle the underlying reasons for limited and/or reluctant use of the networks. Users' needs vary from the simple to the sophisticated and they should be able to purchase equipment and software appropriate to those needs.

47. Ministers will stimulate developments in the educational system and in professional training systems so that information made available on the networks is exploited as part of the learning process at all levels, from primary to post-graduate, as well as for lifelong learning.

48. Ministers recognise the key role which teachers can play in preparing young people for the Information Society. They underline that special efforts should be made to enable them to integrate multimedia content into their teaching programmes from primary school onwards. Starting from an early age children should undergo "network literacy" training, to familiarise them with using new communication technologies and Global Information Networks.

#### DATA PROTECTION

49. Ministers affirm strongly that personal data of users of Global Information Networks should only be collected and processed where the user has given informed consent or where such collection or processing is permitted by law, and that appropriate legal safeguards and technical tools should be provided to protect the user's right to privacy.

50. Ministers agree to work together towards global principles on the free flow of information whilst protecting the fundamental right to privacy and personal and business data, building on the work undertaken by the EU, the Council of Europe, the OECD and the UN.

51. Ministers recognise the principle that where the user can choose to remain anonymous offline, that choice should also be available online.

52. Ministers urge industry to implement technical means for ensuring privacy and protecting personal data on the Global Information Networks, such as anonymous browsing, e-mail and payment facilities.

#### FACILITATING USERS' CHOICE

53. Ministers urge the software industry to provide the necessary tools to enable users to select categories of content which they do - or do not - wish to receive so as to deal with information overload and undesired or harmful content.

54. Ministers therefore welcome the development of powerful services and software tools which enable information search and retrieval, and delivery directly to the user of specifically requested information.

55. Ministers stress the importance of the availability of filtering mechanisms and rating systems which allow users to decide on categories of content which they wish themselves, or minors for whom they are responsible, to access.

#### BUILDING ON EUROPE'S STRENGTHS

56. Ministers consider that Europe's many strengths will provide a crucial contribution to the development of Global Information Networks. Building on these strengths should be a leading consideration.

57. Ministers recognise that Europe's strong base in technology and infrastructure will con-



stitute a strategic advantage. They note, in particular, Europe's successes in developing key standards for Global Information Networks, its leadership in the early deployment of advanced digital telecommunication networks and in the development of essential electronic commerce technologies such as smart cards. They recognise the crucial role played by the liberalisation of telecommunications in Europe in the emergence of Global Information Networks, and in the development of electronic commerce in Europe. They commit themselves to a full and timely opening of telecommunication markets, in conformity with previous commitments and international agreements.

58. Similarly, Ministers recognise that content development is another of Europe's strengths. They consider that the cultural and linguistic diversity, which is at the heart of Europe's common heritage, also constitutes a definite commercial advantage in the new environment of Global Information Networks. In this perspective, Ministers will encourage actions aiming at disseminating cultural content, the development and use of IT tools and methods to facilitate the transfer of information between languages, as well as current international standardisation efforts to allow languages with different character sets to be used over networks.

59. Ministers reaffirm the need to stimulate a strong and diverse European content and services industry. They note with satisfaction that European multimedia companies are already harnessing considerable resources and expertise to launch high-value information-based services and products on Global Information Networks. They also note that highly innovative European SMEs, specialised in such diverse fields as multimedia production, advanced language processing and information search, are positioning themselves successfully on global markets. Ministers will actively promote innovation in content and services through active cross-fertilisation between audiovisual, telecommunications and publishing companies in Europe. Ministers challenge the European industry to build further on such opportunities, and governments to encourage such initiatives concretely.

60. Ministers stress the contribution which Global Information Networks can make to the process of European integration. The free flow of information and the removal of time and distance as handicaps allow businesses, con-

sumers and governments of all European countries, in particular those aspiring to membership of the European Union, to have access to the same information on the same terms, and to be providers of information and services as well as users. Increased competition in the market will reduce the cost of the necessary investment in infrastructure and the cost of using the network.

## STRENGTHENING THE INTERNATIONAL DIMENSION

61. Ministers re-affirm the fundamentally transnational nature of Global Information Networks. They note, in particular, that electronic commerce is, by its very nature, global. Ministers reaffirm that international co-operation is essential to tackle the barriers limiting complete realisation of the potential of Global Information Networks and to ensure that the full benefits are available not only within individual countries, but also throughout Europe and throughout the world.

62. They support interconnection of European networks and those of industrialised and developing countries, co-operation actions in particular with Central and Eastern European Countries and Mediterranean countries and collaboration in the context of the G7 pilot projects, in particular the Global Marketplace for SMEs.

63. Ministers recognise that recent landmark agreements - such as the WTO Agreement on Basic Telecommunications, the Information Technology Agreement and the bilateral Mutual Recognition Agreements on certification procedures - will have a direct positive impact on Global Information Networks, by stimulating competition, lowering costs and creating new opportunities, particularly in the field of electronic commerce, for the benefit of all users.

64. Ministers advise that full use be made of multilateral fora to strengthen international co-operation, while ensuring that their activities are properly co-ordinated. In this spirit, Ministers will fully co-operate together and within the Council of Europe, the OECD, the WTO and other appropriate international fora, in order to identify and dismantle existing obstacles to the use of electronic commerce, to prevent the establishment of new barriers, and to establish a clear and predictable legal framework at national and, where appropriate, European and global levels.

65. Ministers recognise the specific challenges posed by the misuse of Global Information Networks. They consider, therefore, that international co-operation is essential in this area. Ministers will actively encourage the reinforcement of police and judicial co-operation, particularly in the area of technology training and mutual assistance, to prevent and combat illegal content and high technology crime. They support the establishment of international networks of hot-lines.

66. Ministers welcome the recent initiative of the OECD aiming at a comparative study of national legislations and an exchange of experiences on the issue of illegal content on the Internet. Supporting a multilateral as well as a European approach, they consider that the international dimension is crucial in the building of trust and confidence in the Global Information Networks.

#### FOLLOW-UP

67. Ministers request the Information Society Forum and the EU/CEEC Forum to consider actions to increase public awareness across Europe such as establishing an "Information Society Day" at the European level.

68. Ministers welcome the suggestions made by several countries to organise specialised events during 1998 in order to take specific issues addressed during this Conference further.

69. Ministers undertake to further develop their national strategies and action plans and strengthen their co-operation at the European and international level to promote the provision and use of Global Information Networks based on the principles of this Declaration.

## European Ministerial Conference

### Users's declaration

Bonn 6-8 July 1997

#### PUTTING PEOPLE'S NEEDS AT THE CENTRE

##### GENERAL CONSIDERATIONS

The Global Information Society is in its infancy. Top priority must therefore be given to measures encouraging its rapid development, which in turn will contribute to economic growth, increased employment and improved access to information for all.

The Information Society is not only characterised by a radical change in technology, the most visible manifestation of which are Global Information Networks, but also by its high potential to strengthen social and democratic values. However, if this potential is really to be profited from, "sovereignty in the Information Society must", as stated by the Information Society Forum, "belong to the people, their preferences should determine its uses and how the new technologies will be applied". The readiness to accept the Information Society and to endorse and partake the incontestable advantages it offers people depends therefore essentially on whether citizens feel that their particular needs and interests are being taken into account and met. In this context, new job opportunities are considered essential.

Users are not homogenous. They range from individual private consumers to large enterprises, and encompass a wide range of cultural diversity. Consequently, users' needs vary and should not be treated as if they were identical. One example may be individual users who are in a much weaker position than large commercial consumers. If the Information Society is to be truly inclusive these differences and especially the particular position of individual users with respect to large commercial consumers must be taken into account. Users should be the driving force in the development of Global Information Networks.

The following statements will take into account user viewpoints by treating specific issues rather than individual user groups.

#### PUTTING PEOPLE AT THE CENTRE OF THE INFORMATION SOCIETY

1. Public policy should aim to eliminate the potential for social exclusion and to ensure that all European citizens are able to enjoy the benefits of the Information Society without threatening traditional social and cultural values. As stated by the Information Society Forum: "Sovereignty in the Information Society must belong to the people – their preferences should determine its uses and how the new technologies will be applied." The positive potential of technology to overcome existing societal divisions' needs to be seen as a priority for all parties involved. If this goal is not proactively pursued the results could be highly detrimental in further polarising the divisions within society.

2. Global Information Networks and their technological realisation have the potential to create a more inclusive society based upon access to information. Global Information Networks can enable marginalised groups - such as people in remote areas, people with disabilities, people from ethnic minorities - to participate more fully in everyday life through increased social contact, training, and job opportunities available due to technological change. However, this process needs to be fostered through positive action which ensures access and training.

#### DIALOGUE , STIMULATION AND PROMOTION

3. Users are well aware that public policy makers and industry have already gone to great lengths in stimulating and developing the Information Society and Global Information Networks. Currently, the technological side is leading the process and stronger user participation is considered essential to bridge the current gap and ensure successful deployment.

4. Users call for effective and accessible procedures to allow open, constructive consultation between users, providers, the industry (including SME's) and policy makers. It should be understood that users are in favour of further development and are very interested in

what is happening in the IS, but need to be kept in touch with the process.

5. Promotional activities and projects geared towards specific user groups need to be encouraged to overcome fears of users which mainly stem from lack of information.

6. Innovation should equally be stimulated by financial encouragement, will full exploration of all possible options.

#### AFFORDABILITY AND ACCESS

7. There is a need to ensure that Information Society services are not only available to a small privileged group, who will be able to afford them. In the short term, the process should be encouraged by the development of public access points in local communities, for example in public libraries.

8. The present drives to develop a concerted concept for Universal Service need to take account of the rapid changes in technology and users' needs. Clearly a more dynamic approach is required in light of the convergence of technologies.

9. There is a need for a much higher degree of standardisation and user friendliness in the design of new services.

#### PUBLIC AUTHORITIES

10. Official information from public authorities should be instantly available electronically. The public right of access to official information should besides be guaranteed by a legislation securing Freedom of Information. In case government services are delivered electronically, non electronic-forms of delivery of these services should be maintained. The model of a democratic Information Society must also include a non-commercial area of information aimed at improving the participation of the citizen.

11. It is vital that public authorities provide a favourable environment, which by necessity should include a reliable legal and fiscal framework. This will mean a European framework within which each National Government will be able to adapt its regulation according to national priorities for building up the confidence of the users and promoting the acceptance of the Information Society. Governments and international organisations should agree on a series of binding global principles.

#### LOCAL AND REGIONAL AUTHORITIES

12. Local and regional authorities are the prime government interface with citizens and are key players in the fight against social exclusion, by also being the experimentation and demonstration platform for public use of new technology. Consequently, Information and Communication Technology cannot simply be regarded as tools for improving "value for money" or the efficiency of public administrations, but should rather be seen as opportunity for improving the quality of living and working.

#### SECURITY, CONFIDENTIALITY & DATA PROTECTION

13. User information needs to be protected. This is a necessary prerequisite if users are to feel confident and embrace the Information Society and must include data protection at the workplace.

14. It is therefore essential to apply and specify the existing data protection principles in particular in view of the threats arising out of the frightening potential for misuse of digital traces left by the use of on-line services and the collection of marketing data for instance by intelligent search agents bringing together from thousands of Websites and Newsgroups all the available information about an individual.

15. Individuals should exactly as in the off-line world have the right to preserve their anonymity. Information should always be collected for a specific and legitimate purpose, known and agreed upon by the persons concerned and subsequently used only for aims not incompatible with the initial collection purpose. Users should have the right to choose the cryptographic method and cryptographic level most appropriate for their specific purpose.

16. The Industry should be encouraged to develop and use technologies and standards which minimise the need for processing personal data by allowing to anonymise the electronic traces wherever appropriate. In particular, anonymous payment systems and identity protectors need to be offered. Secure systems of transmission of data over networks must be available to the consumer at affordable costs.

#### INTELLECTUAL PROPERTY AND MEDIA PLURALISM

17. Strict ownership rules must apply to all providers of services regardless of the transmission medium. Nevertheless, intellectual

property rights should not be used as a shield to engage in anti-competitive practices by blocking access to public domain information. Within national boundaries no single operator should be able to control considerable portions of the market (30 %) in which they operate. In this context, the market should be defined on a functional basis (regional, national, etc.).

#### RELIABILITY OF SERVICES AND INFORMATION

18. The content of Global Information Networks needs to be fostered. True value-added content, reflecting the rich diversity of Europe, will not be created unless the market demands and advocates it. The user and consumer must therefore be made aware of the benefits, which can be drawn from these networks.

19. The citizens' rights to freedom of expression should be maintained when treating content rules. Policy should ensure that existing general law is made applicable to new information services. New rules where they are needed need to be flexible and non-intrusive. The ethical responsibility for the content and quality of information rests with content providers themselves and therefore must be discussed with users in a detailed manner. The Industry should be encouraged to develop filtering and blocking technologies to empower parents, teachers, and others to block content that is inappropriate for children.

20. The current convergence of the market should be monitored carefully in order to anticipate anti-competitive behaviour on the supplier side through timely regulation. Action must be taken to avoid creating market conditions which will lead to the monopolisation of the Information Society by some players in the game.

#### CONSUMER PROTECTION AND REGULATION BASED UPON AN EFFECTIVE CONSULTATION PROCESS

21. There is clearly a need for a European framework within which each National Governments will be able to formulate regulation adapted to national priorities. Regulation is absolutely fundamental to creating lasting confidence among users. Self-regulation should, where appropriate, be encouraged. It is critical that this process is coupled with the need for protection of the individual.

22. Users and suppliers must become partners towards the same end. Simple co-existence is

not enough – one can not exist without the other. Transparency of the process is therefore the key.

#### EDUCATION AND TRAINING

23. The changing world demands to meet the needs not only of those who are young and still in school but increasingly lots of others who are older and need to acquire new skills, but have little opportunity to do so through conventional education and training systems. There is an urgent need to address the potential job displacements, which may result from technological developments. Moreover, people need to be sure that the labour market will offer ample and fulfilling job opportunities in a fundamentally changed environment.

24. The primary guarantee for continued job opportunity is adequate qualification of individuals. Priority must therefore be given to the creation of more training and skill developing opportunities, permitting to use new and emerging networks and technology. These efforts should be geared in such a way that groups which find technology less appealing or even frightening are also addressed. A proactive approach is needed towards equipping schools, and vocational training systems, so that they have the capacity to play an active part in building the Information Society.

25. There is a need to optimise the balance and complementarity between Commission initiatives (in particular Structural Funds) and those of National Governments. The challenge is to intervene in ways that can turn the present vicious circle into a virtuous one of self-sustaining development, helping the transition from the teacher-centred pedagogy of the past to genuinely learner-centred activity.

26. The energy that many National Governments are putting in to help get their schools 'on-line' is encouraging, but there's so very much to do! Perhaps it's a time for radical measures! Reform of the Structural Funds might bring appropriate levels of investment to the most important 'structure' of all, the infrastructure through which our people learn to cope with their changing world.

#### REDRESS AND COMPLAINTS MECHANISMS

27. The lack of accountability by suppliers is still frightening many users and inhibiting the more rapid diffusion and take-up of the elec-

tronic commerce and the use of Global Information Networks in general. The virtual world often makes the consumers feel as if they have nowhere to turn in case of problems. Open and understandable redress and complaint systems are therefore necessary to increase and maintain the confidence in the new environment. Effective mechanisms must be determined and placed in a coherent framework.

#### ELECTRONIC COMMERCE

Global Information Networks will only be able to realise their positive potential when individuals realise the value-added these Networks can provide and have confidence in them. The readiness to embark on electronic commerce but also to employ any other technology application typical of the Information Society depends crucially on the confidence of the users. Users' needs need to be taken into account as a matter of urgency in this area and in particular with regard to: advertising and marketing; contract terms; pricing and billing; security of payments; security of information; complaints and redress mechanisms; regulation and enforcement.

## Attendance List of the User Meeting

<u>Name</u>	<u>First Name</u>	<u>Organisation</u>
Balarev	Christu	Ministry of Education and Science (Bulgaria)
Boogerd	Johanna	MEP
Carrelli	Claudio	IS-Forum (Telecom Italia )- Chair of User Session
Fayl	Ulric	European Commission (ISAC)
Florin-Gheorghe	Filip	Research Institute for Informatics (Romania)
Gray	John	IS-Forum
Hustinx	Peter	Registratiekamer/Data Protection Authority (Netherlands)
Kakas	Antonios	University of Cyprus
Kerr	David	Internet Watch Foundation
Kilpiö	Eila	National Consumer Research Center (Finland)
Kotschy	Waltraut	Austrian Data Protection Commission
Lennard	Linda	IS-Forum
Liska	William	Ministry of Communication (Romania)
Miari Fulcis	Michele	Pirelli SpA
Patricio	Teresa	Ministry of Science & Technology (Portugal)
Pieper	Antje K.	ARD/WDR
Rademacher	Franz Josef	FAW, ULM
Rogers	Sir Frank	EPC
Schizas	Christos	University of Cyprus
Sepp Sirje	Estonian	Mission to the EU (Brussels)
Siil Imre	Estonian	Informatics Center
Simitis	Spiros	IS-Forum (Frankfurt University)
Soubies	Michel	European Commission (DG XXIII)
Thorgrimsson	Sveinn	Ministry of Industry and Trade (Iceland)
Van Haaren	Kurt	German Postal and Telecom Union (DPG)
Vandermeer	André	Telcities (European Digital Cities Partnership)
Williams	Nigel	Childnet International
Zdziech	Lech	Polish Chamber of Information Technology and Telecommunications

# European Ministerial Conference

## Industry Declaration

Bonn 6-8 July 1997

### PREAMBLE

The emergence of Global Information Networks will have a profoundly positive impact on the industry and citizens. Cross-border trade and services will be boosted as never before.

The significant but high risk investments in technology, services and infrastructure will be taken care of by industry and will be market-led. Entrepreneurship is the crucial factor and will lead to new industrial structures either from "scratch" or through rearrangements of current businesses. Entrepreneurs and industrialists need an appropriate business environment because of the risks involved. Governments are responsible for creating this environment. Global Information Networks furthermore need a global regulatory framework which provides maximum opportunities and freedom for industry.

Government actions with respect to information networks should in particular be guided by several key principles:

1. **Regulation should be as light-handed and flexible as possible.**
2. **Legal rules applicable to global information networks and to business transactions being executed on networks should be consistent across the borders.**
3. **Telecommunication markets should be opened up rapidly to effective competition thereby reducing national and cross border telecommunication costs to international competitive levels.**
4. **Conditions must be created on the basis of which industry and consumers can have confidence in the security, privacy, and the authenticity of electronically transmitted information and electronic transactions.**
5. **Market forces must be allowed to rapidly develop open technical standards.**
6. **Discriminatory tax costs should not be imposed on the use of these networks.**
7. **A high level of intellectual property rights protection is necessary for the creation, storage and distribution of content.**

**8. Opportunities for becoming computer literate should be available to people of all ages and from across the social spectrum: education and training is essential for the use of global information networks.**

### MAIN AREAS OF ATTENTION

#### 1. ELECTRONIC COMMERCE.

Electronic commerce (the electronic linkage of businesses with manufacturers, distributors, suppliers and customers creating and facilitating global trading) has created high expectations in the areas of customer services as well as in the creation of jobs, new business and technologies.

These expectations will however only be fulfilled, if customers and industry will accept e-commerce as a fast, secure and easy way to do business. Whereas we strongly support a market driven approach for the development of electronic commerce we note an area where government action is needed, namely contract law. Contract law needs to be updated in order to enable digital signatures, digital documents and to provide effective dispute resolution mechanisms. But these actions should only be done in close co-operation with industry in order to ensure a liberal, inexpensive and non-bureaucratic mechanism which will promote market development.

#### Proposals:

1. **The development of electronic commerce should be market-driven.**
2. **Contract law should be updated in order to foster the acceptance of electronic commerce and to ensure that commerce over electronic networks can be facilitated quickly on a global basis.**
3. **The Transparency Directive and Mutual Recognition Agreements should be considered as appropriate catalysts.**

#### 2. REGULATORY FRAMEWORK

EU legislation has originally contributed towards the opening of Europe's communication markets. National governments now face



the significant responsibility to implement these EU rules to their maximum effect, i.e. without distortion and without discrepancies between the various national systems. As quickly as possible, communication markets should become so competitive as to reduce the need for undue governmental control and re-regulation. Effective liberalisation of competing infrastructure will stimulate the development of broadband or third generation of mobile system infrastructure without further delay.

#### Proposal:

**The Commission and Governments should ensure full, effective and timely implementation of legislation.**

#### CONVERGENCE

The technologies and information and communication services of yesterday and today converge to create the technologies of the future. No longer will divisions between telecommunications, broadcasting, publishing and information technology make sense. Future regulatory approaches need to recognise the global nature of information and communication services and the networks that carry them. They need to encourage innovation and they need to be based on competition rules.

#### Proposals:

1. **Regulators must reappraise the basis of existing regulatory regimes because of the convergence of technologies.**
2. **The future legal framework should be based on general principles of law, not on sector specific legislation.**
3. **Self-regulation and technical solutions, such as voluntary content filtering and rating, should play a central role in content control.**

#### INTELLECTUAL PROPERTY RIGHTS

A high level of protection of intellectual property right is essential to the successful development of global information networks. The global digital environment poses new risks of infringement of intellectual property.

#### Proposals:

1. **Governments should ensure faithful and timely ratification and implementation of the new WIPO Treaties on "Copyright"- and**

**"Performance and Phonograms". Negotiations on the remaining WIPO Treaty on "databases" should be continued incorporating the sui generis right embodied in the 'Database Directive'.**

2. **Proper enforcement of IPR protection has to take into account TRIPS and Berne requirements.**

3. **The European Commission's forthcoming "Copyright Green Paper" must ensure that adequate levels of protection for intellectual property rights are maintained and extended to new electronic technologies and uses. Implementing a broad, harmonised reproduction right, the making available right over electronic networks, and the distribution right as well as the legal protection of market-driven technical anti-copying systems and copyright information data will be of particular importance.**

#### ENCRYPTION

Freely available access to strong encryption is essential for building consumer and business confidence and trust in global networks for commerce and for important communications.

#### Proposals:

1. **Governments should permit strong encryption to be widely available in order to promote confidence and trust in electronic commerce and communications.**
2. **Individuals and businesses should be free to choose the encryption technologies that meet their particular security and privacy needs.**
3. **Governments should not adopt new regulations that restrict the distribution, sale, export or use of strong encryption, and any existing regulation should be eliminated. In any event, private individuals and corporations should be entitled to generate and manage/store their encryption key in-house.**
4. **The development of digital signature systems, which protect the integrity and authenticity of information transmitted over electronic networks, should be market-driven.**

### DATA PROTECTION

An appropriate balance must be struck between protecting the personal data of individual users and promoting good business practices for entities that market commercial products and services online. In addition, data protection policies must recognise the need for a global data flow.

#### Proposals:

- 1. The EU Data Protection Directive should not be used to establish new trade barriers which could hinder international data flow.**
- 2. Instead, the development of self regulatory regimes-including codes of practice and contractual solutions, should be encouraged in order to support users confidence that internationally transferred personal data is adequately protected.**
- 3. Any sector-specific data protection rules (i.e. the proposed EU telecommunications data protection directive) should be avoided.**

### TAXATION

The technological advances, which the world is experiencing by the phenomenon of electronic commerce, are not compatible with the existing tax rules. Conservative application will lead to nonsensical attempts of taxation. It is apparent that technology rather than (tax) policy will determine the tax rules of the next century.

Further study is needed, allowing companies and individuals to trade throughout Europe in the most cost-effective way possible. High administrative burdens and complicated registration systems must be limited to an absolute minimum.

Business in Europe and the rest of the world are still very concerned about persistent discussions regarding an European 'bit-tax'. In order to restore business confidence, this concept should be dismissed firmly by government leaders.

#### Proposals:

- 1. Harmonisation of payment of VAT and excise tax for services and goods ordered electronically, is advisable, because of the geographical mobility of Web sites to countries with no or moderate tax regimes.**

**2. There is a future role for OECD and WTO in co-ordinating an international, uniformed system for taxation and excise tax on ICT.**

**3. Tax on information distributed electronically should be technology neutral i.e. not be discriminated in comparison with the tax on similar data distributed by other means.**

### 3. EDUCATION AND TRAINING

The new emerging technologies and their uses provide our societies with new opportunities for users. Users include universities and schools, their staff and students and those using the global information networks from home, users of all ages. European Governments should move ahead with ambitious and long term programs to bring the Information Society revolution to the class-rooms.

Our children will shape the future electronic world and should quickly master all the tools they need. A major effort is still needed to educate the educators. Many European teachers still shy away from new technologies and do not yet possess sufficient skills to stimulate their pupils in using new information systems. Such an effort would do justice to the general consensus that education in ICT is a cornerstone of the Information Society.

Among the questions to be answered are: What measures can be taken to raise public awareness of global information networks as a valuable educational tool? What measures are needed to promote the responsible use of this new medium? Which measures can be taken to ensure exchange of good practice on European and global level?

#### Proposals:

- 1. Governments and industry should collaborate in providing educational material and equipment. Governments are recommended to undertake concerted actions in the field of using modern ICT-techniques. Furthermore, governments should create the right conditions to ensure close association of industry with educational institutes to generate a continual stream of market-oriented ICT-experts.**
- 2. The global players - private and public enterprises together with governments and international organisations like the EU and the G7 - should constitute a 'Global**

**Information Superhighschool'** (a multimedia networked (high)school) for global wide sustainability, as a new concept for 21st century education. An adequate organisation form for the Information Superhighschool, as far as global distribution, delivery, and co-operation with local educational institutes are concerned, would have to be studied upon.

#### 4. STANDARDISATION

Standardisation is primarily the responsibility of the private sector (manufacturers, networks operators, service providers). In addition the EU and Governments should stimulate the implementation of the necessary reforms, such as redefining the tasks of national standardisation bodies. The EU institutions should not be involved in the technical standardisation, unless regulatory implications occur.

A reinforced European standardisation-system will be in a better position to play its part at the international level. The ITU, ISO and the IEC may not be considered ideally structured for world-wide standardisation works, but reforms in those bodies will require more time. In the meantime, Europe will continue to be active where appropriate including ETSI and the various fora and consortia which produce the de facto standards (technical specifications). The work of TACS, the Transatlantic Business Advisory Committee on Standards, should be supported.

Since innovation is continuing at a rapid pace, seamless interoperability remains essential. In the Global Information Society, content, services, networks and equipment must be able to interoperate without unnecessary restrictions, via the global infrastructure. Open voluntary standards will form the basis for the implementation of these requirements. In order to accelerate the acceptance and the bringing into effect of new equipment and systems, the supplier's Declaration of Conformity will be a powerful tool.

##### Proposal:

**The European standardisation system must become more effective. In particular standard making in Europe should :**

1. be led by the requirements of the market
1. be less fragmented and well co-ordinated at the European level

1. take place in a one-step mode on the European level and streamline its procedures in order to get minimum delays with maximum consensus.

1. be in line with the global standards.

#### 5. GOVERNMENT SERVICES

The European Union needs a harmonised legal framework to achieve the objective of maximising access to and use of public sector information. In order to harness the dynamism and creativity of European information providers the framework should encourage member states and the institutions of the European Union to:

##### Proposals:

1. exempt such information from intellectual property protection except for information pertaining to national security; and

2. not charge fees for re-dissemination of public information that exceed the cost of dissemination to the information provider.

Government administrations have started using telematics as an efficiency tool for internal and intra-administrations co-operation. The fiscal social security and statistical administrations have taken the lead in this respect in many countries and should continue to do so. As soon as internal procedures within the administration are up to modern standards (business redesign is often called for), government services can be made available in several ways.

##### Proposals:

3. Government should actively boost the use of global information networks by putting information and services on the network and should commit themselves to provide this information by a date certain..

4. Governments should make extensive use of the global information networks and of electronic services themselves. They should expand the dialogue with Citizens online, and by promoting the use and the knowledge of global information networks in schools and universities.

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