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WORKING DOCUMENT OF THE COMMISSION

**SUMMARY OF THE RESULTS OF THE PUBLIC CONSULTATION
ON THEGREEN PAPER ON THE CONVERGENCE OF THE
TELECOMMUNICATIONS, MEDIA AND INFORMATION TECHNOLOGY
SECTORS;
AREAS FOR FURTHER REFLECTION**

Preface

The purpose of this Working Document is to two-fold. Firstly, it summarises the comments received during the public consultation period which followed the Commission's Green Paper on the Convergence of the telecommunications, media and information technology sectors.   Secondly, it identifies areas where further reflection is needed and poses additional questions in these areas.

While the Commission' does not necessarily endorse the views that are contained in the summary, it does acknowledge with thanks the interest shown in the Convergence Green Paper, the many comments received, and the significant work of individuals and companies from the sectors involved.

The Working Document is the first part of a two-stage process which will be completed towards the end of 1998 with a Commission Communication containing further analysis and policy proposals. Preparation of the Communication will take account of the opinion of the European Parliament, expected in October 1998.

Many commentators offered views on matters, which, while relevant to the convergence issue, were outside the scope of the Green Paper itself. Such comments have been forwarded to the Commission services working on these matters.

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PART A: SUMMARY OF COMMENTS ON THE GREEN PAPER

1   INTRODUCTION : THE CONSULTATION PROCESS

This part of the Working Document presents an overview of the results of the 5-month public consultation carried out by the European Commission following publication of the Convergence Green Paper in December 1997. The Green Paper attracted considerable attention. By the middle of June, 270 written comments had been received from Member State governments, national regulatory authorities, broadcasters, telecommunications operators, equipment manufacturers, industry associations, consumer and user representatives, members of the creative community and trade unions. Annex 2 provides a breakdown of the types and geographical distribution of organisations which responded to the consultation.

Orientation debates took place within the Telecommunications Council and Audiovisual/Culture Council, and a formal opinion was given by the Economic and Social Committee. The European Parliament and the Committee of the Regions are expected to adopt their opinions on the Green Paper in the autumn this year.

Three hearings on the Green Paper were held during March and April 1998 for (i) national and European associations and representative groups, (ii) individual companies and (iii) Member State and EEA authorities. These hearings not only provided an opportunity for the Commission to identify the central issues in the on-going debate on the convergence phenomenon, but also allowed the different sectors and players concerned to hear and respond to each others' views.

In addition, there have been more than 80,000 visits to the Green Paper's Web page on the Commission's Web Server,[1] where the Commission posted the Green Paper and related studies, as well as comments sent to the Commission in electronic form.

In parallel with the hearings and the debate at European level, most Member States started a process of consultation at national level.

Part A starts by identifying the main themes brought out during the public consultation. It then continues with a summary of the key issues raised and the views offered on them by commentators.

A more detailed review of the comments received on each of the Green Paper's nine questions is set out in Annex 1.

This Working Document presents the views expressed by commentators. It does not take a position on those views, nor attempt at this stage to respond to the arguments raised.

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[1]   http://www.ispo.cec.be

2 COMMON THEMES ARISING DURING THE CONSULTATION

The initial analysis of both the hearings and the written comments received during the public consultation on the Green Paper has revealed a number of common themes.

(1)   There is agreement on the reality of technological convergence, but different views as to the speed and scope of its impact on markets and services.

(2)   Most commentators preferred an evolutionary rather than revolutionary approach and many of those expressed a preference for Option 1 in the Green Paper (building on existing structures).

(3)   There is general recognition of the continuing role of sector specific rules to assist in securing certain general interest objectives, in particular within the audiovisual sector, even if those rules or the way they are applied may need to be modified to take account of the impact of new technology. Such sector specific rules will co-exist with (i) the application of competition rules and (ii) increasing reliance on industry self-regulation.

(4)   A number of potential barriers and key regulatory issues have been highlighted. The issue of access to set top boxes, Electronic Programme Guides (EPGs) and Application Programming Interfaces (APIs) has been presented as one area requiring attention in the near future.

(5)   The question of the right approach to spectrum issues (in particular allocation and fees) attracted much attention, with agreement on the need to promote more efficient use of available spectrum, but different views as to how that can best be achieved.

(6)   There appears to be substantial support for a more horizontal approach to regulation (i.e. same rules for networks / access issues, but with a vertical or sector specific approach for regulating aspects of the provision of services such as, for example, the content of audiovisual programming). This approach should be viewed in the context of responses on the Options.

In addition, individual sector interests were evident from many of the comments. For example:

(1)   There are strong calls within the telecommunications and IT sectors for less burdensome sector-specific regulation or rules with a lighter touch in response to (i) increasing levels of competition (e.g. telecommunications liberalisation) and (ii) rapid pace of change (driven by technology / short product life-cycles).

(2)   Consumer organisations claimed that the approach taken in the Green Paper was unduly biased towards technology and the supply side, with insufficient emphasis on evaluating the potential demand for convergent services and addressing the needs of consumers.

(3)   There is an active discussion within the audiovisual sector about whether there should be national or EU timetables for the switch-off of analogue

broadcasting, and of the relationship between regulation and content-support initiatives.

(4)   There was agreement that demand for high quality content, particularly in the audiovisual sector, would increase, and that measures to foster European production should therefore be considered.

3   SUMMARY OF COMMENTS ON THE ISSUES RAISED IN THE GREEN PAPER

The Commission's initiative to start a far reaching and open consultation on future regulatory development and the nature and impact of convergence in the different sectors involved was broadly welcomed.

3.1 The nature and pace of convergence

The Green Paper was seen to have raised many of the right issues, although some comments suggested that it was unclear exactly what the term convergence represents. For others, convergence defied definition. Yet others predicted a degree of divergence in terms of the range of content and services offered. While many accepted the working definitions of convergence offered by the Commission, views on the pace of developments were more cautious. There was wide recognition of the reality of convergence at the level of technology and network infrastructures. But most agreed that this did not mean that convergence of either markets (in terms of the players involved) or services would automatically follow. Convergence was seen as an evolutionary rather than a revolutionary process.

There were clear differences between sectors as to their perception of the extent and speed of these developments, but there was the broad acknowledgement that convergence, however defined, was at an early stage and characterised by uncertainty, in particular about the level of demand there might be for such services. These differences were also reflected in the many of the examples offered as to how converging technologies are influencing both the business world and our everyday lives, many of them based on the growing popularity of the Internet. One important feature in this context was the degree to which new services offered users the possibility to customise and control the information and services received.

An important distinction between developments in the work environment and the home was recognised. Many considered that developments at work would be driven by the Internet, electronic commerce and PC-based activities, and would have an impact on home-use. On the other hand, and despite the increasing take up of computers in the home, digital television, offering entertainment and information, was seen by some as the predominant platform in the home for the foreseeable future.

3.2 The economic and social impact of convergence

In commenting on the broader social context of these developments, the Internet was considered by some as playing a crucial role in the democratic and social process by allowing the citizen to act as both a consumer and producer of information. The fundamental role of broadcasting within society for ensuring pluralism, diversity and a sharing of cultures was also highlighted.

Comments on the impact of convergence on growth and employment tended to reflect optimism about the benefits to the broad economy of many aspects of convergence, despite misgivings about the short-term effects of rationalisation and new technologies. Electronic commerce was seen as a positive factor for economic growth.

Many commentators stressed the importance of equipping both young people and the current workforce with appropriate skills. Apart from their increasing demand in business, these skills were also becoming central to many of the content and creative industries.

From the comments, it was clear that convergence is perceived as offering both opportunities and risks for the less developed regions within the Union. Geographical constraints could be overcome by harnessing new technologies and services, but they could also delay the roll-out of such services.

Markets for broadcasting were expected to remain fragmented along national and regional lines for cultural and linguistic reasons but also because of the geographical scope of certain aspects of the business. Concerns were expressed about the lack of European content on the Internet as a limiting factor in its wider take up. Specific projects for inclusion in Community research and development programmes were identified as one possible avenue of support for the European audiovisual sector.

3.3 Barriers to convergence

There was general agreement that most of the issues raised in the Green Paper represented at least potential barriers. Greatest attention focused on regulatory uncertainty, availability of content, IPR protection, consumer protection, access issues (including access to set top boxes), pricing, radio spectrum and the manner in which public interest objectives could be achieved.

However, a number of contributions from players in the audiovisual sector and from consumer organisations objected to the description of a range ways of implementing of public interest objectives as barriers at all. In their view, this tended to assess public interest rules only in an economic context, ignoring their underlying public, social or political purpose, and calling into question the essential role of Member States in determining the manner of their application.

It was generally agreed that the potential benefits of converging technologies would not be realised without a rich and diverse supply of content and information. Public service broadcasters stressed the importance of European content and the role they played in its production. They also suggested that in future, regulatory attention should shift from the current time-based quotas to investment-related incentives.

Two additional barriers were identified in contributions received. These were the need to overcome "technophobia", by developing user friendly access new services, and the need to avoid new fiscal barriers in the form of new taxes on information or services.

3.4 The future approach to regulation

Most commentators agreed with the Green Paper's assertion that convergence does not call into question the objectives that underpin sector specific regulation, but may call for a review of the manner in which these objectives are achieved. However, many felt that any new rules should take account of the way in which new services and technologies empower the consumer and the citizen, enabling them to make more informed choices about the services and information they receive.

A wide variety of views were expressed about the extent to which convergence would or should have an impact on the approach to the regulation of telecommunications, IT and the media. Issues included:

- the balance between competition rules and sector-specific regulation,

- the extent to which the Internet and other on-line services should be subject to detailed (or additional) regulation, and

- the areas on which competition rules might focus.

There was general agreement that future regulation should be technology and platform-neutral, and that existing rules would need to be adjusted where this was not the case. Some commentators took the publishing model as their example, suggesting, along with others, that future regulation should be competition-based, with no *a priori* assumption that all services should be regulated. Many commentators considered that certain public interest objectives could not be achieved by the simple application of competition rules, and that regulatory intervention to achieve such objectives would always be needed. Others saw a continuing role which balanced competition rules with sector-specific regulation designed to foster competition, deliver social and consumer goals, and oversee certain aspects of content provision.

Others stressed that the application of competition law should recognise the very large investments needed in the face of uncertain demand. Still others focused variously on the need for competition rules to be applied against discriminatory behaviour by existing network operators; on the commercial activities of publicly funded broadcasters, and on the risk of unfair cross-subsidies of new service activities by large telecommunications operators.

There were a number of comments expressing concerns about the risks of extending existing regulation to areas currently unregulated, and of applying audiovisual content rules inappropriately to the on-line environment. Some contributors argued that the Internet did not require additional regulation, and that the problems in respect of regulating on-line activities would be those of enforcement, where solutions combining industry self-regulation with consumer control would be important.

There was a large measure of agreement on the need to ensure a consistent approach on the way in which networks and transmission services were treated, leading many to support a move away from current vertical regulatory divisions to a more horizontal approach to them. This would ensure a consistent approach to

infrastructure, and at the same time allow rules governing content provision to continue to reflect the specific nature of the services concerned.

There was general agreement that all the sectors affected by convergence required a clear and predictable regulatory framework to facilitate investment decisions, and that regulation should be proportional to the nature of the service or activity concerned. Among several criteria suggested for defining the type of regulation that should be applied, many argued that the distinction between public and private communications should be considered to be one of the more fundamental. At the same time there was general recognition of the need to avoid inconsistent regulatory treatment of essentially similar services, although some were sceptical of claims that current definitions were inadequate.

3.5 Comments on specific regulatory issues raised in the Green Paper

3.5.1 Market entry and licensing

Relatively few commentators identified licensing or current licensing procedures as a major barrier within the market today, although some stressed the need for independent licensing authorities and the use of open and transparent procedures. On the other hand, a clear message from industry, from IT players and from the publishing/press sector was that for many service-based activities licensing should be the exception rather than the rule.

There were also relatively few comments on restrictions on the use of networks. Those that were made expressed concerns that such restrictions opposed the trend towards converging platforms and that they unnecessarily limited investment, innovation (in terms of combined service packages) and consumer choice. Others accepted that temporary restrictions might be needed, where they were focused on promoting local loop competition, or on providing certain guarantees for consumers. The current lack of bandwidth / capacity within the local loop network was seen by many as a particular handicap for the short-term take up of the Internet and other on-line services.

Comments were received from all sectors about the need to safeguard against abuses of market power by vertically integrated companies. While such vertical integration was a trend which technological convergence was seen as accelerating, it was felt by a number of commentators that competition rules provided an adequate solution.

3.5.2 Access issues

There was general agreement that in a digital environment, access to networks and to customers would be among the key regulatory issues.

There appeared to be broad support for a continuing framework to guarantee interconnection between public networks. It was generally recognised that there would continue to be a limited number of routes to individual users, leading some to call for open access requirements to be applied to local loop infrastructures, as a way of stimulating effective service-based competition. Some comments also focused on the need to ensure access by content providers to the available distribution channels.

A major issue of concern for many commentators was that of access to customers through conditional access, navigation and operating systems. Discussion centred on the rules which might apply to set-top boxes, Electronic Programme Guides (EPGs) and Application Programming Interfaces (APIs). Some considered that open access was needed not only for reasons of fair competition but also to ensure plurality and consumer choice.

Many of the commentators supported the principles underpinning Directive 95/47/EC, which provides for non-discriminatory access by operators to digital television platforms and considered that these principles should apply to access systems in general. Others felt that access issues could best be resolved in the context of the Treaty competition rules, perhaps building on current concepts of "essential facilities".

Additionally, a range of comments pointed to the role of such gateways in relation to all digital services and not just with regard to encrypted broadcasting services. Therefore many commentators called for a consistent set of rules to be applied to digital gateways, irrespective of the nature of the services to which they gave access.

3.5.3 Frequency Spectrum

There was general agreement on the increasing demand for radio spectrum from new digital services, on the need for it to be used efficiently, and need for early decisions regarding its allocation. Most commentators considered that spectrum would continue to be a scarce resource for the foreseeable future.

There were widespread concerns about the possible auctioning of spectrum, accompanied by assertions that this would raise market entry barriers and lead to increased prices for consumers. Others pointed out the risk of discrimination either by favouring incumbents or by treating sectors differently.

The issue of whether dates should be set or co-ordinated at a European level for the switching off of analogue broadcast services attracted considerable comment from broadcasters, equipment manufacturers, consumer groups and Member States. Opinion was split between those who saw any transition from analogue to digital broadcasting as being market-led, and not requiring Government or EU level intervention, and those who considered that a deadline set at a national level would be a useful stimulus to the development of digital broadcasting in the EU.

3.5.4 Standards

There was widespread agreement that standardisation should be voluntary, industry-led and market driven. It should also continue to be based on open procedures, though some comments suggested a need for greater representation of consumer, user and local Community needs.

3.5.5 Pricing

There was wide recognition that on-line and other new services would only succeed if the overall cost of using them were considered reasonable by a significant part of the population. Most concern focused on the current relatively high charges for local telephone calls and on potential risks to competition associated with the bundling of

on-line access and special "Internet" telephone rates by incumbent telecommunications operators.

3.5.6 Consumer interests

Comments received from consumer organisations and others called for consumer interests to be placed at the top of the regulatory agenda. Consumer organisations considered that there was a particular need to carry out an overall assessment of the impact of convergence on the consumer. The need for greater safeguards to ensure that consumer interests are protected was highlighted by many commentators, as well as the need to ensure consumer confidence through clear rules on electronic signatures, on liability in electronic commerce and other on-line services, on data protection and privacy and on the availability of effective encryption. In this context, the Commission's Electronic Commerce Communication and proposal for a Directive on digital signatures was widely supported(Directive 98/297/2/EC), since they were seen as helping to create the necessary degree of consumer confidence in new activities. Other consumer concerns specifically raised included the need for effective dispute resolution, for the involvement of consumers in drawing up standards and quality of service targets; and for protection against unwarranted bundling of services.

3.5.7 Achieving public interest objectives

The issue of regulation and public interest objectives attracted a considerable degree of comment. For many of those commenting, such obligations represented a strength rather than a barrier within society, particularly in the context of rules relating to audiovisual content or pluralism, given the specific role of television, radio and film in a democratic society, and it was considered that the objectives met by such regulation remained valid in the new on-line environment.

There was also recognition that convergence offered new ways of meeting public interest objectives (both directly and indirectly, as a result of the lower cost and greater flexibility). This might require a review of regulatory tools, but did not challenge the fundamental policy objectives underpinning such regulation.

Widespread political concern over the need to avoid an informational divide in society was confirmed in the comments received. Consumer organisations and others feared the demise of the universal service principle in a future regulatory environment, seeing it rather as an evolving concept aimed at ensuring that the new services of the Information society are available to all. Many Member States as well as public service broadcasters were particularly concerned that the universal service concept (as currently applied in the telecommunications sector) should not be confused with the much broader concept of the public service broadcasting mission.

The consultation confirmed general recognition of a continuing role for public service broadcasting. This led many public broadcasters to state that the public service mission conferred on them would continue to require both specific funding mechanisms as well as other regulatory measures to enable them to meet their obligations. Commercial operators and potential competitors expressed concerns about the potential distortion of the market place resulting from the benefits enjoyed by public sector broadcasters and called for greater transparency to ensure that their commercial activities were not being unfairly cross-subsidised. Most broadcasters,

both public and private, supported a mixed system of public service and commercial broadcasting.

3.5.8 International aspects

There was general agreement on the need to ensure a better understanding of the regulatory and other issues arising from the convergence phenomenon at an international level. The proposal for a Global International Charter was welcomed by many in this context, providing that it involved widespread industry participation.

At the same time consumer representatives saw the need to avoid a levelling down of current regional standards of protection, stressing the need for a clear framework for jurisdiction in relation to on-line services provided from outside the EU.

3.6 Principles and options for the future

3.6.1 Principles

The principles put forward in the Green Paper as underpinning future regulatory approaches were widely endorsed in the comments received. At the same time, a number of commentators expressed concern that the principles failed to acknowledge the positive role played by regulation in many cases. Some stressed the need to place the consumer at the centre of any future approach.

3.6.2 Options

Inevitably, the options presented for discussion in the Green Paper attracted considerable attention.[2] The majority of those commenting, including most Member States favoured an approach which would build on existing regulatory frameworks. For most of those commenting, particularly broadcasters, this equated to Option 1.

This was felt to offer the highest degree of certainty for investment, whilst maintaining continuing public interest safeguards in relation to the distinctive characteristics of each sector involved. Some claimed that it might also limit a tendency to add rules to areas currently not subject to regulation.

At the same time, a number of comments highlighted the possible evolution from an approach building on the existing framework in the short term to a more far-reaching approach, in particular for networks and infrastructure, in the medium to long-term.

Many of those suggesting that a distinction should be drawn between networks and content provision or between "content" and "the container", also indicated that networks should be governed by a single set of technology neutral rules, whilst content provision could continue to be subject to existing frameworks which were closely related to the specific characteristics of the services concerned. (i.e. a

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[2] The three options put forward in the Green Paper were: Option 1 – build on current structures; Option 2 – develop a separate regulatory model for new activities, to co-exist with telecommunications and broadcasting regulation; Option 3 – progressively introduce a new regulatory model to cover the whole range of existing and new services.

combination of Options 1 for content provision and Option 3 for networks and infrastructure).

Option 2 received only limited support, drawn in part from some broadcasters and from many comments from Germany, where this Option was equated with the current national framework. On the other hand, many commentators expressed concerns about the creation of additional layers of regulation or additional boundaries, where grey areas between, for example, new services and traditional telecommunications services might arise.

Those supporting an Option 3 approach generally viewed this as a gradual process of change, rather than an urgent rewriting of the rules in question. For others Option 3 might be a viable long term goal for certain aspects of regulation, but only once the full transition to digital broadcasting had been completed, so that digital platforms served all the sectors involved in the convergence process.

PART B: AREAS FOR FURTHER REFLECTION

1   THE THREE KEY ISSUES

In taking the Commission's reflections further and building on the areas identified above, the Commission believes it would be useful to deepen the debate on three key issues, namely:

1. **Access to networks and digital gateways in a converging environment**

2. **Creating the framework for investment, innovation, and encouraging European content production, distribution and availability,** and

3. **Ensuring a balanced approach to regulation**

These are three of the key themes raised in the oral and written comments. The detailed questions are set out below.

The responses to these questions, requested by 3 November 1998, should expand on and elucidate the replies received to date. This will assist the Commission in completing its analysis of the public consultation on the Green Paper and in determining policy options at the end of the year.

Question 1: Access to networks and digital gateways

Context

Access issues have been highlighted in many comments as a key commercial and regulatory issue in the converging environment. Access issues have been considered to relate to set-top boxes, APIs, EPGs and the local loop itself, as well as digital services besides television. Nevertheless, different views have been expressed concerning whether solutions should be found through the application of competition rules only, or through the development of sector-specific rules, or through a combination of both. The principles underpinning the Digital TV Standards Directive (and the Directive itself) received strong support and were considered by many to form the basis on which to build a possible future initiative.

Question

Views are invited

(A) with respect to networks (i.e. the local loop etc.), on

- which are the critical access issues and why (i.e. competition issues, consumer choice, consumer protection, creation of a favourable environment for investment etc.)?

- the extent to sector-specific principles and rules should be envisaged, in addition to any case-by-case application of the competition rules?

- in the event that such sector-specific principles and rules are necessary, which means would be appropriate and in what timeframe (i.e. regulation, self-regulation etc)?

- what should be the scope of any sector-specific approach?

(B) with respect to digital gateways (conditional access systems, EPGs, APIs), on

- which are the critical access issues and why? (i.e. competition issues, consumer choice, consumer protection, creation of a favourable environment for investment etc.)

- to what extent should sector- specific principles and rules be envisaged, in addition to any case-by-case application of the competition rules?

- in the event that such sector-specific principles and rules are necessary, which means would be appropriate and in what timeframe? (i.e. regulation, self-regulation etc)

- what should be the scope of any sector-specific approach both in terms of the services (broadcast, non-broadcast) and the elements (set-top box, EPG, API) covered?

Question 2: Creating the framework for investment and innovation

Context.

A number of commentators highlighted the need for the regulatory framework to take account of the large investments and uncertain demand for digital services in both the telecommunications and broadcasting sectors, although no estimates of the scale of investments or potential markets were given. Other commentators underlined the need to create a favourable framework for European audiovisual content production, distribution and availability for both traditional and new media in a digital environment

Question

(A) Views are invited on the evolution and promotion of European audiovisual content production, distribution and availability in a digital environment?

(B) Views are also invited on:

(i) the extent to which and (ii) the way in which

the regulatory framework should take account of the level of investment required to establish digital platforms, networks and services?

Context

A wide range of views has been expressed on the role of regulation and the objectives it pursues. The Convergence Green Paper itself and the ongoing debate have highlighted the different regulatory regimes that apply to the sectors concerned. These arise from the differing nature of the services provided (telecommunications services being private communications whilst those of the audiovisual sector are public communications i.e. content-based) as well as the history of each sector. The telecommunications sector, which has recently undergone a profound reform, has a new regulatory framework at Community level designed to ensure the transition from monopoly to effective competition. The regulatory aim is to ensure that market outcomes conform as far as possible to public policy objectives, one of which is the provision of universal service.

The 1989 Television Without Frontiers Directive, as amended by Directive 97/36/EC, ensures the free circulation of services, whilst securing a range of general public interest objectives, through the necessary degree of co-ordination of the national provisions concerning television broadcasting.

It is clear from the comments received that in the new media environment it will continue to be important to find the right balance between achieving legitimate general public interest objectives and not hampering the creation and development of new services and markets. In this respect it is important to emphasise both the opportunities and potential risks that exist for consumers, and the need to ensure consumer confidence in the new environment.

Question

Views are invited on:

(a) Which principles and measures will be the most appropriate (taking into account the nature of the service, its pervasiveness, and technical characteristics, as well as the public interest considerations at stake, including consumer protection matters) for achieving the right balance between securing such public interest objectives pursued and facilitating the development of open competitive markets, and what is the timeframe in which they should be introduced.

(b) Whether criteria can be identified which will ensure that sector-specific rules are proportionate, in the sense that they take account of the nature of the service concerned and the legitimacy of the public interest objectives pursued**;**

(c) areas in which self-regulation could play a role in achieving this balance, and who should participate in setting up and implementing the relevant mechanisms?

2   TIMETABLE AND NEXT STEPS

Given the detailed reflections already undertaken by many commentators and the fact that organisations are now familiar with the underlying issues and context, the Commission's services invite responses by **3rd November 1998**.

It would be the Commission's intention at that time, armed with both responses to these questions and the opinion of the European Parliament on the Convergence Green Paper, to proceed with work on a Communication to consider, if necessary, the preparation of any policy proposals.

Submissions may be sent via E-mail (in both Word-for-Windows and html formats if possible) to E-mail: convergencegp@cec.be

Or by fax or post to:

European Commission, DGXIII / A4 and/or	European Commission, DGX C1
Attn. Mr. E. Lalor	Attn. Mr. G. Paulger
200 rue de la Loi, BU31 0/62	200 rue de la Loi, L-102 5/25
B-1049 BRUSSELS	B-1049 BRUSSELS
Belgium	Belgium
Fax (+32 2) 296 9009	Fax: (+32.2) 299 9201

Hard copies of all submissions will be made available at the conclusion of the consultation, unless a request for confidentiality is received. Copies received electronically will be posted on the Commission's Convergence Green Paper web site:
*(*http://www.ispo.cec.be/convergencegp*)* unless a request for confidentiality is received.

ANNEX 1

SUMMARY OF COMMENTS BY QUESTION POSED IN THE GREEN PAPER

ANNEX 1: SUMMARY OF COMMENTS BY QUESTION POSED IN THE GREEN PAPER

Question 1(A) Whilst convergence is occurring at the technology level, to what extent and at what speed is this happening at the industry, service and market levels?

Many of the comments **accepted the working definitions of convergence offered by the Commission**, though some organisations representing consumers stressed the need to define convergence from the user perspective (i.e. the demand side) rather than simply from the supply side. Others, including some broadcasters and academics, considered that there was a need for **clearer definitions of what convergence meant** and called for further detailed study of market trends as a precursor to any decisions regarding regulatory options.

There was **widespread recognition that technological convergence was a reality**. This meant that networks and equipment such as PCs, fixed and mobile telephones and TVs could be used to offer a wide range of services, from voice and data communications to accessing on-line information, e-commerce and the delivery of audiovisual content. The **convergence of fixed and mobile communications was seen as a particularly important** example of technological convergence. Digitisation of networks and the increasing integration of computer processes and memory into such devices were the key factors underlying such changes.

However, there was also **broad agreement that the future environment was more likely to be characterised by diversity and competition** between different services supplied over a number of networks than by a single pipe or network through which all services would be delivered. This would lead to a market shaped as much by interdependence as by convergence of business activities.

At the same time, most commentators agreed that such technological developments did not mean that convergence of either markets (in terms of the players involved) or services would automatically follow. Convergence was seen as an **evolutionary rather than a revolutionary process**. Moreover, there were clear differences between sectors in the extent and speed of convergence.

Comments from the IT, telecommunications equipment and services, and software sectors argued that convergence was already being seen in terms of the Internet and new services about to be launched on digital TV platforms, as well as some notable mergers and alliances over the last 12 months. Many broadcasters and most Member States, on the other hand, did not believe that convergence was having a marked impact on either services or market structures. Broadcasters who were actively developing on-line activities considered this activity to be an extension of their traditional roles rather than a sign of convergence.

Underlying these differences was the broad recognition that **convergence, however defined, was at an early stage and characterised by uncertainty**. This uncertainty prevailed with regard to which technologies would be successful; which markets would

be commercially viable[3] and, particularly, which services users would actually want to use. Particular stress was placed on the fact that **companies would only succeed if they could continue to offer content and services which people actually wanted**. For many content providers and broadcasters, this pointed to the need to stimulate the provision of information and content to fill the new delivery channels which were becoming available.

Question 1(B) Are the effects of convergence already being felt in the business world and in our everyday lives, and if so, in what way?

The differences highlighted above concerning the extent and scope of convergence were reflected in many of the examples given of how converging technologies are impacting both on the business world and on our everyday lives.

A range of concrete examples of new developments were cited, such as:

- the use of cable television networks to provide Internet access or normal telephone services;

- the delivery of more than 650 (mainly local) radio stations over the Internet;

- The large number of European broadcasters and newspapers that have their own sites on the World Wide Web.

E-commerce was seen as becoming a reality with the introduction of electronic payment cards for home shopping and the take-up of home banking packages.

Others pointed to the **strong growth in second phone lines and ISDN** as signs of both **greater use of on-line services**, and the beginning of a trend towards **tele-working.** Other comments, particularly from broadcasters, highlighted forthcoming or recent developments concerning the introduction of digital television services. The roll-out of xDSL technologies to overcome capacity constraints in the local loop of the telecommunications network was also cited.

One important feature was the degree to which **new services offered users the possibility to customise and control the information and services received**. This varied from the development of different offers of bouquets of programmes via digital platforms, the steady take up of pay-per view programming as a complement to free to air offerings to the choice offered by electronic programme guides and links between television programmes and web-sites or on-line programme related information. In relation to on-line services or standard telecommunications, user empowerment went further in terms of the inter-activity and choice offered by the Internet, the use of search engines to retrieve information, the possibility of using filtering software, where necessary, to block access to particular types of content and the possibility of barring calls via digital telecommunications exchanges to particular numbers or types of services.

An **important distinction between developments in the work environment and the home was recognised**. At work developments would tend to be driven by the Internet, e-

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3   A number of comments referred to the early trials of video on demand services in the USA and Europe which, despite their technical feasibility, had not attracted a great deal of consumer support.

commerce and PC-based activities, whilst in the home, despite increasing take up of computers, digital television, offering entertainment and information, could become the predominant platform at some point in the future. Many commentators recognised that the business to business market was developing most rapidly, whilst the wider take-up of IT, the Internet and e-commerce at work would have a direct impact on home use.

Some commentators also pointed to recent mergers and alliances as an indication that new types of media and communication companies were emerging. These were bringing together telecommunications operators, Internet access and service providers, content producers, and broadcasters. For others, however, such trends were simply a sign of industry concentration, with companies exploiting together the opportunities offered by new technologies, market liberalisation and, in some cases, the trend towards globalisation. The new companies emerging were little different from other types of conglomerates straddling several sectors, which are active in many parts of the Union.

The broader social context of many of these developments was also highlighted. The Internet was recognised by some as playing a crucial role in the democratic and social process within the Union by allowing the citizen to be both a consumer and producer of information. The fundamental role of broadcasting within society in terms of ensuring pluralism, diversity and a sharing of cultures was highlighted by Member States in general and most radio and television broadcasters.

At the same time, many commentators, including those from consumer organisations and Governments, highlighted the risk that only certain parts of the population or only certain regions within a Member State would take up these new technologies and services and feel comfortable using them. Public broadcasters felt that they had a particular responsibility to familiarise their viewers and listeners with emerging technologies and services, and considered that this concern about a "two-tier" society in Europe should be part of any assessment of the impact of convergence on our everyday lives.

QUESTION 2 : THE SOCIO-ECONOMIC, BUSINESS AND CONSUMER IMPACT OF CONVERGENCE

Question 2(A)   Will convergence have a significant impact on job creation, as well as on education and training in the European Union? How is convergence likely to impact the way in which we work? Will its effects be spread evenly throughout the European Community? of Community RTD projects should be launched in the context of convergence?

Question 2.A.1 Impact on job creation

Comments on the impact of convergence on growth and employment tended to reflect **optimism about the benefits to the broad economy of many aspects of convergence**. Many of the new entrants in the telecommunications and Internet markets also pointed to the jobs that were being created by these activities. At the same time, concerns were expressed by incumbent telecommunications operators and by some broadcasters that any increase in the number of jobs due to new technologies was unlikely, in the short-term, to offset continuing job losses in their traditional activities as they adapted to greater competition and the introduction of these new technologies.

Electronic commerce both via the Internet and, particularly in the home via inter-active TV, was seen as a positive factor for economic growth. These new distribution channels would give operators of all types new opportunities to do business throughout the EU and beyond. This was expected to create employment and would allow businesses located in

less developed regions within the Union to overcome disadvantages associated with their geographical location.

Question 2.A.2 Impact on education and training

Many commentators stressed the **importance of equipping both young people and the current workforce with IT skills,** which were becoming increasingly essential in the workplace. Such skills were needed throughout industry and the business world, and were becoming central to many of the content and creative industries, which provided the raw material for the sectors concerned. Certain public broadcasters highlighted the training efforts they were already making and, in particular, their concern to see an even distribution of the skills base throughout the Community. Others also highlighted their concerns that current shortages of IT personnel might have a significant impact on Europe's competitiveness.

Distance learning was highlighted as one way in which education and training could draw on the Internet and other digital delivery channels. Some commentators mentioned that there was a role for Commission initiatives in this area.

Impact on the way we work

Whilst the general opinion of the commentators was that convergence would have a significant impact on the way we work and on where we work (e.g. tele-working, greater mobility, better regional distribution of employment, etc.), this was not a central issue in most of the responses received nor was it raised at the hearings.

Cohesion and regional development issues

From the comments, it was clear that **convergence is perceived as offering both opportunities and risks for the less developed regions** within the Union. Several commentators stressed the role of digitisation and new services in helping regions overcome problems linked to their remoteness or climate, which had affected their economic development.

Other comments stressed the disadvantages, which could arise for these regions if networks and new services were not made available to users there as quickly as in urban areas. These fears of a two tier Europe were also reflected in concerns over whether sufficient attention would be paid to ensuring that the workforce had the appropriate skills base to utilise new technologies and services. In this context, the role of the Community projects to support the introduction of new services and to stimulate awareness were highlighted.

Question 2(B)   What effect are current developments likely to have on telecommunications, media and IT sectors, in terms of the underlying economics of those sectors, the services offered and the likely service providers?

As indicated above, the uncertainty surrounding current developments and their economic impact was highlighted in many comments. This meant that many **commentators did not attempt to predict the shape of future markets** and suggested that to do so would be premature and could be counterproductive.

Divergent positions were taken on whether the process of convergence was really creating new market players and developing both new service activities and a new value

chain through which services would be delivered, or whether, on the other hand, current alliances and joint ventures simply represented a tendency to consolidation and concentration within and between the sectors concerned.

Whilst recognising the importance for their industry of the introduction of digital technologies, broadcasters did not believe that convergence was fundamentally changing the distinct nature and underlying economics of their activities. For example, transmission and communication costs represented relatively small elements in their total expenditure, and they did not believe that convergence would have a major impact in reducing the costs of content production or acquisition.

Markets for broadcasting were expected to remain fragmented along national and regional lines for cultural and linguistic reasons but also because of the geographic scope of certain aspects of the business. **Concerns were expressed about the relative lack of European content on the Internet** as a limiting factor in its wider take up.

Convergence was not seen as likely in the short-term to increase the amount or range of European audiovisual content available. Digitisation, on the other hand, since it would drastically reduce spectrum scarcity in broadcasting and lead to an increased number of TV channels, was seen as leading to extra demand for premium content. Other commentators suggested that there was a significant change in the traditional value chain. The **costs of transmission and communication were falling sharply** and the **packaging, bundling and organisation of information was likely to become an increasingly important commercial activity**. Here again, the distinction identified above, between home and business markets was highlighted with electronic commerce becoming the main driver of the business market.

In terms of **networks and technologies**, many commentators pointed to a move towards much greater use of packet-based networks. This would have an important impact on the way communications services would be priced. They also suggested that current capacity limitations would tend to limit the ability of the Internet to compete in the short to medium term as an alternative distribution channel for TV or radio-programming.

Question 2(C) What evidence is there of changes in Europe in the way services, information, entertainment and culture is being accessed in the home and in the office? What are the implications of current levels of PC penetration, Internet use and TV penetration for the take up of new services? What action (if any) is needed to overcome low levels of multimedia computer penetration and Internet use?

As indicated above, the distinction between the home and business markets was felt to be a key factor in assessing how services were likely to be delivered in the future.

There seemed to be broad recognition that for the near future, the television, enhanced by digital capabilities, would be the main vehicle for both traditional broadcasting and many multimedia and on-line services in the home. Such services were recognised as being complementary rather than substitutes for traditional television services except in the sense that there would always be a fixed amount of time within which broadcast and on-line content could be "consumed". At the same time, many in the Internet industry highlighted the strong take up of Internet services, alongside increasing levels of digital TV penetration in some markets.

The current relevance of experience in the United States was questioned, given the lower levels of PC penetration and other cultural differences between Europe and the USA.

(This experience suggested that young people were switching from TV to the PC and that a shift from collective family viewing towards individual viewing was taking place)

A number of commentators suggested that the relatively lower level of PC penetration in Europe resulted from a range of different factors: cultural differences, higher prices for both equipment and for using the telephone line and lower levels of computer literacy and use. At the same time many commentators highlighted the positive impact of telecommunications liberalisation in driving down telephone and equipment charges. Consumer and user organisations drew attention to the need for specific initiatives to educate citizens and consumers about PCs, the Internet and new technologies.

Question 2(D)   In the light of the positions put forward in the Commission Working Document on the Fifth Framework Programme, what kinds of Community RTD projects should be launched in the context of convergence?

Relatively few comments specifically addressed the issue of research and development priorities. The general focus of those that did so, however, suggested that the Fifth Framework Programme should be aimed at creating attractive, easy to use services, ensuring adequate affordable bandwidth to the home and more generally concentrating on the interoperability of fixed, mobile and broadcasting networks. The need to treat projects with a degree of flexibility to allow them to adapt to changing priorities and technologies was stressed, rather than viewing market developments as moving towards one single solution.

In respect of specific suggestions, commentators from the audiovisual sector urged the Commission to include technology projects supporting multilingualism and electronic cinema distribution within those planned for the Fifth RTD Framework Programme. A number of radio broadcasting organisations considered that it was necessary to look at Digital Audio Broadcasting, to see how it could be developed to accommodate the needs of local and community broadcasters (in terms of the cost of the underlying technologies and/or of costs associated with simulcasting analogue and digital services) and to allow local coverage alongside regional or national broadcasters. Some commentators also drew attention to hybrid systems, which offer a broadcast downlink and an interactive return path via the telecommunications network. Others identified ATM within the Internet, MPEG4 (high levels of visual data manipulation) and MPEG7 (video labelling) as priorities.

QUESTION 3: BARRIERS TO CONVERGENCE

Question 3: What is the likely impact of the barriers identified and are there other barriers or factors which may have a significant impact on the convergence process in Europe?

There were fundamental differences of approach in the comments concerning the actual or potential barriers to the development of convergence. There was general agreement that most of the issues raised in the Green Paper represented at least potential barriers, and, as can be seen below, were in many cases viewed as significant factors in decisions regarding investment and business strategies.

On the other hand, a number of contributions, particularly from public service broadcasters, the cinema industry and organisations concerned with intellectual property rights whilst agreeing that many of the issues identified by the Commission were barriers, **objected to the description of a range of public interest objectives as barriers at all**. This, in their view, tended to assess public interest rules only in an economic context and

implicitly identified such rules as things which should be removed; such an approach ignored the underlying public, social or political objectives which such rules guaranteed and also ignored the role that regulation could play in creating a dynamic framework for innovation.

In general terms, greatest attention focused on **pricing**, the **availability of content**, the level of **IPR protection**, **regulatory uncertainty** about which rules apply to a particular service, access issues (including access to set top boxes), the allocation and availability of **radio spectrum** and the manner in which **public interest objectives** may be achieved. Nevertheless, many of the other barriers, whilst not specifically highlighted in relation to Question 3, were implicitly acknowledged in the comments on the future way ahead (Questions 4 and 5).

Given the close links between the barriers identified and the solutions proposed in the contributions, these barriers and solutions are presented more fully in the response to Question 5 below.

The availability of sufficient content

It was generally agreed that the potential benefits of converging technologies would not be realised without a rich and diverse supply of content and information. Particular emphasis was placed on local content by television and radio broadcasters, with broadcasters stressing their vital role in European audiovisual production. For many commentators from the media sector, the production of quality content was a much more significant factor than the regulatory situation with regard to the take off of new services.

Some public service broadcasters pointed to the spiralling costs of producing and acquiring quality, popular content, in particular feature films and major sporting events. Channel proliferation through digitisation was helping to push up prices for such programming and public service broadcasters sometimes found it difficult to match the bids made by large and wealthy companies in the commercial sector. Public service broadcasters also argued that commercial broadcasters tended to broadcast a higher proportion of cheaper imported content, particularly in the start up phase of their activities, and to invest less in original European productions.

There were a number of comments from Internet Service Providers and others expressing concerns about the risk of audiovisual content rules being applied inappropriately to on-line content. Many broadcasters indicated that transmission time quotas might become increasingly difficult to apply in a multi-channel environment, suggesting instead that regulatory attention should focus on stimulating investment in European production.

Other barriers

Two other barriers, which were not highlighted in the Green Paper but appeared in the contributions, should be mentioned. The first of these was the need to **overcome "technophobia"**, in particular, by developing easy interfaces and familiar or user friendly equipment to access new multimedia services. Broadcasters stressed the role of the TV in this context. Other comments highlighted the importance of receiving equipment for the take-up of new services (see 6.2.4).

Secondly, some commentators stressed the **need to avoid new fiscal barriers** in the form of new taxes on information or services, favouring instead an approach which ensured neutrality in tax treatment between on-line and off-line activities.

QUESTION 4: THE IMPACT OF CONVERGENCE ON CURRENT REGULATION

Question 4(A): Do current developments require more or less regulation in the sectors affected by convergence, more or less reliance on competition rules, and more or less reliance on market forces to achieve the objectives identified in earlier Chapters?

A wide variety of views were expressed about the extent to which convergence would or should impact on the approach to the regulation of telecommunications, IT and the media both here and in response to Questions 5 (overcoming the barriers) and 7 (the future shape of regulation). In essence the views revealed differences about:

- the underlying role of regulation in the sectors involved and, in particular, the balance between competition rules and sector specific regulation,

- the extent to which the Internet and on-line services should be subject to detailed (or additional) regulation, and

- the areas in which competition rules are particularly relevant.

To avoid repetition, comments on these issues are set out under Question 7(1) below.

Question 4(B) Whether and if so, to what extent convergence challenges the principles underpinning existing regulatory approaches in the telecommunications, media and IT sectors?

- Many commentators agreed with the Green Paper assertion that **convergence does not call into question the objectives that underpin sector specific rules**, particularly in the broadcasting sector, but may **call for a review of the manner in which these objectives are achieved**. Contributions from business, the IT and Internet industries, as well as from many telecommunications operators highlighted the practical difficulties of applying and enforcing existing regulation for on-line services.

- However, many of these commentators felt that the way in which objectives were achieved and the weight of those rules should **take account of the way in which new services and technologies empower the consumer and the citizen**, enabling them to make more informed choices about the services and information they receive. Some commentators took this further as calling into question the need for continuing content related obligations, such as rules relating to diversity, and

pluralism, claiming that the market would meet these objectives. Others considered that such obligations would become even more important in an on-line environment.

- A number of commentators stressed that the nature of the **Internet implied a wide range of challenges**. For example, it was difficult to apply national standards to content delivered from outside that country and the direct impact of the Internet (e.g. chat groups) made it closer to the spoken rather than the written word.

- Comments focused on the **manner in which competition rules were applied in the context of convergence** There was widespread support for their strict application.

    – Some highlighted: the risk of vertically integrated players leveraging their positions into emerging markets; the need for competition rules to be applied against discriminatory behaviour by existing network operators; and the risk of unfair cross-subsidies of new service activities by large telecommunications operators.

    – Others suggested that more attention should be given to the **dynamic nature of the market,** and that current bottlenecks might rapidly be overcome by technical solutions. Still others stressed the need for market analysis to take full account of new possible distribution channels., Concerns were also expressed about the need for regulatory policy to **take account of the high levels of investment required** in rolling out digital networks or setting up digital TV platforms (including developing a wide base of set-top boxes), particularly in view of the uncertainty with regard to demand.

- Finally, **digitisation was widely recognised as raising a wide range of challenges for the application of existing IPR principles**, though different views were expressed about the specific issues and about the extent to which solutions at an international level had already provided an adequate response to these problems

QUESTION 5: OVERCOMING THE BARRIERS - GETTING THE RIGHT REGULATORY FRAMEWORK FOR BUSINESS AND FOR CONSUMERS

Question 5(A): Are the definitions in the telecommunications, media and IT sectors in national and/or Community legislation adapted to the convergence process?

Regulatory uncertainty

There was **general agreement that all the sectors affected by convergence required a clear and predictable regulatory framework** to facilitate investment decisions. Many commentators also stressed the need to ensure that the regulatory framework was, as far as possible, technology neutral, which was not always the case today as systems tended to be licensed on the basis of the platforms or technologies involved.

Many commentators, however, expressed concerns about the fact that certain services now being delivered either would not fit clearly into the idea of a publication, a telecommunications service or a broadcast, or would lead to inconsistent regulatory treatment of similar activities.

Some commentators argued that these services also challenged the underlying principles behind regulation, such as applying more detailed rules where a service was provided to

the public than when it was private correspondence. Practical examples of difficulties were cited such as whether advertising on the Internet should be treated in the same way as advertising over a broadcast medium, and how interactive links (which represented a one to one interaction) should be treated where they were integrated into a digital broadcast (offered to the public). Others argued that the distinction between public and private communications was not affected by convergence and that regulation should continue to closely reflect the nature of the service offered.

Another group of comments suggested that distinctions between different areas of regulation should take account of whether an activity was scheduled or not as the deciding factor for whether it was subject to broadcasting regulation.

A number of comments, from information service providers highlighted the uncertainty about which rules would govern particular services or activities: this represented a real risk which could push up the costs of doing business. Others suggested that digitisation made it increasingly difficult to distinguish telecommunications providers from broadcasters. Finally, many comments from business users, the IT sector, publishers and Internet Service Providers stressed the need to avoid "heavy" broadcasting rules being applied to Internet content, calling instead for "light regulation" of on-line content.

However, many broadcasters and several Member States suggested that issues of uncertainty only applied at the margins of current activities and neither called into question the underlying and distinct regulatory objectives of different sectors, nor required a wholesale adjustment of the regulatory framework. If there was a "blurring" of the distinction between different sectors, commentators considered that this only occurred at the "border zones". The centre of gravity and the nature of the main activities remained unchanged. Where problems existed they should therefore be resolved on an ad hoc basis. Furthermore, the fact that different services may be delivered via the same pipe does not mean that their distinctive nature necessarily changes, or that they should fall within the same definition.

Finally, at least one regulatory authority within a country with a federal structure stressed that distinctions between telecommunications and broadcasting needed to be maintained in order to reflect national prerogatives to organise the division of responsibilities between different levels of the State.

Multiple regulatory bodies

With regard to the issue of companies having to deal with more than one regulatory body within a Member State, different views were expressed as to whether or not this represented a substantial barrier to business. This issue was, however, raised by consumer organisations as highlighting how difficult it was for a consumer to identify which regulator could help with a particular problem. One example cited was the involvement of multiple regulatory bodies for a service which involved audiovisual content or home shopping being offered over the Internet (i.e. via a telecommunications connection) in one Member State, perhaps from a different Member State or from outside the EU. This also pointed to the need in the views of both consumer organisations and the Internet industry for clearer rules relating to the chain of liability in a digital environment.

Question 5(B): Will the convergence phenomenon require adaptation of existing approaches or the adoption of new approaches to be applied to issues of market entry and licensing; access to networks, customers (including conditional access systems), content; and pricing?

Limited routes to deliver services to customers

There was **general recognition that for the foreseeable future there would continue to be a limited number of routes to individual users**, (namely, fixed telephone lines; wireless, mobile and/or satellite communications links; terrestrial broadcasting and/or cable TV infrastructure). Consumers, in particular, were unlikely to have more than perhaps one or two of those links in their home. This led a number of new entrants in the telecommunications market to call for open access requirements to be applied to local loop infrastructure, and from some commentators, to cable television infrastructure in general. This should require local loop unbundling to be mandated as a way of stimulating effective service-based competition. Others called for the urgent licensing of more cable infrastructure and of wireless local loop technologies.

There also seemed to be **broad support for a continuing framework to guarantee interconnection between public networks**. Others from the cable sector suggested that applying ONP-type rules to cable networks represents unnecessary regulation and would risk favouring satellite systems.

A range of comments from content producers and some broadcasters (including community and local radio broadcasters) also focused on the need to ensure access to the available distribution channels. In the view of **many public service broadcasters, this would require an extension of "must carry" rules to digital platforms** to ensure that certain programming was included within digital bouquets. Furthermore, the **current lack of capacity within the local loop network was seen by many as a particular handicap** for the short-term take up of the Internet. (This was notwithstanding the prospect of cable modems and xDSL technologies in the next 12-24 months or of UMTS offering mobile multimedia at the start of the next century). For broadcasters, these limitations also highlighted the lack of suitability of the Internet as a vehicle for the delivery of high quality audiovisual content.

Finally, even where there was limited competition with regard to infrastructure, the access to one or more of those channels was likely to be controlled via a digital gateway (e.g. a set-top box). This was the focus of particular concern. (See below).

For many commentators, **questions relating to how services reached customers were nevertheless seen as a matter for commercial agreement**, either between the network operators and service providers concerned or between the consumer and the service provider. It was considered, by a number of commentators, that access to networks should be evaluated according to competition rules. Others particularly from the telecommunications sector, however, suggested that, **in the absence of competition in the local loop infrastructure, a combination of competition rules and of sector specific regulation would be necessary** to ensure fair and non-discriminatory access to networks.

Restrictions preventing the use of a network for particular activities or obliging the use of one particular network

Whilst few commentators highlighted this issue, concerns were expressed that such **restrictions opposed the trend towards converging platforms** and that they unnecessarily limited investment, innovation (in terms of combined service packages) and consumer choice. **Others accepted such restrictions might be needed on a temporary basis, where they were focused on promoting local loop competition, or on providing certain guarantees for consumers**.

More generally comments were received from all sectors about the need to safeguard against abuses of market power by vertically integrated companies. Such integration was a trend which technological convergence was seen as accelerating. Particular concerns were that existing network operators would attempt to exploit their strong position to enter on-line service markets (i.e. predatory pricing, price squeezing, price discrimination or discriminatory access). In general, however, it was felt that competition rules provided an adequate solution, rather than regulatory safeguards preventing vertical integration between certain activities.

In addition, some commentators expressed concern that certain operators were cross-subsidising different types of services provided over the same network.

Licensing

Relatively few commentators identified licensing or current licensing procedures as a major barrier within the market today, although those with experience of telecommunications markets stressed the need for independent licensing authorities and the use of open and transparent procedures. On the other hand, a clear message from industry, from IT players and from the publishing/press sector was that licensing requirements should only exist in exceptional circumstances where absolutely necessary to ensure clearly defined objectives or where linked to the allocation of scarce resources.

A number of commentators stressed the need for long licence periods given uncertain returns on digital investments.

Access systems, conditional access, EPGs, APIs

There was general agreement that in a digital environment access to the customers and networks would be key regulatory issues (for networks see above). There was an inherent tension between the need to recover investments - which tended towards the introduction of proprietary access systems - and the need to ensure a degree of openness in order to guarantee access by competitors to the network, and hence access to consumers. Certain commentators considered that open access was needed not only in respect of competition rules but also to ensure plurality and consumer choice.

This meant that particular attention was focused on the rules which might apply to set-top boxes, as well the rules which might apply to related APIs (application programming interface) and to Electronic Programme Guides (EPGs). Many of the commentators supported the principles underpinning Directive 95/47/EC, which provides for non-discriminatory access by operators to digital television platforms and considered that these principles should apply to access systems in general. Others felt that access issues

could best be resolved in the context of the Treaty competition rules, perhaps building on current concepts of "essential facilities".

Additionally, a range of comments pointed to the broad nature of such gateways in relation to all digital services (for example, interfaces on Internet telephones, Digital Audio Broadcasting services or for UMTS) and not just with regard to encrypted broadcasting services. Therefore many commentators called for a consistent set of rules to be applied to digital gateways, irrespective of the nature of the services to which they gave access. High prices for telecommunications services or for multimedia equipment / Impact of price regulation

There was wide recognition that on-line and other new services would only succeed if the overall cost of using them was considered reasonable (i.e. service subscription, communication charges and cost of equipment) by a significant part of the population. Most concern focused on the current relatively high charges for local telephone calls and on the bundling of on-line access and special "Internet" telephone rates by incumbent phone companies. A number of comments from business and from Internet Service Providers stressed the role that low cost telecommunications services had played in the wider take up of the Internet in the USA. Others considered that the pricing policies of the incumbent telecommunications operators restricted their ability to launch and develop new trans-frontier services and might be considered anti-competitive. On the other hand, many incumbent phone companies stressed concerns about the impact in the USA of flat rate or free local calling on network congestion.

Other telecommunications operators and equipment manufacturers raised the issue of digitisation and the shift towards packet switched data networks, where it would be increasingly difficult for the carrier to identify the nature of the service (i.e. a phone call, a Web Page, a film). This would make it much more difficult to price on the basis of the service concerned and at the same time ATM-based switching would highlight the difficulties of charging per minute for data traffic.

Broadcasters and consumer organisation also raised the issue of the cost of equipment, (both digital TVs and the cost of PCs) as being a major factor in the speed with which new on-line services would be adopted in the home.

Another aspect raised in the comments, particularly by new entrants to the telecommunications market was the impact of price regulation on their ability to enter the market. In their view, the requirement for cost-orientation for interconnection and certain services offered by operators with significant market power was squeezing the margins within which they might otherwise expect to compete on price. Prices should be better set on the basis of commercial agreements alone. On the other hand, a number of comments highlighted a continuing need for price regulation in certain areas, such as network interconnection, until competition was fully effective.

Question 5(C) Will convergence require changes in the approaches to the award and pricing of frequency spectrum, and in particular what approach should be taken, in the light of convergence, to the issue of completing the transition from analogue to digital services, including the need for a timetable for analogue switch-off?

Allocation, availability and pricing of radio spectrum

There was general agreement on the increasing demand for radio-spectrum from new digital services, and on the need for it to be used efficiently. Additionally, it was essential to know which blocks of the frequency spectrum would be available and when. Both mobile network operators and broadcasters considering starting digital services stressed their need for early decisions on the allocation of additional spectrum in their areas of activity. These decisions would link directly to investment in these activities.

In general, notwithstanding the efficiency gains flowing from the use of digital communications, (and the analogue spectrum made available), **most commentators considered that spectrum would continue to be a scarce resource** for the foreseeable future. In particular, broadcasters pointed out that, for a lengthy period of time, broadcasting would be simultaneously transmitted via digital and analogue frequencies, thereby occupying additional spectrum.

In terms of barriers, a number of commentators highlighted concerns about the lack of independence of regulatory authorities and of transparency in the manner in which spectrum was allocated in the broadcasting area. They contrasted this with the detailed requirements now created for licensing and for spectrum allocation within the telecommunications area. Current pricing of spectrum (or differences in prices between broadcasting and telecommunications usage) was not highlighted as a significant barrier.

Whilst there was agreement on the overall need for greater efficiency in spectrum use, there were widespread concerns about the possible auctioning of spectrum. Some commentators recognised that by placing a commercial value on spectrum, greater efficiency might be promoted and that civil users of spectrum might be encouraged to release some of their existing spectrum. Others pointed out the risk of discrimination where later market entrants were required to pay a market value, whilst existing users had paid much lower fees.

However, for a large majority of broadcasters, telecommunications operators and equipment manufacturers, **current mechanisms such as so-called "beauty contests" or comparative bidding provided the most effective way** of balancing the need to ensure efficient use of the spectrum awarded and the need to avoid excessive charges for the players involved, as ultimately those charges would be passed on to the consumer. (Such high charges were felt to often be motivated by national budgetary considerations rather than by the concern of spectrum efficiency). At the same time, a number of broadcasters, including those representing community and local radio, made the point that where higher values were attached to spectrum, provision should be made to ensure that certain public service broadcasters could still obtain spectrum at an affordable price.

Comments on analogue switch off

The issue of whether dates should be set or co-ordinated at a European level for the switching off of analogue broadcast services attracted considerable comment from broadcasters, equipment manufacturers, consumer groups and Member States. **Opinion was split** between **those who saw any transition from analogue to digital**

broadcasting as being market led, and not requiring Government or EU level intervention, and **those who considered that a deadline set at a national level would be a useful stimulus** to the development of digital broadcasting in the EU.

Many of the commentators saw the **EU role as one of co-ordination of switch off dates rather than setting a single date** for all Member States. However, a number of Member States favoured a more cautious approach, and alongside consumer groups, suggested that it would be essential not to require analogue turn off before there was widespread take up of digital TV. The radio community also suggested that radio would be likely to continue to need to be simulcast for the foreseeable future because of the very large installed base of analogue radios.

Whilst there were fewer comments on this issue from the telecommunications side, a number of mobile operators and equipment manufacturer's saw some merit in dates being set for shutting down analogue mobile communications systems in order to free spectrum for further digital communications. Others suggested that Governments had a key role to play in ensuring that they rapidly switched all their services from analogue to digital systems.

Question 5(D)   What should be the objectives of standardisation in the light of convergence and what should be the relationship between regional and international standardisation?

There was widespread agreement that standardisation should be voluntary, industry-led and market driven. It should also continue to be based on open procedures, though some comments suggested a need for greater representation of consumer, user and local Community needs. On the other hand, some comments from the telecommunications side, from industry and from consumers stressed the need to ensure inter-operability which might require a minimum level of mandatory standardisation.

Particular attention focused on the need for interoperability not only at a regional, but also at a global level. However, different views were expressed on whether achieving global standards could best be achieved via existing regional standards bodies, such as ETSI within Europe, or whether more ad hoc solutions focused from the start on global outcomes were the best route forward. The example of DVD (digital versatile disk) standardisation was cited as a good example of the latter.

Question 5(E)   What additional action (if any) is required to ensure that the interests of consumers and of users with disabilities are respected in the light of convergence?

Consumer protection, security of electronic transactions and data protection and privacy

The need for greater safeguards to ensure that consumer interests are protected was highlighted by many commentators, as well as the need to ensure consumer confidence through clear rules on digital signatures, on liability for e-commerce and other on-line services, on data protection and privacy and on the availability of effective encryption. In this context, the Commission's E-Commerce Communication and proposal for a Directive on digital signatures was widely supported, as was Directive 98/297/2/EC, since they were seen as helping to create the necessary degree of consumer confidence in new activities. Certain Internet Service Providers mentioned the provisions with regard to the transfer of personal data outside the EU as a possible problem, if it led to less efficient data processing.

Other consumer concerns specifically raised included the need for effective dispute resolution, preferably offered by a single point of contact (at least within a Member State); the need to involve consumers in standards and quality of service targets; and the need to allow users a choice of services (i.e. avoid the bundling of services which the user does not want with services that he or she does want).

A range of comments, however, downplayed the need for extensive additional consumer-focused legislation, suggesting that it would be in industry's interest to ensure a high degree of consumer confidence in the products and services offered. Comments from the press and other off-line media felt that it was more important for consumers to avoid over-regulation of new media, so that the focus should be ensuring that existing horizontal rules promoting the consumer interest apply to on-line or on-screen activities.

QUESTION 6: SECURING PUBLIC INTEREST OBJECTIVES IN THE LIGHT OF CONVERGENCE

Question 6(A)   Does the convergence phenomenon support or challenge the way in which public interest objectives are achieved in the telecommunications, media and IT sectors?

The achievement of public interest objectives

The issue of regulation and public interest objectives attracted a considerable degree of comment. For many of those commenting, including academics and Member States, as well as broadcasters, such **obligations represent a strength rather than a barrier within society**, particularly in the context of rules relating to audiovisual content or plurality, given the specific role of television, radio and film in a democratic society.

The consultation **confirmed general recognition of a continuing role for public service broadcasting**. This led many public broadcasters to state that the public service mission conferred on them would continue to require both specific funding mechanisms as well as other regulatory measures to enable them to meet their obligations. Commercial operators and potential competitors expressed concerns about the potential distortion of the market place resulting from the benefits enjoyed by public sector broadcasters and called for greater transparency to ensure that their commercial activities were not being unfairly cross-subsidised.

There was also recognition that convergence offered new ways of meeting public interest objectives (both directly and indirectly, as a result of the lower cost and greater flexibility). This might require a review of regulatory tools, but did not challenge the fundamental policy objectives underpinning such regulation.

Many broadcasters, both public and private, highlighted their ability to complement traditional public service broadcasting with on-line information and inter-active services, whilst comments from the Internet industry, from telecommunications operators and from Member States all stressed the significance of the Internet as a means of providing individual and community access to a wide-range of information, services, entertainment and educational material.

Different consequences were drawn from these positions. Many public broadcasters stressed the importance of allowing them to make full use of the Internet and new digital technologies to increase their outlets and to enable the public service mission of broadcasters to evolve in a digital environment. Commercial broadcasters and the Internet industry expressed concern over such an approach, if such activities were

subsidised out of revenue originally earmarked for public service broadcasting or if it unfairly distorted the market for advertising.

Other comments from academics and from consumer organisations felt that one regulatory response should be a redefinition of both the public service mission in broadcasting and of universal service for telecommunications to include new technologies and services. *One example would be the inclusion of access to e-mail and an e-mail address as part of the universal service obligation in telecommunications.* However, many new entrants in the telecommunications sector were strongly opposed to any such extension of universal service obligations.

A range of commentators agreed with the importance attached to the Green Paper to the wider group of general public interest objectives which were not specifically focused on broadcasting activities. There was support for the need to guarantee a minimum level of data protection and privacy; ensuring effective encryption and a framework for digital signatures, as well as continuing efforts related to the protection of minors and the control of harmful and illegal content.

IPR protection

Many contributions highlighted the impact of IPR protection. Most felt that regulation in this area was not a barrier but a pre-requisite for rights-holders to participate in an on-line environment. Some felt that inadequate protection rights holders in a digital environment was inhibiting the development of e-commerce and the distribution of information and audiovisual content. Others highlighted current protection as acting as a brake on developments and leading to a partitioning of European markets along national lines, defined by the intellectual and industrial property rights concerned.

Question 6(B)   Should such objectives be more clearly identified and. where they translate into particular obligations, should a wider group of actors be able to take on such obligations?

The need to identify obligations more clearly

A number of comments from broadcasters, consumer and user groups and academics **questioned the role of the Community in relation to any aspect of public service obligations in the broadcasting area**. The Protocol to the Amsterdam Treaty on the System of Public Broadcasting was in their view of fundamental importance in this context as it recognised the role of public service broadcasting within a democratic society and clearly identified the definition of such obligations and the mechanisms for their financing as a Member State responsibility; further definition of such obligations was not therefore required.

Other commentators, however, considered that, following Amsterdam; Member States should now define their public service mission more clearly and ensure transparent arrangements in respect of commercial activities undertaken by public service broadcasters. A number of comments from IT, business and telecommunications highlighted a general need for greater financial transparency with regard to the public service mission. This was seen as a pre-requisite for public service broadcasters to take advantage of digital platforms and enter areas, such as the Internet, where they would be operating in the same environment as Internet Service Providers and telecommunications operators

Who should fulfil public service obligations?

Public service broadcasters argued that they must take full advantage of new technologies, such as the Internet and digital broadcasting, in order to fulfil their mission in the new digital environment. Most broadcasters supported a mixed system of public service and commercial broadcasting. Public service broadcasters and many Member States considered that commercial broadcasters would not be able to fulfil adequately a public service mission, given the inevitable tensions between those obligations and their overall commercial objective. However, a number of comments, including those from commercial broadcasters, indicated their willingness to accept public service obligations, or pointed to the manner in which they currently fulfilled certain public service broadcasting obligations, notwithstanding their more general commercial activities.

Some commentators suggested that the possibilities offered by new technologies, including easier access to a wider range of information and the manner in which the user made choices concerning the content and information being accessed rather than passively consuming it, meant that it might no longer be necessary to place particular rules regarding pluralism on any individual operator.

QUESTION 7: THE FUTURE SHAPE OF REGULATION

Question 7(A) Do current developments require a reassessment of the way in which rules are applied to the telecommunications, broadcasting and IT sectors?

Comments on future approaches to regulation in the telecommunications, media and IT sectors

A wide range of comments was received about future regulatory approaches and priorities within the sectors concerned. A number of trends within these comments can be identified:

- There was **general agreement that future regulation should be technology and platform-neutral**, and that existing rules would need to be adjusted where this was not the case. At the same time different views were expressed about the appropriate basis for applying rules to particular services or activities in the future.

- Many comments from the publishing, IT and software sectors and many telecommunications operators suggested that **regulation in the new environment should be principally competition-based**. Some of them also went further to suggest that there should be no assumption that <u>all</u> services should be regulated. The **publishing sector argued strongly that on-line publishing services** should be regulated exclusively on the same basis as newspapers, magazines and books.

- Business and IT comments also **rejected any additional regulation of the IT sector**.

- Additionally, these contributors tended to argue that the **Internet did not require additional regulation**, but simply clarification in certain situations of how current rules applied to it.

- In many cases, the **problems in respect of regulating on-line activities would be those of enforcement**, where **industry-led solutions would be important** (e.g. self-regulation, hard-ware or soft-ware based solutions, combined with Code of Practice,

telephone hot lines, etc). Rather than relying solely on market forces and competition law, some telecommunications operators, most Member States, consumer groups and broadcasters saw a continuing role which balanced competition rules with sector specific regulation designed to foster competition, deliver social and consumer goals and to regulate certain aspects of content provision. Other commentators suggested that detailed sector specific regulation should be limited, for example, to the network level of the market or to issues which involved access to scarce resources, such as radio spectrum.

- Many of the telecommunications operators, nevertheless, saw most **sector specific regulation as a transitional device to help develop an effective communications market**, giving way over time to increasing reliance on competition rules. They called for existing sector specific rules to be rolled back as part of the 1999 Telecommunications Review. This approach contrasted with the views of many in the **broadcasting and media sectors and most Member States who saw public interest regulation as a positive and permanent element within the regulatory landscape, the objectives of which could not be met by competition rules**

- Most **broadcasters and Member States continued to see a range of issues which would require a sector specific regulatory response in the audiovisual sector**, such as pluralism, diversity, promotion of culture, protection of minors, etc.

- A range of comments focused on **competition issues raised by convergence**. There was widespread support for a strict application of the competition rules in this area.

  – Several commentators focused on the **need for competition rules to be applied against discriminatory behaviour by existing network operators**, with concerns focusing on the risk of discrimination, unfair cross-subsidisation, bundling of access and services, as well as the overall approach to the charges paid by Internet Service Providers for interconnection and other telecommunications services. Additionally, some commercial broadcasters and telecommunications operators expressed concerns about the lack of transparency with regard to the commercial activities of publicly funded broadcasters. Broadcasters in general expressed concerns about the risk of unfair subsidies by much larger telecommunications operators who might enter into the new service and media areas.

  – Many network operators stressed the **need for competition law to be applied in a way which took account of the very large investments needed** to roll out digital communications networks and digital TV platforms, as well as the considerable uncertainty surrounding the demand for these services.

Comments on issue of vertical or horizontal regulatory models

There was a large measure of agreement from all market actors, users and from several of the Member States on the **need to ensure a consistent approach to the way in which networks and transmission services were treated.**

This led many of those commenting to **support a move away from current vertical regulatory approaches**, (which licensed networks and service on the basis of traditional

market segments) **to a more horizontal approach**, applying the same rules to networks, access issues and transmission services. This was felt by many broadcasters to reflect the reality of digital technologies, whilst allowing rules governing content provision and certain general public interest objectives to continue to reflect the specific nature of the services concerned.

A number of commentators highlighted the need to draw a distinction **between the rules applying to content provision and the rules applying to the "container"**. However, a number of comments from the Internet industry and from some telecommunications operators, also highlighted the difficulties in practice of distinguishing where the borderline should be drawn between networks and service activities. A particular concern was that any **distinction drawn for regulatory purposes should not mean businesses should automatically be split along similar lines**, as that could undermine many of benefits offered by convergence.

A key issue was where dividing lines might be drawn with regard to content services in order to determine which rules would apply to which types of content or information. A number of commentators suggested that any approach had to recognise the extent to which material was controlled or requested by the consumer, e.g. whether the programme, service or content was scheduled or delivered on demand, whether it was paid for separately, part of a bundled offer or "free".

One public service broadcaster suggested that content regulation should apply to all content services, but must be graduated depending on (1) the availability and "publicness" (i.e. pervasiveness) of the content; (2) the degree of user control and (3) the degree of choice exercised by the user in accessing the service. The practical consequence of this might, in its view, be that traditional regulation would tend to apply to television or radio content using the Internet simply as an alternative delivery channel, but would be unlikely to apply to many other Internet activities.

Finally, this refocusing in regulatory approaches along horizontal lines was seen by many commentators as a fundamental objective, irrespective of the positions subsequently taken in relation to the options for change set out in the Green Paper.

Question 7(B) Does the existence of different regulatory authorities or ministries responsible for different aspects of telecommunications, media and IT activities offer a workable structure for regulatory supervision in the light of convergence?

Few commentators addressed the issue of whether **multiple and overlapping regulatory bodies should be consolidated** as part of the process of developing a more horizontal approach to regulation. Nevertheless, many broadcasters and Member States opposed a single regulator for broadcasting. Comments from the IT and software industries also tended to be cautious about moves towards consolidating regulators because of the risk of that leading to greater regulation of on-line services than is presently the case. In their view emphasis should be placed on reducing current overlapping responsibilities, and increased co-ordination between the bodies concerned.

Convergence did not appear to strengthen calls for some form of regulatory authority at a European level, though a number of comments highlighted the co-**ordination role which the Commission might play in bringing together regulators from the different sectors and from different Member States**. However, a few comments from the telecommunications sector suggested that a European regulatory authority responsible for

infrastructure and network issues, might be consistent with convergence, whilst others suggested that the degree of discretion given to the Member States within existing directives was undermining the Internal Market and strengthened the case for some kind of European level body. Consumer organisations renewed their call for a move towards a European regulatory authority for communications in order to offer consumers a single point of contact and redress in the case of trans-national problems.

There was widespread agreement, on the need for regulatory bodies to be independent, adequately resourced and offer rapid dispute resolution, whatever the shape of the regulator.

Question 7(C)   Will convergence require a reassessment of regulatory responsibilities at a national, Community or international level, and, if so which areas?

Generally, most commentators did not identify particular problems in respect of the current balance of regulatory responsibilities between national, EU and international levels in the different sectors affected by convergence. Most commentators believed that day to day regulation should remain a Member State responsibility, given the need to ensure rules adapted to specific national situations.

Comments from regulators and broadcasters, particularly from Germany and Belgium, reflected the specific balance of responsibilities between the Federal and regional levels and believed that those were in keeping with the specific characteristics of broadcasting services.

QUESTION 8: THE INTERNATIONAL ASPECTS OF CONVERGENCE

Question 8(A)   Is further action required at an international level in light of convergence?

There was general agreement on the need to ensure a better understanding of the regulatory and other issues arising from the convergence phenomenon at an international level. The proposal for a Global International Charter was welcomed by many in this context, providing that it involved widespread industry participation. This was essential not only because the global, decentralised nature of data networks created significant challenges in enforcing national standards and regulations, but also to promote a wider understanding of particular political priorities arising at a European level.

At the same time consumer representatives highlighted the need to avoid a levelling down of current regional standards of protection. They also stressed the need for a clear framework for jurisdiction in relation to on-line services provided from outside the EU.

Question 8(B)   What additional steps (if any) are required to encourage other countries, particularly, in Central and Eastern Europe, to create conditions within which current developments can be exploited?

Commentators mainly confined themselves to highlighting the opportunities which converging technologies and modern communications networks could play in integrating Central and Eastern European economies into the European Union and in both preserving and disseminating the rich national cultures of the countries.

QUESTION 9: PRINCIPLES AND POSSIBLE APPROACHES IN THE LIGHT OF CONVERGENCE

Question 9(A)   What effect will convergence have on the principles for future regulation applied in the telecommunications, media and IT sectors, and should those principles be adapted in the light of convergence?

The principles put forward in the Green Paper as underpinning future regulatory approaches were widely endorsed in the comments received. At the same time, a number of commentators expressed concerns that the principles failed to acknowledge the positive role played by regulation in many cases.

Consumer groups, as well as certain Member States and regulators stressed the **need to place the consumer at the centre of any future approach**.

A number of comments, in particular from the publishing and IT sectors, considered that these principles should be complemented by the **need to recognise that competition law, rather than sector specific regulation should play a greater role in the new environment**. They also felt that it was important to **focus on workable and timely solutions** to problems, which would often lead to industry-led initiatives rather than formal regulation.

The **publishing sector argued for a principle of equivalence** to be recognised, which would equate all Internet and on-line media with the printed media, so that regulation would be achieved via horizontal legislation applying to all sectors and underpinned by constitutional freedoms such as freedom of expression.

Question 9(B): If convergence requires adaptation of existing regulatory approaches, should that adaptation: (I) seek to build on, and if appropriate, extend existing frameworks, rather than create new ones; (ii) create a new framework for many on-line and interactive services, to co-exist with the those currently applied to traditional telecommunications and broadcasting activities, or (iii) seek to create a comprehensive framework applying similar regulatory approaches to all three sectors.

Comments on the options for change

Inevitably, the options presented for discussion in the Green Paper attracted considerable attention. The majority of those commenting, including most Member States favoured an approach which would build on existing regulatory frameworks. For most of those commenting, particularly broadcasters, this equated to Option 1.

This was felt to offer the highest degree of certainty for investment, whilst maintaining continuing public interest safeguards in relation to the distinctive characteristics of each sector involved.   Some claimed that it might also limit a tendency to add rules to areas currently not subject to regulation.

At the same time, a number of comments highlighted the possible evolution from an approach building on the existing framework in the short term to a more far-reaching approach , in particular for networks and infrastructure, in the medium to long-term.

Many of those suggesting that a distinction should be drawn between networks and content provision or between "content" and "the container", also indicated that networks should be governed by a single set of technology neutral rules, whilst content provision could continue to be subject to existing frameworks which were closely related to the specific characteristics of the services concerned. (i.e. a combination of Options 1 for content provision and Option 3 for networks and infrastructure).

Option 2 received only limited support, drawn in part from some broadcasters and from many comments from Germany, where this Option was equated with the current national framework. On the other hand, many commentators expressed concerns about the creation of additional layers of regulation or additional boundaries, where grey areas between, for example, new services and traditional telecommunications services might arise.

Additionally, **many from the IT and publishing worlds questioned the need for <u>any</u> regulation of most on-line services.** This also led them to reject Option 1 and Option 2 as risking an extension of detailed rules applied in telecommunications and broadcasting to a wide range of new services and activities, or introducing a new layer of supervision, where none existed today.

An approach which attempted to create **a consistent set of rules underpinning all aspects of regulation of the sectors concerned was supported by** many in the telecommunications and IT sectors. Such an approach was seen as doing more than simply extending the existing rules. It would also involve a fundamental re-examination of whether traditional approaches remained valid in the longer-term, and workable in an on-line environment. This equated with Option 3 in the Green Paper.

Nevertheless, **most comments felt that such a fundamental review was unnecessary and would actually destabilise current frameworks**. These were felt to be working reasonably well despite the challenges posed by the Internet and other services. Additionally, certain commentators considered that such an approach would be inconsistent with the principle of subsidiarity.

 Even those supporting an Option 3 approach generally viewed this as a **gradual process of change, rather than an urgent rewriting of the rules in question**. For others Option 3 might be a viable long term goal for certain aspects of regulation, but only once the full transition to digital broadcasting had by completed, so that digital platforms served all the sectors involved in the convergence process.

Comments on the timetable for future action

Given the views expressed on the Options above, there was a general view that any adjustment of the regulatory framework should be a gradual process. This reflected the widely held view that premature attempts to regulate for a converged environment would be counterproductive and risked holding back rather than fostering the developments underway. For these commentators, the uncertainty as to how technology and demand

would develop made it extremely difficult to identify the right regulatory response on many issues at this stage.

Additionally, comments from both the telecommunications and broadcasting sectors pointed to the fact that their respective **regulatory frameworks at Community level had only recently been put in place** (telecommunications) or revised (broadcasting). These sectors, supported by a number of Member State authorities, therefore stressed the **need for a period of stability** and legal security in these sectors, particularly telecommunications, in order to allow the framework put in place to take effect.

Many of those commenting suggested a realistic aim would be to ensure that regulatory change on the telecommunications side to take account of convergence should result from the forthcoming review of the telecommunications framework at the end of 1999. This would then lead to legislative changes which would perhaps come into effect in 2002/3. Certain broadcasters also pointed to the review requirement for the TV Without Frontiers Directive set for 2001, and consider this to be a realistic target.

ANNEX 2

LIST OF CONTRIBUTORS TO THE GREEN PAPER CONSULTATION

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Numbers and types of organisation responding to the consultation

In total 274 parties responded to the consultation in contributions with over 3000 pages of comments. Of the parties responding, their distribution by sector/type was:

Telecommunications operators	15%	General industry associations	35%
Broadcasters	11%	Trade Unions	6%
Equipment Manufacturers	4%	Individuals	17%
Governments and regulators	12%		

Table 1 shows the number of respondents by category of organisation.

Distribution of commentators by country of origin

AUSTRIA	3,65%	LUXEMBOURG	0,4%
BELGIUM	3,3%	NETHERLANDS	4,4%
CANADA	0,4%	NORWAY	0,75%
CZECH REP.	0,4%	PORTUGAL	0,4%
DENMARK	1,1%	SPAIN	2,5%
FINLAND	2,2%	SWEDEN	1,1%
FRANCE	8,4%	SWITZERLAND	1,1%
GERMANY	13,5%	UK	17,5%
GREECE	1,1%	USA	3,2%
IRELAND	4,75%	INTERNATIONAL/EU	24,4%
ITALY	2,2%		

Table 1: Distribution of organisations by category

STATES, REGULATORS AND EU INSTITUTIONS	ASSOCIATIONS	COMPANIES, INSTITUTIONS AND INDIVIDUALS
- Administracion Espanola - ART Autorité de régulation des télécommunications (France) - Broadcasting Standards Commission - Bundesrat - Bundesrepublik Deutschland - Bundesverband DeutscherZeitungsv erleger - Communaute francaise de Belgique - Consejo de la Comision del Mercado de las Telecomunicacione s de Espana - CSA Conseil supérieur de l'audiovisuel (Paris) - Danish Govnt - Department of	- ACT Assoc de Televisions Commerciales- Bruxelles - ACTS Multimedi Domain - AER Association of European Radios- Bxl - AETEA Assoc. Euro des telespectateurs et auditeurs- Paris - AFA assoc des fournisseurs d'acces- Paris - AIT Assoc des Ingenieurs des Telecommunications - AMARC EUROPE Association mondiale des radiodiffuseurs communautaires (UK) - Associated Newspapers Ltd. (London) - Avica assoc des villes cablees – Paris - BDI Bundesverband der Deutschen Industrie (Köln) - BECTU Broadcasting Entertainment Cinematograph & Theatre Union (London) - BEUC Bureau européen des unions de consommateurs - British Music Rights Ltd - Bundesfachkommission Innovation und Information & Wirtschaftsrat Brüssel - Bundeskammer für Arbeiter und Angestellte (Wien) - CCA Cable Communications Association - CCE Consumer Communications for England - Centre Co-opertatif de la consommation - CEEP - CICI Confederation of Information Communications Industries (London) - Cigref Club Informatique des Grandes Entreprises Francaises - CITPA Confédération internationale des transformateurs de papier et carton en Europe	- AFMA Europe- Harrow - Airtel Móvil SA- Madrid - AirTouch Communications - Alcatel - AMCHAM EU Committee - AOL - Arbeitsgruppe "Demokratie une Multimedia Wirtschaft" - Arbeitsgruppe des Katholischen Zentrums (...) Österreich - ARD-Gremienvorsitzende - ARD/ZDF - BBC - Belgacom - Bertelsmann AG - Bouygues Telecoms et 9 Telecoms - BT - Bull - Cable & Wireless Communications - Cable Management (Ireland) - Canal + - Cegetel - Cellnet - Cisco Systems - Clarke Jim - ComECE - Communications International - Conseil de l'Europe - Cornavcom Ltd

Public Entreprise (Dublin)	• CNPF Conseil National du Patronat Français	• Cox, Arthur
• DLM Direktorkon-ferenz der Landes-madienanstalten	• COIT Colegio Oficial de Ingenieros de Telecomunicación (Madrid)	• CSI Coalition of Service Industrie (Washington)
• ECOSOC	• Conseil National du Patronat Francais	• DATSA BELGIUM
• EP-Culture Committee	• Consumers Assoc	• De Backer, Walter
• IPBT Institut belge des services postaux et des télécommunications	• Cost 219 Uk	• Debitel Kommunikationstechnik GmbH
• ITC Independent Television Commission	• CSPG Cellular Service Provider Group of FCS	• Deutsche Telekom
• Landtag Nordrhein-Westfalen	• DAB-Plattform e.V.	• Donau Universität Krems (J. Gûnther)
• Luxembourg	• DAG Deutsche Angestellten-Gewerkschaft	• EITIRT European It Industry Round Table (Bruxelles)
• Ministero delle Poste e delle Communicazioni (Italia)	• Deaf Broadcasting Council	• Energis
• Ministry of Transport & Communications (Finland)	• Deutsche Postgewekschaft	• Ericsson
• Nederlandse Regering	• DGB Deutscher Gewerkschaftbund (Düsseldorf)	• ESAT Digifone (Dublin)
• OFCOM Office fédéral des coms. (Suisse)	• DigiTAG	• ETP European Telecommunications Platform (Bruxelles)
• Office of the Director of Telecommunications Regulation	• Digital Video Broadcasting	• European Federation of Journalists
	• DIHT Deutscher Industrie- und Handelstag (Bonn)	• Finnet Group
	• EAAA European Association of Advertising Agencies s.c. (Bruxelles)	• Fischbach Rainer
	• EACEM European Association of Consumer Electronics Manufacturers	• France Telecom
	• EAT European Advertising Tripartite (Bruxelles)	• France Television
	• EBU European Blind Union	• Grewlich Klaus
	• ECCA European Cable Communications Association	• Horvath, John
	• Ectel/ Eurobit The Eur. Telecom. and Prof. Electronic Industry/ Eur. Ass. of Manufacturers of Business Machines and IT Industry	• ICC International Chamber of Commerce (Paris)
	• EFTA	• Intel GmbH (Muenchen)
	• ENPA European Newspaper Publishers' Association (Bruxelles) and Newspaper's Society	• Ionica (Cambridge)
	• EPC European Publishers Council	• ITV Independent Television Association (London)
	• ETNO European Public Telecommunications Network Operators Association	• Klasse Med. 96 Handelsschule Wandsbek (Hamburg)
	• ETP European Telecommunications Platform (Bruxelles)	• KPN Telecom
	• ETUC European Trade Union Confederation)	• Kuhne, Helmut
	• EURALVA European Alliance of Listeners' & Viewer's Association (Gravesend)	• LAB Legal Advisory Board
	• Eurim European Informatics Market	• Lucent Technologies
	• Eurocinema Association de Producteurs de Cinéma et de Télévision (Bruxelles)	• Lyonnaise Cable
		• MBM Medienberatung München GmbH (Neubiberg)
		• Mannesmann Eurokom
		• Marconi
		• Martin Dawes Telecoms
		• Mayer-Schonberger, Viktor

(Ireland)	• Euro-Mei	• Mediaset SpA (Bruxelles)
• OFTEL	• Fachverband Consumer Electronics	• MTV Networks Europe (London)
• OPTA Dutch national regulatory authority for Post and Telecommunications	• FAEP Fédération européenne d'éditeurs de périodiques (Bruxelles)	• NGO- Comite de liason
	• FEDMA Federation of European Direct Marketing	• Nilsson Nilas
	• FEI Federation of the Electronics Industry (London)	• Nokia
	• FEP Federation of European Publishers (Bruxelles)	• Norkring AS (Oslo)
	• FERA Fédération Européenne des Réalisateurs de l'Audiovisuel (Bruxelles)	• Nortel Northern Telecom
• Radio Authority (London)		• NOS Nederlandse Omroep Stichting (Hilversum)
• République Française	• FIA Fédération internationale des acteurs (London)	• NPOE Netherlands Platform Older People and Europe (Utrecht)
• Republik Österreich Bundesministerium fur Wissenschaft und Verkehr	• FIAD Fédération internationale des associations de distributeurs de films (Paris)	• NTP Nederlands Televisie Platform (Hilversum)
	• FIEEC Fédération des industries électriques, électroniques et de communication	• Olivetti
		• OLON Organisatie van Lokale Omroepen in Nederland (Nijmegen)
	• Finnish Assoc of Graduate Engineers	
	• GFT Gesellschaft für Technikgenese-Forschung e.V. (Berlin)	• One 2 One
• Royaume de Suède	• GITEP Groupement des Industries de Télécomm. et d'Electronique Profesionnelle	• OTE Hellenic Telecommunications Organization SA (Athens)
• TKC Telekom Control (Wien)	• Greek Film & TV Producers Assoc	• o.tel.o communications GmbH & Co
• UK Permanent Representation to the EU	• Groupe de Bruges	• Pallares Adolfo
	• Hermes Europe Railtel	• Panafon Hellenic Telecommunications Company
	• HLSG High Level Strategy Group for ICT (Ipswich)	• Phillips European Affairs Office
	• ICPB International Consumer Policy Bureau (Edinburgh)	• Portugal Telecom
• Vlaamse Gemeenschap	• ICRT International Communications Round Table (Bruxelles)	• Post & Telekom Austria
	• IDA International Datacasting Association (Dublin)	• Publishers Association Ltd. (London)
	• IFRRO International Federation of Reproduction Rights Organisations (Bxl)	• Radio Praha
		• RTE Radio Telefís Éireann
	• IG Medien Industriegewerkschaft Medien (Stuttgart)	• SEMA Group (Madrid)
	• IMRO Irish Music Rights Organisation (Dublin)	• S4C (Wales)
	• Independent Radio Forum	• Simmons & Simmons
	• Initiativkreis zur Forderung des offentlich-rechtlichen Rundfunks	• Sirius
	• INTUG International Telecommunications User Group (Namur)	• Smith Graham JH
	• Irish Business Bureau	• Sobokta, Hans
	• Irish Cable Industry	• Sonera Corp (Finland)
	• ISF Information Society Forum	• Telecom Eireann

- ISUPE Initiative pour des services d'utilité publique (Paris)
- ITA International Telemedia Association (London)
- Joint Committee of Telecommunications
- National Consumer Council
- National Union of Journalist
- Neuromedia International
- NorDig Assoc (Copenhagen)
- NRB National Rehabilitation Board (Dublin)
- Rat der Evangelischen Kirche in Deutschland & Kommissariat der deutschen Bishöfe
- RCO Netherlands Council of Employers (The Hague)
- Royal National Institute for the Blind
- SABAM Société belge des auteurs, compositeurs et éditeurs (Bruxelles)
- SACD Société des auteurs et compositeurs dramatiques
- SIX Advisory Group of the European Software and Services Industry
- SPIG Service Provider Interest Group (London)
- Sutton Park and Lawns Residents Association (Dublin)
- TnaG Ireland
- UK Notarial Forum
- UMTS Universal Mobile Telecommunications System
- UNIC Union internationale des cinémas (Paris)
- UNICE Union des Confédérations de l'Industrie et des Employeurs d'Europe (Bruxelles)
- USCIB United States Council for International Business
- VDZ Verband Deutscher Zeitschriftenverleger e.V. (Bonn)
- VECAI Dutch association of cable operateurs
- Verein fur Konsumenteninformation
- VLV Deaf Broadcasting Council
- Voice of the Listener and Viewer
- WFA World Federation of Advertisers (Bruxelles)
- Wirtschaftskammer Österreich
- WITSA World Information Technology and Services Alliance
- World DAB Digital Audio Broadcasting (London)

- Telecom Italia SpA
- Tele Denmark
- Telefónica
- Telenor (Oslo)
- Telepadova
- Teletext
- TF1
- The Open Group (Cambridge)
- Third World Environment Broadcasting Project
- Thyssen Telecom
- Titan Asbl
- Tongue, Carole - MEP
- TPS Télévision par Satellite
- Turner Broadcasting System (London)
- University of London
- US West International
- VEVAM Vereniging ter Exploitatie van Vertoningsrechten op Audiovisueel Materiaal (Amsterdam)
- Vodafone Group Services Limited (Newbury)
- VPRT Verband Privater Rundfunk une Telekommunikation E.V. (Bonn)
- Westdeutscher Rundfunk
- WorldCom International
- Yleisradio (Finland)
- ZERP Zentrum für Europäische Rechtspolitik an der Universität Bremen

| | • Zentralverband des deutschen Hnadwerks
• ZVEI Zentral Elektrotechnik- und Elektroindustrie e.V. | |