EUROPEAN BROADCASTING UNION
Technical Department

UNION EUROPEENNE DE RADIO TELEVISION
Département Technique

26 March 1999
DT/B-KH
fh

EBU Comments on the Green paper on Radio Spectrum Policy

Executive summary

The EBU wishes to note that it welcomes the Green Paper on Radio Spectrum Policy and the efforts made by the European Commission to address the important issue of spectrum management.

In its examination of the issues addressed within the European Commission's Green paper, the EBU has noted a number of key elements. These are:

1. Spectrum allocations for broadcasting need to be harmonised over an area which is considerably larger than that represented by the European Union. Such harmonisation has been achieved for broadcasting allocations and assignments for many years via the ITU with the CEPT providing a useful function in achieving initial harmonisation throughout an area significantly larger than that of the European Union.

2. When considering spectrum allocations and assignments, it is necessary to take into account the relevant social and cultural and public policy elements in addition to purely economic and technical factors. Individual administrations already take such elements into account and they are reflected in the proposals made by administrations to the CEPT. It is important that decisions about these social, cultural and public policy elements should remain the responsibility of individual administrations.

3. As noted by many spectrum users, approaches to spectrum pricing must be made in such a way that they do not create unnecessary barriers for new users, nor should they lead to higher prices for consumers. The European Parliament has recently re-emphasised that one such approach, the use of spectrum auctions, is not a suitable way of managing the spectrum.

4. There are already well-established procedures for obtaining harmonised spectrum allocations for a number of users, for example broadcasters, military and fixed services, and there seem to be only disadvantages in any proposals which could lead to the establishment of a further level of decision making in this respect within the EC.

5. Digitalisation of broadcasting will bring long-term benefits in spectrum utilisation. However, the timescales for affecting the transition to an all-digital future will be different in different countries. The full benefits of the transition will not be obtained until after it has been completed throughout Europe. The EC could play a helpful role in the transition process by co-ordinating actions or incentives, notably to persuade consumers to obtain digital receivers.

Postal address / Adresse postale
Ancienne Route 17A
CH-1218 Grand-Saconnex/GE
Switzerland/Suisse

Office / Bureau
Tel: +41.22.717.27.15
Fax: +41.22.747 47 15

6. The real impact of the transition to all-digital transmissions cannot be evaluated with any certainty in the immediate future and it is important that binding decisions about future allocations are not taken until such evaluations have been made. Until this has been done, there should be no reductions in the amount of spectrum available for broadcasting. In addition, when these evaluations are made, due account should be taken of the continuous development of broadcasting needs.

Introduction

Before entering into the details of its comments, the EBU wishes to note that it considers the radio spectrum is to be a **public resource**. Due to the necessity of having frequencies in order to provide radio services, combined with their scarcity, spectrum allocations and frequency assignment issues are worth particular attention, notably where public policy objectives are involved. Concerning the latter, there is a consensus to recognise the fundamental contribution of the media, including in this present case the broadcasting media, to democracy (opinion forming, freedom of expression, pluralism, etc.), as well as to the cultural and social needs of our societies. The public interest underlying any media policy is and remains the main reason why relevant authorities have long provided frequencies for broadcasting purposes.

Following from that, the EBU shares the European Commission's concern that due account must be taken of cultural and social policy. The need to balance such concerns with commercial interests is felt by all broadcasters and by administrations who also need to ensure that broadcasting reflects a wide range of specifically national interests, notably through a pluralistic approach. This necessity of a pluralistic approach has also been recently re-stated at the European level, both by the Council of Europe (19 January 1999 Recommendation on measures to promote pluralism) and by the European Parliament (22 October 1998 Resolution on the Green Paper on Convergence).

In the field of employment, broadcasting plays a major role in the audio-visual industry, including the film industry and provides secondary employment opportunities in both manufacturing and in retail activities.

The EBU is also concerned with technological innovation and has been involved in many such actions which have led to improvements in the existing analogue sound radio and television services and to the addition of many new features, stereophonic sound and colour television among many others. **These significant additions to the analogue services have been made without requiring additional spectrum resources.**

Key issues

1) Broadcasting is very much an international business, in terms of distribution of programmes and receiving equipment. Therefore, harmonisation of the use of the radio frequency spectrum is a fundamental issue, notably in order to avoid interference and to guarantee the free circulation of receivers. This involves co-ordination of both allocations and assignments throughout an area which is larger than that represented by the European Union. **The EBU considers that the appropriate forum for obtaining agreements for such an area is thus the ITU, with initial European level co-ordination via the CEPT, the latter corresponding to reasonable geographical constraints.**

2) It **is the opinion of the EBU that for most of broadcasting the spectrum allocations are already well harmonised, essentially throughout ITU Region 1 and, indeed, also in Region 3.** While there are some differences in allocations between Region 2 and Region 1, there is also much broad agreement.

3) Because of the very large number of users concerned (virtually the entire population of Europe, indeed of the World, can be regarded as users of both sound radio and television services) **it is essential that broadcasting has a legal certainty of the continued availability of suitable spectrum for an extended period of time**.

4) Considerable co-operation already exists within the broadcasting world between broadcasters, manufacturers and regulators to ensure that receiving equipment built to common standards is readily available to the consumer. **In the development of the DVB standards, in particular, the European Commission has played an active and very welcome role.**

5) **The EBU is of the opinion that the present regulatory framework works well in the context of broadcasting.** In saying this, it must be noted that broadcasters are fully aware of the congested nature of the radio frequency spectrum and the fact that this leads to their inability to provide the full range of services requested by the public. Such restrictions are an inevitable result of the limited availability of spectrum and fall upon commercial and public interest broadcasters alike, as well as on the operators of other services.

6) Some other services have, until now, had less need to obtain harmonised bands and to seek international agreement on assignments and it is thus not too surprising that there are somewhat different views on the effectiveness of the international co-ordination processes. For broadcasters, the existence of planning conferences organised by the ITU or by the CEPT has been of major benefit in ensuring equitable access to the spectrum consistent with national needs which are not always identical. Therefore, the EBU would encourage all spectrum users who can cause or be affected by cross-border interference to seek harmonisation of the relevant allocations at the highest possible level.

Detailed comments by the EBU on the European Commission's Green Paper on Radio Spectrum Policy

1 Historical background

Broadcasters have been using the radio frequency spectrum for some 70 years and have been involved in international co-ordination processes for almost the whole of that time. (Indeed, it can be argued that the first Directive from Brussels involving radio concerned what would now be regarded as broadcasting. In 1913, King Leopold II instructed that experiments be conducted to establish the value of radio communication between Belgium and its African colonies. Sadly, these experiments and the internationally received transmissions of music from Belgium had to be interrupted in 1914.)

For most of the last 70 years, broadcasting has involved both commercial and non-commercial elements. For at least 60 years broadcasting has faced, to one extent or another, the problem of insufficient spectrum resources, congestion and an inability to provide all of the services requested. The value of international agreements, often between countries separated by many hundreds, or even thousands, of kilometres, in avoiding unnecessary interference was established many years ago. (This was clearly necessary at a time when broadcasting meant sound radio in the LF, MF and HF bands (150 kHz to 26 MHz) and propagation via ionospheric paths meant that interference effects were experienced at distances of hundreds or even thousands of kilometres. However, when dealing with the later development of sound and television assignments in the VHF and UHF bands (40 to 860 MHz) it was also necessary to consider interference effects at several hundreds of kilometres beyond national boundaries.) Virtually all of the spectrum used for broadcasting is subject to international agreements on assignments within the general framework of service allocations established at a succession of ITU Conferences (for example, 1932 (Madrid), and many later conferences). To a very large extent, these broadcasting service allocations apply world-wide.

The value of world-wide allocations in allowing international communication was recognised from the earliest days. The existence of common standards for sound radio receivers was an essential part of this international communications capability and later, when receivers become sufficiently light in weight, also permitted free circulation of such receivers throughout the world. (Differing requirements led to the development of somewhat incompatible television standards in different parts of the world but this may not have been too critical while television receivers were largely non-portable.) More recently, with the development of digital television standards, there is a major trend towards only 2 or 3 television standards (with only 1 in Europe) and this will be of major importance in encouraging the use of portable receivers outside the country in which they were purchased, provided that this is not prevented by the use of proprietary encryption processes.

Such considerations have long led broadcasters to think internationally and to invest significant resources in ensuring harmonious international use of the bands allocated to broadcasting, particularly for terrestrially based services.

2 Transition from analogue to digital techniques in broadcasting

While the vast majority of the current sound radio and television transmission and reception is primarily analogue, it must be noted that there are digital elements involved. Well-known example include RDS, which has been added to analogue radio transmissions, and teletext and digital sound which have been added to analogue television. In all of these cases, there

has been a significant increase in the programme content without requiring any increase in the amount of the spectrum allocated.

The current trend is for all-digital broadcasting transmissions to supplement or replace their analogue predecessors. A clear distinction exists between the sound radio, T-DAB, and television, DVB-T cases.

2.1 T-DAB

T-DAB could not be made to co-exist with the spectrum used for VHF/FM transmissions and co-ordinated alternatives were found by means of actions within the CEPT, taking into account input from relevant groups. The available spectrum was then used in an allotment process at the Wiesbaden planning meeting in 1995. This meeting was organised by the CEPT and supported by virtually all CEPT member administrations. The results provide an allotment plan which can be used for the development of T-DAB services in European countries while taking account of the legitimate needs of other users in the bands which were planned.

However, there is not enough spectrum available to meet all of the currently identified T-DAB requirements. In addition, it can be argued that, at least for the present and near future, VHF/FM provides a better solution than T-DAB for broadcasters who require very small coverage areas. Thus it is to be expected that T-DAB and VHF/FM will continue to develop side-by-side.

The transfer of services from VHF/FM to T-DAB also depends on the availability of suitable T-DAB receivers and the lack of availability of such receivers is an area of concern at present. Certainly no real transition towards T-DAB can start to take place until such receivers are readily available. Even with suitable receivers, it will still be the case that VHF/FM-only services will continue to exist for many years, possibly indefinitely, although they may not utilise all of the existing 87.5 to 108 MHz band.

2.2 DVB-T

The case of DVB-T is completely different. No additional spectrum allocations for this application were sought by the broadcasters and it was agreed that DVB-T transmissions would be accommodated by means of sharing the spectrum with the existing analogue television transmissions. However, this sharing process cannot be particularly efficient in terms of spectrum utilisation because of the continuing need to protect reception of the analogue services.

To obtain greater efficiency, it is essential that the analogue transmissions be removed. This process must take account of the fact that there are hundreds of millions of analogue television receivers in use and the length of the transition period will need to take this fact into account. While the use of “set-top boxes” may help to reduce the length of the transition period, it is to be expected that sales of these will not extend to all sections of the public. This means that there will be usage of some analogue receivers until such time as they need to be replaced because they have failed to work in a satisfactory manner. Because of the inherent reliability of domestic electronic equipment, this could take a long time and during this period the full advantages of digital transmissions cannot be obtained.

There is thus some argument that incentives will be needed for members of the public to change to a digital receiver or, at least, to purchase a set-top box. Such incentives could be financial or could be by means of programme transfer to digital transmissions only; the latter, however, may not be acceptable politically. **Such incentives would serve to supplement a major advantage of digital transmissions which is an increased programme choice.**

In all of this process, thought must be given to the impact of the sale of low-cost analogue-only receivers. The presence of such receivers could have a delaying effect on the end of the transition period and it seems likely that some **political incentive will be needed to encourage the sale and use of digital-only or dual-standard digital and analogue receivers**. Without such an initiative it could prove difficult to achieve the turn-off of analogue television services in a reasonable time frame.

In all consideration of the transition from analogue to digital and the all-important-start of the all-digital future for terrestrial television, it must be noted that different countries in Europe are starting the introduction of digital services at different times and may well have different lengths for the transition period. Because of the relatively large distances at which interference effects need to be taken into account, especially in the case of interference from a digital service into an analogue service, the full benefits of the all-digital future will only be obtained when all European countries have been able to abandon their analogue television services. **Some political initiatives to encourage an early start to the transition process are therefore seen as highly desirable.**

In addition, well before the end of the transition period, **political consideration will be needed with regard to the range of television services to be available on terrestrial channels in Europe**. Obvious candidates are portable and mobile television, for which there is currently little or no market penetration and also services with higher definition than that currently available. The latter is seen as the major trend within a number of Europe's major trading partners, in particular, but not exclusively, North America, Australia and Japan.

2.3 Switch off of analogue services

Public interest requirements, such as the universal accessibility of certain services and their affordability, should be taken into account before a switch-off of analogue services should be undertaken.

3. Specific comments on individual sections of the Green paper

Chapter 1

Because of the particular characteristics of the analogue broadcasting systems, it has been necessary to co-ordinate assignments (within broad allocation bands) for broadcasting stations for very many years. This process has usually been undertaken initially at ITU planning conferences which were held from time to time to deal with individual Regions of the world and/or individual types of broadcasting. These planning conferences not only established a set of co-ordinated assignments, they also established a framework within which subsequent developments could take place by means of bilateral and multilateral co-ordination between administrations. This is a process which has worked well and has proven to be equitable and flexible.

More recently, planning meetings in a European broadcasting context have been organised by the CEPT, in Wiesbaden (T-DAB, 1995) and Chester (DVB-T, 1997)**. The EBU considers that very satisfactory results were obtained from the point of view of broadcasters in general. The fact that all participating administrations (virtually all of the 43 members of the CEPT) signed the Final Acts of these planning meeting is a clear indication that they also found the results satisfactory.** The two planning meetings had different goals, Wiesbaden established an allotment plan while Chester established a framework for co-ordination which allowed for DVB-T implementation in those countries which wished to make an early start while protecting the rights of those countries which wished to defer their DVB-T start. The degree of flexibility given by the two different approaches is what was seen to be necessary when dealing with the introduction of two entirely new broadcasting systems whose acceptance by the public was unknown and where the spectrum implications were completely different. **The EBU considers that these actions by the CEPT were an appropriate and effective response to the need for a development framework and a legal certainty with regard to continued use of the spectrum by broadcasters while taking account of the needs of the other users of the same and adjacent parts of the radio frequency spectrum.**

Within the context of planning meetings and conferences for sound radio and television assignments, no distinction is made between the commercial and non-commercial use which may be made of individual assignments, nor, in general, whether the use will be as part of national, regional or local services (except in the case of single frequency networks whose extent must necessarily be determined in advance). In the specific case of the Wiesbaden planning meeting, because of the lack of suitable spectrum, no account could be taken of the needs of broadcasters who wished to cover very small areas. **The EBU hopes that this matter can be addressed by means of a further CEPT planning meeting within the next year or so.**

It is important to stress that international planning meetings or conferences dealing with broadcasting assignments do not identify who will use any particular assignment. This is a matter best left for the relevant administration which needs to balance the various cultural, social and economic elements involved within the national context when deciding which applicant for the use of a particular assignment will be successful and which will not. **In an environment where there are insufficient spectrum resources, it is regrettable, but inevitable, that some applicants will be unsuccessful.**

Chapter 2

As has been noted before, the spectrum used for broadcasting is already largely harmonised on an ITU Regional basis. There are some national variations, for example alternative use for mobile (often military) purposes, but such variations affect only a relatively small part of the general allocations to broadcasting. It is undoubtedly true that the existence of these harmonised allocations has contributed greatly to the achievement of co-ordinated broadcasting assignments and also to the development of common standards for broadcasting equipment, receivers in particular.

In its Chapter 2, the Green Paper rightly draws attention to the problem of identifying spectrum for a would-be new user and considers a number of alternative approaches. However, the idea of giving the new user spectrum in a ‘less congested part of the spectrum‘ seems to receive less attention than it deserves, possibly because it is considered that this

places the new user at a competitive disadvantage because the less congested spectrum is also less attractive. However, the attractiveness of an individual part of the spectrum is something which varies with time. At the time that the 470 to 862 MHz band was allocated to broadcasters it was generally perceived to be unattractive to most other users. This is understandable, in the early 1960s it was not easy for domestic receivers to perform well in the upper part of this band. It was only with considerable investment by manufacturers in the design of receivers and by broadcasters in appropriate network infrastructures that it was found to be possible to achieve the large coverages that are taken for granted in Europe today. **This type of effort may well be the burden which must be placed on any potential new spectrum user.**

There may be some confusion with regard to 'services ancillary to broadcasting'. This term must be taken to include 'services ancillary to programme making' to allow for cases where there is no broadcasting involved. Indeed, the services identified in Table 1 in the Green Paper (teletext, home banking and teleshopping) are not 'services ancillary to broadcasting' in any conventional use of that term. Rather, they represent potential uses of the data stream accommodating a broadcasting signal. This is very different from shared spectrum use by different services. Examples of the latter are radio microphones and control circuits used in theatres and film making. It also includes use for Electronic News Gathering and Outside Broadcast purposes. This shared use of spectrum resources by broadcasting and non-broadcasting services must be taken into account when considering the values given in Table 2 and the comments made in Table 1 of the Green Paper.

In addition, it is desirable to separate rather more clearly the spectrum allocations to broadcasting from those to services ancillary to broadcasting. In the band below 1 GHz, the spectrum identified in Table 2 in the Green Paper reflects the broadcasting allocation (for the UK) ; this spectrum is shared by the ancillary services. In the band from 1 to 3 GHz, there is a broadcasting allocation of 40 MHz (from 1452 to 1492 MHz), not all of which is yet available for broadcasting in Europe. There is an ITU Region 1 allocation to the broadcasting satellite service of 150 MHz, from 2520 to 2670 MHz. However, this allocation is, generally, not available for either broadcasting or broadcasting satellite in Europe. In many European countries, ENG/OB services are allowed to share spectrum allocated to other services (on a non-interference basis). It is thus more accurate to say that 2% of the 1 to 3 GHz range is allocated to broadcasting. It must also be noted that if the 9 kHz to 3 GHz band is considered as a whole, which is not unreasonable considering the various services involved, then the allocation to broadcasting is only some 18%.

While market forecasts of the type shown in Table 3 of the Green Paper have their own importance, it is always necessary to bear in mind that they <u>are</u> only forecasts and are subject to unforeseen market upheavals. In any case, the very different timescales for the different elements makes any comparisons difficult. In addition, when considering such values it is necessary to remember, as noted several times in the Green Paper, that it is also important to ensure that any relevant cultural and social factors are accorded their rightful importance. This is perhaps particularly important in broadcasting where commercial and public service elements are both combined.

DVB-T services, in particular, are only just beginning and it is thus especially difficult to produce market forecasts which have a firm foundation. However, there are already some clear indications that television reception in the future is likely to involve a much greater amount of portable, or even mobile, viewing than is the case at present. The same trend

was established many years ago in the case of sound radio. The provision of DVB-T services to portable receivers for a large percentage of the viewing population is likely to impose additional spectrum requirements at the same time as it leads to increased sales in what is, at present, a relatively underdeveloped part of the receiver market. In this context, the term portable reception is intended to cover the case of reception using a portable television receiver with an in-built antenna or an antenna which is as portable as the receiver itself.

Chapter 3

The EBU is fully conscious of the need for technological innovation, indeed it has been involved in many such innovations, but it is also conscious of the responsibility of broadcasters to ensure the ability of their hundreds of millions of listeners and viewers to continue their reception of sound radio and television transmissions. It is this very large user base which tends to dictate that the rate of change of broadcasting technology, as it affects the user, must be carefully considered and that, when implemented, the changes must be introduced in such a way that the listening and viewing public is not unduly penalised. There is a need not only for legal continuity of the use of the spectrum but also continuity of use of receiving equipment for a reasonable time after its purchase. In this context, it must be noted that there has been an enormous investment by the public in receivers for sound radio and for television. This investment must not be ignored.

When considering the long term radio frequency spectrum for broadcasting, there is a need to consider a wider area than Europe alone. It is essential that broadcasting receivers can be used outside the countries in which they were purchased. This has long been the case for sound radio receivers and is likely to be increasingly the case for television receivers with the widespread adoption of the DVB standards. This points to the need for harmonised allocations for broadcasting on a world-wide basis. The CEPT, with its 43 member countries, represents most of Europe, and the European Broadcasting Area, and **CEPT proposals regarding harmonisation of broadcasting spectrum have been adopted by its members with virtually no exceptions.** However, taking account of the universal nature of broadcasting and the need for co-ordination of assignments well beyond national boundaries, **the EBU considers that the only fully appropriate forum for obtaining world-wide agreements on spectrum allocations and more regional agreements on assignments remains the ITU.**

Concerning the transition from analogue to digital transmission in terrestrial broadcasting, this process has already been started and consideration is being given, both by broadcasters and by the CEPT, to arrangements which could lead to optimum spectrum use in the longer-term all-digital future. For satellite based programme delivery, both analogue and digital transmissions have existed for some time, but not in the same channels in the same area and from the same satellite position, of course.

Chapter 4

The EBU wishes to stress its view that harmonisation of spectrum used for broadcasting is an issue that extends well beyond solely European considerations. Only by having world-wide, or at least ITU Regional, broadcasting allocations will it be possible to extend initiatives such as DAB, DVB and DRM and to take advantage of the opportunities that these will offer to European industry.

Note:DRM: Digital Radio Mondiale is an international consortium developing a system to permit digital broadcasting transmission and reception in the broadcasting bands below 30 MHz.

Item 1 (b): What information on radio spectrum allocation, radio spectrum assignment, and licensing should be publicly available for industry and policy makers? Where should this information be collected and how should it be presented in the European Community?

The ITU publishes the assignments agreed during broadcasting planning conferences together with the assignments subsequently agreed during bilateral and multilateral co-ordination. For many years, the EBU published lists of broadcasting frequencies in use within the European Broadcasting Area and the CEPT intends to publish details of broadcasting assignments used in Europe. In all of these cases, the information involved has been made openly available and **the EBU believes that development of services within the bands used for broadcasting has not been hampered in any way by lack of relevant information.**

The EBU considers that in the case of broadcasting all relevant information is readily available.

Item 1 (c): Should re-farming and substitution policies form part of the strategic planning of radio spectrum for pan-European services, what could be the modalities for this 8e.g. actors to be involved, timing), and to what extent is a common Community approach required, for instance with regard to the phasing-out of analogue broadcasting and analogue mobile telephony services?

As has been noted earlier (section 2), the EBU considers that the full benefits of a transition from analogue to digital transmission (particularly in the case of terrestrial television) will only be obtained when that transition has been effected throughout an area rather larger than that represented by the European Union. There are many advantages to achieving a full transition earlier rather than later. In this context, **the EBU considers that the European Commission could play an important political role in promoting the benefits which will derive from the transition to the all-digital broadcasting future.** It is likely to be useful if this promotion process also includes economic elements.

Item 2 (a): Are specific Community measures necessary to ensure radio spectrum availability for pan-European applications in the areas of telecommunications, broadcasting,

transport, and R&D, or should criteria be established which determine when radio spectrum harmonisation is required?

To a very large extent, broadcasting spectrum allocations are already harmonised and it seems unlikely that additional European Community measures are required in respect of broadcasting.

Item 2 (b): *Where and on the basis of what criteria should priorities be set and arbitration take place where radio spectrum requirements for Community policies on telecommunications, broadcasting, transport, and R&D are in conflict? How can it be ensured that commercial and public interests are defined and appropriately balanced in this process?*

Within the broadcasting environment, it is inevitable that there are strong national considerations which need to be taken into account when determining the balance of cultural, social and economic elements. This is likely to be equally true when considering the potentially conflicting spectrum requirements of different services, of which one is broadcasting, which are competing for spectrum allocations. While there are undoubtedly elements which are common in many countries, the actual balance achieved can be expected to be strongly influenced by the perceived needs within each individual country.

Item 2 (c): *Can the implementation of radio spectrum harmonisation measures, necessary for the provision of pan-European services, be left to voluntary decisions by Member states or is there a need for legal obligation in that respect? Should the European Community collect and publish relevant information in both cases?*

Because of the need to achieve harmonisation of broadcasting spectrum allocations over the largest possible area, it is desirable that the discussions should take place, and the agreements should be reached, in forums where the largest number of administrations can take part. If this is not the case, then it can be difficult, if not impossible, for compromises to be reached because of prior commitments made during meetings of more restricted groups. **The EBU considers that, as far as broadcasting is concerned, the current arrangements within the CEPT are adequate and provide a suitable European input into the wider forum of the ITU.**

Item 3 (b): *Is there a need to agree in the European Community on which radio spectrum assignment mechanism leads to the most efficient use of radio spectrum for the different types of services?*

Item 3 (c): *What is the impact on pan-European services of diverging national mechanisms to assign radio spectrum, which mechanism is most suitable to support pan-European services, and to what extent is a Community approach required in this regards?*

Item 3 (d) *What is the impact of charges and fees, including relocation costs, associated with the use of radio spectrum on the development of services and on the competitive situation?*

It is difficult, if not impossible, to compare the relative efficiency of spectrum utilisation by different services. It is at least as difficult to compare the relative merits of different licensing methods. **However, broadcasters have previously stressed the need for safeguards in any such licensing process to ensure that a satisfactory balance can be achieved between commercial and public service users and between national and local interests.** In particular, it is important to take into account the fact that non-commercial operators have no 'future profits' to pay for charges and fees and thus, in one way or another, they must pass on these charges to the end consumer. In the specific case of 'auctions', there is a need to ensure that non-commercial use is not eliminated by the ability of, for example, multinational commercial operators to bid very high. The European Parliament has recently re-emphasised that auctioning is not a suitable way of managing the spectrum (Resolution on the Green Paper on Convergence). In any case, auctioning in the present case would inevitably lead to higher barriers for new entrants and to higher prices for consumers. Some harmonisation of licensing practice for assigning frequencies - different from the licensing procedures concerning content requirements - could be desirable as an approach to the provision of the safeguards and balance which are so clearly necessary.

Item 3 (e): *Should the awarding of radio spectrum be separated from the granting of service authorisations or licences? What would be the impact of creating a secondary market for radio spectrum for the provision of similar or different services, and which safeguards are needed in this regard?*

It is common practice in broadcasting to separate the processes of obtaining assignments and issuing licences. Because the issue of licences is usually related to the programme content provided by a given operator, there has been relatively little secondary trading of spectrum in the broadcasting environment which has involved any change of use of the spectrum. In any case, it is normal for national legislation to provide safeguards which prevent such secondary trading leading to abuse arising from market dominance.

Item 4 (a): *Is there a need to improve the link between the elaboration of standards and the harmonisation of radio spectrum allocation for pan-European services in the areas of telecommunications, broadcasting, transport, and R&D?*

Recent standards developments in broadcasting which are related to the use of the spectrum include DAB and DVB. A more recent example is the DRM system being developed by Digital Radio Mondiale. All of these were the result of work in consortia which included representatives from all relevant groups. In the case of DAB and DVB the standards developed have already been adopted by ETSI and by ITU. The positive role of the European Commission in these developments is recognised and appreciated by all of the parties involved.

Item 4 (b) *Which practical arrangements are needed to ensure that the full potential of Community policy on radio equipment is supported by appropriate action at the level of radio spectrum management?*

Broadcasters welcome the removal of barriers to equipment movement across national frontiers. This is an inherent part of the view of broadcasting as a universal activity which includes freedom of choice for the individual listener or viewer. With the adoption of common DVB standards for television, the use of television receivers outside the countries in which they were purchased should become as common as it has been for many years for sound radio receivers, subject to suitable arrangements being agreed with respect to common access and interface standards.

Item 5 (a): *In view of the need to have a predictable environment in the European Community for the use of radio spectrum, is the framework for the co-ordination of radio spectrum sufficiently open, transparent, and legally certain? Is it clear where and on the basis of which principles the need for radio spectrum harmonisation for Community positions is established?*

The EBU is firmly of the opinion that it is essential to have a predictable and stable allocation environment in which services (and broadcasting services in particular) can operate and further believes that this environment needs to extend over as wide an area as possible, recognising that the size of the area will be service dependent.

Item 5 (b): *Is the establishment of a priori Community agreement necessary to achieve radio spectrum harmonisation or is it sufficient to co-ordinate the positions of the Member States in CEPT on an ad hoc and technical basis?*

Experience within the broadcasting environment suggests clearly that the existing mechanisms for achieving spectrum allocation and assignment harmonisation are largely sufficient and that no additional European Community action is needed in this regard, at least as far as broadcasting is concerned. However, **the EBU considers that political support from the European Community is highly desirable to achieve rapidly the full benefits of the transition to an all-digital broadcasting future,** particularly in the case of digital terrestrial television.

When considering the present institutional arrangements for the co-ordination of use of the radio frequency spectrum, **it is desirable to separate the concepts of allocation, assignment and licensing to the greatest extent possible.** If this is not done then the possibility exists for considerable misunderstanding.

———————