



GSM Europe
The European Interest Group of the GSM Association

**GSM EUROPE COMMENTS REGARDING THE
GREEN PAPER ON RADIO SPECTRUM POLICY PUBLISHED
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1. Introduction

GSM Europe (formerly The European Interest Group (EIG) of the GSM Association (formerly the GSM MoU Association) welcomes the opportunity to comment on the Green Paper on Radio Spectrum Policy, COM (1998) 596.

The GSM Association (hereafter: the Association) is a global body comprising 323 members, the majority of which are operators of GSM (Global System for Mobile) 900 MHz, 1800 MHz, 1900 MHz and mobile-satellite networks. National regulatory authorities are also eligible to be members of the Association. In terms of geographical spread the GSM Association has members in 99 territories in Region 1 of the International Telecommunication Union (ITU) of which 34 are located in Africa, 18 in Asia and 47 in Europe. In ITU Region 2 a total of 31 network operators are members of the Association coming from 3 North American territories and 2 South American territories. For ITU Region 3 the Association has members in 25 territories. A number of additional operators have applied for Association membership from 7 territories (3 in Africa, 1 each from Asia and Europe, and 2 from South America).

Spectrum is seen as a key global strategic element for the current and future commercial activities of GSM and UMTS (IMT-2000) operators, therefore a number of the issues addressed extend beyond the borders of the European Union and CEPT member countries.

2. General

GSM Europe welcomes this Green Paper because it emphasises the economic importance of the radio spectrum. Due to the fact that the radio spectrum is a limited resource and radio emissions are not hindered by national borders between States, it is one of the few instances where sector specific regulation is warranted. Creating a single global and European market for equipment that makes use of radio frequencies requires appropriate measures for the harmonisation of frequency allocations.

The aim of this Green Paper is understood to be, to strengthen the position of the European Community in respect of the management and Harmonisation of the availability and access to the radio spectrum in Member States. This could be beneficial in creating a level playing field between Member States. Nowadays the conditions for granting radio frequency licences differs between Member States which will hamper the commercial activities of Network Operators considerably.

Further, the European Community could take a stronger role in the simultaneous implementation in Member States of CEPT ERC Decisions relating to the designation of frequency allocations, e.g. to ensure the general availability of ¹UMTS frequencies identified at ITU WARC 1992, throughout the European Community. Strengthening the European Community's position does not imply a weakening of CEPT activities in this area. GSM Europe fully supports CEPT's activities to achieve spectrum harmonisation within its 43 Member States, and through its ITU activities, with the World at large. The CEPT therefore has an important role to play due to the larger geographical area and consequential economies of scale involved.

3. Role for the Commission

In general GSM Europe thinks that the Commission could play a stimulating role by initialising measures by itself, or by supporting national regulatory authorities:

- to ensure the provision of pan-European services;
- to ensure that CEPT recommendations are fully being implemented at a national level;
- to ensure that frequency allocation and usage conditions are similar for all spectrum users, i.e. broadcasting, military and telecommunications.

GSM Europe's comments concerning the issues raised in the Green Paper are provided in paragraph 5 below.

4. The economic and political importance of the radio spectrum

Table 1 in chapter 2 provides an overview of the various types of radio applications. Although this table is not meant to be exhaustive, under the heading "Telecommunications" an important application is missing. In our view FX should be included within the bracketed services for the sub category "Telephony".

Furthermore, the heading "Transport" does give rise to serious concern. It is recognised that the categories chosen reflect areas of Community policy. However some of the services indicated under this heading are in some States commercially provided by several Network Operators and Service Providers under the heading "Telecommunications". There is therefore no need to accord special treatment to such services unless qualified in the context of Community policy, as this could lead to unwanted market distortions. Only transport safety services as defined in the Radio Regulations such as air traffic control and air and maritime radio-navigation services might be included in the 'Government' category if indeed such services are always operated by governmental agencies.

5. EU policy on radio spectrum: issues for comment

5.1. Issue 1: Strategic planning of the use of radio spectrum

Question 1(a): *Does the strategic planning of the use of radio spectrum respond to the needs of commercial and non-commercial uses, in particular in the areas of mobile and personal communications, broadcasting, transport, and R&D?*

Answer: Spectrum is increasingly becoming a valuable commodity whether it is required for commercial or non-commercial radiocommunication services. Whilst as a general principle all spectrum users should be subject to the same administrative or market arrangements for spectrum, as a minimum GSM Europe believes that commercial users should be subject to the

¹ GSM 900 frequencies are already covered by an EU Directive [This footnote is no longer needed as it refers to a previous comment]

same licensing criteria. This is particularly necessary, as convergence between the various telecommunication and broadcasting sectors becomes more apparent in the future multimedia age. To achieve this goal implies that at Community and/or national level, bodies working with common objectives and criteria should perform the spectrum management function with respect to all telecommunication (in its broadest meaning) services. Furthermore the interaction between all spectrum users and the regulatory authorities requires to be conducted in an open and transparent manner.

With respect to the future strategic planning of UMTS, GSM Europe believes that the 2nd Generation operators should be viewed as serious and preferred candidates for the 3rd Generation spectrum.

Further, it would be very helpful to establish an outphasing plan at Community level for the end of the transition period when both analogue and digital television broadcasting will coexist. In addition a co-ordinated Community position on a date for the transfer of spectrum from terrestrial broadcasting to terrestrial mobile-services would be helpful. This is required subsequent to the transition period when broadcasting will make use of terrestrial digital techniques or satellite delivered programming and as a result occupies correspondingly less spectrum space.

Question 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?

Answer: The frequency tables being assembled by the CEPT/ERC are an excellent start. These should comprise the national tables and European Common Allocation table. In future an objective process for determining any changes should be considered based on the investment involved in the allocation within Member States. Transparency would be further improved by indicating the geographical regions where spectrum is used and the users involved. Furthermore, where spectrum allocation is envisaged dates should be indicated. In order to promote a global approach to spectrum the CEPT (and other regional bodies) should be encouraged to ensure there are appropriate items on the agendas of ITU WRCs where regional spectrum developments can be proposed as global solutions. The appropriate body to undertake a lot of the harmonisation work is the European Radiocommunications Office of the CEPT/ERC, unless a better resourced organisation were to be established within the European Community.

A review might be appropriate concerning the decision process to effect harmonisation measures currently residing in CEPT's ERC. If more objective processes were developed it may be more appropriate to develop transparent procedures, which the ERO might administer. Concerning all these issues it is important to ensure a level playing field. A separate database, giving information on different procedures and fees becomes then superfluous.

Question 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 (e.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?

Answer: GSM Europe thinks we have to learn from past experiences with the frequency clearance of the analogue 900 MHz frequencies in favour of digital 900 MHz services. Despite a Council Directive, some of these frequencies have still not been cleared nor have plans been made to move or phase out these analogue 900 MHz services. The lack of binding frequency clearance plans forced alternatives for the current 900 MHz digital operators to invest in costly technical alternatives in order to cope with the current customer growth. Our proposal is to recommend binding long term frequency plans – made in close co-operation with the industry - which provide the users of these frequencies the certainty that they need in order to plan their future network growth.

With respect to 3rd generation mobile services, this would mean that NRAs – in close co-operation with the industry - establish a timetable when the designated frequency bands will be cleared by the

military and/or other users. As to refarming of existing spectrum for 3rd generation services, this should be done in due time in close co-operation with the industry.

GSM Europe supports the refarming process on a mutually agreed basis by the market parties. This is because it believes that the refarming of frequencies results overall in a more efficient use of the radio spectrum. To make refarming attractive, co-ordination is necessary at the European Community level, CEPT and if feasible globally via the ITU processes. This is likely to stimulate the development of suitable equipment by manufacturers.

The CEPT, it is understood, has already recommended the phasing out of analogue mobile telephony services during the early years of the next decade.

As stated above the phasing out of analogue broadcasting would create more room for the development of mobile communication services. Generally all licences should be defined for an economically viable period. The European Community should provide a legal basis within the European Community for such actions to take place. However such matters should be conducted in an open and transparent manner with the full participation of all concerned parties.

5.2. Issue 2: Harmonisation of radio spectrum allocation

Question 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?

Answer: GSM Europe agrees that some harmonisation action is needed in this regard. There are advantages and disadvantages with the current process, where it is possible to acquire spectrum via different allocation methods. However in this regard because of the advantages of seeking access to a larger geographical area it is recommended that the European Commission uses its position as Counsellor to develop an appropriate pre-defined transparent procedure within the CEPT to determine when spectrum harmonisation is required. For example choosing between an allocation of spectrum to the fixed service or the fixed-satellite service where sharing is not generally feasible, might be based in the first instance on the effectiveness of the application for which the frequencies are being used, in bit/km². Community measures can be necessary, especially when CEPT measures are not sufficient to ensure the availability of spectrum in a timely manner within the European Community.

Question 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?

Answer: There is a Community role by ensuring that frequencies have been allocated on similar conditions to the different industries, i.e. broadcasting and telecommunications. It should not be the case that one industry has to adhere to strict frequency management conditions (i.e. like requirements for efficient use) and the other has not. Nor should it be the case that frequencies are being allocated on different terms; access to frequencies should be priced equally and no discriminatory licensing conditions should be allowed between the users of the same scarce resource (see above). Also, it should be noted that the allocation of frequencies to mobile operators for limited periods of time without guarantee of extension is problematic and creates uncertainty.

In the case of a scarcity of spectrum the frequencies should be allocated to the different users/categories taking into account the possible frequency efficiency and relevant technology developments. Especially regarding broadcasting, GSM Europe is of the opinion that the amount of spectrum allocated to the broadcasting service should be diminished due to the emergence of spectrally efficient digital techniques and the increased use of cable networks and satellites for broadcasting.

The review mentioned in 1b above might also address the degree of participation by the public and commercial interests in the day to day harmonisation process.

Question 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 obligations in that respect? Should the European Community collect and publish relevant information in both cases?

Answer: The implementation of CEPT measures by Member States takes place on a voluntary basis. Legal Community obligations should only be necessary when the voluntary process leads to an unacceptable situation. Harmonisation measures necessary for the provision of pan-European services should be regulated at Community level to ensure a sound spectrum management.

5.3. Issue 3: Radio spectrum assignment and licensing

Question 3(a)

Where there are differences in Member States as regards radio spectrum availability for pan-European services, what is the overall impact on competition?

Answer: Competitive issues are not only related to spectrum. Spectrum imbalances might be redressed by national measures that take into account other factors. However ideally, as stated in 1a above, spectrum for all commercial radiocommunication services should be administered in a similar fashion in all Member States. Only then a fair and non-discriminatory balance between all interests may be reached.

Some frequency bands assigned by the EU to particular services have not been properly cleared by some Member States. As convergence progresses, competition between various media players may be undermined, should certain operators be unable to obtain spectrum access in some bands.

With regard to UMTS, this situation might happen again if not all EU Member States commit themselves to implement the ERC Decision and free up at least 2 x 40 MHz for 3G/UMTS services. In some countries (i.e. Italy), the designated spectrum in the ERC Decision is licensed to RAI until 2004. To date, no migration plan is in place. This will have severe effects in the Italian marketplace, currently the fastest growing mobile market in Europe. Capacity constraints will become a major bottleneck forcing mobile operators to make unnecessary and costly investment in frequency re-use solutions, while slowing down the roll out of 3G/UMTS services.

Question 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?

Answer: The different national licensing methods for 3G/UMTS mobile telecommunications services are producing a patchwork quilt, which is not helpful, costly and cumbersome for mobile operators and are not helpful for the provision for pan-European services. There is a Commission role to ensure that licensing methods and conditions are not delaying market entry and do not discriminate against operators coming from other Member States.

Comparative bidding or beauty contests are preferred above auctions, which tend to reduce rather than stimulate the level of competition. Spectrum usage fees should only cover the direct and indirect costs to the government incurred in administering the spectrum (in line with the Licensing Directive). Any license fee – charged above normal administrative costs- raise prices, stifle innovation and create another uncertainty factor in the business case of many mobile operators.

In the case of spectrum scarcity, not created by the harmonisation and frequency allocation policy, use of the most efficient allocation mechanism should be promoted. Auctions are **not** the preferred approach of GSM Europe; they may be discriminatory to new entrants and reduce infrastructure investment. They should never be used as a revenue raising mechanism by governments. However if such an approach is adopted a number of consequential actions would be necessary:

- Spectrum should be cleared throughout the service area and contiguous areas within the co-ordination distance of the service area; thus ensuring that the price paid is for uncluttered spectrum.
- Minimal regulatory intervention and the possibility of secondary trading.

Speculation and intentional market distortion, as to secondary trading, GSM Europe would like to finger the unwanted possibility that third parties, who have no intention to use the allocated frequencies for telecommunication purposes obtain those frequencies for the propose of selling them to other parties with a (considerable) profit, thus creating an unwanted pricethriving movement.

It must be stressed again that in principle no difference should be made in this respect between commercial operators or government/public users. All operators/users should pay in a fair and non-discriminatory manner for using this scarce resource in order to implement efficient and effective frequency allocations. If there is a need to set priorities, safety services and telecommunications should have the highest priority.

Question 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 regard?

Answer: Diverging mechanisms will not lead to a level playing field across the borders of the different Member States. They will also lead to a degree of confusion. The most suitable mechanism for assigning UMTS frequencies would take into account the fact that UMTS is the logical evolutionary route from GSM. This precludes the use of auctions. When not all GSM Operators can be supplied with UMTS frequencies, a beauty contest or comparative bidding is believed to be the best allocation mechanism. The European Commission and the Council of Ministers should be encouraged to arrive at a similar conclusion.

A major risk with auctions is that the charges may become excessive which will increase investor uncertainty and correspondingly decrease investment in the network for a new service such as 3rd generation mobile services. In addition, the high up-front licence charges will not facilitate the best services for consumers. It will increase costs to consumers and may lead to a slow take up of 3rd generation services. Therefore, we urge the Commission in their Spectrum Green Paper to take into account the recommendations made by the UMTS Forum in their report "the impact of licensing cost on the UMTS business case." In this report, the UMTS Forum discourages spectrum pricing as an instrument of taxation and recommend it only an incentive for efficient spectrum use, provided that these charges are fair, proportionate, transparent and competition neutral. They should mainly be motivated by cost-recovery and not by maximisation of revenue.

Question 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?

Answer: The European Community may wish to consider a fiscal policy where revenues from licence fees remain in the telecommunications sector and may be directed towards radio research, better regulatory procedures and technology development within the Community and elsewhere. For example the funds might be used to cover the re-allocation costs. Consequently, article 11 in the licensing Directive (97/13/EC) needs to be amended in order to achieve this. In any event fees levied by the NRA should only cover the direct and indirect costs to the government incurred in administering the spectrum.

Relocation costs to clear the assigned spectrum bands should only cover the actual costs of moving the current spectrum user to another spectrum band. Charging more than actual costs should be avoided at all times.

Question 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?*

Answer: On the question of separation radio spectrum from the granting of service, there is an increased need for flexibility so that operators may use spectrum in the best way to fulfil operational requirements.

As to the impact of creating a secondary market, GSM Europe would like to make the following remarks. In many countries the radio frequency licence is coupled to the obligation to use the frequencies as intended in the licence. Depending on the adopted licensing method, the possibility for a licence holder to transfer his obligation to a third party could be examined. This "secondary market" is only limited in the case of a consequential unwanted restriction of competition. The existence of a secondary market could increase the efficient use of spectrum, due to the fact that unused frequencies can be transferred to third parties, on commercial bases.

As to the possible misuse of such a secondary market/trading by non-operators, GSM Europe points to the statement we made sub 3(b).

5.4. Issue 4: Radio equipment and standards

As a general comment it is unclear from the Green Paper what is the current policy within the Community concerning standards. Within the Association there are differing views, GSM North America for example advocates a technology neutral policy believing this is beneficial to the consumer. GSM Europe, whilst sympathetic to market issues, believes that users are best served by competition within an open technology developed in a fair and non-discriminatory manner. This provides optimum possibilities for users to roam on to neighbouring networks with the same services and features that are available on their home network.

GSM Europe welcomes the adoption of world-wide standards agreed by operators, manufacturers, and regulators in international standards organisations.

Rather than having a passive policy of not forbidding multiple standards and devolving to the national level the issue of licensing radio services based on multiple standards, the EU should have a pro active policy of first promoting a harmonised pan-European standard.

Standards development should ensure that all technical contributions are market driven and are given equal consideration, evolving from a transparent consensual process. This process will encourage open interfaces, which in turn facilitates the introduction of the newest technologies, and creation of a healthier competitive trading environment. Similarly, spectrum allocation should be neutral, market-driven, transparent, and allow for public comment.

Question 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?*

Answer: Yes there is a need to improve this link. All standardisation relevant to equipment utilising the radio spectrum should be covered by ETSI. In principle there are too many standards producing bodies that have an impact on the radio spectrum e.g. ETSI, EBU, CAA, IMO, NATO, CEN/CENELEC. Standards should be developed with a major input from user organisations and should avoid existing proprietary standards with the potential for excessive IPR royalties. They should establish themselves in such a manner that individual members may participate fully (including the decision making process) without the burden of attending meetings

Question 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?*

Answer: Indeed it would be beneficial for the application of the RTTE Directive to have a timely availability of harmonised spectrum and to have a close consultation between policy makers, manufacturers and users on the spectrum matters regarding telecommunication equipment. A database containing the national regulations for the use of radio spectrum should also encompass the non- EU States of the CEPT. It is also essential that global mutual recognition activities, equipment characteristics having an important role in spectrum management, be fully supported by the Community. It is hoped that Europe will continue to take a prominent role in this activity without alienating other essential players.

5.5. Issue 5: The institutional framework for radio spectrum co-ordination

Question 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 or for Community positions is established?*

Answer: We would welcome greater transparency in the workings of CEPT, since this would help to ensure that decisions are seen, by all parties, to be objective. Besides having greater transparency, it is also important to make sure that EC decisions are carried out as earlier agreed upon. For example the phasing out of analogue mobile telephony could have been organised in a stricter manner. Nevertheless the decisions taken by NRA's in favour of one radiocommunication service or another must be demonstrated to have been taken in an objective and transparent manner and not as a result of vigorous political lobbying by a particular sectoral interest.

Question 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?*

Answer: No, in most cases the a priori establishment of a Community agreement is not needed. In the comment within the Green Paper on this question, there seems to be a supposition that in drafting ECPs, only technical considerations are taken into account. Our experience is contrary to this supposition.

In some cases where the CEPT/ERC are not able to formulate an ECP, position or brief on a particular issue, it could be useful to have a Community position on the subject.

One area where Community action at the highest political level could be beneficial would be to promote the harmonisation measures discussed in this document with other Governments to promote long term spectrum planning and the vision of globally harmonised frequency allocations.

Question 5(c): *In which fora should Community positions be developed where needed in discussions on radio spectrum between the European Community and its trading partners?*

Answer: The current regulatory arrangement with CEPT should be used to its full extent, except when the Community position is endangered. The time needed to reach common positions within CEPT or the Community would be lengthy in either of the bodies. The amount of time needed to formulate a common position does not give preference to either one of the two entities. The objective should be to build on the strengths of the two bodies and find means to resolve or improve identified weaknesses. The goal of all European bodies should however be to ensure that global networks are implemented to the benefit of users and industry.

Question 5(d): *Should procedures be introduced to ensure that the Member States support CEPT positions for ITU/WRC, particularly in view of the need to uphold Community interests in the international arena?*

Answer: In principle yes, however in practice the current system seems to work well. When the process of ECPs was first developed in 1985 there were some difficulties, however in recent WRCs most CEPT countries (including Member States) have supported ECPs. Unless difficulties arise in the future the current system should continue. However the position should be reviewed regularly. In any event a CEPT-position that really touches upon Community interests should have been reflected in a harmonisation Directive. Given such a Directive, it should have been implemented by the Member States, in which case there would be no need for further procedures to ensure the Community position.

The ERO Decision to free up at least 2 x40MHz for UMTS has been signed by a majority of the EU Member States, showing that the process works relatively quite well. Although it has to be stated that it could be improved by ensuring that all CEPT countries adhere to such regulatory provisions.. As stated before, this could be achieved by an increased Commission role.

There could be room for better alignment between the CEPT and the Commission to ensure that the European economical, social and political concerns are adequately balanced. Also, there could be room for more information sharing on spectrum allocations and conditions by storing this information in a public database constructed and maintained by ERO.