

Annex 17

Draft amending GSM Directive



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 19.11.2008
COM(2008) 762 final

2008/0214 (COD)

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community

(presented by the Commission)

EXPLANATORY MEMORANDUM

CONTEXT OF THE PROPOSAL

Grounds for and objectives of the proposal

This proposal aims at amending Council Directive 87/372/EEC of 25 June 1987 *on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community* (hereinafter GSM Directive) in order to allow the use of such bands by systems capable of providing electronic communication services not limited to GSM.

The objective is to allow a wider choice of services and technologies and thereby to maximise competition in the use of the bands so far covered by the GSM Directive, while ensuring that services remain coordinated and safeguarding the continued operation of GSM. To this end, the use of this spectrum would be allowed not only for GSM, but also for pan-European electronic communication services other than GSM. As a first step, this would include UMTS while acknowledging that other systems may also be able to co-exist in these bands. This requires new harmonised technical conditions for the spectrum band in question, which would be defined in a Commission Decision to be adopted under Decision 676/2002/EC *of the European Parliament and the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community* (hereinafter Radio Spectrum Decision).

General context

The need to use the resources offered by modern telecommunications networks, in particular by mobile radio, to the full for the economic development of the Community was recognised by Council Directive 87/372/EEC of 25 June 1987 on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community¹, complemented by Council recommendation of 25 June 1987 on the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community² and by Council Resolution of 14 December 1990 on the final stage of the coordinated introduction of pan-European land-based public digital mobile cellular communications in the Community (GSM)³. The move to the second generation cellular digital mobile communications system, called GSM, was seen as a unique opportunity to establish truly pan-European mobile communications.

New technological developments now allow for new digital technologies capable of providing innovative pan-European broadband services in coexistence with GSM in the 900 MHz band. This band is particularly valuable as it has good propagation characteristics, covering greater distances than higher frequency bands, and allowing modern voice, data and multimedia services to be extended into less populated and rural areas.

¹ OJ L 196, 17.7.1987, p.85.
² OJ L 196, 17.7.1987, p.81.
³ OJ C 329, 31.12.1990, p.25.

Therefore, while maintaining the availability of GSM for users throughout Europe, in order to contribute to the objectives of the internal market and of the i2010 initiative "A European Information Society for growth and employment"⁴ and to maximise competition by offering users a large choice of services and technologies, the use of the 900 MHz band should be opened in a coordinated way to additional types of technologies for the provision of additional compatible advanced pan-European services.

The GSM Directive presently requires Member States to reserve the whole 890-915 MHz and 935-960 MHz bands for GSM. This constraint prevents the bands from being used by pan-European systems other than GSM, capable of providing advanced interoperable voice, data and multimedia services with a high delivery bandwidth. These new pan-European systems, such as the UMTS system, offer capabilities beyond the GSM system and have become viable since the adoption of the GSM Directive 20 years ago thanks to technological developments. Moreover, there is a clear market demand for related services. Therefore, modification of the GSM Directive is necessary to remove the present limitation of spectrum usage to GSM.

It is proposed that the European Parliament and Council amend the Directive to remove the limitation on the use of the 900 MHz band to one service only and thereby open up the band to additional networks.

In conjunction with the adoption of this amendment, appropriate measures would be needed to implement the proposed change in such a way as to safeguard the GSM services currently using the bands. Accordingly, the technical conditions to allow for the coexistence of new systems in the 900 MHz band, alongside GSM systems will need to be legally established.

In line with the policy of better regulation, the Radio Spectrum Decision provides the legal means for adopting such harmonising measures. It foresees a mechanism allowing rapid reactions to technical evolution and the adoption of binding technical harmonisation measures at EU level in the form of Commission Decisions. This will ensure legal certainty for the harmonised use of the band.

While the 900 MHz band is being opened for additional systems, the current use of GSM in that band should remain protected in the whole Community as long as there is a reasonable demand for the service, considering the high importance of GSM services for electronic communications policy in the Community.

Existing provisions in the area of the proposal

The use of the frequency bands in question is governed by the GSM Directive which is to be modified. The Commission will subsequently adopt a Decision under the Radio Spectrum Decision to establish the new harmonised technical conditions for spectrum usage.

Consistency with other policies and objectives of the Union

⁴ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM(2005) 229 final.

Radio Spectrum Policy must cope with the growing and evolving variety of radio access platforms for public wireless communications and support the overall policy goal of strengthening the EU internal market and European competitiveness, by ensuring an innovation-friendly regulatory environment leading to the provision of a wide variety of mobile services and applications.

This can be achieved by introducing more flexibility in the management of spectrum resources for wireless electronic communications, while maintaining harmonisation where necessary. The least restrictive technical conditions should generally apply to the use of frequency bands, based on the WAPECS approach (Wireless Access Policy for Electronic Communications Services) which was described by the Radio Spectrum Policy Group (hereinafter RSPG) in its Opinion of 23 November 2005. This approach sets technological neutrality and service neutrality as policy goals to achieve a more flexible and efficient use of spectrum. These goals should be introduced in a gradual manner to avoid disruption of the market.

The Commission also insisted on a more flexible use of spectrum in its Communication on "*Rapid access to spectrum for wireless electronic communications services through more flexibility*"⁵, and on the need for a consistent and proportionate solution regarding the introduction of a more flexible spectrum use for electronic communications services using second (GSM) and third generation (e.g. UMTS) systems.

CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

Consultation of interested parties

Consultation methods, main sectors targeted and general profile of respondents

The use of the 900 MHz band, the development of new systems including UMTS and the evolution of spectrum use towards more flexibility have been under constant review by the Commission.

On 21 February 2006 in Brussels, a workshop was organised on WAPECS.

Based on a Mandate of 5 July 2006 from the Commission, several studies have been conducted by CEPT and its Electronic Communications Committee (hereinafter ECC) and submitted to the Radio Spectrum Committee (hereinafter RSC) and the Commission; these include ECC Report 82 on the compatibility of UMTS operating in the GSM 900 MHz and GSM 1800 MHz frequency bands (May 2006), and ECC Report 96 on compatibility between UMTS 900/1800 and systems operating in adjacent bands (March 2007). These reports have been subject to public consultation organised by the ECC.

ECC has conducted studies and adopted a series of reports since 1997 regarding the implementation of UMTS and has examined the current and future uses of the 900 MHz band. CEPT has liaised with standardisation instances dealing with the IMT-2000 family of standards (including UMTS), such as the 3rd Generation Partnership Project (3GPP) which brings together the telecommunications standards bodies from different

⁵ COM(2007)50

regions (ARIB, CCSA, ETSI, ATIS, TTA, and TTC) and in which industry is represented to develop system specifications. Based on this information, the ECC studied the possibility of introducing UMTS channels in bands used by GSM without creating interference in adjacent GSM channels. Studies continue into other systems that are part of the ITU IMT family.

Studies have also been carried out to examine the potential impact on services and systems operating in adjacent bands. National authorities, the European Telecommunications Standardisation Institute (ETSI), industry, user groups and other interested parties have taken part in a dedicated project team (PT1) under the auspices of the ECC, where information on adjacent band systems was collated and studied.

A public consultation has been organised by ECC in 2006 prior to the adoption of ECC decision ECC/DEC/(06)13 which recommends opening the 900 and 1800 MHz bands to systems other than GSM.

Summary of responses and how they have been taken into account

The CEPT reports conclude that UMTS networks can be deployed in urban, sub-urban and rural areas in co-existence with GSM900/1800 networks by using appropriate values for carrier separation.

The consultation has confirmed that there is a demand for using the 900 MHz band for UMTS, and backed the CEPT findings. Introducing systems such as UMTS in the 900 MHz band is also relevant from the standpoint of Community policy, as this would allow the further deployment of pan-European electronic communications services, ensuring that the same or equivalent services in terms of functionality are accessible to all consumers throughout the Community.

The public consultation conducted by the CEPT for the Commission in ECC Reports 82 and 96 has shown that there is extensive support from the mobile industry for opening the frequency bands formerly reserved for GSM systems, with clear benefits for the industry and consumers. Some users in adjacent frequency bands initially raised concerns about possible interference, but these concerns were dealt with in CEPT ECC Report 96.

Collection and use of expertise

Scientific/expertise domains concerned

Spectrum management, electronic communications; technical expertise of CEPT as well as of standardisation bodies.

Methodology used

The Commission has consulted the CEPT on the technical conditions for the coexistence of GSM with other technologies in the 900 MHz bands and on the impact of such other systems on applications in adjacent bands, including existing applications and prospective aeronautical communications systems operating above 960 MHz, intended to support European transport policy.

Main organisations/experts consulted

National authorities, ETSI, GSM and third-generation users, communications operators, manufacturers and other interested parties.

Summary of advice received and used

The existence of potentially serious risks with irreversible consequences has not been mentioned.

Commission noted from the ECC reports that use of the band for GSM could be shared with UMTS as another pan-European communications system, to meet the objectives of Community electronic communications policy.

To use the 900 MHz band more efficiently, the GSM Directive should be amended and a new harmonised scheme should be introduced by a Commission Decision.

Means used to make the expert advice publicly available

CEPT reports are available at:

<http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP082.PDF>

<http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP096.PDF>

and Reports to the RSC:

http://ec.europa.eu/information_society/policy/radio_spectrum/docs/ref_docs/rsc18_public_docs/rsc06_99_ecc_int_rep_wapecs.pdf.

Impact assessment

As self- or co-regulation or regulation by national authorities could not modify the GSM Directive to ensure timely and harmonised introduction of a new scheme to meet Community policy objectives, a Council and EP Directive is needed to amend the GSM Directive. In addition, a Commission Decision based on the Radio Spectrum Decision is to put in place new harmonised technical conditions, as agreed with the aid of CEPT technical expertise and the assistance of the RSC.

The new scheme would benefit the entire electronic communications sector as well as consumers. It is important for the internal market that the conditions for use of the 900 MHz band are both open and harmonised at EU level so as to facilitate the introduction of pan-European services and to offer maximum freedom to consumers in the choice of services and to spectrum users in the choice of technologies. The availability of radio spectrum will contribute to achieving the goals of the Lisbon agenda and the i2010 initiative — *A European Information Society for growth and employment⁶ to harness the potential of the digital economy to deliver growth, jobs and widespread availability of modern services.*

⁶ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM(2005) 229 final.

In particular, the measure would benefit European citizens by significantly reducing the hurdles to the deployment of advanced mobile communication services and overcoming the geographical digital divide. Systems other than GSM are expected to develop and spread throughout Europe more rapidly, especially in rural areas. New high-performing wireless data and multimedia services (e.g. internet browsing and mobile TV) need access networks such as 3G mobile networks using UMTS technology that offer higher data rates than GSM.

The measure would also increase the quality of services and lower the cost for the consumer. 3G mobile networks are currently confined to higher frequencies with less favourable propagation characteristics than the 900 MHz band, and therefore incur higher network deployment costs. Furthermore, higher frequencies are less able to penetrate buildings, to the detriment of service quality and consumer prices.

Finally, the measure would contribute to the economic development of the sector by facilitating the deployment of advanced mobile communication services. It will open new revenue streams to operators and increase the demand for equipment (network infrastructure, new generation of terminals).

The measure would have a positive impact on the environment as it would reduce the number of base stations needed through the use of lower frequencies. It would also reduce the risk of disputes over suitable base station locations.

Concerning the environmental impact, the need to protect health against electromagnetic emissions is not affected by the proposed measures. This issue is covered by Directive 2004/40/EC of the European Parliament and the Council of 29 April 2004 *on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields)*, and Council Recommendation 1999/519/EC of 12 July 1999 *on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)*. For radio equipment, health protection is ensured by the conformity of such equipment with the essential requirements of Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 *on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity (the R&TTE Directive)*.

The Commission keeps the health effects of electromagnetic fields under constant review. For example, its Scientific Committee on emerging and newly identified health risks (SCENIHR) has recently undertaken a comprehensive review of new scientific data emerging from recent studies.

LEGAL ELEMENTS OF THE PROPOSAL

Summary of the proposed action

In order to allow the 900 MHz band to be used by a variety of pan-European services in line with Community policy objectives and the market demand for mobile communications, it is proposed to amend Directive 87/372/EEC to open the band to additional, more advanced pan-European broadband communications services where these can coexist with GSM, and then have the Commission adopt a Decision under the Radio Spectrum Decision to harmonise the necessary technical conditions for the use

of this band.

Legal basis

Article 95 EC Treaty.

Subsidiarity principle

The subsidiarity principle applies as the proposal does not fall under the exclusive competence of the Community.

However, the objectives of the proposal cannot be sufficiently achieved by Member States for the following reasons.

Ensuring the harmonised use of the 900 MHz band to meet Community policy needs cannot be accomplished satisfactorily by Member States acting individually and can be better achieved at Community level by internal market measures adopted under the Radio Spectrum Decision. However, the adoption of a new scheme requires amendment of the GSM Directive.

The GSM Directive can only be amended by another Council and Parliament Directive. The new harmonised technical conditions for use of the 900 MHz band need to be adopted at Community level to ensure that Community policy objectives are met in a timely and harmonised way.

Community action will be better able to achieve the proposal's objectives for the following reasons.

The amendment of the GSM Directive and the adoption of coexistence conditions for GSM and UMTS, with provision for other systems to coexist in these bands as well, through a binding Community harmonisation measure, are necessary to ensure the timely and harmonised introduction of the new spectrum usage conditions in the Member States. Without such a measure, no harmonised and timely solution can be guaranteed.

The GSM Directive in its current version prohibits the use of the 900 MHz band by other pan-European systems, such as UMTS, and is therefore an obstacle to the development of the information society in the EU. Harmonised use of the 900 MHz band may support additional applications that meet current Community policy objectives.

The proposal therefore complies with the subsidiarity principle.

Proportionality principle

The proposal complies with the proportionality principle for the following reasons.

The GSM Directive will be amended and new harmonised technical conditions for the 900 MHz band will be introduced by the Commission, acting with the assistance of the RSC, while preserving the operation of GSM services. The proposed measures are limited to spectrum bands relevant to electronic communications services for pan-European applications. Given the evolution of technology and consumer needs, these

bands should be kept under review so that additional pan-European systems could also be introduced and coexist with GSM and UMTS.

This measure does not affect the issuance by Member States of rights to use the spectrum.

Where possible, Member States will also be able to introduce additional systems in the band provided that these can coexist with GSM systems.

Choice of instruments

Proposed instruments: Directive under Article 95 EC.

Other means would not be adequate for the following reasons.

Only a directive can amend the GSM Directive, which was adopted on the basis of the (old) Article 100 of the EC Treaty. While GSM operation, made possible by this Directive, will be safeguarded, the amended Directive and subsequent technical implementing measures will ensure that other pan-European systems, including as a first step UMTS, can coexist with GSM in the 900 MHz band.

BUDGETARY IMPLICATION

The proposal has no implications for the Community budget.

ADDITIONAL INFORMATION

Simplification

The proposal will ensure better regulation and the simplification of legislation, administrative procedures for public authorities (EU or national), and administrative procedures for private parties. As it currently stands, the GSM Directive poses an obstacle to technological progress and deprives industry and consumers of an appropriate spectrum for new advanced services.

The amendment of the Directive and the adoption of a technical harmonisation measure specifying new usage conditions constitute a change of regulatory approach, in line with the intention of the Radio Spectrum Decision to leave the technical details of spectrum management to implementing measures, thereby relieving the European Parliament and Council of this task.

Spectrum harmonisation will ease the task of national authorities and meet their expectations.

The harmonised spectrum usage conditions will open new opportunities for mobile communications operators and for mobile users, in particular in rural areas.

The proposal is included in the Commission's rolling programme for updating and simplifying the *acquis*.

Amendment of existing legislation

The proposal is intended to amend existing legislation.

European Economic Area

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission⁷,

Having regard to the opinion of the European Economic and Social Committee⁸,

Having regard to the opinion of the Committee of the Regions⁹,

Acting in accordance with the procedure laid down in Article 251 of the Treaty¹⁰,

Whereas:

- (1) Council Directive 87/372/EEC of 25 June 1987 on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community¹¹, complemented by Council Recommendation of 25 June 1987 on the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community¹² and by Council Resolution of 14 December 1990 on the final stage of the coordinated introduction of pan-European land-based public digital mobile cellular communications in the Community (GSM)¹³, recognised the need to use the resources offered by modern telecommunications networks, in particular by mobile radio, to the full for the economic development of the Community. The unique opportunity offered by the move to the second generation cellular digital mobile communications system to establish truly pan-European mobile communications has been recognized.

⁷ O.L.C. , , p. .

⁸ O.J.C. , , p. .

⁹ O.J.C. , , p. .

¹⁰ O.J.C. , , p. .

¹¹ O.J.L 196, 17.7.1987, p.85.

¹² O.J.L 196, 17.7.1987, p.81.

¹³ O.J.C 329, 31.12.1990, p.25.

- (2) The 890-915 MHz and 935-960 MHz frequency bands (the 900 MHz band) were reserved for a public pan-European cellular digital mobile communications service to be provided in each Member State in accordance with a common specification, known as GSM.
- (3) Since 1987, new digital radio technologies capable of providing innovative pan-European electronic communications have been developed, which can coexist with GSM in the 900 MHz band in a more technologically neutral regulatory context. The 900 MHz band has good propagation characteristics, covering greater distances than higher frequency bands, and allowing modern voice, data and multimedia services to be extended to less populated and rural areas.
- (4) While maintaining the availability of GSM for users throughout Europe, in order to contribute to the objectives of the internal market and of the i2010 initiative "A European Information Society for growth and employment"¹⁴ and to maximise competition by offering users a wide choice of services and technologies, the use of the 900 MHz band should be available to other technologies for the provision of additional compatible advanced pan-European services that would coexist with GSM.
- (5) The liberalisation of the use of the 900 MHz spectrum band could possibly result in competitive distortions. In particular, where certain mobile operators have not been assigned spectrum in the 900 MHz band, they could be put at a disadvantage in terms of cost and efficiency in comparison with operators that will be able to provide 3G services in that band. Under the regulatory framework on electronic communications, and in particular Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive)¹⁵, Member States can amend and/or review rights of use of spectrum and thus have the tools to deal, where required, with such possible distortions.
Member States should in particular examine whether the implementation of this Directive could distort competition in the mobile markets concerned. If they conclude that this is the case, they should consider whether it is objectively justified and proportionate to amend the rights of use of those operators that were granted rights of use of 900 MHz frequencies and, where proportionate, to review these rights of use and to redistribute such rights in order to address such distortions. Any decision to take such a course of action should be preceded by a public consultation.
- (6) In order for systems, other than GSM, to coexist with GSM systems in the same band, harmful interference should be avoided by applying technical usage conditions applicable to technologies other than GSM using the 900 MHz band.
- (7) Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (hereinafter the Radio Spectrum Decision)¹⁶ allows the Commission to adopt technical implementing measures to ensure harmonised conditions for the availability and efficient use of the radio spectrum band.

¹⁴ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM(2005) 229 final.

¹⁵ OJ L 108, 24.4.2002, p21.

¹⁶ OJ L 108, 24.4.2002, p.1.

- (8) As requested by the Commission, the European Conference of Postal and Telecommunications Administrations (hereinafter the CEPT) produced technical reports demonstrating that UMTS could coexist with GSM in the 900 MHz band, including the so-called extension band (880-890 MHz and 925-935 MHz). The 880-915 MHz and 925-960 MHz bands should therefore be opened to UMTS, a system that can co-exist with GSM, as well as to other systems as soon as it can be demonstrated that they can co-exist with GSM in accordance with the procedure in the Radio Spectrum Decision for the adoption of harmonised conditions for the availability and efficient use of radio spectrum.
- (9) Appropriate protection should be ensured for existing users in adjacent bands. Furthermore, prospective systems for aviation communications above 960 MHz, which help fulfilling Community policy objectives in this sector, should be taken into account. CEPT has produced technical advice in this respect.
- (10) In order to allow new digital technologies to be deployed in the 900 MHz band in coexistence with GSM systems, Directive 87/372/EEC should be amended accordingly and the exclusive reservation of this band for GSM should be removed,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 87/372/EEC is amended as follows:

- (1) Article 1 is replaced by the following:

'1. Member States shall make available the 880-915 MHz and 925-960 MHz radio spectrum bands for GSM systems and for UMTS systems as well as for other terrestrial systems capable of providing electronic communications services that can co-exist with GSM systems, in accordance with technical implementing measures adopted pursuant to Decision 676/2002/EC.

2. Member States shall, when implementing this Directive, examine whether the existing assignment of 900 MHz spectrum to the competing mobile operators in their territory is likely to distort competition in the mobile markets concerned and, where justified and proportionate, they shall address such distortions in accordance with Article 14 of Directive 2002/20/EC.'

- (2) Article 2 is replaced by the following:

'For the purposes of this Directive, the following definitions shall apply:

(a) "GSM system" shall mean an electronic communications network that complies with the GSM standards, as published by ETSI, in particular EN 301 502 and EN 301 511;

(b) "UMTS system" shall mean an electronic communications network that complies with the UMTS standards as published by ETSI, in particular EN 301 908-1, EN 301 908-2, EN 301 908-3 and EN 301 908-11'.

(3) Article 3 is replaced by the following:

'1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within six months after the date of entry into force of this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive. When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.'

(4) Article 4 is deleted.

Article 2

This Directive shall enter into force on the 20th day following its publication in the Official Journal of the European Union.

Article 3

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President