

P7_TA(2011)0220

First radio spectrum policy programme *I**

European Parliament legislative resolution of 11 May 2011 on the proposal for a decision of the European Parliament and of the Council establishing the first radio spectrum policy programme (COM(2010)0471 – C7-0270/2010 – 2010/0252(COD))

(Ordinary legislative procedure: first reading)

The European Parliament,

- having regard to the Commission proposal to Parliament and the Council (COM(2010)0471),
 - having regard to Article 294(2) and Article 114 of the Treaty on the Functioning of the European Union, pursuant to which the Commission submitted the proposal to Parliament (C7-0270/2010),
 - having regard to Article 294(3) of the Treaty on the Functioning of the European Union,
 - having regard to the opinion of the European Economic and Social Committee of 16 February 2011¹,
 - having regard to Rule 55 of its Rules of Procedure,
 - having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on the Internal Market and Consumer Protection and the Committee on Culture and Education (A7-0151/2011),
1. Adopts its position at first reading hereinafter set out;
 2. Calls on the Commission to refer the matter to Parliament again if it intends to amend its proposal substantially or replace it with another text;
 3. Instructs its President to forward its position to the Council, the Commission and the national parliaments.

¹ OJ C 107, 6.4.2011, p. 53.

P7_TC1-COD(2010)0252

**Position of the European Parliament adopted at first reading on 11 May 2011
with a view to the adoption of Decision No .../2011/EU of the European
Parliament and of the Council establishing the first radio spectrum policy
programme**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN
UNION,

Having regard to the Treaty on the Functioning of the European Union (TFEU), and
in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Acting in accordance with the ordinary legislative procedure²,

Whereas:

¹ OJ C 107, 6.4.2011, p. 53.

² Position of the European Parliament of 11 May 2011.

- (1) Article 8a(3) of the Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive)¹ provides that the Commission may submit a legislative proposal to the European Parliament and Council for establishing multiannual radio spectrum policy programmes setting out policy orientations and objectives for the strategic planning and harmonisation of the use of spectrum in accordance with the directives applicable to electronic communications networks and services. These policy orientations and objectives should refer to the availability and efficient use of spectrum necessary for the establishment and functioning of the internal market. ***The radio spectrum policy programme supports the goals and key actions outlined in the Europe 2020 Strategy and the Digital Agenda, and is included among the 50 priority actions of the Single Market Act.*** This Decision is without prejudice to existing Union law, in particular Directives 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 conformity², 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive)³, 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)⁴, 2002/21/EC and 2009/140/EC of the European Parliament and of the Council⁵, amending Directives 2002/21/EC, 2002/19/EC and 2002/20/EC, as well as 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 (Radio Spectrum Decision)⁶. It is also without prejudice to measures taken at national level, in compliance with Union law, to pursue general interest objectives, in particular relating to content regulation and audio-visual policy and to the right of Member States to organise and use their spectrum for public order and public security purposes and defence.
- [Am. 1]

¹ OJ L 108, 24.4.2002, p. 33.

² *OJ L 91, 7.4.1999, p. 10.*

³ *OJ L 108, 24.4.2002, p. 7.*

⁴ *OJ L 108, 24.4.2002, p. 21.*

⁵ *OJ L 337, 18.12.2009, p. 37.*

⁶ *OJ L 108, 24.4.2002, p. 1.*

- (2) Spectrum is a key **public** resource for essential sectors and services, including mobile, wireless broadband and satellite communications, television and radio broadcasting, transport, radiolocation, and applications such as alarm, remote controls, hearing aids, microphones, and medical equipment. It supports public services such as security and safety services, including civil protection, and scientific activities, such as meteorology, Earth observation, radio astronomy and space research. ***An efficient use of spectrum also plays a role in the universal access to electronic communications, in particular for citizens and businesses located in less populated or remote areas, such as rural areas or islands.*** Regulatory measures on spectrum therefore have economic, safety, health, public interest, cultural, scientific, social, environmental and technical implications. [Am. 2]
- (3) ***A renewed economic and social approach with regard to the management, allocation and usage of spectrum should be adopted, whereby particular focus is directed towards formulating regulation which ensures greater spectrum efficiency, better frequency planning and safeguards against anti-competitive behaviour and the taking of anti-social measures with regard to the usage of spectrum.*** [Am. 3]

- (4) The strategic planning and harmonisation of spectrum use at Union level should enhance the single market for wireless electronic communications services and equipment as well as other Union policies requiring spectrum use, thus creating new opportunities for innovation **and employment creation**, and **simultaneously** contributing to economic recovery and social integration across the Union, while at the same time respecting the important social, cultural and economic value of spectrum. ***The harmonisation of spectrum use is also essential to ensure the quality of the services provided by electronic communications and to create economies of scale lowering both the cost of deploying wireless networks and the cost of wireless devices for consumers.*** To this end, the Union therefore needs a policy programme that covers the internal market in all Union policy areas involving the use of spectrum such as electronic communications, research and development, transport, ***culture*** and energy. ***Any delay of the necessary reform by current right holders should be avoided at all costs.*** [Am. 4]
- (5) ***This first programme should promote competition, introduce a pan-European level playing field and lay the foundation for a genuine single digital market. In order to secure the full potential and consumer benefits of this radio spectrum programme and of the single market, the programme should be supplemented by upcoming and new proposals that will enable the development of the online economy such as on data protection and on a European licence system for online content.*** [Am. 5]

- (6) This first programme should in particular support the Europe 2020 Strategy for smart, sustainable and inclusive growth given the huge potential of wireless services to promote an information-based economy, develop and assist sectors relying on information and communications technologies and overcome the digital divide. ***The explosion of, in particular, audiovisual media services and online content is driving demand for speed and coverage.*** It is also a key action in the Digital Agenda for Europe¹ which aims to deliver fast broadband internet in the future network-based knowledge economy, with an ambitious target for universal broadband coverage. ***Providing the highest possible broadband speeds and capacity, ensuring not less than 30 Mbps for all by 2020 with at least half of European households having broadband access at a speed of at least 100 Mbps, is important for fostering economic growth and global competitiveness,*** and necessary to achieve the sustainable economic and social benefits of a digital single market. It should also support and promote other Union sectoral policies such as a sustainable environment and economic and social inclusion for all Union citizens. Given the importance of wireless applications for innovation, this programme is also a key initiative in support of Union policies on innovation. [Am. 6]
- (7) ***The first programme must lay the foundations for a development whereby the Union can take the lead regarding broadband speeds, mobility, coverage and capacity. Such leadership is essential in order to establish a competitive digital single market working as a spearhead to free up the internal market for all Union citizens.*** [Am. 7]

¹

COM(2010)0245.

- (8) The first programme should *lay down the* principles and objectives up to 2015 for Member States and Union institutions, and set out specific implementation initiatives. While spectrum management is still largely a national competence, it should be exercised in compliance with existing Union law and allow for action to pursue Union policies. [Am. 8]
- (9) The programme should also take into account Decision No 676/2002/EC and the technical expertise of the European Conference of Postal and Telecommunications Administrations (CEPT) so that Union policies which rely on spectrum and were agreed by Parliament and Council can be implemented by technical implementing measures, noting that such measures can be taken whenever necessary to implement already existing Union policies.
- (10) Ensuring the optimal *and productive* use of spectrum *as a public good* may require *the Commission and Member States to put in place* innovative authorisation solutions such as collective use of spectrum, general authorisations or infrastructure sharing, *besides traditional solutions like auctions*. The application of such principles in the Union might be facilitated by *identifying best practices and encouraging information sharing, as well as* by defining certain common or converging conditions for spectrum usage. General authorisations, which are the *most appropriate and* least onerous authorisation system, are of particular interest where interference does not risk hampering the development of other services, *and most appropriate according to Article 5 of Directive 2002/20/EC*. [Am. 9]

- (11) Spectrum rights trading combined with flexible usage conditions should substantially benefit economic growth. Therefore, bands in which flexible use has already been introduced by Union law should be immediately made tradable pursuant to the Directive 2002/21/EC. In addition, common principles for the format and content of such tradable rights as well as common measures to prevent accumulation of spectrum which may create dominant positions as well as undue failure to use acquired spectrum, would facilitate the coordinated introduction by all Member States of these measures and facilitate acquisition of such rights anywhere in the Union. ***In addition, with a view to achieving the objectives of the Digital Agenda for Europe, part of the proceeds from the auctioning of spectrum rights ('digital dividend') should be used to speed up the expansion of broadband coverage.*** [Am. 11]

- (12) As underlined in the Digital Agenda for Europe, wireless broadband is an important means to boost competition, ***a pan-European level playing field***, consumer choice and access in rural and other areas where deployment of wired broadband is difficult or economically unviable. However, spectrum management may affect competition by changing the role and power of market players, for example if existing users benefit from undue competitive advantages. Limited spectrum access, in particular when appropriate spectrum becomes scarcer, can create a barrier to entry for new services or applications and hamper innovation and competition. Acquisition of new usage rights, including through spectrum trading or other transactions between users, and the introduction of new flexible criteria for spectrum use can have an impact on the existing competitive situation. Member States should therefore ***conduct a thorough analysis of competition effects prior to new spectrum allocations, as well as taking*** appropriate ex ante or ex post regulatory measures (such as action to amend existing rights, to prohibit certain acquisitions of spectrum rights, to impose conditions on spectrum hoarding and efficient use such as those referred to in Article 9(7) of the Directive 2002/21/EC, to limit the amount of spectrum for each operator, or to avoid excessive accumulation of spectrum) to avoid distortions of competition in line with the principles underpinning Article 5(6) of Directive 2002/20/EC and Article 1(2) of ***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***¹ (the ‘GSM Directive’). ***Member States may also take steps to achieve a more even allocation of spectrum between economic operators by reserving spectrum for new entrants to a frequency band or group of bands with similar characteristics.*** [Am. 12]

¹ OJ L 196, 17.7.1987, p. 85.

- (13) Optimal and efficient spectrum use requires continuous monitoring of developments, and up-to-date transparent information on spectrum use throughout the Union. While Commission Decision 2007/344/EC of 16 May 2007 on harmonised availability of information regarding spectrum use within the Community¹ requires Member States to publish information on usage rights, a detailed inventory of existing spectrum use ***and the efficiency of such use is necessary in the Union, following a common review and assessment methodology, in order to improve the efficiency of spectrum and radio equipment use, in particular between 300 MHz and 6 GHz, but also between 6 GHz and 70 GHz as these frequencies will become increasingly important following rapid technological developments. The inventory should be sufficiently detailed to identify inefficient technologies and usages in both the private and public sectors, as well as unused assignments and sharing opportunities, and to evaluate future consumer and business needs. In addition, taking into account the continuous growth of the number of applications using wireless data, Member States should promote the efficient use of spectrum for user applications.*** [Am. 13]
- (14) ***While technologically still in development, so-called ‘cognitive technologies’ should already be further explored and implemented through geolocalised information on spectrum usage, which should be mapped in the inventory.*** [Am. 89]
- (15) Harmonised standards under Directive 1999/5/EC are essential to achieve efficient spectrum use and should take account of legally defined sharing conditions. European standards for non-radio electric and electronic equipment and networks should also avoid disturbance to spectrum use. The cumulative impact of the increasing volume and density of wireless devices and applications combined with the diversity of spectrum use challenges current approaches to interference management. These should be examined and reassessed together with receiver characteristics and more sophisticated interference avoidance mechanisms, ***with the aim of avoiding harmful interference or disturbance to existing and future spectrum use. Moreover, Member States should be allowed, where appropriate, to introduce, in accordance with national law, compensatory measures relating to the direct cost of resolving interference issues and migration costs.*** [Am. 14]

¹ OJ L 129, 17.5.2007, p. 67.

- (16) In line with the objectives of the Commission's flagship initiative Digital Agenda for Europe, wireless broadband *services* contribute substantially to economic recovery and growth if sufficient spectrum is made available, usage rights are awarded quickly and trading is allowed to adapt to market evolution. The Digital Agenda calls for all Union citizens to have access to broadband of at least 30 Mbps by 2020. Therefore, spectrum that has already been *harmonised* should be authorised by 2012 for terrestrial communications to ensure easy access to wireless broadband for all, in particular within spectrum bands designated by Commission Decisions 2008/477/EC¹, 2008/411/EC² and 2009/766/EC³. To complement terrestrial broadband services and ensure coverage of most remote Union areas, affordable satellite broadband access could be a fast and feasible solution. [Am. 15]
- (17) *According to multiple converging studies, mobile data traffic is increasing rapidly and is currently being doubled every year. At this pace, which is likely to continue in the coming years, mobile data traffic will have increased nearly 40 fold between 2009 and 2014. In order to manage this exponential growth, a number of actions will be required by regulators and market players including increased spectrum efficiency across the board, possible further harmonised spectrum allocations for wireless broadband, and traffic offload onto other networks via multi-mode devices.* [Am. 16]
- (18) *More flexible arrangements governing spectrum use should be introduced in order to foster innovation and high-speed broadband connections which enable firms to reduce their costs and increase their competitiveness and make it possible to develop new interactive online services, for example in the fields of education, health and services of general interest.* [Am. 17]

¹ Commission Decision 2008/477/EC of 13 June 2008 on the harmonisation of the 2 500-2 690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 163, 24.6.2008, p. 37).

² Commission Decision 2008/411/EC of 21 May 2008 on the harmonisation of the 3 400-3 800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 144, 4.6.2008, p. 77).

³ Commission Decision 2009/766/EC of 16 October 2009 on the harmonisation of the 900 MHz and 1 800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community (OJ L 274, 20.10.2009, p. 32).

- (19) *A European market with nearly 500 million people connected to high-speed broadband would act as a spearhead for the development of the internal market, creating a globally unique critical mass of users exposing all regions to new opportunities and giving each user increased value and the Union the capacity to be a world-leading knowledge-based economy. A rapid deployment of broadband is crucial for the development of productivity in the Union and for the emergence of new and small enterprises that can be leaders in different sectors, for example healthcare, manufacturing and the services industry. [Am. 18]*
- (20) *The International Telecommunications Union (ITU) has estimated the future spectrum bandwidth requirements for the development of International Mobile Telecommunications-2000 (IMT-2000) and IMT-advanced systems (i.e. 3G and 4G mobile communications) as amounting to between 1 280 and 1 720 MHz in 2020 for the commercial mobile industry for each ITU region including Europe. Without freeing up additional spectrum, preferably in a harmonised way at global level, new services and economic growth will be hindered by capacity constraints in mobile networks. [Am. 19]*

- (21) *In addition to a timely and pro-competitive freeing up of the 880-915 MHz and 925-960 MHz frequency bands (the ‘900 MHz band’) in accordance with Directive 2009/114/EC of the European Parliament and of the Council¹, the 790–862 MHz band (the ‘800 MHz band’) can be used in an optimal way for the coverage of large areas by wireless broadband services. Building on the harmonisation of technical conditions under Commission Decision 2010/267/EU of 6 May 2010 on harmonised technical conditions of use in the 790-862 MHz frequency band for terrestrial systems capable of providing electronic communications services in the European Union², and on Commission Recommendation 2009/848/EC of 28 October 2009 facilitating the release of the digital dividend in the European Union³, calling for analogue broadcasting to be switched off by 1 January 2012, and given rapid national regulatory developments, this band should in principle be made available for electronic communications in the Union by 2013. Speedy implementation in respect of that band is needed to avoid technical disturbances, particularly in the border regions between Member States. Considering the capacity of the 800 MHz band to transmit over large areas, coverage obligations achieved through the principles of technical and service neutrality should be attached to rights. Additional spectrum for wireless broadband services in the 1 452-1 492 MHz band (the ‘1,5 GHz band’) and the 2 300-2 400 MHz band (the ‘2,3 GHz band’) should be freed up to meet the increasing demand for mobile traffic and should ensure a level playing field between different technological solutions and support the emergence of pan-European operators within the Union. Further mobile service spectrum allocations, such as the 694-790 MHz band (the ‘700 MHz band’), should be evaluated depending on future capacity requirements for wireless broadband services and terrestrial TV. [Am. 20]*

¹ OJ L 274, 20.10.2009, p. 25.

² OJ L 117, 11.5.2010, p. 95.

³ OJ L 308, 24.11.2009, p. 24.

- (22) *Increased mobile broadband opportunities are crucial to provide the cultural sector with new distribution platforms, thereby paving the way for the successful future development of the sector. It is essential that terrestrial TV services and other actors be able to maintain existing services when an additional part of the spectrum is freed up for wireless services. Migration costs, resulting from the freeing up of additional spectrum, may be covered through licence fees, making it possible for broadcasters to have the same opportunities as are enjoyed today in other parts of the spectrum. [Am. 21]*
- (23) *Wireless access systems, including radio local access networks, are outgrowing their current allocations on an unlicensed basis at 2,4 GHz and 5 GHz. In order to accommodate the next generation of wireless technologies, wider channels are required, enabling speeds in excess of 1 Gbps. In addition, the feasibility of extending the allocations of unlicensed spectrum for wireless access systems, including radio local area networks, established by Commission Decision 2005/513/EC¹, should be assessed in relation to the inventory of existing uses of, and emerging needs for, spectrum, and depending on use of spectrum for other usages. [Ams. 22 and 25]*
- (24) *While broadcast will remain an important distribution platform for content, as it is still the most economical platform for mass-distribution, broadband, fixed and mobile, and other new services provide new opportunities for the cultural sector to diversify its range of distribution platforms, to deliver on-demand services and to tap into the economic potential of the major increase in data traffic. [Am. 23]*
- (25) *Similar to the ‘GSM’ standard, which was successfully taken up around the world thanks to an early and decisive pan-European harmonisation, the Union should aim to set the global agenda for future spectrum re-allocations especially for the most efficient part of the spectrum. Agreements in the World Radiocommunication Conference (WRC) 2016 will be pivotal to ensure global harmonisation and co-ordination with neighbouring third countries. [Am. 24]*

¹ Commission Decision 2005/513/EC of 11 July 2005 on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs) (OJ L 187, 19.7.2005, p. 22).

- (26) Since a common approach and economies of scale are key to developing broadband communications throughout the Union and preventing competition distortion and market fragmentation among Member States, certain authorisation and procedural conditions *should* be defined in concerted action among Member States and with the Commission. Conditions *should primarily ensure new entrants' access to lower bands through auctions or other competition procedures. Conditions* could also include coverage obligations, spectrum block size, the timing of granting rights, access to mobile virtual network operators (MVNOs) and the duration of rights of use. Reflecting the importance of spectrum trading for increasing efficient use of spectrum, *facilitating the emergence of new pan-European services* and developing the internal market for wireless equipment and services, these conditions should apply to spectrum bands that are allocated to wireless communications, and for which rights of use may be transferred or leased. [Am. 26]

- (27) Additional spectrum may be needed by other sectors such as transport (for safety, information and management systems), research and development (R&D), *culture*, e-health, e-inclusion *and* public protection and disaster relief (*PPDR*), *the latter in view of its increased use of video and data transmission for quick and more efficient service*. Optimising synergies *and direct links* between spectrum policy and R&D activities and carrying out studies of radio compatibility between different spectrum users should help innovation. *Relevant research organisations* should help in developing the technical aspects of spectrum regulation, notably by providing testing facilities to verify interference models relevant to Union legislation. Moreover, results of research under the Seventh Framework Programme for research, technological development and demonstration activities¹ require the examination of the spectrum needs of projects that may have a large economic or investment potential, in particular for small and medium-sized enterprises (SMEs), e.g. cognitive radio or e-health. Adequate protection against harmful interference should also be ensured to sustain R&D and scientific activities. [Am. 27]
- (28) The Europe 2020 Strategy sets environmental objectives for a sustainable, resource efficient and competitive economy, for example by improving resource efficiency by 20 %. The information and communication technology (ICT) sector has a key role to play as stressed in the Digital Agenda for Europe. Proposed actions include acceleration of the Union-wide deployment of intelligent energy management systems (smart grids and smart metering) using communication capabilities to reduce energy consumption, and the development of Intelligent Transport Systems and intelligent traffic management to reduce carbon dioxide emissions by the transport sector. Efficient use of spectrum technologies could also help reduce energy consumption by radio equipment and limit the environmental impact in rural and remote areas.

¹ Decision No 1982/2006/EC of the European Parliament and of the Council of 18 December 2006 concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013) (OJ L 412, 30.12.2006, p. 1).

- (29) Protection of public health against electromagnetic fields is essential for citizens' *wellbeing* and for a coherent approach to spectrum authorisation in the Union. Although protection of public health against electromagnetic fields is already covered under 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)¹, it is essential to *attain a better understanding of the responses of living organisms to electromagnetic fields and to ensure constant monitoring of the ionising and non-ionising effects of spectrum use on health, including the real-life cumulative effects of spectrum use in various frequencies by an increasing number of equipment types. While achieving appropriate public safety, Member States should ensure protective measures are technology and service neutral.* [Am. 28]
- (30) Essential public interest objectives, such as safety of life, call for coordinated technical solutions for the interworking of safety and emergency services between Member States. Sufficient spectrum should be made available *in a coordinated pan-European block of radio spectrum* for the development and free circulation of safety services and devices and innovative pan-European or interoperable safety and emergency solutions. Studies have already shown the need for additional harmonised spectrum below 1 GHz to deliver mobile broadband services for PPDR, across the Union in the next 5 to 10 years. *Any additional harmonised allocation of spectrum for PPDR below 1 GHz should also include a review of potential to free up or share other PPDR-held spectrum.* [Am. 29]

¹ OJ L 199, 30.7.1999, p. 59.

- (31) Spectrum regulation has strong cross-border and international dimensions, due to propagation characteristics, the international nature of markets dependent on radio-based services, and the need to avoid harmful interference between countries. Moreover, the references to international agreements in Directives 2002/21/EC and 2002/20/EC as amended by Directive 2009/140/EC means that Member States are not to enter into international obligations that prevent or constrain the fulfilment of their Union obligations. Member States should, in accordance with the case-law, undertake all necessary efforts to enable appropriate representation of the Union in matters under its competence in international bodies in charge of spectrum coordination. Moreover, where Union policy or competence is at stake, the Union should politically drive the preparation of negotiations and ***ensure the Union speaks with one voice*** in multilateral negotiations ***to create global synergies and economies of scale in the use of spectrum***, including in the International Telecommunications Union that corresponds to its level of responsibility for spectrum matters under Union law. **[Am. 30]**
- (32) In order to evolve from current practice and building on the principles defined in the Council Conclusions of 3 February 1992 on procedures to be followed at the World Administrative Radio Conference of 1992, and where the WRC and other multilateral negotiations touch upon principles and policy issues with an important Union dimension, the Union should be able to establish new procedures to defend its interests in multilateral negotiations, in addition to the long-term objective of becoming a member of the International Telecommunications Union alongside the Member States; to this end, the Commission, taking into account the opinion of the Radio Spectrum Policy Group (RSPG), may also propose common policy objectives to the European Parliament and the Council, as set out in Directive 2002/21/EC.

- (33) *In order to avoid the growing pressure on frequency band reserved for satellite navigation and satellite communication, that bandwidth must be secured in the new planning of spectrum use.* The 2012 WRC includes specific issues of Union relevance such as the digital dividend, scientific and meteorological services, sustainable development and climate change, satellite communications and the use of spectrum for Galileo (established by Council Regulation (EC) No 876/2002 of 21 May 2002 setting up the Galileo Joint Undertaking¹ and Council Regulation (EC) No 1321/2004 of 12 July 2004 on the establishment of structures for the management of the European satellite radio-navigation programmes²), as well as the European Earth monitoring programme ('GMES')³ for the improved use of Earth observation data. [Am. 31]
- (34) Member States *should continue bilateral negotiations with neighbouring third countries, including candidate and potential candidate countries, to meet their Union obligations on frequency coordination issues and to try to find agreements which can set a positive precedent for other Member States. The Union should assist Member States with technical and political support in their bilateral and multilateral negotiations with third countries, in particular neighbouring countries* ■ *including candidate and potential candidate countries.* This should also help avoid harmful interference and improve spectrum efficiency and spectrum use convergence even beyond Union borders. Action is particularly pressing in the 800 MHz and 3,4-3,8 GHz bands for the transition to cellular broadband technologies and for the harmonisation of spectrum necessary for the modernisation of air traffic control. [Am. 32]

¹ OJ L 138, 28.5.2002, p. 1.

² OJ L 246, 20.7.2004, p. 1.

³ OJ L 276, 20.10.2010, p. 1.

- (35) In order to realise the objectives of this programme it is important to develop an appropriate institutional framework for the co-ordination of spectrum management and regulation at Union level, while taking full account of the competence and expertise of national administrations. Such a framework can also assist in putting spectrum co-ordination between Member States in the context of the internal market. Cooperation and coordination are also essential between standardisation bodies, research institutions and the CEPT.
- (36) The Commission should report *annually* to the European Parliament and the Council on the results achieved under this Decision, as well as on planned future actions. [**Am. 33**]
- (37) In drawing up its proposal the Commission has taken utmost account of the opinion of the RSPG.
- (38) *This Decision is without prejudice to the protection afforded to market players by Directive 2009/140/EC, [Am. 34]*

HAVE ADOPTED THIS DECISION:

Article 1
Aim and scope

1. This Decision establishes a ***multi-annual*** radio spectrum policy programme for the strategic planning and harmonisation of the use of spectrum to ensure the functioning of the internal market.
2. ***This Decision covers the internal market in all Union policy areas involving the use of spectrum such as electronic communications, research, development and innovation, transport, energy and audiovisual policy.***
3. ***This Decision is in accordance with existing Union law, in particular Directives 2002/19/EC, 2002/20/EC, 2002/21/EC and 1999/5/EC, as well as Decision No 676/2002/EC, and also with measures taken at national level in compliance with Union law and with specific international agreements, taking into account the ITU Radio Regulations;***
4. ***This Decision is without prejudice to measures taken at national level in full compliance with Union law, which pursue general interest objectives, in particular those relating to content regulation and audiovisual policy. [Am. 35]***

Article 2
General regulatory principles

I. Member States shall cooperate with each other and with the Commission in a transparent manner, in order to ensure the consistent application of the following general regulatory principles across the Union:

(a) encouraging efficient use of spectrum to best meet the increasing demand for use of frequencies, *reflecting the important social, cultural and economic value of spectrum*;

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(b) applying the *most appropriate, non-discriminatory and* least onerous authorisation system possible in such a way as to maximise flexibility and efficiency in spectrum usage;

(c) guaranteeing the *development* of the internal market *and digital services* by ensuring effective competition, *a pan-European level playing field and by promoting the emergence of future pan-European services*;

(d) *promoting innovation*;

(e) *taking full account of the relevant Union law on effects on human health of electromagnetic field emissions when defining the technical conditions of the use of spectrum*;

(f) *promoting technology and service neutrality in the use of spectrum.* [Am. 36]

2. For electronic communications, the following specific principles apply, in accordance with Articles 8a, 9 and 9b of Directive 2002/21/EC and with Decision No 676/2002/EC:

- (a) applying technology and service neutrality in the use of spectrum for electronic communications networks and services and the transfer or lease of individual rights to use radio frequencies;**
- (b) promoting the harmonisation of use of radio frequencies across the Union, in a way that is consistent with the need to ensure effective and efficient use of those frequencies;**
- (c) facilitating increased mobile data traffic and broadband services, in particular by fostering flexibility, and promoting innovation, taking account of the need to avoid harmful interference and ensure the technical quality of service;**
- (d) maintaining and developing effective competition by preventing, through ex ante or ex post measures, the excessive accumulation of radio frequencies which results in significant harm to competition. [Am. 37]**

Article 3
Policy objectives

In order to focus on the priorities of this first programme, Member States and the Commission shall cooperate in order to support and implement the following policy objectives:

- (a) allocate sufficient *and* appropriate spectrum *for mobile data traffic amounting to at least 1 200 MHz by 2015, unless specified otherwise in the Radio Spectrum Policy Programme, in order to support Union policy objectives and to best meet the increasing demand for mobile data traffic, thereby allowing the development of commercial and public services, while taking into account important general interest objectives such as cultural diversity and media pluralism*; [Am. 38]
- (b) *bridge the digital divide and realise the objectives of the Digital Agenda for Europe, ensuring that all Union citizens have access to broadband at a speed of not less than 30 Mbps by 2020 and making it possible for the Union to have the highest possible broadband speed and capacity*; [Am. 39]
- (c) *enable the Union to take the lead in wireless electronic communication broadband services by freeing up sufficient additional spectrum in the most cost-efficient bands for these services to be widely available*; [Am. 40]
- (d) *secure opportunities for both the commercial sector as well as public services by means of increased mobile broadband capacities*; [Am. 41]

- (e) maximise flexibility in the use of spectrum in order to promote innovation and investment, through *a consistent application across the Union* of the principles of technology and service neutrality *so as to ensure a pan-European level playing field between the technological solutions that may be adopted and through adequate regulatory predictability*, through the freeing up of *harmonised* spectrum to new *advanced technologies*, and through the possibility of trading spectrum rights, *thereby creating opportunities for future pan-European services to be developed*; [Am. 42]
- (f) enhance the efficient use of spectrum by harnessing the benefits of general authorisations and increasing the use of such types of authorisation;
- (g) *encourage passive infrastructure sharing where this would be proportionate and non-discriminatory, as envisaged in Article 12 of Directive 2002/21/EC*; [Am. 43]
- (h) maintain and develop effective competition, in particular in electronic communication services, by preventing ex ante, or remedying ex post, excessive accumulation of radio frequencies by certain economic operators which results in significant harm to competition *by means of withdrawal of frequency rights or other measures, or by assigning frequencies in ways that correct market distortions*; [Am. 44]
- (i) reduce the fragmentation *and fully exploit the potential* of the internal market *in order to establish a pan-European level playing field in order to foster economic growth and economies of scope and scale at Union level* by enhancing coordination and harmonisation, as appropriate, of technical conditions for the use and availability of spectrum ■ ; [Am. 45]

- (j) avoid harmful interference or disturbance by other radio or non-radio devices by facilitating the development of standards allowing for flexible and efficient use of spectrum, and increasing immunity of receivers to interference, taking particular account of the cumulative impact of the increasing volumes and density of radio devices and applications;
- (k) in defining the technical conditions for the allocation of spectrum, take full account of the results of research certified by the relevant international organisations into the potential effects on human health of electromagnetic field emissions *and apply them in a way that is technology and service neutral*; [Am. 46]
- (l) *ensure the accessibility of new consumer products and technologies so as to secure consumer endorsement for the transition to digital technology and efficient use of the digital dividend*; [Am. 47]
- (m) *reduce the Union's carbon footprint by enhancing the technical efficiency of wireless communication networks and applications*. [Am. 48]

Article 4
Enhanced efficiency and flexibility

1. Member States shall adopt by 1 January 2013 authorisation and allocation measures *that are similar to each other and* appropriate for the development of broadband services, in conformity with Directive 2002/20/EC, such as allowing relevant operators, where possible and on the basis of consultations in accordance with Article 12, direct or indirect access to contiguous blocks of spectrum of at least 10 MHz, *thereby allowing the highest possible capacity and broadband speeds to be achieved, as well as making effective competition possible.* [Am. 49]
2. Member States shall foster, in cooperation with the Commission, the collective use of spectrum as well as shared *and unlicensed* use of spectrum. *They shall also foster the development of current and new technologies such as geolocation databases and cognitive radio, for example, in ‘white spaces’ following proper impact assessments. Those impact assessments shall be undertaken within twelve months of the entry into force of this Decision.* [Am. 90]
3. Member States and the Commission shall cooperate to develop and harmonise standards for radio equipment and telecommunications terminals as well as for electric and electronic equipment and networks based where necessary upon standardisation mandates from the Commission to the relevant standardisation bodies. *Special attention shall also be given to standards for equipment to be used by disabled people, without, however, depriving them of the right to use non-standardised equipment if that is their preference. Efficient coordination of spectrum harmonisation and standardisation will be particularly important in this regard so that consumers can use appliances that depend on radio spectrum without restriction and throughout the internal market.* [Am. 51]

4. *Member States shall intensify R&D activities on new technologies such as cognitive technologies as their development could represent an added-value in the future in terms of efficiency of spectrum use. [Am. 52]*

5. Member States shall ensure that selection conditions and procedures promote *competition and a pan-European level playing field*, investment and efficient use of spectrum *as a public good, as well as co-existence between new and existing services and devices. In addition, Member States shall promote the ongoing efficient use of spectrum for both networks and user applications. [Am. 53]*

6. In order to avoid possible fragmentation of the internal market due to divergent selection conditions and procedures for harmonised spectrum bands allocated to electronic communication services and made tradable in all Member States pursuant to Article 9b of Directive 2002/21/EC, the Commission, in cooperation with Member States *and in accordance with the principle of subsidiarity*, shall *identify best practices and encourage sharing of information for such bands and* develop guidelines on authorisation conditions and procedures for such bands, *for example* on infrastructure sharing and coverage conditions, *to ensure a pan-European level playing field, achieved through the principles of technology and service neutrality. [Am. 54]*

7. **■** In order to ensure the effective use of spectrum rights and avoid spectrum hoarding, Member States shall, *where necessary*, take appropriate measures including financial penalties, *the use of incentive fees tools and* the withdrawal of rights. [Am. 55]

8. *The measures that Member States are to adopt pursuant to paragraph 1 shall be taken in addition to the freeing up of the 900 MHz band in the near future, in line with the ‘GSM Directive’ and in such a manner as to promote competition. Such measures shall be taken in a non-discriminatory manner and may not distort competition to the advantage of operators already dominant in the market. [Am. 56]*

Article 5
Competition

1. Member States shall maintain and promote effective competition and avoid distortions of competition in *both* the internal market *and specific national markets*. [Am. 57]

2. In order to *fully* implement the obligations of paragraph 1, and in particular to ensure that competition is not distorted by any *assignment*, accumulation, transfer or modification of rights of use for radio frequencies, Member States *shall, prior to a planned spectrum assignment, carefully examine whether the assignment is likely to distort or reduce competition in the mobile markets concerned, taking into account existing spectrum rights held by relevant market operators. If the spectrum assignment is likely to distort or reduce competition, Member States shall* adopt the *most appropriate measures to promote effective competition, and at least one of the* following measures, which are without prejudice to the application of competition rules: [Am. 58]

(a) Member States may limit the amount of spectrum for which rights of use are granted to any operator or may attach conditions to such rights of use, such as the provision of wholesale access, *national or regional roaming*, in certain bands or in certain groups of bands with similar characteristics, for instance the bands below 1 GHz allocated to electronic communication services; [Am. 59]

(b) *Member States may reserve a certain part of a spectrum band or group of bands for assignment to new entrants that have not previously been assigned any spectrum or that have been assigned considerably less spectrum, in order to ensure a level playing field between early entrants to the mobile market and new entrants by securing access to lower spectrum bands on equal terms;* [Am. 60]

- (c) Member States may refuse to grant new rights of use or to allow new spectrum usages in certain bands, or may attach conditions to the grant of new rights of use or to the authorisation of new spectrum usages, where this would lead to an accumulation of spectrum frequencies by certain economic operators, *and such accumulation* is likely to result in significant harm to competition; [Am. 61]
- (d) Member States may prohibit or impose conditions on transfers of spectrum usage rights, not subject to national or Union merger control, where this is likely to result in significant harm to competition;
- (e) Member States may amend the existing rights in accordance with Article 14 of Directive 2002/20/EC where this is necessary to remedy ex-post excessive accumulation of spectrum frequencies within certain economic operators which *is likely to distort* competition. [Am. 62]

3. *Where Member States wish to adopt any such measures as are referred to in paragraph 2, they shall do so by imposing conditions in conformity with the procedures for the imposition or variation of such conditions on the rights to use spectrum laid down in Directive 2002/20/EC.* [Am. 63]

4. Member States shall ensure that authorisation and selection procedures avoid delays, *are non-discriminatory* and promote effective competition, *by preventing any potential anti-competitive outcomes, for the benefit of Union citizens and consumers.* [Am. 64]

Article 6
Spectrum for wireless broadband communications

1. Without prejudice to the principles of service and technology neutrality, Member States, in cooperation with the Commission, shall take all steps necessary to ensure that sufficient *harmonised* spectrum for coverage and capacity purposes is allocated within the Union, ***enabling the Union to have the fastest broadband speed in the world***, in order to ensure that wireless applications ***and European leadership in new services*** contribute effectively to ***economic growth***, and to achieve the target for all citizens to have access to broadband ***speeds of not less than*** 30 Mbps by 2020. [Am. 65]

2. Member States shall, by 1 January 2012, ***make*** the ***bands*** designated by Decisions 2008/477/EC (2,5–2,69 GHz), 2008/411/EC (3,4–3,8 GHz) and 2009/766/EC (900/1 800 MHz) ***available, in order to promote wider availability of*** wireless broadband services ***for the benefit of Union citizens and consumers, without prejudice to the existing and future deployment of other services that have equal access to this spectrum under the conditions specified in those Commission Decisions.*** [Am. 66]

3. ***Member States shall promote the ongoing upgrade by providers of electronic communications of their networks to the latest, most efficient technology, in order to create their own dividends.*** [Am. 67]

4. Member States shall, by 1 January 2013, make the 800 MHz band available for electronic communications services in line with the harmonised technical conditions laid down pursuant to the Decision No 676/2002/EC. *In exceptional cases duly justified for technical and historical reasons*, the Commission may authorise specific derogations until *the end of 2015 in response to a duly motivated application from the Member State concerned*. *If cross-border frequency coordination problems with one or more third countries further prevent the availability of the band, the Commission may authorise exceptional annual derogations until such obstacles are removed*. In accordance with Article 9 of Directive 2002/21/EC, the Commission, in cooperation with the Member States, shall keep under review the use of the spectrum below 1 GHz and assess whether additional spectrum could be freed up and made available █. [Am. 68]

5. *The Commission is invited to take action, in cooperation with Member States, at the appropriate levels to achieve further harmonisation and a more efficient use of the 1,5 GHz band and the 2,3 GHz band for wireless broadband services.*

The Commission shall continuously monitor the capacity requirements for wireless broadband services and, in cooperation with Member States, assess, no later than 1 January 2015, the need for action to harmonise additional spectrum bands, such as the 700 MHz band. This assessment shall take into account the evolution of spectrum technologies, market experiences with new services, the possible future needs of terrestrial radio and television broadcasting and the lack of spectrum in other bands adequate for wireless broadband coverage.

Member States may ensure that, where appropriate, the direct cost of migration or reallocation of spectrum usage is adequately compensated in accordance with national law. [Am. 69]

6. *The Commission*, in cooperation with *Member States*, shall ensure that the provision of access to broadband █ services using the 800 MHz band is encouraged in sparsely populated areas, *for example* through coverage obligations *achieved in accordance with the principles of technology and service neutrality*.

Member States, in cooperation with the Commission, shall examine ways and, where appropriate, take technical and regulatory measures to ensure that the freeing up of the 800 MHz band does not adversely affect programme making and special events (PMSE) users. [Am. 70]

7. The Commission shall, in cooperation with Member States, assess the feasibility of extending the allocations of unlicensed spectrum for wireless access systems including radio local area networks established by Decision 2005/513/EC to the entire 5 GHz band.

The Commission is invited to pursue the adopted harmonisation agenda at the relevant international fora, notably the ITU World Radiocommunication Conferences. [Am. 71]

8. The Commission is invited to adopt, as a priority, appropriate measures, pursuant to Article 9b(3) of the Directive 2002/21/EC, to ensure that Member States allow trading within the Union of spectrum usage rights in the harmonised bands 790–862 MHz, 880–915 MHz, 925–960 MHz, 1 710–1 785 MHz, 1 805–1 880 MHz, 1 900–1 980 MHz, 2 010–2 025 MHz, 2 110–2 170 MHz, 2,5–2,69 GHz, and 3,4–3,8 GHz and in other additional parts of the spectrum freed up for mobile services, without prejudice to the existing and future deployment of other services that have equal access to this spectrum under the conditions specified in the Commission decisions adopted pursuant to Decision No 676/2002/EC. [Am. 72]

9. In order to ensure that all citizens have access to advanced digital services including broadband, in particular in remote and sparsely populated areas, Member States and the Commission may explore whether sufficient spectrum is available for the provision of broadband satellite services enabling internet access. [Am. 73]

10. Member States shall, in cooperation with the Commission, examine the possibility of spreading the availability and use of picocells and femtocells. They shall take full account of the potential of those cellular base stations and of shared and unlicensed use of spectrum to provide the basis for wireless mesh networks, which can play a key role in bridging the digital divide. [Am. 92]

Article 7

Spectrum needs for other wireless communication policies

In order to support the further development of innovative audiovisual media and other services to Union citizens, taking into account the economic and social benefits of a digital single market, Member States shall, in cooperation with the Commission, ensure sufficient spectrum availability for satellite and terrestrial provision of such services. [Am. 75]

Article 8

Spectrum needs for *other* specific Union policies [Am. 76]

1. Member States and the Commission shall ensure spectrum availability and protect the radio frequencies necessary for monitoring the Earth's atmosphere and surface, allowing the development and exploitation of space applications and improving transport systems, in particular for the global civil navigation satellite system Galileo, for the Global Monitoring for Environment and Security programme GMES, and for intelligent transport safety and transport management systems.
2. In cooperation with the Member States, the Commission shall conduct studies and examine the possibility to design authorisation schemes which would contribute to a low-carbon policy, by saving energy in the use of spectrum as well as by making spectrum available for wireless technologies with a potential for improving energy *savings and efficiency of other distribution networks such as water supply*, including smart energy grids and smart metering systems. [Am. 77]

3. ***The Commission shall ensure that sufficient spectrum is made available under harmonised conditions and in harmonised bands for public protection and disaster relief (PPDR) and to take actions to support the development of safety services and the free circulation of related devices as well as the development of innovative interoperable solutions for PPDR. To ensure the efficient use of spectrum, the Commission shall examine the possibility of PPDR using military frequencies. [Am. 78]***

4. Member States and the Commission shall review the spectrum needs of, and collaborate with, the scientific ***and academic*** community, identify a number of research and development initiatives and innovative applications that may have a major socio-economic impact and/or potential for investment, and prepare for the allocation of sufficient spectrum to such applications under harmonised technical conditions and the least onerous administrative burden. [Am. 79]

5. ***Member States shall, in cooperation with the Commission, seek to find a minimum set of harmonised core bands for PMSE in the Union, according to the Union's objectives to improve the integration of the internal market and access to culture. These harmonised bands shall be of the frequency 1 GHz or higher. [Am. 80]***

6. ***Member States and the Commission shall ensure spectrum availability for RFID (radio-frequency identification) and other IOT (Internet of Things) wireless communication technologies and shall work towards standardisation of spectrum allocation for IOT communication across Member States. [Am. 81]***

Article 9

Inventory and monitoring of existing uses of and emerging needs for spectrum

1. The Commission *shall create an inventory of the entire existing radio spectrum use, for which purpose Member States shall provide all necessary factual data.*

The information provided by the Member States shall be sufficiently detailed to allow for the inventory to assess the efficiency of the spectrum use as well as identify possible future opportunities for spectrum harmonisation in order to support Union policies.

As an initial step, the inventory shall include frequencies in the range from 300 MHz to 6 GHz, to be followed by frequencies from 6 GHz up to 70 GHz.

If necessary, the Member States shall supply information on a licence-specific basis both including commercial and public sector users without prejudice to the withholding of business-sensitive and confidential information. [Am. 82]

2. The inventory referred to in paragraph 1 shall, *on the basis of clearly defined and transparent criteria and methods*, allow the assessment of the technical efficiency of existing spectrum uses and the identification of inefficient technologies and applications, unused or inefficiently used spectrum and spectrum sharing opportunities, *based on transparent, clear and jointly defined assessment criteria and methodologies. It shall also ensure that, where spectrum use is not optimal, the necessary measures are taken in order to maximise efficiency.* It shall take account of future needs, *including long-term needs*, for spectrum based on the demands of consumers, *communities, businesses* and operators, and of the possibility to meet such needs. [Am. 83]

3. The inventory referred to in paragraph 1 shall review the various types of spectrum usage by both private and public users, and help identify spectrum bands that could be assigned or re-allocated in order to increase their efficient use, promote innovation and enhance competition in the internal market, to the benefit of both private and public users, while taking into account the potential positive and negative impact on existing users of such bands.

4. The inventory shall also include a report of the measures taken by the Member States in order to implement decisions at Union level regarding the harmonisation and use of the specific frequency bands. [Am. 84]

Article 10
International negotiations

1. The Union shall participate in international negotiations relating to spectrum matters to defend its interests ***and to ensure the Union has a single position***, acting in accordance with Union law concerning, among other things, the principles of internal and external competences of the Union. [Am. 85]
2. Member States shall ensure that international agreements to which they are a party in the context of the ITU are in conformity with existing Union legislation, and in particular with the relevant rules and principles of the Union regulatory framework on electronic communications.
3. Member States shall ensure that international regulations allow the full use of frequency bands for the purposes for which they are designated under Union law, and that a sufficient amount of appropriately protected spectrum is available for ***the implementation of*** Union sectoral policies. [Am. 86]
4. ***In order to resolve spectrum coordination issues that would otherwise prevent Member States from implementing their obligations under Union law regarding spectrum policy and management, the*** Union shall ***assist Member States with*** political and technical support ■ in their bilateral ***and multilateral*** negotiations with ***third countries, in particular*** neighbouring third countries including candidate and potential candidate countries ■. The Union shall also support efforts by third countries to implement spectrum management that is compatible with that of the Union, so as to safeguard Union spectrum policy objectives. [Am. 87]
5. When negotiating with third countries, Member States shall be bound by their obligations under Union law. When signing or otherwise accepting any international obligations regarding spectrum, Member States shall accompany their signature or any other act of acceptance by a joint declaration stating that they shall implement such international agreements or commitments in accordance with their obligations under the treaties.

Article 11
Cooperation among various bodies

1. The Commission and the Member States shall cooperate to enhance the current institutional setting, in order to foster co-ordination at Union level of the management of spectrum, including in matters directly affecting two or more Member States, with a view to developing the internal market and ensuring that Union spectrum policy objectives are fully achieved. They shall seek to promote Union spectrum interests outside the Union in accordance with Article 10.

2. The Commission and Member States shall ensure that standardisation bodies, CEPT and the Commission's Joint Research Centre closely cooperate in any technical issue whenever necessary to ensure the efficient use of spectrum. To this end, they shall maintain a coherent link between spectrum management and standardisation in such a way as to enhance the internal market.

Article 12
Public consultation

Wherever appropriate, the Commission shall organise public consultations to collect the views of all interested parties as well as the views of the public in general on the use of spectrum in the Union.

Article 13
Reporting

By 31 December 2015, the Commission shall conduct a review of the application of this radio spectrum policy programme. *The Commission shall report annually* to the European Parliament and the Council on the activities developed and the measures adopted pursuant to this Decision. [**Am. 88**]

Article 14
Notification

Member States shall apply these policy orientations and objectives by 1 July 2015 unless otherwise specified in the preceding articles.

They shall provide the Commission with all information necessary for the purpose reviewing the application of this Decision.

Article 15
Entry into force

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

Done at

For the European Parliament
The President

For the Council
The President