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# APPROXIMATION OF NATIONAL LAWS ON THE ALLOCATION OF RADIO FREQUENCIES FOR BROADCASTING AND MOBILE TELE-COMMUNICATIONS SERVICES IN THE EU

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*Abstract*

*The question addressed is whether the EC has competence under Article 95 EC Treaty[1] (EC) on the approximation of laws to allocate the frequencies to be released by the switchover from analogue to digital at the European level, or if the exercise of this legislative power is reserved to the Member States in an exclusive competence on the financing of public broadcasting. Due to the length and scope of this paper, the topic will be treated with a specific focus on the European telecommunications market.*

*Methodologically, the EC competence in question will be studied under the criteria developed by the European Court of Justice (ECJ) case law through case Germany v European Parliament and Council (Case 376/98) [2002], hereafter the "Tobacco Advertising Case". This choice is based on two different sets of reasons: On the one hand, this ruling clarifies the scope of a domaine réservé of Member States under EC Law through the example of health policy and balances it with the requirements of the internal market, and on the other hand, it sets the strictest prerequisites for an EC harmonization competence to be exercised within the aforesaid scope. Therefore, if said conditions are met, there can be no doubt that Article 95 EC is*

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1 Article 95 paragraph 1 EC: "By way of derogation from Article 94 and save where otherwise provided in this Treaty, the following provisions shall apply for the achievement of the objectives set out in Article 14. The Council shall, acting in accordance with the procedure referred to in Article 251 and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market."

*applicable to the case at hand. Within this context, we shall argue that the EC has competence under Article 95 EC to allocate the frequencies to be released, since:*
*First, there is a future likely disparity in national laws.*
*Second, such disparity will create obstacles to the exercise of the free movement of services and goods, as well as of the freedom of establishment. Moreover, it will result in appreciable distortions of competition.*
*Third, a harmonization measure will actually contribute to improve the functioning of the internal market and it would not interfere with the guarantee of existence and development of public broadcasting nor with the subsidiarity principle, provided that they applied.*

**Keywords:** digital dividend; public broadcasting; telecommunications; mobile communications; domaine réservé; harmonization; Article 95 EC

## 1. THE PROBLEM BEFORE US

The switchover from analogue to digital terrestrial TV will free an unprecedented amount of spectrum[2] in Europe as a result of the superior transmission efficiency of digital technology.[3] The spectrum released is called digital dividend and can be described as the spectrum over and above the frequencies[4] required to support existing broadcasting services capacities in a fully digital environment, including current public service obligations.[5]

As stated by the Summary Report on Economic Impacts of Alternative Uses of the Digital Dividend, it "provides a unique opportunity to meet new demands for services and to support the European agenda for innovation. Most importantly, it could have a significant impact on the EC economy, driving innovation, job growth, productivity and competitivity."[6]

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2 The radio spectrum is usually divided into continuous sets of frequencies lying between two specified limiting frequencies, called bands. In spite of technological progress, the technically usable radio spectrum is a scarce resource. Moreover, every part of the spectrum has particular characteristics that make them more or less suitable for certain services.

3 European Commission Communication on "Accelerating the transition from analogue to digital broadcasting", COM (2005) 204.

4 In addition, several Member States have identified the so-called "interleaved spectrum" (or "white space" between two TV coverage areas) as a potentially important complement to the digital dividend.

5 Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on "Reaping the full benefits of the digital dividend in Europe: A common approach to the use of the spectrum released by the digital switchover", p. 4.

6 SCF Associates LTD, "The Mobile Provide: Economic Impacts of Alternative Uses of the Digital Dividend", Summary Report, UK, September 2007, p. 5.

Due to their propagation characteristics, these frequencies are very valuable, especially to wireless operators. The band below 1 GHz is of specific importance, including the UHF (Ultra-High Frequency) bands IV/V of 470–862 MHz. The favourable physical propagation characteristics for mobile applications make this frequency range ideal to provide nationwide economical mobile broadband services.[7]

This spectrum enables a broader reach and therefore needs comparatively fewer base station sites for the coverage of large geographical areas. Therefore, the deployment of the next generation of mobile broadband networks could be much more cost-efficient. This would facilitate the supply of mobile broadband services in rural areas and would allow for closing the broadband gap under economically viable conditions. Furthermore, spectrum in the UHF band allows for a better quality of service within buildings (so-called in-house coverage).

In view of this, we will analyse whether the EC has competence under Article 95 EC on the approximation of laws to allocate[8] the frequencies to be released at the European level, or if the exercise of this legislative power is reserved by an exclusive competence of the Member States with regard to the distribution of public broadcasting. Specifically, we will investigate the impact of such a competence on the European telecommunications market.

## 2. THE EC HARMONIZATION COMPETENCE ON THE ALLOCATION OF THE DIGITAL DIVIDEND

The main criteria to establish an EC harmonization competence have been developed by the ECJ case law through the Tobacco Advertising Case. There are numerous other ECJ rulings on the application of Article 95 EC[9], but the Tobacco Advertising Case is of particular importance for two compelling reasons. On the one hand, this ruling

7 SCF Associates LTD, *op. cit.* p. 5.

8 Allocation is the process in which frequency bands are reserved for certain services. See R. Bekkers and J. Smits as cited by Christian Koenig, Andreas Bartosch and Jens-Daniel Braun in "EC Competition and Telecommunications Law", International Competition Law Series Vol. 6, Kluwer Law International, The Hague, The Netherlands, 2002, p. 520.

9 "While a mere finding of disparities between national rules is not sufficient to justify having recourse to Article 95 EC, it is otherwise where there are differences between the laws, regulations or administrative provisions of the Member States which are such as to obstruct the fundamental freedoms and thus have a direct effect on the functioning of the internal market." See, to this effect, The Queen v British American Tobacco (Investments) Ltd and Imperial Tobacco Ltd (Case 491/01) [2002]; The Queen, on the application of: Swedish Match AB and Swedish Match UK Ltd v The Secretary of State for Health (Case 210/03) [2004]; Federal Republic of Germany v European Parliament and Council of the European Union (Case 380/03) [2006].
See also J.J. Kersbergen-Lap and D. Dams-Schipper v Raad van Bestuur van het Uitvoeringsinstituut Werknemersverzekeringen (Case 154/04) [2005]; Commission of the European Communities v Italian Republic (Case 217/04) [2006]; European Parliament v Council of the European Union (Case 413/04) [2006]; European Parliament v Council of the European Union (Case 414/04) [2006];

clarifies the scope of a domaine réservé of Member States under EC Law through the example of health policy, and balances it with the requirements of the internal market. The implication of these issues for the case at hand will be analysed in Chapter 2 of this article. On the other hand, the Tobacco Advertising Case is highly relevant as it sets the strictest prerequisites for an EC harmonization competence to be exercised within the aforesaid scope. Therefore, if said conditions are met, there can be no doubt that Article 95 EC is applicable to the case at hand. The positive criteria are: a disparity in national laws and the abolition of resulting obstacles to the Four Freedoms or of appreciable distortions of competition; the negative criterion is that the harmonizing measure in question may not be used to circumvent a domaine réservé of Member States.

## 2.1. DISPARITY IN NATIONAL LAWS

Most Member States have not yet issued any legislation on the digital dividend. Thus, the disparity in national laws does not yet exist. However, the ECJ held, even in its strictest rulings, that this criterion is met when a disparity in national laws is likely to emerge.[10] In this case, it is quite certain that as soon as frequencies are released, Member States will execute their powers to issue allocation rules. And without any guidance from the EC, these rules are very likely to differ from Member State to Member State, creating a disparity and thereby meeting the prerequisite under analysis.

According to a preliminary questionnaire sent by the Radio Spectrum Policy Group to the Member States and to administrations of countries adjacent to the EU, national administrations disagree on the meaning, purpose and date of availability of the digital dividend.[11] In the expert opinion of the Radio Spectrum Policy Group (RSPG)[12], some of the proposed uses could exhaust the digital dividend, whereas the

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Jan-Erik Anders Ahokainen and Mati Leppik – Criminal Proceedings (Case 434/02) [2006]; Per Groenfeldt et Tatiana Groenfeldt v Finanzamt Hamburg-Am Tierpark (Case 436/03) [2006]; O2 Holdings & O2 (UK) – Preliminary Ruling (Case 533/03) [2006], etc.

10 "It is true, as the Court observed in paragraph 35 of its judgment in Spain v Council, cited above, that recourse to Article 100a as a legal basis is possible if the aim is to prevent the emergence of future obstacles to trade resulting from multifarious development of national laws. However, the emergence of such obstacles must be likely and the measure in question must be designed to prevent them" (Paragraph 86, Tobacco Advertising Case). Compare also Federal Republic of Germany v European Parliament and Council of the European Union (Case 380/03) [2006] Paragraph 38, and The Queen, on the application of: Swedish Match AB and Swedish Match UK Ltd v The Secretary of State for Health (Case 210/03) [2004] Paragraph 30.

11 European Commission, Directorate-General Information Society, Communication Services: Policy and Regulatory Framework, Radio Spectrum Policy. Request by the European Commission to the Radio Spectrum Policy Group for an opinion on "EU Spectrum Policy Implications of the Digital Dividend", Brussels, Belgium, 2006, p. 4.

12 RSPG Opinion on "EU Spectrum Policy Implications of the Digital Dividend", Brussels, Belgium, 2006. The main conclusion of the opinion was the recommendation to develop a non-mandatory harmonization at the European ITU level to facilitate the use of fixed and mobile applications in the

impact of advanced coding methods such as MPEG4 could at least partially compensate for the demand of additional spectrum. These particularities have given rise to the Geneva 2006 Agreement, which has de facto harmonized the technical parameters for digital broadcasting and introduced flexibility for future systems.

Indeed, as part of this agreement each country has been allocated a total of 7 to 8 full-coverage layers in the Geneva 2006 digital plan. This means that the territory of each country has been divided in several allotment areas, each receiving 7 to 8 channels. Different channels have been used in each area to prevent interference, and each country has been allocated the same number of full coverage layers, according to the principles of equitable access and optimum use.

The RSPG has, however, pointed out the following limitations of the existing framework:[13]

The use of the bands to be released for digital services will continue to be constrained until protection of analogue transmissions has ceased.

The use of said bands by other services, including secondary services, may also be a constraint.

Flexibility left to administrations has led to significant variations in the entries and hence in the ability of harmonizing usage in the future.

In many countries, the implementation of mobile multimedia services may require departing from the reference planning configuration adopted at the Regional Radiocommunication Conference 2006, therefore entailing delays and network costs.

For reasons related to handset design and cost, a minimum frequency separation will be needed between the channels used for multimedia reception (downlink) and the frequency used for transmission by the mobile terminal (uplink).

It is not possible to notify the International Telecommunication Union of mobile transmissions in this band, which may be perceived as a lack of international regulatory recognition for said uplinks, which can be alleviated by further allocation to the mobile and fixed services in the entire UHF band.

Guardbands with television and sound broadcasting are necessary, which could be alleviated by harmonization of a sub-band of the UHF band for mobile and fixed services. Such harmonization would also enable the design of terminals with improved antenna gain characteristics and the definition of a common channelling arrangement, thereby reducing costs of the mobile and fixed networks and facilitating their coexistence with broadcasting networks.

Some communication networks coexist with broadcasting in the VHF (Very-High Frequency) band, although not without inefficiencies. Therefore, harmonization arrangements in this band could be necessary in the future.

2007–2010 timeframe.

13 RSPG Opinion on "EU Spectrum Policy Implications of the Digital Dividend", Brussels, Belgium, 2006, p. 4–7.

Technical constraints to frequency planning could arise to ensure coexistence of broadcasting networks intended for fixed rooftop reception and broadcasting multimedia networks (including mobile and fixed networks) intended for indoor portable reception. Even if it is feasible to make available one or more coverage layers per country for high field strength downlink services, the resulting channels would spread across a significant portion of the UHF band and would not be the same from country to country. Therefore, this possibility would not alleviate the problem and further studies are urgently required to ensure that appropriate measures can be taken in this regard.

For a common set of frequencies to be available across the EU for use by mobile and fixed services, a common policy among Member States is needed.

In sum, the current regulatory framework of the digital dividend, i.e. the Geneva 2006 Agreement, is limited and requires further harmonization to allow efficiency in spectrum usage. Member States differ not only in the interpretation of the meaning of the digital dividend, but also in its intended use. Therefore, it is very likely that they will produce diverging rules. In light of this, two main problems arise. First, the technical characteristics of these frequencies require harmonization measures so that the various possible uses (no matter what they are) can be fully developed. Second, not all uses can be considered equal, since spectrum is a scarce resource and some of the intended uses can exhaust it quickly, while others can be considered more efficient. Therefore, harmonization is not only necessary for technical aspects but also for the frequency allocation for broadcasting and telecommunications services.

## 2.2. ABOLITION OF OBSTACLES TO THE EXERCISE OF THE FUNDAMENTAL FREEDOMS / ELIMINATION OF DISTORTIONS OF COMPETITION

Only one of these criteria must be fulfilled to justify an EC harmonization competence under Article 95 EC. That is, the actual or future disparity in national laws has to either create obstacles to the exercise of the Fundamental Freedoms or appreciable distortions of competition, which have to be alleviated by the harmonizing measure.[14] In turn, within the obstacles to the exercise of the Fundamental Freedoms, it is enough that only one freedom is affected.[15] However, we will analyse whether multiple criteria can be met in the case at hand.

[14] Paragraphs 95 ff., Tobacco Advertising Case.

[15] Part III EC.

### *2.2.1. Abolition of obstacles to the exercise of the Fundamental Freedoms*

As we are dealing with a future development, obstacles to the exercise of the Fundamental Freedoms do not yet exist. However, diversity in national rules and the resulting obstacles are very likely, if not nearly certain, to occur. Specifically, a diverging allocation of the digital dividend might hinder the free movement of services (Articles 49 ff. EC) and goods (Articles 28 ff. EC), as well as the freedom of establishment (Articles 43 ff. EC).

#### 2.2.1.1. Obstacles to the free movement of services

An infringement of Articles 49 ff. EC occurs when either the freedom to provide services or the freedom to receive services is at stake, as identified by the application of the Dassonville and Cassis formulas (as reviewed in Keck when applicable).[16]

Article 48 EC extends the protection of Articles 49 ff. EC ratione personae to legal persons.[17] Indeed, according to the wording of Article 48 EC, "companies or firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community shall, for the purposes of the provisions of the Treaty concerning the right of establishment, be treated in the same way as natural persons who are nationals of Member States" and "the immediate consequence of this is that those companies or firms are entitled to carry on their business in another Member State".[18] As held by the ECJ, this occurs when an undertaking offers its services to actual or potential customers located in another Member State, even without moving to said Member State in order to do so.[19] Therefore, telecommunications enterprises located in one Member State have the right under Articles 49 ff. EC to provide telecommunications services in another Member State, without having to establish in its territory.

Articles 49 ff. EC apply ratione materiae since telecommunications services in general are to be classified as services within the meaning of Article 50 EC.[20] Furthermore, these services need to feature a cross-border element. For instance, interna-

16 Procureur du Roi v Dassonville, (Case 8/74) [1974]; Rewe-Zentrale AG v Bundesmonopolverwaltung für Branntwein (Case 120/78) [1979]; Keck and Mithouard – Criminal Proceedings (Cases C-267 and 268/91) [1993]; Dassonville formula, as extended by the Cassis-ruling: "All trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra-Community trade are to be considered as measures having an effect equivalent to quantitative restrictions." So this formula relies on the *effect* of a measure as the crucial element, a discriminatory intent is not required (cp. Craig/De Burca, "EU Law", 4th Ed., Oxford, UK, 2007 p. 669).

17 See among others Überseering BV v Nordic Construction Company Baumanagement GmbH (Case 208/00) [2002] and Alpine Investments (Case C-384/93) [1995] and Gambelli (Case 243/01) [2001].

18 Überseering BV v Nordic Construction Company Baumanagement GmbH (Case 208/00) [2002].

19 Alpine Investments (Case C-384/93) [1995] and Gambelli (Case 243/01) [2001].

20 Christian Koenig, Andreas Bartosch and Jens-Daniel Braun *op. cit.* p. 692, and *mutatis mutandi* Giuseppe Sacchi - Preliminary Ruling (Case 155/73) [1974].

tional roaming implies indisputably mobile communications services with such cross-border elements, both at the wholesale and retail markets.

International roaming is the use by end-users (private or business consumers) of their mobile phones abroad to either make a call or receive a call. Making an international roaming call requires four elements:

1. origination (signal from mobile phone to the network);
2. transit (traffic between networks either within or between countries);
3. termination (signal to the receiver of the phone call on either a mobile or a fixed net);
4. specific international roaming services (such as billing and signalling).

Regulation at the wholesale level is about how much the operator of the visited network should be allowed to charge the home operator for the wholesale services of origination, transit, termination, and specific roaming services. Regulation at the retail level is about how much the home operator is then allowed to charge the end-user.[21]

On the active side, international roaming implies contractual relations on the upstream or wholesale markets between providers from different Member States: Telecommunications providers from Member State A enter into contracts with providers of Member State B, so that its clients can use their networks, and vice-versa. On the passive side, users in one Member State want to both make calls to and receive calls from another Member State, and this demand on the downstream or retail markets induces providers to enter cross-border negotiations in the aforementioned relevant wholesale markets.

As stated above, in the absence of harmonization it is likely that Member States allocate frequencies differently. That is, Member State A can allocate and assign a certain range of frequencies to mobile communications services whereas Member State B might allocate and assign a different range. At this point it should be noted that terminal equipment is fabricated to suit certain frequencies only and is not compatible with others.[22] Therefore, the lack of harmonization would create additional difficulties and expenses for cross-border frequency coordination between Member States and would decrease efficiency in spectrum usage. But most importantly, a disparity in

21 European Parliament, Policy Department, Economic and Scientific Policy. Study on Roaming: "An Assessment of the Commission Proposal on Roaming" (IP/A/ALL/FWC/2006-105/Lot4/SC1), Brussels, Belgium, 2007, p. 2.

22 Software Defined Radio Devices will be able to bypass this technical limitation in the near future. Indeed, such devices can impersonate a multitude of different wireless devices since they use reconfigurable software to carry out the tasks normally performed by static hardware. The technology promises to let future gadgets jump between frequencies and standards that currently conflict, and to allow a single device to use every possible frequency. However, since the digital dividend is scheduled to be released in 2015 at the latest, and these devices are expected to massively enter the market in 2020, we have neglected them for this article.

allocation of the digital dividend would severely hinder, among others, international roaming, i.e. a cross-border service.

A reduction of the technical roaming capabilities would significantly affect, on the active side, the development of this cross-border market and, consequently, of the freedom to provide services.[23] And on the passive side, the above mentioned technical differences in frequencies' settings of terminal equipment would cause difficulties in making and receiving calls when users visit another Member State, directly affecting the freedom to receive services, which according to the settled case law of the ECJ is a necessary corollary of the freedom to provide services. In this regard, the Court held that "the freedom to provide services includes the freedom, for the recipient of services, to go to another Member State in order to receive a service there, without being obstructed by restrictions (...) Tourists, persons receiving medical treatment and persons of education or business are to be regarded as recipients of services."[24]

In short, the lack of harmonization of laws on the allocation of the digital dividend would affect both the freedom to provide and to receive services, thereby infringing Articles 49 ff. EC.

#### 2.2.1.2. Obstacles to the free movement of goods

An infringement of Articles 28 ff. EC is identified by application of the Dassonville and Cassis formulas (as reviewed in Keck when applicable): "All trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra-Community trade are to be considered as measures having an effect equivalent to quantitative restrictions" and are therefore prohibited under Articles 28 ff. EC.[25] As stated by the ECJ: "Trade in articles, sound recordings, films, apparatus and other products used for the diffusion of television signals is subject to rules relating to the freedom of movement for goods."[26] This applies mutatis mutandis to articles, apparatus and other products used for the reception of telecommunications signals.

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23 These technical roaming capabilities are infrastructural and enable the existence of international roaming services, whereas the regulation of prices for such services is an entirely different matter. Thus, the EC competence on the approximation of laws on the allocation of frequencies at the infrastructural level is independent from a harmonization competence on prices of international roaming services, as exercised in Regulation (EC) No. 717/2007 of the European Parliament and Council of 27 June 2007 on roaming on public mobile telephone networks within the Community and amending Directive 2002/21/EC. See also Legal Expertise Koenig/Neumann, "Rechtsgutachten zu den gemeinschaftsrechtlichen Schranken einer Harmonisierung der Endnutzerentgelte für das Auslandsroaming durch die Europäische Gemeinschaft" of 6 February 2006.

24 Luisi and Carbone v Ministerio del Tesoro (Cases 286/82 and 26/83) [1984]. See also Eurowings Luftverkehr (Case C-294/97) [1999].

25 Procureur du Roi v Dassonville, (Case 8/74) [1974]; Rewe-Zentrale AG v Bundesmonopolverwaltung für Branntwein (Case 120/78) [1979]; Keck and Mithouard – Criminal Proceedings (Cases C-267 and 268/91) [1993].

26 Giuseppe Sacchi – Preliminary Ruling (Case 155/73) [1974].

If Member States allocate the digital dividend differently, producers of terminal equipment and network goods would face a dire problem. As stated above, these goods need to be built for a specific set of frequencies. If Member State A and Member State B allocate different frequency ranges to mobile communications, devices produced in A are of limited use in B and can consequently not be efficiently marketed there, and vice-versa. This would severely hinder cross-border trade between Member States in terminal equipment and network goods, thereby infringing Articles 28 ff. EC.

#### 2.2.1.3. Obstacles to the freedom of establishment

An infringement of Articles 43 ff. EC is identified by application of the Gebhard-formula: It suffices if the exercise of the freedom of establishment is hindered, actually or potentially, or has become less attractive.[27] If Member States were to allocate and assign frequencies differently, every Member State would create its own environment for growth of its mobile communications markets. Member State A might assign 5% of the digital dividend to mobile communications and Member State B 95%. Taking into account that relevant part of the radio spectrum of Member State A has been assigned to companies already established in its territory, the remaining available frequencies would be extremely scarce. This would deter telecommunications companies not yet established in A from investing there, because their potential success would be strictly limited by the restricted availability of frequencies.

In sum, establishing in a Member State with few available frequencies would be less attractive, hindering the exercise of the freedom of establishment as guaranteed under Articles 43 ff. EC.

### *2.2.2. Appreciable distortions of competition*

The absence of ex-ante harmonization regarding the allocation of the digital dividend is likely to create appreciable distortions of competition in the common market. According to the Tobacco Advertising Case, such distortions have to arise within a competitive relationship and the harmonization measure must actually contribute to the improvement of the internal market.[28]

#### 2.2.2.1. Competitive relationship

Cross-border competition between telecommunications companies from the various Member States is rather active in different relevant markets, especially with regard to access to capital markets (where growth plays a major role) and to the markets for

[27] Gebhard v Consiglio Dell' Ordine Degli Avvocati e Procuratori di Milano (Case 55/94) [1995]. See also Andreas Haratsch, Christian Koenig and Matthias Pechstein, "Europarecht", 5th Ed., Tübingen, Germany, 2006, p. 828, 832.

[28] Paragraphs 87 and 106 ff., Tobacco Advertising Case.

mobile devices. Additionally, telecommunications providers established in a Member State that allocates a substantial portion of the digital dividend to mobile communications have the opportunity to develop significantly and to raise increasing profits resulting from operations in the mobile broad-band markets. Higher growth in these markets results, in turn, in better operations in capital markets, which enable companies that enjoy favourable conditions under the law of one Member State to cross-subsidize their activities when competing with providers established in other Member States that create less favourable conditions for their mobile communications markets.

#### 2.2.2.2. Improvement of the internal market through harmonization

The harmonizing measure adopted under Article 95 EC has to be designed to improve the functioning of the internal market. Compliance with this criterion should be analysed in light of the problems that arise in the absence of such measure.

First, as noted above, the UHF bands affected by the digital dividend are currently scattered in narrow segments across this large body of spectrum, reflecting the spectrum plan of the Geneva 2006 agreement. It is therefore difficult or impossible to make alternative uses of the dividend. The spectrum bands liberated are often too narrow to be really cost-effective for new services and the scope for their development is further reduced by the fragmented implementation of the Geneva 2006 agreement at national level. As a result, innovative uses of the dividend, if possible at all, would be impeded by low spectrum efficiency and require specific adaptations of operating equipment to local conditions.[29] The public consultation held by the Radio Spectrum Policy Group in the preparation of its expert opinion on the digital dividend[30] indicates that in the absence of harmonized conditions many potential uses of the dividend will simply not occur, which will in turn reduce its overall value. A fragmented digital dividend is likely to give rise only to new local or niche applications, which may not have the scale required to be successful. A coherent approach across the EU will also help decreasing regional disparities in established EU policies, such as e-health, e-education and other services of public interest.[31]

Second, since terminal equipment and network goods are fabricated to work only with a certain set of frequencies, in case an allocation of the digital dividend by national rules is followed by a later harmonization (due to technical and economic difficulties), all producers who already fabricated terminal equipment and network goods for a specific Member State under a specific national allocation would face a major loss of investments, as the produced goods would be of very limited use in any market.

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29 Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on "Reaping..." *op. cit.*, p. 6.

30 RSPG Opinion on "EU Spectrum Policy Implications of the Digital Dividend", Brussels, 2006.

31 Communication of the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on "Reaping..." *op. cit.*, p. 7.

Third, companies that have invested in infrastructure and other sunk costs in a Member State that chooses to allocate only few frequencies to mobile communications, would be in substantial disadvantage with those undertakings who have invested in other Member States that allocate a substantial portion of the digital dividend for such industry. That is, undertakings would have significantly different growth opportunities depending on the Member State in which they happened to have (already) invested.

Moreover, in the absence of clear deadlines for frequencies' release through switch-over and their resulting allocation, enterprises operating in one Member State would know what amount and range of frequencies will be used for mobile communications before providers located in another Member State. Since necessary investments for the development of networks and mass production of end devices can only be ensured by sufficient legal certainty and planning reliability, companies in Member States that provide this type of framework would be able to start fabricating and marketing their terminal equipment and network goods before its competitors in other Member States, with the resulting competitive advantage.

In addition, reduction of risks of interference into TV receivers caused by future mobile networks using frequencies adjacent to broadcasting might require an adjustment of future TV receiver performance. This can only be accomplished by implementing harmonized spectrum for broadcasting and mobile services throughout Europe to further maintain a common market for this mass market equipment.

In sum, the lack of harmonization and the resulting disparities in national legislation would very much likely create distortions of competition for undertakings. In contrast, ex-ante harmonization of rules on allocation of the digital dividend would avoid the problematic scenarios described above, thereby improving the functioning of the internal market. Furthermore, such improvement would be substantial as the digital dividend is of particular importance since radio spectrum is a scarce resource whose increased availability would have positive effects on e-communications, which in turn leads to major economic development.

"Generally, communications networks have helped generate economic growth by enabling firms and individuals to decrease transaction costs, and firms to widen their markets as well as to increase social overhead capital (SOC) for economic growth. Usually, SOC is considered to be expenditures on education, health services and public infrastructure such as roads, water and sewage, ports and the like. Several researchers (eg Roeller and Waverman, 2001) have examined the impact on GDP[32] of investment in telecoms infrastructure in the OECD between 1970 and 1990 and how it enhanced economy-wide output while allowing for the demand for telecoms itself being positively related to GDP. Taking the longer view, of going back to 1970, highlights that telecoms penetrations was then low in a number of OECD countries – while

32 Gross Domestic Product.

the US and Canada had near-universal service in 1970, France, Portugal and Italy respectively, had only 8, 6, and 12 phones per 100 inhabitants. The newly connected OECD economies of Europe leapfrogged the analogue systems of the USA, UK, and the Nordic states, leaders at the time, with the next generation of digital voice technology. Moreover, digitized telecommunications infrastructure development between 1970 and 1990 generated economic growth over and above the investment in the telecoms itself. More recent work in this area of linking development to communications, for the World Bank and others, has looked specifically at the larger ICT[33] area, to include computing for a prognosis into the 21st Century. It has concluded that there is an economic accelerator, due to ICTs, especially communications. With the formation of a global "tele-economy", the hypothesis is that we will see an impact equivalent to that of railways on the US economy between 1840 and 1870 over the next fifty years."[34]

## 2.3. NO OTHER SPECIALISED EC LAW APPLICABLE

The only legal basis for an EC ex-ante harmonization of national laws on allocation of the digital dividend is Article 95 EC.

## 2.4. NO INTERFERENCE WITH THE GUARANTEE OF EXISTENCE AND DEVELOPMENT OF PUBLIC BROADCASTING

To determine whether the exercise of the harmonization competence interferes with a guarantee of existence and development of public broadcasting, such guarantee must exist under EC Law and the harmonization measure must fall into its scope of applicability.

### *2.4.1. Guarantee of existence and development of public broadcasting on the EC level*

Education and culture are, in principle, areas of exclusive competence of the Member States. Article 149 EC excludes harmonization of laws on education, while Article 151 EC ensures the Community's respect for the Member States' cultural diversity. However, such an exclusive competence does not cover areas where public broadcasting substantially affects the internal market.

In this context, the Protocol on the system of public broadcasting in the Member States to the Treaty of Amsterdam of 1997 is sometimes cited in a confusing manner, in the sense of exempting public broadcasting from Community legislation. In con-

33 Information and Communications Technology.

34 SCF Associates LTD, *op. cit.*, p. 38.

trast, this Protocol provides only for the funding of public broadcasting and states that even in that regard Member States' competence is balanced with the requirements of the internal market, insofar as it must not affect trading conditions and competition in the Community in a manner that conflicts with Community interest.

Indeed, the Protocol on the system of public broadcasting in the Member States to the Treaty of Amsterdam of 1997 states in relevant part that:

> "The provisions of the Treaty establishing the European Community shall be without prejudice to the competence of the Member States to provide for the funding of public service broadcasting insofar as such funding is granted to broadcasting organisations the fulfilment of the public service remit as conferred, defined and organised by each Member State, and insofar as such funding does not affect trading conditions and competition in the Community to an extent which would be contrary to the common interest, while the realisation of the remit of that public service shall be taken into account."

In light of these findings we conclude that there is no domaine réservé in the field of public broadcasting.[35]

### *2.4.2. Interference with a supposed domaine réservé*

As stated above there is no domaine réservé in the field of public broadcasting, hence there cannot be any interference with it. However, for the sake of argument we now suppose the existence of such a domaine réservé[36] and we further conclude, in line with the Tobacco Advertising Case, that even this domaine réservé would be no obstacle to an EC harmonization competence under Article 95 EC.

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35 See: Flaminio Costa v Enel (Case 6/64) [1964]; Amministrazione delle Finanze dello Stato v Simmenthal SpA (Case 106/77) [1978], and Internationale Handelsgesellschaft mbH v Einfuhr- und Vorratstelle für Getreide und Futtermittel (2 CMLR 540) [1974]; Re Wünsche Handelsgesellschaft (3 CMLR 225) [1987].

36 A high level of protection of public broadcasting can be observed for example in the rulings of the German Constitutional Court. See: Deutschland-Fernsehen-GmbH, BVerfG, Ruling of 28.02.1961 (2 BvG 1, 2/60 – BVerfGE 12, 205); Mehrwertsteuerurteil, BVerfG, Ruling of 27.07.1971 (2 BvF 1/68 and 2 BvR 702/68 – BVerfGE 31, 314); FRAG-Urteil, BVerfG, Ruling of 16.06.1981 (1 BvL 89/78 – BVerfGE 57, 295); Niedersachsen-Urteil, BVerfG, Ruling of 04.11.1986 (1 BvF 1/84 – BVerfGE 73, 118); Baden-Württembergisches Landesmediengesetz, BVerfG, Ruling of 24.03.1987 (1 BvR 147, 478/86 – BverfGE 74, 297); WDR-Gesetz, BVerfG, Ruling of 05.02.1991 (1 BvF 1/85, 1/88 – BVerfGE 83, 238); Rundfunksentscheidung, BVerfG, Ruling of 06.10.1992 (1 BvR 1586/89 and 1 BvR 487/92 – BVerfGE 87, 181); Rundfunkgebühren-Urteil, BVerfG, Ruling of 22.02.1994 (1 BvL 30/88 - (1 BvR 848, BVerfGE 90,60); BVerfG, Ruling of 13.01.1982 (1 BvR 848, 1047/77 and others – BVerfG 59, 231); BVerfG, Ruling of 26.02.1997 (1 BvR 2172/96 - BVerfGE 95, 220); BVerfG, Ruling of 17.02.1998 (1 BvF 1/91 – BverfGE 97/228).

The Tobacco Advertising Case clarifies the scope of any domaine réservé within the context of the proper functioning of the internal market, through the example of human health and as follows:

> "77. The first indent of Article 129(4) [now 152(4.c)] of the Treaty excludes any harmonization of laws and regulations of the Member States designed to protect and improve human health.
>
> 78. But that provision does not mean that harmonizing measures adopted on the basis of other provisions of the Treaty cannot have any impact on the protection of human health. Indeed, the third paragraph of Article 129(1) [now 152(1)] provides that health requirements are to form a constituent part of the Community's other policies.
>
> 79. Other articles of the Treaty may not, however, be used as a legal basis in order to circumvent the express exclusion of harmonization laid down in Article 129(4) [now 152(4.c)] of the Treaty."

EC ex-ante harmonization with an impact on education and culture is possible as long as it is in the common interest and it is not used in order to circumvent a Treaty provision. And the proposed harmonization measure is in the common interest insofar as, on the grounds exposed in Chapters C.1 and C.2, it substantially contributes to eliminate likely future obstacles to the exercise of the Fundamental Freedoms as well as future appreciable distortions of competition in the internal market. Therefore, it is possible for Community institutions to legislate under Article 95 EC.

## 2.5. INAPPLICABILITY OF THE SUBSIDIARITY PRINCIPLE

Article 5 paragraph 2 EC (as regulated by the Protocol on the Application of the Principles of Subsidiarity and Proportionality) states in relevant part:

> "In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community".

In contrast, the subsidiarity principle does not apply to areas of exclusive competence of the EC.

Article 95 EC is the legal basis for an EC top-down harmonization competence. Top-down (i.e. deductive) harmonization can only be an exclusive competence of the EC while bottom-up (i.e. inductive) harmonization is competence of the Member

States only (i.e. harmonization can in principle not be a shared competence). Therefore, the subsidiarity principle does not apply to top-down harmonization under Article 95 EC.

However, in view of the established EU institutional practice of analysing the compliance of every legislative measure with the subsidiarity principle, we shall clarify that the exercise of such competence through the allocation of the digital dividend would not collide with the subsidiarity principle, provided that it applied.

One might argue that market evolution (standardisation) will create a harmonised spectrum use without any government interference. However, this argument does not hold. First, this approach faces the same problems as a bottom-up harmonisation regarding the time needed for the necessary meetings, discussions and agreements to come to a solution suiting all parties involved. Second, taking into account both the significance of the digital dividend for the development of the common market, and the obstacles that its inadequate implementation would entail for the exercise of the Fundamental Freedoms, regulation of spectrum use cannot be left to market dynamics. Indeed, undertakings in the telecommunications and broadcasting sectors have diametrically opposed interests regarding frequency allocation and spectrum usage. Moreover, even within the telecommunications sector, where undertakings do have a common interest to reach agreements on spectrum use so that the EU wide marketing of telecommunications goods and international roaming remain possible, differences in market power and in strategic interests might lead to lack of agreement or to obstacles to the Fundamental Freedoms and appreciable distortions of competition.

A need for top-down harmonization is based on several criteria acknowledged by the ECJ in the Tobacco Advertising Case. The main criteria are the characteristics of the market, the extent to which intra-Community trade is affected, the need for top-down strategies and the geographical area where the commercial relationship operates.

Telecommunications markets are competitive at the Community level especially with regard to access to capital markets and to the markets for mobile devices. Indeed, as stated above, telecommunications providers established in a Member State that allocates a substantial portion of the digital dividend to mobile communications have the opportunity to develop significantly and to raise increasing profits resulting from operations in the mobile broad-band markets. Higher growth in these markets results, in turn, in better operations in capital markets, which enable companies that enjoy favourable conditions under the law of one Member State to cross-subsidize their activities when competing with providers established in other Member States that create less favourable conditions for their mobile communications markets.

On the grounds exposed in Chapters 2.1 to 2.4 of this article, a harmonious allocation of the spectrum to be released has significant impact on intra-Community trade in services (e.g. international roaming) and goods (e.g. terminal equipment and net-

work goods) as well as on the freedom of establishment (i.e. extremely different growth opportunities).

Moreover, practical reasons must be acknowledged: the allocation of the digital dividend requires both a detailed regulation of technical aspects and a community wide overview of the economic implications for the internal market. In contrast, a bottom-up approach (i.e. regulation by Member States) implies a high risk of diverging rules, terms and conditions of allocation of frequencies, with the adverse consequences explained above. Top-down harmonization could eliminate these likely restrictions to the exercise of the free movement of services and goods and to the freedom of establishment, as well as appreciable distortions of competition.

Finally, the provider-client relationship of, at least, international roaming services operates factually cross-border.

The EC competence under Article 95 EC on the harmonization of laws on the allocation of the digital dividend falls outside the scope of application of Article 5 paragraph 2 EC, since it can only be an exclusive competence, but would hypothetically be in compliance with the subsidiarity principle since said approximation cannot be sufficiently achieved by Member States but can be better achieved by the Community.

## 3. SUMMARY AND CONCLUSION

In view of a future release of radio frequencies due to digital switchover, we asked whether the EC has competence under Article 95 EC to harmonize national laws on the allocation of said frequencies.

Under the strictest case law of the ECJ, for such competence to exist, there has to be a present or a future likely disparity in national laws that either hinders one or more of the Fundamental Freedoms or creates appreciable distortions of competition, and the harmonizing measure must contribute to remove the aforesaid obstacles or distortions. This harmonizing measure can have an impact in areas reserved to the Member States, as long as it is in the common interest and it is not used to circumvent a prohibition laid down in the Treaty.

As studied in Chapters 2.1 to 2.5 of this article:

1. In the absence of ex-ante harmonization, national allocations of the digital dividend are extremely likely to differ.
2. Such disparity in national laws would hinder the free movement of services, the free movement of goods and the exercise of the freedom of establishment, thereby falling into the scope of the prohibitions laid down in Articles 49 ff., 28 ff. and 43 ff. EC, respectively.
3. Moreover, it would create appreciable distortions of competition for telecommunications enterprises established in different Member States.

4. EC ex-ante harmonization would both eliminate the expected obstacles to the exercise of the Fundamental Freedoms and the foreseeable significant distortions of competition, thus improving the functioning of the internal market.
5. Furthermore, even supposing the existence of a domaine réservé for public broadcasting, a harmonization measure would not collide with the competences of the Member States in matters of education and culture, as long as it is in the common interest and it does not circumvent the prohibition laid down in Article 149 EC.
6. Finally, the EC competence under Article 95 EC on the harmonization of laws on the allocation of the digital dividend falls outside the scope of application of Article 5 paragraph 2 EC, since it can only be an exclusive competence, but would hypothetically be in compliance with the subsidiarity principle since said approximation cannot be sufficiently achieved by Member States but can be better achieved by the Community.

We therefore conclude that the EC has competence under Article 95 EC to harmonize ex-ante the national laws to be issued on the allocation of the digital dividend.

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