

RESPONSE BY THE TELEFÓNICA GROUP TO THE CONSULTATION RAISED BY THE RADIO SPECTRUM POLICY GROUP (RSPG) ON THE SECONDARY MARKET FOR USER RIGHTS OF THE RADIO SPECTRUM

1. Background

The purpose of this document is to provide a reply from the Telefónica Group to the consultation raised by the RSPG in relation to the secondary trading of spectrum rights from the point of view of a fixed and mobile electronic communications operator and, as such, a user of different spectrum bands.

2. Executive Summary

Telefónica considers that the existence of a secondary trading of spectrum rights could and should allow a more efficient management and use of the spectrum and facilitate the market consolidation processes. However, there are several potential risks associated with the trading of the spectrum that could seriously affect competition in the electronic communications sector, end users and the competitiveness of the industry in the European Union. These risks, which are listed in the document, are especially significant if the transfer of the spectrum entails any change in its use.

Telefónica supports a certain harmonisation in the handling of the spectrum in the EU in the long term, but is also of the opinion that, due to the different departure conditions, the introduction of spectrum trading cannot occur in a harmonised way for the time being. Its introduction should be evaluated independently in each Member State and carried out more urgently in those countries where its potential demand is greater and where a distortion in competition is less likely to occur, namely between existing operators in the very same market. Telefónica considers that the RSPG should ensure that the procedures to be followed in those Member States that decide to introduce this figure are harmonised, since the procedure will have particular relevance for achieving the ultimate objective of efficient use of the spectrum.

Telefónica also considers that the SMA must authorise on a case-by-case basis any spectrum transfers, ensuring that they do not distort competition or alter the structure of the markets. In this respect, Telefónica considers that the obligations that are associated with the rights to use the spectrum in some countries should be maintained in the event of any transfer of rights.

3. Structure of the reply document

Telefónica has structured its reply to the RSPG consultation in two separate parts: a general one as well as a reply to the specific questions. A general statement of Telefónica's position is developed in the first part, analysing the advantages and disadvantages of this figure in each one of its most conflicting aspects. As stated below, Telefónica considers that the reply to the questions raised cannot currently be uniform in all markets.

4. General comments

The secondary spectrum trading is considered under Article 9 of the Framework Directive. According to this article, the Member States are free to decide whether they

wish to incorporate the possibility of spectrum trading into National Law. Nevertheless, it stipulates a series of limitations in this respect:

- The transfer of spectrum use rights must be notified to the authority in charge of managing the spectrum.
- This transfer of rights must occur based on an approved procedure.
- This transfer cannot distort competition in the markets affected.
- The use of the spectrum cannot be modified in those frequencies whose use has been harmonised at the Community level.

Besides the responses to the questionnaire, the positions of the Telefónica Group regarding some key topics in this debate are listed below as well.

A. Change in the use of the radio electric public domain

It should be noted that the secondary market for the spectrum and the change in its use are two issues that can and should be dealt with and evaluated independently, due to the fact that they have different implications. Specifically, any change in use poses additional and different problems from those involving the transfer of frequencies in which its original use is maintained.

The current regulatory framework stipulates restrictions to the change of use of a certain radio electric public domain, prohibiting this whenever the uses have been harmonised. Moreover, Spanish law does not allow a change of use from those stipulated in the National Grid for Assigning Frequencies.

The harmonisation of the spectrum is necessary for guaranteeing the profitability of the internal market and the competitiveness of the European Union, as the success of GSM demonstrates. As indicated in the reply to **question 1**, Telefónica considers that the change in use of those bands that are not harmonised entails serious fundamental risks, it jeopardises the possibility of their future harmonisation and should generally be avoided.

Likewise, the change in use may introduce distortions in the market, by using bandwidths that were initially scheduled for some services, for others in which the market entry conditions were different.

B. Harmonisation

The Framework Directive stipulates that all the transfers take place in accordance with the procedures laid down by the NRAs and that they be published. Telefónica is of the opinion that these procedures should, at least in their fundamental aspects, be harmonised in those countries that decide to introduce the secondary spectrum market.

The harmonisation of the secondary spectrum market is a praiseworthy goal in the long term. However, Telefónica understands that the current situation of the frequencies in the various Member States, as well as that stipulated in the Framework Directive (that does not impose harmonisation), currently does not enable more harmonisation than in those procedures to be followed for the transmission of frequencies (for example transparency) and in the terms and conditions to be imposed (rights and obligations) on the players participating in the same.

Thus, it is important to take into account the existence of differences in the method of granting spectrum use rights. It brings about very different degrees of need for the

existence of a secondary spectrum market. Consequently, the specific conditions that the SMA should impose in some cases and in others could differ.

In any event, the introduction of the secondary spectrum market should be conditioned and determined by the existence of a genuine demand for spectrum trading. To do so, the circumstances and market conditions have to be analysed in each of the countries, based on some common principles, in accordance with that laid down in the Framework Directive.

In short, the application of equivalent conditions, for the sake of a misunderstood “harmonising principle” for situations that do not correspond to factual assumptions which are radically different would give rise to discriminatory situations and serious distortions in the national markets.

C. Benefits and disadvantages of a secondary spectrum market

Secondary spectrum trading should be conceived as a means of helping to resolve problems that are raised as a result of the growing number of applications, services and users that require use of the radio spectrum. Its ultimate objective should be of maximising the efficiency in the use of this scarce resource, avoiding as much as possible that access to the spectrum is an entrance barrier that prevents the users from benefiting from the new services. So we should strive to achieve a balance between available spectrum and current as well as future demand, to act as an incentive for innovation and to benefit users.

A specific case in which the benefits of facilitating spectrum trading are evident is in those markets where a consolidation of the market is necessary, reducing their entry and exit barriers for those players who are considering doing so. This would be favoured if it enabled the complete transfer of spectrum use rights.

In general, this secondary trading raises some issues that need to be resolved beforehand:

- Processes too complex and lengthy.
- Possible distortion in competition on the market by altering the balance between rights and obligations.
- Possible change in the structure of the market with regard to the one foreseen at the moment the right to use the spectrum is granted.
- Appearance or strengthening of dominant positions in a given market, as a result of spectrum hoarding.
- Excessive fragmentation of the spectrum and, therefore, its inefficient use.

In this context, it is still necessary to move forward in the analysis of the implications of and needs for a secondary spectrum market, in order to guarantee that its introduction will mean a benefit and an increased efficiency in the use of the spectrum.

In order not to jeopardise the efficient use of the spectrum, Telefónica understands that faced with the existence of a real demand for spectrum trading, the NRA should grant approval on a case by case basis, heeding the particular circumstances of certain frequency bands and markets, the possible transfers of spectrum use rights, taking as a reference the principles in Article 9.4 (notification, without distorting competition and without any change of use).

D. Types of spectrum transfer

As detailed in the reply to question 2, Telefónica considers that there are very different methods possible (partial, total, etc.). In the case of total transfers the acquiring operator must be subject to the relevant obligations. However, the conditions that must apply in the event of partial transmission are much more complex to define due to the wide diversity of situations that may arise. At any rate, the applicable principle should be to keep and maintain the obligations and commitments that affected the transferor operator prior to the transfer.

E. Bands in which the secondary spectrum market could be introduced

In the first phase of introducing the secondary market, Telefónica considers that only the transfers granted in frequency bands assigned for providing services available to the public or for the deployment of public communications networks should be susceptible to take part in the secondary market. Furthermore, this should be limited to those frequency bands whose usefulness is clear, where a real demand exists and in which the negative effects, regarding competition issues as well as those of a technical nature, are minimal.

The complexity of the mobile market makes it advisable to limit the secondary spectrum market to concrete and specific situations, where its effects on competition are totally under control and overseen by the corresponding regulatory authority.

Telefónica considers it an important aspect that the introduction of the secondary spectrum market should not be limited only to the new frequencies assigned after the new regulatory framework goes into effect. This would give rise to the existence of competing players on the market with different rights, since some could make use of spectrum transfer procedures while others could not.

F. Risks for competition

The transfer of spectrum rights of use entails problems for competition, since it may give rise to changes in the composition and structure of a market, in relation to the number of players that offer services on the market as well as their weight on the market. Telefónica has listed some of the possible problems in its reply to **question 10**.

The dangers of imbalances involving rights and obligations between competing agents and the creation or strengthening of dominant positions create a situation where the involvement of a body that is in charge of overseeing and authorising the conditions in which the transfer of the spectrum will be carried out is essential.

G. Risks for technical efficiency in the use of the spectrum

The transfer of rights might raise negative aspects of a technical nature, due to the fact that it can give rise to an excessive fragmentation of the spectrum whose effect is an increase in frequencies (reserve bands) not available for providing services.

Moreover, intra-national co-ordination problems can arise, which so far have been non-existent, for example, when a partial transfer occurs in some geographical areas.

All these technical issues are still not being examined in depth and the SMA should ensure that these pernicious effects do not occur.

H. Intervention by the authority in charge of managing the spectrum (SMA)

As it has indicated in its reply to **question 11**, Telefónica understands that faced with the previously mentioned risks of altering the structure of the market and a distortion in competition, the SMA's prior approval should be required in all cases involving spectrum transfer.

Consequently, the role of the SMA should at least include:

- Implementing the procedure that regulates the transfer of the spectrum
- Mandatory approval of the transfer
- Ensuring that competition conditions are maintained
- Avoid speculation and hoarding

5. Response to the questions raised by the RSPG

General questions

1) Do you consider secondary trading of rights to use radio spectrum to be beneficial to consumers, businesses and radio users? Why/why not?

As mentioned in the general comments, the benefits of spectrum trading depend on the specific trading mechanism that is implemented.

In principle, the existence of a secondary spectrum market would allow for more efficient management and use of the spectrum since a transfer of frequency bands infra-utilised by one operator to another could occur and whose demand determines greater use of the frequency bands.

Furthermore, the possibility of spectrum trading transforms it into an asset for the operators, facilitating the consolidation procedures on the markets, there wherever the situation requires it. This new possibility of managing the spectrum lowers the market exit barriers, allowing greater competitive dynamics.

However, several potentially serious risks involving spectrum trading amongst the players present or not on the market (with pre-existing rights to use the spectrum or not) exist that can seriously affect competition in the electronic communications sector, end users and the competitiveness of the industry in the European Union.

The uncontrolled entry of new operators on a market can negatively affect the evolution of competition on this market, either by exceeding the optimum number of operators on this market, or by the non-existence of a balance between the rights and obligations of those operators that have obtained the necessary spectrum in a primary market (beauty contest or auctions) and those operators that have obtained it on the secondary market.

Moreover, there is a tendency to link spectrum trading with the possibility of changing its use. This is without a doubt the most dangerous variant involving spectrum trading. The acquisition of spectrum in the secondary market, initially assigned for a certain service, in order to subsequently change its use, is a process that entails serious risks, which have been listed below:

- Distortion in the competitive dynamics of the market
- Lack of uniformity regarding access conditions to the markets
- Imbalance between the rights and obligations of the various players present on the market, in the payment made for acquiring the spectrum (in the case of auctions), as well as in the commitments assumed (in the case of a beauty contest)
- Potential harmful interference and difficulties in the coexistence of services over the same band and adjacent bands
- Economies of scale: the fragmentation of the spectrum caused by the change of use in the frequency bands limits the achieving of economies of scale, which are so important within the EU, and which would weaken the position of equipment manufacturers and European developers, with a serious loss in competitiveness.
- Limitations to the interoperability and free movement of equipment. The lack of harmonisation of the spectrum creates serious limitations to the interoperability

of services within the European Union, by not matching up the bands with those that provide the services, thus acting as a disincentive for the roaming of users and the enjoyment of Pan-European services, moving away from the concept of a single European market.

2) What types of transfer of rights to use radio spectrum (full, leasing, partial etc.) do you consider can be beneficial to consumers, businesses and radio users? Why/why not?

Different methods of spectrum trading exist, from the total transfer of rights, to partial spectrum transfers over time (transfer of some frequencies for a limited time period), in frequencies (transfer of the rights to use a part of the frequency band that a certain player owns) or in geographic locations (transfer of frequencies in one part of a geographical area for which the right to use had been granted). The previous methods of partial transfer can occur in a combined or independent way.

In the case of a total transfer of spectrum, as the Spanish regulatory framework already stipulates, the operator that acquires the right to use the spectrum must be subject to the rights and obligations of the transferring operator. For example, if the license is required to provide national coverage, the operator that acquires the rights to use the spectrum must provide national coverage.

However, the conditions that will apply in case partial transfers occur are much more complex to define due to the great diversity of situations that can arise. In principle, in markets where obligations associated with the right to use the spectrum exist, these should also be transferred to the acquirer.

Likewise, it is necessary to take into consideration the correlation between the temporary variable and the transfer of the rights; the implications of an indefinite transfer or over a long period of time (for example until the original concession expires) are clearly different from those that exist for a temporary transfer (for example, a specific event). In the latter case, the primary assignment of the spectrum already considers certain special features for the temporary assigning of events, generally related to the communications needs involving a one-time event and limited in time (broadcasting, radio links for communications, satellite connections).

The geographic scope of the transfer of use of the spectrum has also a non-negligible impact since a transfer confined to a specific geographic area can alter the competitive dynamics of the market with the appearance of “demarcation” operators, which are usually focused on the more economically profitable areas, to the detriment of the less profitable areas which would be handled by those operators that obtained their right of use in a primary market (conditions and obligations assumed in the bidding procedure).

3) What rights and associated obligations do you consider should be within the scope of secondary trading of rights to use radio spectrum?

In principle, the generic rights and obligations associated with the acquirer of the spectrum in the secondary market should be the same as if the right to use had been granted in a primary market:

- Efficient use of the spectrum
- Non-production of interference
- Compliance with the original conditions for the transfer of the right

Furthermore, the specific rights and obligations resulting from the specific band of frequencies where the transfer of use rights occurs would have to apply, especially, all those that have an impact on competition in the market for the services provided over this frequency band.

4) *Would you want to see secondary trading of rights to use radio spectrum introduced in your country or in the countries of interest to you?*

As repeatedly stated, the high degree of uncertainty surrounding spectrum trading urges special caution regarding the harmonised introduction of this figure.

Telefónica recommends that the harmonised introduction of spectrum be postponed until a position exists that all industry players can assume (administration, operators, suppliers, users, etc.).

There is a need to agree on:

- the common principles to be applied in all Member States to handle the management of the secondary spectrum market,
- the adoption of a joint timetable for its introduction,
- the identification of those bands subject to trading (commercial, non-commercial, new assignments vs. existing assignments)
- the conditions for the transfer or acquisition of the spectrum
- the method for resolution of disputes
- the relationship between the mechanisms for primary assignment (beauty contest/auction) and the different methods of transferring the spectrum (total, partial, indefinite, temporary),

Nevertheless, Telefónica recognises the urgent need to introduce spectrum trading in some markets, especially due to the consolidation processes underway. These should be handled on a case-by-case basis, complying as basic principles with that stipulated in Article 9.4 of the Framework Directive, and only allowed amongst players offering the same type of service and technology that already have pre-existing rights of use in the same frequency band.

a) *If yes—why, to what extent? When? Frequency bands/services?*

In principle, the prioritisation of bands over those that spectrum trading could stipulate should fall on those where the demand for the market and the shortage of spectrum recommended the need to introduce an alternative mechanism to the original assignment of frequencies.

b) *If not – why not, are there other tools that better suit your needs?*

As mentioned, prior authorisation and on a case-by-case basis while waiting for a general framework for spectrum trading to be defined will provide a solution to those cases that require greater urgency

5) *What information and electronic communication facilities should be made available to facilitate implementation of secondary trading of rights to use radio spectrum?*

For the sake of transparency in the process of spectrum trading, specific information should be made available to all players, preferably in electronic format and managed and updated by the spectrum regulatory authority.

Below is a non-exhaustive list of the necessary information:

- Original spectrum assignments (National Register of Frequencies)
- Spectrum transfers occurred
 - Transferor agent
 - Transferee agent
 - Spectrum transferred
 - Method (permanent, temporary)
- Regulatory framework relating to the transfer of spectrum
- Decisions relating to the authorisation/refusal of spectrum transfers
- Implementation procedure

Scope of trading—change of use, reconfiguration

6) *Is the possibility to reconfigure rights important? If yes, what kinds of reconfiguration do you consider would benefit consumers, businesses and users of spectrum? (geography, frequency, time, other)*

As previously pointed out, a change in the terms of use entails implications of a competitive and economic nature and in users' rights. Therefore, Telefónica is of the opinion that any reconfiguration of the rights and obligations associated with the spectrum must be analysed with extreme caution by the SMA.

It is the only means of guaranteeing some services to the users that otherwise would be determined only by the profitability of the business. For example, the installation of UMTS in the less densely populated area of a country does not provide an adequate return for justifying the necessary investment. Only the obligations acquired in the license can ensure that users who reside in those areas have access to the same services that the residents of large cities have. This guarantees the implementation of the information society throughout society, thus achieving an integration that would not be possible in a purely mercantilist scenario.

7) *Is the possibility to use the spectrum in a flexible way important? If yes, what kinds of flexibility do you consider would benefit consumers, business and users of spectrum (service, technical constraints, other)*

The negative implications resulting from the flexible use of the spectrum (understood as the freedom to modify the use of the spectrum) might well not be compensated by the theoretical benefits. The standardisation of the use of the spectrum, the definition of bands, sub-bands and channels, the prioritisation in the use of the spectrum, the assigning of bands to services for the purpose of maximising the use of the frequencies and the coexistence of services in the same band and adjacent bands has yielded countless benefits that could be offset by altering the outline on the basis of maximising the benefit of certain players, which own the right to use a certain portion of the spectrum.

The only flexibility that would benefit the user would be the availability of additional spectrum before reaching a saturation of the service. This flexibility could be achieved with the involvement of the SMA.

8) *To what extent is the tenure an important issue in assessing secondary trading? (indefinite, rolling, fixed, annual, other)*

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9) Should the same rules and regulations apply for the whole of the spectrum?

a) Is there a need for different rules and regulations for different frequency bands? geographical areas? services? users?

b) If you see a need for different rules and regulations in question 8a above, please give examples

Currently different rules and principles for regulating the various uses of the spectrum already exist in the Member States. Although the regulation of the spectrum should occur in a consistent way for the entire spectrum, these differences in the management and in the type of awarding process should be translated into different handling of the spectrum trading.

In this respect, it should be pointed out that the mechanism for granting frequencies constitutes a fundamental aspect when defining the regulation for spectrum trading, which cannot be circumvented.

As stated before, Telefónica believes that the mechanism to approve case by case spectrum transfer should duly take into consideration competition issues in order not to distort the market. This might lead to different analysis by the SMA depending on the market specificity due to the fact that the balance between rights and obligations is very different amongst Member States (deployment or coverage obligations, price paid,...). In particular, care should be taken not to allow accessing the market to new players in a less onerous way (in terms of money or other costly obligations) via the secondary market

Likewise, it is foreseeable that demand will be much less for bands of a non-commercial nature rather than commercial ones. For the latter, the market or competition aspects will be a priority, while the technical aspects will be the ones that prevail in the non-commercial bands.

Competition aspects

10) Should there be specific competition rules in relation to implementing secondary trading of rights to use radio spectrum, or is general competition law enough?

Telefónica considers the involvement of a body that is in charge of overseeing and authorising the conditions in which the spectrum transfer will be carried out fundamental. These functions could fall on the Spectrum Management Authority (SMA), bearing in mind that it is also the one in charge of granting the rights of use of the radio public domain. However it might be necessary to evaluate whether the involvement of the national competition authority (NCA) applies and, in turn, the co-ordination procedure between both authorities.

The specificity of competition conditions in the mobile communications market requires that a proper balance be achieved between the rights and obligations of the various market players and that specific conditions be laid down for the transferor and transferee operators in order to ensure that ideal conditions are maintained so that effective competition can develop.

We can identify the following possible competition problems about which the SMA will have to be especially vigilant:

- **The transmission of rights of use of radio public domain can give rise to a situation in which competing players exist on a market with a different balance between rights and obligations**

The spectrum transfer to a player that was not previously on the market results in the increase in the number of competitors, which is not always beneficial for competition in itself.

In this respect, the appearance of new competitors in a market through secondary spectrum market formulas poses a risk for competition, whenever the new operators that access the market through secondary spectrum market mechanisms do so with fewer or greater obligations than those assumed by those who will be their competitors in the public bidding of the spectrum.

By way of example, the transfer of frequencies in some geographical areas could give rise to the appearance of niche operators in a market where the other operators have overall obligations in the entire territory, acting as an element that generates competitive disadvantages for the latter.

In the case of those frequencies granted by auction, the obligations are usually minimal and the same for all players, so that this risk would probably be smaller.

- **Creation or strengthening of a dominant position that can hinder the development of competition on a market**

The transfer of frequencies can give rise to situations in which some operators accumulate spectrum (hoarding) which results in a restriction to the provision of services by their competitors or complicates the conditions for them to compete.

Therefore, the mechanisms established for spectrum trading should include the monitoring of rights and obligations so that guarantees that distortion of competition does not take place due to spectrum trading.

In any event, the transfer of rights must not produce the effect of impeding, restricting, or distorting competition. In many cases those effects are easily avoided if the parties make commitments or modifications to the operation that allow the spectrum transfer to be carried out under conditions that comply with competition.

The role of the spectrum management authority

11) *What do you see as the main responsibilities for a spectrum management authority in regards to secondary trading of rights to use radio spectrum?*

In addition to its general jurisdictions in administering and managing the spectrum, which includes the planning and assigning of bands as well as inspecting and monitoring in order to guarantee the free use of interferences in accordance with the authorised characteristics and the effective nature of this use, the introduction of spectrum trading gives the SMA a new power which is to ensure that there is no distortion in competition in the marketing of user rights between the various players under the terms expressed in the previous points.

This power takes on its maximum expression in those bands where, due to their commercial nature, the high demand and nature of the services provided over them, a distortion in competition has a decisive effect on the market for services supported in the use of the spectrum. It should be pointed out that the harmonised bands for GSM and UMTS are paradigm for this circumstance.

Therefore, the role of the SMA will be to deal with various issues:

➤ Implementation of a procedure that regulates the transfer of the spectrum

The Framework Directive stipulates that all the transfers are to take place in accordance with the procedures laid down by the NRAs and that they are to be published. Telefónica is of the opinion that these procedures should be, at least in their fundamental aspects, harmonised in those countries that decide to introduce the secondary spectrum market. Any transfers likely to take part in the secondary market will only be granted after a public information procedure has taken place.

Objective approaches and transparent procedures should be developed to evaluate the essential requirement (for equipment and transfers) regarding the efficient use of the spectrum. Different procedures will be developed depending on whether it involves an isolated sale/transfer of the spectrum or forms part of sale/transfer of a business or activity (take-over of companies). In the latter case, the joint administrative procedures of the concession system shall apply.

The public information should include:

- Spectrum bands to be transferred.
- Justification that the spectrum transfer will not mean non-compliance with the obligations assumed by the transferor operator in the process by which the right to use the radio public domain was granted by the Administration.
- The official assumption, on the part of the operators that are involved in the agreement, that the terms and conditions are complied with and that the technical guarantees or those of any other nature that may apply to them are honoured.
- Economic terms and conditions, and terms and conditions of any other nature, agreed upon between the transferor operator and the operator to whom it has decided to transfer the spectrum.

➤ Mandatory approval of the SMA

The Framework Directive stipulates that the Member States must see to it that a company's intention to transfer radio-frequency use rights is notified to the NRA in charge of assigning the frequencies.

Telefónica is of the opinion that mere notification should not be sufficient, since the seriousness of the risks that the secondary spectrum market can imply for competition and the conditions for technical use of the radio spectrum make it necessary that, in the event it is introduced, the transfer of frequencies is only allowed whenever the SMA has given its prior and express approval.

➤ To see to it that competition is not distorted on the market

In accordance with the Framework Directive, the SMAs must be those in charge of seeing to it that competition is not distorted as a result of spectrum transfers, for which it will have to decide whether a spectrum transfer can be approved and, in this case, if restrictions or conditions must be imposed on the players involved.

In this respect, given the problems associated with the aforementioned competition terms, the SMA should be able to reject any spectrum transfer that might give rise to a change in the configuration of the market,

On the other hand, the SMA must verify that:

- In the case of a total transfer of spectrum, the acquiring operator is subject to all the rights and obligations of the transferring operator
- In the case of a partial transfer, that it does not involve a diminishing of the obligations assumed by the acquiring operator when it was granted the rights to use the spectrum.

Additionally, the SMA will impose on the operators that are involved in the transfer all the necessary obligations to ensure the proper development of competition and to prevent any distortion of competition from occurring, by means of the coexistence of operators competing on the same market and with a varying degree of obligations and commitments.

In this respect, the need to set up a coherent and uniform framework for granting the rights to use the spectrum, make it necessary that with the granting of rights to use the radio public domain, indirectly, through their transfer by one operator to another, the same criteria as those observed in the direct granting by the SMA must be complied with. So it would have to do with preventing that situations occur involving the competitive disadvantage of some players compared to another, as a result of the differences between the rights and obligations to which they are subject, or of the different market entry barriers that they may have to face based on how they obtained the right to use the spectrum. This is especially relevant in the case of GSM and 3G.

12) To what extent is spectrum management authority approval of trades a benefit or an impediment to the development of a market for secondary trading of rights to use radio spectrum? Under what circumstance do you consider it would be necessary for a spectrum management authority to refuse a trade?

Please see our reply to the previous question (**question 11**). All transactions should be examined by the Regulatory Authority before they are carried out.

Prior to the approval of the transaction requested by the competent regulatory authority, it will be verified that the use of the spectrum must remain unvaried in the spectrum transactions, especially in the harmonised bands and in all those in which the national frequency plans do not contemplate the possibility of any change in its use.

In this respect and heeding the functions identified in the previous point, a non-exhaustive list of some assumptions under which the transfer of the right to use the spectrum could be refused should be pointed out:

- Transfers carried out dispensing with the established procedure
- Transfers not notified in time and due form to the regulatory authority
- Transfers that imply any change in use of the harmonised bands
- Transfers that mean a distortion in competition or the non-acceptance of the conditions imposed on the part of the transferor and transferee.

13) What specific measures could a spectrum management authority take to handle the issues if secondary trading is introduced? (ex ante approval procedures, ex post notification, competition aspects, limit change of use, interference aspects, other)

Please also see our reply to **question 11**.

In the description of the jurisdictions of the SMA, some of the measures to be implemented for managing the secondary spectrum market were identified:

- Administrative procedure for the transfer of user rights amongst the different players
- Creation of a register of spectrum transfers
- Mechanism for publishing the procedures for transferring of spectrum use rights carried out, except for any aspects that may be confidential
- Analysis of the impact of the requested spectrum transfer on competition from the point of view of competition law and electronic communications sectoral legislation
- Interferences

14) *To what extent should the national spectrum management authority actively facilitate secondary trading of rights to use radio spectrum?*

The initiative of trading the right to use the spectrum must come from the combination of forces of supply and demand amongst the various players on the market and under no circumstance may it be actively promoted by the spectrum Administration.

The regulatory framework limits the jurisdiction of the spectrum Administration to seeing that it is efficiently used, for which the Member State can opt to introduce spectrum trading in its legal ordinances. However, under no circumstance, must it be understood that this Administration has to provide the will or the interest of the parties, but to establish the necessary conditions so that those players interested in transferring spectrum use rights may do so with full guarantees and in compliance with the principles mentioned in the Community Directives and in Competition Law.

Community aspects

15) *Do you consider that adoption of individual regimes by EU member states will cause problems for consumers, businesses and radio users? If yes, in what ways and to what extent?*

The benefits resulting from harmonisation achieve their maximum expression when they refer to the use of the spectrum. The planning and harmonisation of bands at the national as well as international level has been translated into direct benefits for consumers, resulting from economies of scale in the manufacture of equipment and the advantages of interoperability of services.

The harmonisation or standardisation of the secondary market does not seem feasible in the short term due to the different departure conditions and the different market entry and exit conditions. In fact, the Framework Directive gives the Member States the freedom whether or not to introduce the secondary market. However, once it has been introduced, it is essential that spectrum trading be harmonised in those countries where it is introduced, thus avoiding distortions in entry and exit conditions and in the use and enjoyment of the spectrum, which is incompatible with the existence of a single market, as listed in the objectives of the Framework Directive.

As was explained in the initial part of our position, in some markets the demand for a secondary spectrum market already exists. The mobile markets and more specifically those markets where consolidation processes (mergers and/or acquisitions) are

underway would benefit from the existence of a mechanism for the transfer of spectrum use rights, which still does not exist.

The benefits for end users and for users of the spectrum would not exist rather they could even be jeopardised if the spectrum trading mechanisms do not bear in mind the inherent risks, mainly if spectrum trading were to entail a change in its use.

16) Do you consider that the EU should take measures to facilitate the implementation of secondary trading of rights to use radio spectrum? If so, in what areas and to what extent?

Since the harmonisation of the secondary spectrum market is a praiseworthy goal in the medium and long term, Telefónica is of the opinion that the current situation involving the frequencies in the various Member States, as stipulated in the Framework Directive, which does not impose harmonisation, currently does not enable further harmonisation than in those procedures to be followed for the transfer of frequencies and in the conditions to be imposed on players involved in the same.

The adoption of a set of rules and joint and harmonised principles for the introduction of the secondary spectrum market in the European Union is essential. Therefore, the efforts by the European Commission and the Member States must focus on an in-depth review of these rules and principles that constitute the basis on which the regulatory framework for spectrum trading is based. All this is in line with the mandate to establish a general methodology, which guarantees harmonised conditions for the availability and efficient use of the spectrum, as provided for in Article 1^o of Decision 676/2002/EC of the European Parliament and Council on 7th March 2002 regarding a regulatory framework for radio spectrum policy in the European Community (Radio spectrum decision).

Prior to the introduction of spectrum trading, the conditions for harmonising spectrum trading should also be reviewed and subsequently approved, as a key aspect for the availability and efficient use of the radio spectrum.

This study should be channelled, as it currently is, through the Radio Spectrum Policy Group (RSPG). The participation of the industry in the study is indispensable since this measure has a direct impact on the different players that use the spectrum.

The scope of the rules and principles mentioned should extend to the fundamental and defining aspects of the spectrum trading, amongst which the following could be pointed out:

- Influence of the spectrum assignment mechanism on its trading
- Delimitation of the bands and/or spectrum assignments likely to be traded
- Methods of spectrum trading (total, partial, indefinite, temporary, transfer, lease)
- Responsibilities of the players on the spectrum transferred (interference, rates)
- Terms and conditions for spectrum trading and for its approval
- Role of the NRAs in spectrum management and trading

17) To what extent is European harmonisation of frequencies an important issue in regards to secondary trading of rights to use radio spectrum?

Past experience regarding the harmonisation of frequency bands at the European level for the GSM system has demonstrated that the identification of some joint frequency bands to provide service in accordance with some of the predefined technical

characteristics has allowed the first Pan-European service to be provided and extended to nearly all layers of Society, as well as its unprecedented expansion beyond the borders of the European Union.

It should be asserted without a doubt that GSM digital telephony has constituted the greatest technological and industrial success in Europe this past century. It came about in response to a problem -the excessive fragmentation of technologies in the first generation mobile telephony market, analogue mobile telephony. GSM represented a Pan-European effort to achieve a common space where users could move between countries using the same terminal. For this purpose, they created the roaming concept amongst networks and developed their complex but efficient infrastructure of agreements and payments, all based on a common frequency band. This allowed the existing fragmentation to be overcome and thus guarantee a very superior potential market that enabled the costly investments involved in the development of the terminals to be met as well as the rollout of digital technology mobile networks to occur.

By comparison, in the American market, anchored in the supremacy of analogue mobile telephony, a different policy was adopted by refusing to join the initiative that was being implemented in Europe. In view of the successful results of GSM, the USA bet on developing a digital technology that was based on their previous AMPS technology but with inferior results to GSM. In their domestic market, the introduction of digital telephony occurred by using market fragmentation criteria. Licenses were granted for various mobile technologies that were incompatible with one another. So it was decided to divide up the US market into smaller markets where any of those technologies, which allowed second generation was possible. This policy resulted in a delay in the penetration of service in the United States and a loss in the competitive position of American equipment manufacturers (Motorola) in favour of European suppliers (Nokia, Ericsson, Alcatel and Siemens).

The economies of scale that were achieved with the universal use of GSM have allowed unit costs for network and terminal equipment to be reduced. The direct benefit for users has been unquestionable by removing entry barriers to the market (terminal acquisition cost) and by successfully transforming mobile telephony in less than 5 years time from being practically a luxury item to become an essential service with a market penetration rate of nearly 90% of the European population.

Therefore, harmonisation of frequencies constitutes a factor that increases the potential of spectrum trading, since the spectrum-acquirer immediately integrates the acquired frequency bands (in effect, the right to use those bands) in its operation, not requiring terminals to be adapted or specific developments to be carried out to provide services over the new frequency band. The GSM spectrum transfer that took place amongst Italian mobile operators represents a clear example of this.

Related experiences and examples of secondary trading

18) *What are your experiences with the current spectrum management regimes?*

The current management of the spectrum guarantees the rights of users and operators, and ensures compliance with the obligations associated with the use of the radio spectrum. Currently, the efficiency of the radio spectrum is guaranteed by the involvement of the regulatory authority, which should be even more active and provide the radio spectrum with certain flexibility, assigning it to operators based on existing and forecast traffic for each operator, so that the spectrum is used in the most efficient way possible at any moment.

19) What are your experiences of secondary trading of rights to use radio spectrum?

We do not have any significant experiences in the spectrum market.

20) Please describe specific scenarios in which you consider that the introduction of secondary trading of rights to use radio spectrum would be beneficial

As stated in response to previous questions, the transfer of rights to use the radio spectrum generally could be achieved for the purpose of improving the efficiency in the use of the radio spectrum, at any rate keeping the type of service and technology used invariable. This transfer would be carried out by the regulatory authority after analysing the market and the spectrum needs resulting from traffic on each network.

Another scenario where it is possible to identify a clear benefit for spectrum trading would involve all those market consolidation processes, where the merger and/or acquisition of operators would determine the need for selling off a part of the spectrum, either for economic reasons, or for reasons of a regulatory nature or competition, since the freedom exists for the spectrum-transferor to market the spectrum with the right to use it as another company asset. It should be pointed out that this scenario is more characteristic of those markets in which the original right to use the spectrum has been acquired through an auction mechanism, where the only burden involving the spectrum is determined by the payment made in the bidding procedure.