

# Consultation

**on future frequency assignments and on the liberalisation of the 900 MHz and 1800 MHz frequency bands**

**NON-BINDING-TRANSLATION**

Vienna, February 2011

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# 1 Introduction

Now that the latest amendment to the Austrian Frequency Utilisation Plan has gone into effect, the Telekom-Control-Kommission (TKK, Austria's telecoms regulator) has been placed in charge of a number of new tasks and decisions. The new legislation transposes the amended GSM Directive into Austrian law and thus creates the conditions necessary for a procedure pursuant to Art. 57 Par. 4 TKG 2003 regarding the liberalisation of GSM frequencies. At the same time, the assignment of the "digital dividend" is also planned in the near future. As these developments are closely interrelated, the regulatory authority considers it important to coordinate these procedures with each other.

In this consultation, the regulatory authority wishes to gather suggestions and discuss possible ways to approach these procedures. From the TKK's perspective, the following regulatory objectives should be given high priority in planning future steps in this process:

- Ensuring the efficient use of frequencies as a scarce resource;
- Ensuring sustainable competition;
- Legal certainty;
- Security of investments.

In order to ensure planning certainty for market participants, the TKK intends to publish a timetable for future steps in these procedures once the consultation and internal discussions have come to an end.

The contents of this consultation document are non-binding and without prejudice to the decisions of the TKK.

## 2 Austria's mobile communications market

### 2.1 Providers and frequency assignments

At present, mobile communications services are currently offered by four network operators in Austria: A1Telekom Austria AG, T-Mobile Austria GmbH, Orange Austria Telecommunication GmbH and Hutchison 3G Austria GmbH. Hutchison has been assigned frequencies in the 2.1 GHz and 2.6 GHz bands. The other three network operators hold additional frequency assignments in the 900 MHz and 1800 MHz bands (see table below).

**Table 1: Current frequency assignments (MHz)**

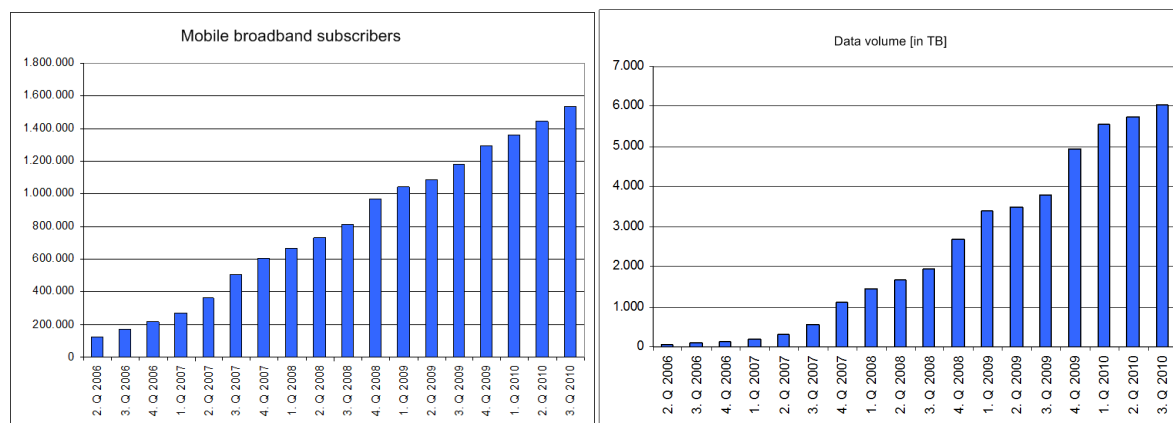
Frequency band	A1Telekom	TMA	Orange	H3G
900 MHz	2x17	2x12.8	2x4	-
1800 MHz	2x15	2x25.4	2x29	-
2.1 GHz (FDD)	2x15	2x15	2x15	2x15
2.1 GHz (TDD)	10	10	-	5
2.6 GHz (FDD)	2x20	2x20	2x10	2x20
2.6 GHz (TDD)	25	-	-	25

Note: The figures shown above may also include guard blocks or guard channels in cases where they were included in the frequency assignment and can thus be used by the operators (possibly subject to certain restrictions). Some figures have been rounded (e.g. in the 2.1 GHz band).

More detailed information on frequency assignments in Austria can be found on the RTR web site at <http://www.rtr.at/en/tk/Frequenzen>.

### 2.2 Market development

In recent years, mobile broadband services have seen very rapid growth in Austria (see Figure 1). Each year, both the number of broadband subscribers and the volume of data transferred have shown double and triple-digit growth rates.



**Figure 1: Development of mobile broadband (number of subscribers, data volumes)**

Assuming that the trend continues in the future, demand for additional frequencies for broadband technologies (3G and 4G technologies) will rise in proportion to this development. This is especially true of frequencies below 1 GHz. Given their propagation characteristics, those frequencies enable operators to provide mobile broadband services at lower cost in rural areas, where mobile broadband coverage currently lags far behind that of voice services.

In order to optimise the future timetable for key frequency decisions, the regulatory authority wishes to gather information on the medium-term development of the market.

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## Questions

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Question 2.1.: How do you predict that this market will develop in the longer term? Please estimate the number of mobile subscribers who will be using mobile broadband services (smart phones, USB modems) three years from now. What average monthly data volume per customer would you predict?

Question 2.2.: What coverage level do you plan to attain or expect in the coming years?

Coverage with	Current	2013	2015
Voice [Pop]			
Voice [Area]			
Broadband UMTS/LTE/WiMAX [Pop]			
Broadband UMTS/LTE/WiMAX [Area]			

Question 2.3.: What will a typical mobile communications network (or your network) look like in 3 to 5 years, and what technologies will be deployed?

Question 2.4.: When do you expect UMTS (HSPA), LTE and WiMAX technologies to be ready for the mass market in the 800 MHz, 900 MHz and 1800 MHz frequency bands?

Coverage with	Network	Modems	(Smart) Phones
UMTS in the 800 MHz band			
UMTS in the 900 MHz band			
UMTS in the 1800 MHz band			
LTE in the 800 MHz band			
LTE in the 900 MHz band			
LTE in the 1800 MHz band			
WiMAX in the 800 MHz band			
WiMAX in the 900 MHz band			
WiMAX in the 1800 MHz band			

Question 2.5.: When do you expect that LTE will support voice telephony?

Question 2.6.: What are the long-term spectrum needs of your organisation / of a typical mobile operator?

	FDD spectrum requirement	TDD spectrum requirement
Frequencies below 1 GHz		
Frequencies above 1 GHz		

Question 2.7.: Do you consider it necessary for an operator to operate in all bands designated for mobile communications, or do you consider it more sensible in the long term to focus on "core bands" (e.g., 900 MHz only as opposed to 800 and 900 MHz)?

Question 2.8.: How important is the assignment of frequencies below 1 GHz to your organisation / to mobile network operators? What advantages do you see in these assignments?

Question 2.9.: What other obstacles to the future expansion of mobile broadband can you identify (e.g., connection of base stations, etc.)?

Question 2.10.: Do you expect mobile technologies (UMTS, LTE, WiMAX) to be available to the mass market in the 3600 – 3800 MHz frequency band in the foreseeable future? If yes, when do you expect them to be available, and when could that frequency band be used?

Question 2.11.: Would you consider it useful to assign frequencies in the 450 MHz band in the near future? If yes, when? How would this band be used?

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## 3 Refarming

### 3.1 Background

The frequencies gradually assigned between 1993 and 2008 are currently reserved for the exclusive deployment of GSM technology in the following bands:

- 880 – 915 MHz (lower band) and 925 – 960 MHz (upper band)
- 1710 – 1782 MHz (lower band) and 1805 – 1877 MHz (upper band).

This usage restriction was in part based on the provisions of EU legislation (only for parts of the 900 MHz band) and on the provisions of national law (Frequency Utilisation Plan, frequency assignments). The implementation of the amended GSM Directive in the Austrian Frequency Utilisation Plan created the conditions necessary for changing the use of these frequencies in the course of a procedure pursuant to Art. 57 Par. 4 of the Austrian Telecommunications Act (TKG) 2003. However, the provisions of EU legislation do not permit the full liberalisation of frequency use in that band. At present, it is only possible to expand the use of those frequencies to include UMTS. Further liberalisation steps to include LTE and WiMAX will only be possible after a revision of the GSM Decision (currently under discussion) and its transposition into national law.

In the course of a procedure pursuant to Art. 57 Par. 4 TKG 2003, the Telekom-Control-Kommission (TKK) may amend the prescribed usage of frequencies ("refarming") at the assignment holder's request. In this context, the regulatory authority is required to account for technical developments as well as effects on competition.

In its review of effects on competition, the regulatory authority is to examine whether refarming would have an adverse effect on competition and whether such competition problems could be remedied by imposing certain requirements. For this purpose, the regulatory authority can make use of any instruments which comply with the provisions of the Authorisation Directive and the Framework Directive. Such instruments include a redistribution of the frequencies in question as well as an obligation to provide access in accordance with the Access Directive. At the same time, however, the regulatory authority must observe the principle that the mildest and least invasive instrument is to be applied in each case. It is thus necessary to examine on a case-by-case basis which remedy would be just sufficient in order to prevent potential distortions of competition. Should no appropriate remedy be available, the TKK may decide not to allow refarming.

From the regulatory authority's perspective, refarming frequencies would bring about a number of advantages – not only for the operators, but also for consumers and the economy as a whole:

- UMTS900 / LTE900 deployment would enable operators to provide mobile broadband coverage at lower cost compared to the frequencies currently used for these technologies.
- UMTS900 / LTE900 would enable operators to offer their subscribers better indoor coverage.
- Refarming the frequencies would make more spectrum available for new broadband technologies, thus increasing capacity.
- In the medium to long term, the liberalisation of frequency usage would enable network operators to migrate to less expensive technologies and to reduce the diversity of technologies used.

As a result, the regulatory authority is in favour of a rapid refarming of GSM frequencies. However, refarming also gives rise to a number of problems:

- The newer technologies are based on different channel spacing compared to GSM; in addition, the assignment of adjacent frequency blocks is an advantage. In this regard, the current assignments in the GSM bands are less than optimal: If we assume 5 MHz channel spacing, less than 60% of the spectrum in the 900 MHz band could be used for new technologies (see figure below). Moreover, the blocks in question would not be adjacent. A similar situation prevails in the 1800 MHz band.

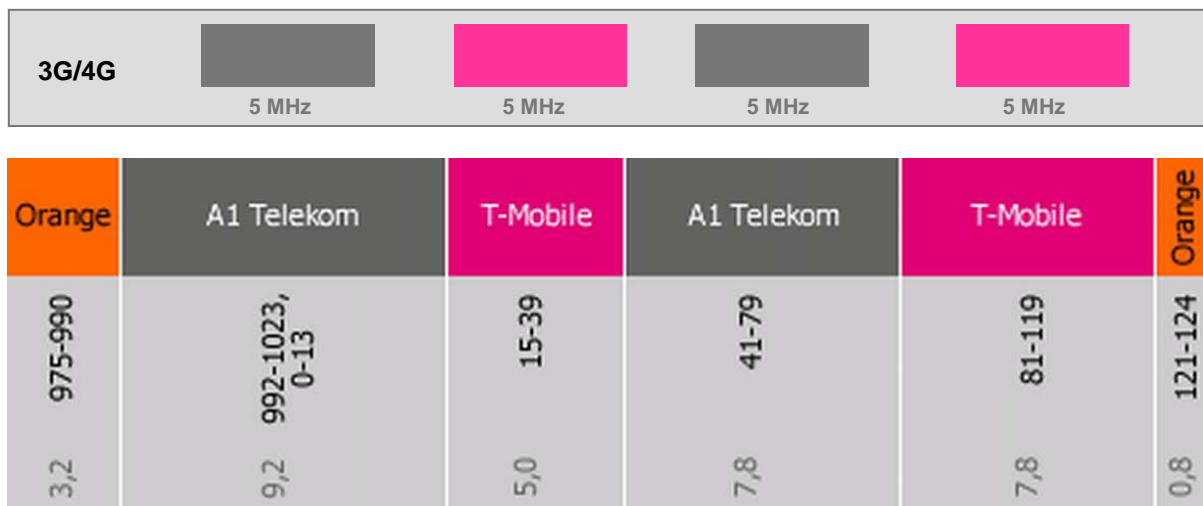


Figure 2: 3G/4G deployment based on current assignments in the 900 MHz band

- Only two of Austria's four network operators hold sufficient spectrum to use new technologies in the 900 MHz band. Given the advantages that would arise from UMTS900 and LTE900 deployment, refarming the 900 MHz band could bring about distortions of competition.
- The first GSM licences will expire at the end of the year 2015. Especially with regard to these licences, this raises the question of whether the time remaining is sufficient to justify investments in new technologies. If this is not the case, refarming would have no material effect.
- The question of the expiring GSM assignments also points to another problem area: The regulatory authority estimates that a significant share of all voice minutes are handled via the 900 MHz band. A strict application of the current regime (relinquishment and reassignment) could lead to major discontinuity in usage and thus to a deterioration of quality.
- In the transition phase, we can expect to see higher spectrum requirements – especially for frequencies below 1 GHz – due to the coexistence of multiple technologies.
- As a rule, the liberalisation of usage rights would increase the value of the frequencies in question, which would in turn generate windfall profits for the assignment holders.

### Questions

Question 3.1.: In your opinion, how much longer will GSM remain in use? What share of the 900 MHz / 1800 MHz band will still be used for GSM in the year 2015 and in the year 2020? In what sub-ranges of these frequency bands should GSM be deployed in the longer term?

Question 3.2.: In the longer term, would you consider the current frequency assignments in the GSM bands to be compatible with an efficient use of those frequencies for 3G/4G technologies? Please provide reasons for your response.

Question 3.3.: If the 900 MHz and/or 1800 MHz band is liberalised, do you see any risk that distortions of competition will arise? If yes, please provide precise indications of the form in which such distortions would arise.

Question 3.4.: Do you believe that the time remaining between refarming and the expiration of current GSM licences will be sufficient to justify investments in 3G/4G technologies in those bands? Please provide reasons for your response.

Question 3.5.: In the long term, the frequency bands in question will be used in a technology-neutral manner with various technologies, especially near national borders. What effects do you believe this will have?

Question 3.6.: Can you identify any other problems in connection with refarming? If yes, please explain.

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## **3.2 Regulatory objectives and refarming**

In the context of refarming, the regulatory authority regards the following objectives as essential:

- Ensuring the efficient use of frequencies: In the regulatory authority's view, the efficient use of frequencies involves a number of requirements. First, it is important to open up spectrum to new and more efficient technologies as quickly as possible. Second, it is necessary to ensure that frequency assignments are adapted to the requirements of new technologies (channel spacing) as soon as possible. In addition, the transition process should be designed in a way that minimises the risk of any discontinuity in usage and the amount of temporarily unusable spectrum.
- Ensuring sustainable competition: No operator should be subjected to any sustained competitive disadvantages due to refarming. In particular, refarming should not lead to a structural weakening of competition.
- Legal certainty: Large investments in network infrastructure are made on the basis of frequency assignments. It is not least for this reason that the regulatory authority wishes to find a solution which ensures a maximum of legal certainty. This certainty can be ensured if the solution requires only a minimum of intervention in existing usage rights, and if any requirements imposed as a means of eliminating potential distortions of competition in connection with refarming are reasonable (i.e. not excessive). In addition, it is necessary to ensure that access to frequencies is provided solely on the basis of non-discriminatory, transparent and objective procedures.
- Protection of investments: In the context of frequency refarming, it is also important to find a solution with regard to the remaining validity period of GSM licences. In the eyes of the regulatory authority, such a solution is a key prerequisite for investments in new technologies.

## **3.3 Refarming in the 900 MHz band**

With regard to the timing of liberalisation in the 900 MHz band, there are two alternatives: On the one hand, liberalisation could be carried out in the course of reassigning the frequencies once the current licences expire (in the years 2016 to 2018). On the other hand, existing usage rights could be refarmed in the course of a procedure pursuant to Art. 57 Par. 4 TKG 2003. The regulatory authority is of the opinion that the potential of this frequency spectrum can only be tapped completely if the frequencies in question are refarmed very soon. The regulatory authority would regard liberalisation in the course of reassigning frequencies in the years 2016 to 2018 as less than optimal because valuable frequencies for mobile broadband services would remain idle unnecessarily.

With regard to the (remaining) licence period and reassignment, three solutions are currently under discussion:

- Reassignment after expiration of usage rights: The 900 MHz band would be reassigned once all existing usage rights have expired.
- Early auction of usage rights: The 900 MHz band would be auctioned off prior to the expiration of existing usage rights. The new holders of usage rights could then use the frequencies once the existing rights have expired.
- Extension of usage rights: The validity of some or all existing usage rights would be extended.



The regulatory authority regards an extension of usage rights as highly risky from a legal standpoint, inefficient in terms of spectrum use, and questionable in terms of competition. Moreover, such a step would not be in line with the (EU) legal framework for frequencies, which allows exclusive usage rights to be assigned only on the basis of a non-discriminatory, transparent and objective procedure. In addition, an extension would unnecessarily prolong the validity of frequency assignments which are not compatible with new technologies. From the standpoint of competition law, such a solution would also be questionable and could lead to the imposition of far-reaching requirements (e.g. broad redistributions of spectrum) and thus also to interventions in existing usage rights in the course of a procedure under Art. 57. On the other hand, a reassignment of usage rights after expiration would bring about problems due to a lack of continuity in usage and a lack of security in investments.

In the eyes of the regulatory authority, an early auction of these usage rights would best fulfil the objectives discussed above. Such an auction would quickly ensure planning certainty (and thus also investment protection) and minimise the risk of discontinuity in usage. The frequencies could be assigned on the basis of channel spacing compatible with the new technologies, which in turn would promote the efficient use of frequencies. The regulatory authority also believes that an early auction would provide far more legal certainty compared to the extension of usage rights.

Should the TKK identify distortions of competition in the course of a procedure pursuant to Art. 57 Par. 4 TKG 2003, then the authority can impose suitable requirements. For this purpose, the TKK would have the following instruments at its disposal:

- Access obligations (e.g., national roaming): Network operators who have been assigned spectrum below 1 GHz and whose frequencies are refarmed could be required to offer a corresponding wholesale service to those operators who have not been assigned sufficient frequencies below 1 GHz to use new technologies. This wholesale service could be subject to limitations with regard to time (i.e., until LTE/UMTS is also available in other bands below 1 GHz) and space (i.e., rural areas only).
- Redistribution of parts of the spectrum: The TKK would only approve refarming if the operators in question were willing to relinquish part of the 900 MHz band; that part could then be auctioned off again.

The core problem in assessing distortions of competition is the potential cost and demand advantages enjoyed by operators which hold sufficient frequencies in the 900 MHz band compared to those operators which do not have those advantages due to a lack of frequencies or other alternatives.

The TKK is of the opinion that an assessment of competition in this context must also account for the assignment of the digital dividend. This assignment will provide all operators with access to spectrum below 1 GHz. Possible requirements imposed by the regulator could then be based on the differing availability of broadband technologies in each band over time.

The regulatory authority has carried out an initial examination of the options listed above, and its preliminary position is that an early auction of the 900 MHz band and the refarming of frequencies after assignment of the digital dividend would be the best option to ensure that the objectives discussed above are met.

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### Questions

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Question 3.7.: Do you agree with this analysis? If not, please provide precise reasons why you disagree.

Question 3.8.: Can you identify any other options? How would you assess those options in terms of the objectives discussed above?

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### 3.4 Refarming in the 1800 MHz band

With regard to frequencies in the 1800 MHz band, the regulatory authority's preliminary position is that the distortions of competition (if any) arising from refarming would be negligible. All of the mobile network operators have frequencies with comparable propagation characteristics at their disposal. In light of the availability of technologies, rapid refarming would not create a technological advantage for any one operator; new technologies are not expected to be available sooner in this frequency band than in other bands.

Given the long remaining validity period of some assignments in this frequency band, an early auction would not be possible at the present time. The regulatory authority will therefore reassess the situation in due course.

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### Questions

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Question 3.9.: Do you agree with this assessment? Please provide reasons for your response.

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## 4 Upcoming frequency assignments

### 4.1 Competences

The regulations regarding competences in the field of frequency administration are based on Art. 54 Par. 3 TKG 2003, which stipulates that the regulatory authority (TKK) is responsible for assigning those frequencies which are subject to a limitation pursuant to Art. 52 Par. 3 TKG 2003 in the Frequency Utilisation Plan (limit on the number of assignments).

The Austrian Federal Minister of Transport, Innovation and Technology has imposed a limit on the number of assignments possible for these frequencies. As a result, the TKK is responsible for the assignment of these frequencies.

### 4.2 450 MHz band

This frequency band was assigned in the year 2004. The licences were later relinquished, and a further assignment procedure was discontinued due to a lack of interest in 2008. The spectrum is still available.

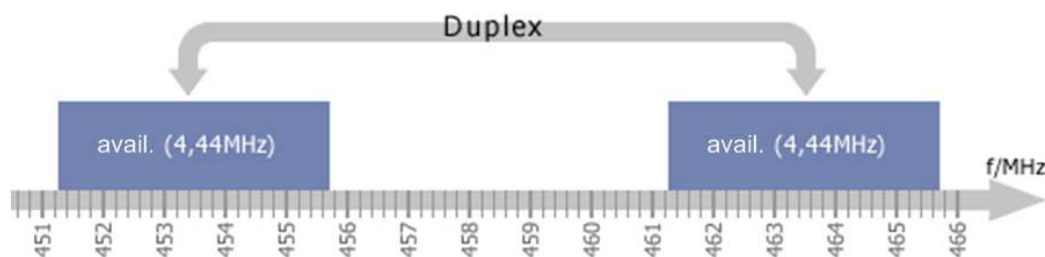


Figure 3: 450 MHz frequency range

In order to assess the general conditions for a potential assignment of these frequencies, the regulatory authority would request responses to the following questions:

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**Questions**

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Question 4.1.: For what purpose(s) could this frequency band be used? What general conditions would be important for the use of this frequency band?

Question 4.1.: Do you intend to acquire frequencies in this band? If no, why not? If yes, when would you plan to start using the frequencies?

Question 4.2.: In your view, which services/applications would be especially well supported by this frequency band? What technologies will be deployed / would you deploy?

Question 4.3.: Please give an estimate of your frequency requirements / a network operator's frequency requirements in this band. How many interested parties would you expect?

### 4.3 Assignment of the 800 MHz band

The amendment to the 2005 Frequency Utilisation Ordinance stipulates that the 791-821 / 832-862 MHz frequency band is to be used for mobile communications. In the past, this frequency band was used for television broadcasting, and it was primarily used for simulcast operations during the transition to digital television in Austria. In some neighbouring countries, this band has already been assigned for mobile communications (or such assignments are planned). In other cases, however, broadcasting transmitters are still in operation in this frequency band.

According to the Frequency Utilisation Plan, these frequencies can be used for mobile communications. The regulatory authority plans to auction off the frequencies in late 2011 / early 2012. The figure below shows the division of this band into 5 MHz frequency blocks as prescribed in the relevant decision of the European Commission. The downlink channels are designated D1 to D6, while the corresponding uplinks are labelled U1 to U6. A guard band of 11 MHz is placed between the uplinks and downlinks and between the lowest downlink channel (D1) and the broadcasting channel 60. The guard bands are labelled with a "G".

791		792		793		794		795		796		797		798		799		800		801		802		803		804		805		806		807		808		809		810		811		812		813		814		815		816		817		818		819		820		821		822		823		824		825		826		827		828		829		830		831		832		833		834		835		836		837		838		839		840		841		842		843		844		845		846		847		848		849		850		851		852		853		854		855		856		857		858		859		860		861		862	
K61		K62		K63		K64		K65		K66		K67		K68		K69																																																																																																																															
G	D1	D2	D3	D4	D5	D6	G		U1	U2	U3	U4	U5	U6																																																																																																																																	

**Figure 4: Frequency blocks in the 800 MHz band**

In order to prepare this assignment procedure, the regulatory authority wishes to gather information on the following questions.

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**Questions**

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Question 4.4.: Do you intend to acquire frequencies in this band? If no, why not? If yes, when would you plan to start using the frequencies?

Question 4.5.: In your view, which services/applications would be especially well supported by this frequency band? What technologies will be deployed / would you deploy?

Question 4.6.: Please give an estimate of your frequency requirements / a network operator's frequency requirements in this band. How many interested parties would you expect?

Question 4.7.: In your view, what is the smallest possible bandwidth an operator should be able to acquire in this frequency band?

Question 4.8.: In your view, what subdivision of the frequency band would be most reasonable? How many frequency packages (in what size) should be put up for assignment?

- Question 4.9.: Would it be important to obtain adjacent frequency blocks?
- Question 4.10.: Please describe the rollout scenario you expect or plan to implement. In what regions will these frequencies primarily be used?
- Question 4.11.: In your view, how homogenous/heterogeneous is this spectrum? What usage limitations can you identify? Which parts of the band would be affected by those limitations?
- Question 4.12.: When do you believe the frequencies should be auctioned off? Would you prefer another time, for example if it made it possible to define specific conditions of use or if it enabled simultaneous assignment with 900 MHz frequencies?

**4.4 Assignment of 900 MHz frequencies**

This frequency band is currently used for GSM services by A1Telekom Austria, T-Mobile and Orange. As discussed in Section 3, an early auction of these frequencies would be a way to ensure the protection of investments quickly. An early auction would mean that the frequencies would be auctioned off prior to the expiration of the current usage rights, but they could only be used once those rights have actually expired.

The frequencies would then be assigned on the basis of channel spacing which is compatible with new technologies (5 MHz blocks) and in a technology-neutral manner. The figure below shows the planned subdivision of this spectrum into frequency blocks.



**Figure 5: Frequency blocks in the 900 MHz band**

In the case of an early auction of the 900 MHz band, the regulatory authority would consider it useful to assign the frequencies simultaneously with those of the digital dividend, as these frequencies represent substitutes for one another (i.e., they are interchangeable to a certain extent). From an economic perspective, there are many reasons why such substitutes should be assigned in a simultaneous auction: The operators could switch between bands depending on the prices in the auction and thus bid on frequency assignments which are optimal for their respective needs. In addition, operators would be able to focus on a "core band" without additional risk. The regulatory authority is of the opinion that a simultaneous auction would enable a more efficient assignment of the spectrum than would a sequential auction. Moreover, a sequential auction of these two frequency bands would involve more risks for the operators, and there would also be a danger of unjustifiably large price differences between frequency blocks in the two bands.

The legislative bases in EU law for the use of these frequencies are the amendment to the GSM Directive (87/372/EEC) and the Commission decision on the 900/1800 MHz frequency bands (2009/766/EC).

**Questions**

- Question 4.13.: Would you acquire frequencies in this band? If no, why not?
- Question 4.14.: In your view, which services/applications would be especially well supported by this frequency band? What technologies will be deployed / would you deploy?
- Question 4.15.: Please give an estimate of your frequency requirements / a network operator's frequency requirements in this band. How many interested parties would you expect?
- Question 4.16.: In your view, what is the smallest possible bandwidth an operator should be able to acquire in this frequency band?

Question 4.17.: In your view, what subdivision of the frequency band would be most reasonable? How many frequency packages (in what size) should be put up for assignment? Would it be important to obtain adjacent frequency blocks?

Question 4.18.: Please describe the rollout scenario you expect or plan to implement. In what regions will these frequencies primarily be used?

Question 4.19.: In your view, how homogenous/heterogeneous is this spectrum? What usage limitations can you identify? Which parts of the band would be affected by those limitations?

Question 4.20.: In your opinion, when should the auction take place if the frequencies are auctioned off early? Should the frequencies be auctioned off together with the digital dividend in a simultaneous auction? If not, please provide precise reasons.

Question 4.21.: Would you consider selling existing spectrum to other operators in the course of redistribution in order to ensure a more efficient redistribution process more quickly? What minimum time would you require for the transition?

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## **4.5 3600 – 3800 MHz band**

Parts of the 3400 – 3600 MHz frequency band have been assigned in the course of multiple auctions. In 2004, the first frequencies were assigned in the 3410 – 3494 MHz (lower band) / 3510 – 3594 MHz (upper band) range. Subsequently, two of the winning bidders relinquished their usage rights voluntarily. In 2008 and 2009, these frequencies were reassigned in accordance with Commission Decision 2008/411/EC. The 3600 – 3800 MHz has not been assigned yet.

In order to assess the general conditions for potential future assignments of these frequencies, the regulatory authority would request responses to the following questions:

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### **Questions**

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Question 4.22.: Do you intend to acquire frequencies in the 3600 – 3800 MHz band? If no, why not? If yes, when would you plan to start using the frequencies?

Question 4.23.: In your view, which services/applications would be especially well supported by the 3600 – 3800 MHz band? What general conditions would be important for the use of this frequency band? What technologies will be deployed / would you deploy? Are there any differences in usage possibilities compared to the 3400 – 3600 MHz frequency band? If yes, how do the bands differ?

Question 4.24.: Please give an estimate of your frequency requirements / a network operator's frequency requirements in the 3600 – 3800 MHz band. What minimum block size would be appropriate in your opinion?

Question 4.25.: Would you prefer to use the 3600 – 3800 MHz frequency band for TDD or FDD?

Question 4.26.: How much interest in these frequencies would you expect to see?

Question 4.27.: How should the usage areas be defined? In small areas, by federal province, or throughout Austria? Or would you prefer a different usage area (e.g., by base station)? How should different usage areas be delimited?

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## 5 Publication of consultation results

Please e-mail your comments to the following address by **March 25, 2011**:

[tkfreq@rtr.at](mailto:tkfreq@rtr.at)

Please note that the deadline has been changed.

RTR plans to publish a summary of all comments received (without naming specific persons or organisations). RTR will also publish a list of persons and organisations that submitted comments in the course of the consultation.

In addition, your individual comments will be published (if desired).

To this end, please indicate whether you are willing to allow the full publication of your individual comments:

- Yes
- No