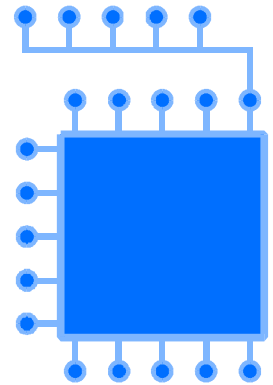


Telekom-Control Commission

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NON BINDING TRANSLATION

Vienna, 10 July 2000

**Tender Documentation in the Procedure Concerning
Frequency Allocations for
Third Generation Mobile Communications Systems
(UMTS/IMT-2000)**

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1 Introduction

The Telekom-Control Commission is carrying out a procedure for the allocation of frequencies for the terrestrial component of UMTS/IMT-2000. 12 frequency packages of 2x5 MHz¹ each of paired frequency spectrum (1920 – 1980 MHz / 2110 – 2170 MHz) as well as 5 frequency packages of 5 MHz¹ each of unpaired frequency spectrum (1900 – 1920 MHz and 2020 – 2025 MHz) will be allocated.

1.1 European legislation

UMTS (Universal Mobile Telecommunications System) is the European contribution to the global third generation mobile communications systems IMT-2000.

According to art. 3 of the Decision 128/1999/EC of the European Parliament and of the Council of 14 December 1988 on the coordinated introduction of a third generation mobile and wireless communications system (UMTS) in the Community, the member states are obliged to take all necessary measures to enable, pursuant to art. 1 of the Directive 97/13/EEC, the gradual coordinated introduction of the UMTS services in their territories by 1 January 2002.

1.2 National legislation

The present tender is held on the basis of the *Telekommunikationsgesetz* (Telecommunications Act, TKG) BGBl. I No. 100/1997 as amended (BGBl. I No. 26/2000). It is also governed by the rules of procedure valid in Austria, in particular the *Allgemeine Verwaltungsverfahrensgesetz* 1991 (General Act on Administrative Procedures, AVG), BGBl. No. 51, as amended (BGBl. I No. 29/2000).

The amendment to the TKG (BGBl. I No. 26/2000), which took legal effect on 1 June 2000, provides for the separation of licence award procedures and frequency allocation procedures. Pursuant to art. 49a subsec. 2 TKG, the Regulatory Authority invites bids for the allocation of frequencies instead of licences (art. 22 subsec. 2 old TKG), as had been common practice before the amendment took legal effect.

The frequency allocation procedure is now laid down in art. 49a TKG; the provisions on the licence award procedure are still contained in art. 15 TKG. For practical reasons, it is recommended that the application for frequency allocation and the application for licence award be submitted together.

1.2.1 Frequency allocation procedure

Pursuant to art. 49a subsec. 1 TKG, the Regulatory Authority shall allocate the frequencies allocated to it to the applicant who complies with the general prerequisites, according to art. 15 subsec. 2 subpar. 1 and 2 TKG, and guarantees the most efficient usage of the frequencies, which is determined by the frequency usage fee offered. The frequency allocation procedure consists of two stages:

¹ Because of required frequency guard bands the bandwidths of individual frequency packages may be smaller than 5 MHz (see item 4.5).

1. After receipt of the applications the Regulatory Authority will review the compliance with the prerequisites pursuant to art. 15 subsec. 2 Z 1 and 2 TKG (see chapter 2). The applicants not meeting the requirements will be excluded from the frequency allocation procedure pursuant to art. 49a subsec. 6 TKG. The rules for the determination of the highest bid in the course of the auction will be defined by the Telekom-Control Commission pursuant to art. 49a subsec. 7 TKG and served to the applicants 2 weeks prior to the start of the auction at the latest. The Telekom-Control Commission plans to publish the draft of the auction rules in August 2000 on the web site of Telekom-Control GmbH (www.tkc.at) and to serve the rules of procedure to the applicants as soon as possible after the end of the period for submission of applications.
2. The second stage is performed in the form of an auction. The auction consists of two stages (see chapter 4.4).

1.2.2 Licence award procedure

Since the provision of the mobile voice telephony service and other public mobile communications services by means of self-operated mobile communications networks, pursuant to art. 14 subsec. 1 TKG, is subject to licensing, the applicants shall also submit, apart from the application for frequency allocation, an application for licence award for the provision of third generation mobile communications services. The same applies to applicants who already hold a licence for the provision of second generation public mobile communications services.

The licence will be awarded after determination of the applicants who will be allocated the frequencies (art. 15 subsec. 2 subpar. 3 TKG).

1.2.3 Draft of the Licence and Frequency Allocation Document

Further details on the general conditions of the licence award and the frequency allocation are contained in the draft of the Licence and Frequency Allocation Document (Annex A). This draft is the basis for the Licence and Frequency Allocation Document which will form the integral part of the actual Licence and Frequency Allocation Notice.

1.3 Time schedule of the award procedure

The following table shows the key dates of the award procedure. The exact date of the auction will be notified to the applicants as soon as the Telekom-Control Commission has taken a decision in this respect.

Activity	Date	Reference
Publication of tender notice	10 July 2000	
Response to questions by the Telekom-Control Commission		Chapter 5.4
Questions to be received by	28 July 2000/10 am (local time)	
Response to questions by	21 August 2000	
End of the period for submission of applications	13 September 2000/2 pm (local time)	
If required, auction for the elimination of affiliated companies	October 2000	Chapter 4.3
Auction process	November/December 2000	Chapter 4.4
Date of frequency allocation	Within 14 days of the end of the auction	Chapter 4.6

TABLE 1: TIME SCHEDULE OF THE AWARD PROCEDURE

Figure 1 gives a survey of the steps of the award procedure.

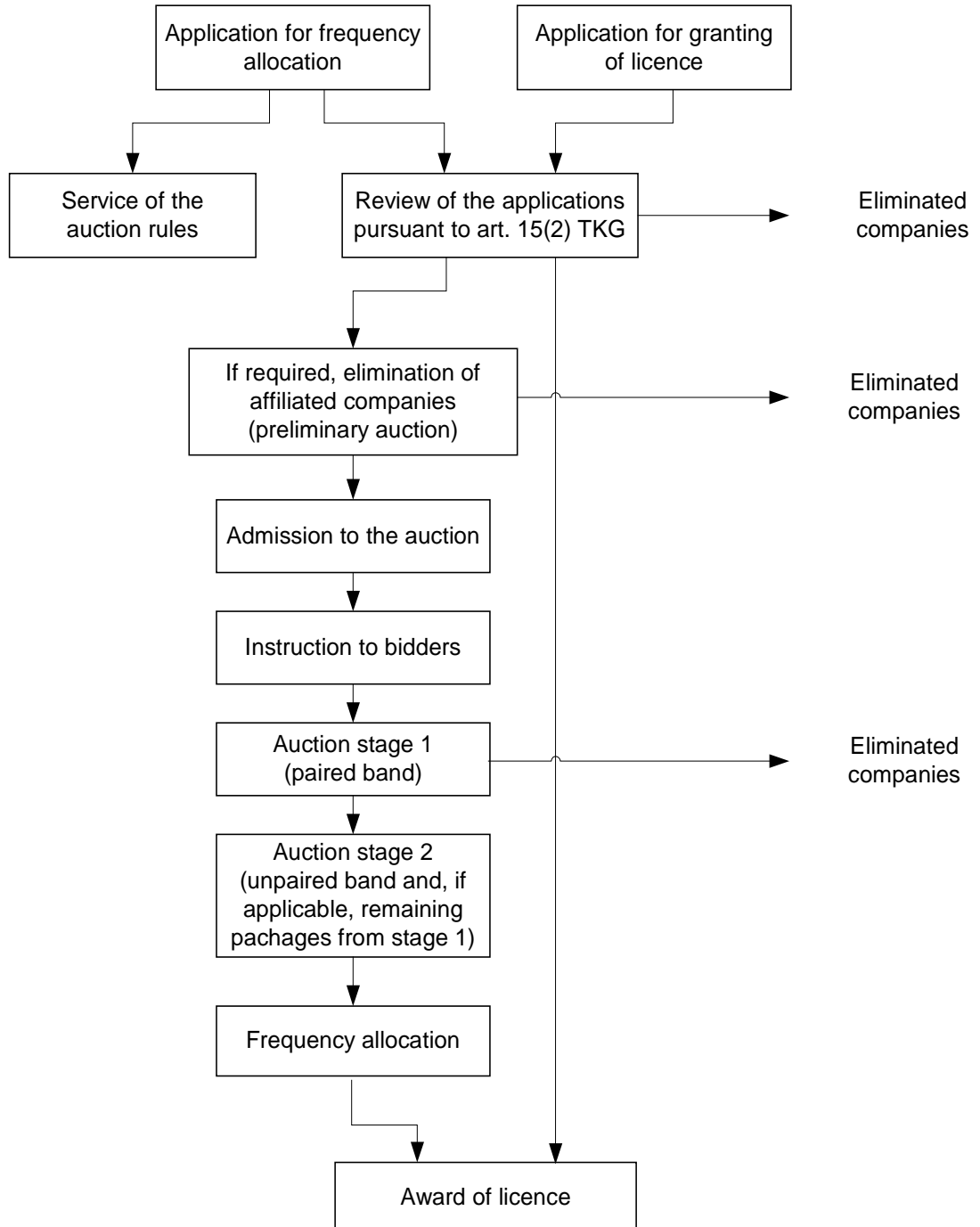


FIGURE 1: STRUCTURE OF THE PROCEDURE

2 Tender documents

Pursuant to art. 49a subsec. 1 TKG, frequencies may be allocated to the applicants complying with the prerequisites according to art. 15 subsec. 2 Z 1 and 2 TKG. In the same way, compliance with the prerequisites of art. 15 subsec. 2 TKG shall be reviewed in the course of the licence award procedure for public mobile communications services. Both the application for frequency allocation and the application for the licence award shall contain the documentation and/or information specified in the following chapters (in case of a combined application only one set).

2.1 Organisational structure

To review compliance with the prerequisites pursuant to art. 15 subsec. 2 TKG it is necessary to get an idea of the applicant's organisation. Among other things, detailed information about the legal and financial situation as well as the ownership structure (up to the ultimate owner) is required. Furthermore, reference is made to the provisions in chapter 4.3.1.

The tender documents shall contain the following information (if applicable):

2.1.1 Information on the applicant

- (a) Name (company), place of business (address), date and place of establishment, along with an up-to-date statement from the companies register;
- (b) Type and number of capital shares, nominal value of the capital shares and voting and dividend rights associated with any type of shares;
- (c) Subscribed capital per type of capital shares as well as detailed information on partners at the time the application is submitted as well as all predictable changes in this respect;
- (d) Number, value and rights (including conversion rights) with regard to all options, participating certificates, preferred stock or bond capital as well as other securities issued by the applicant;
- (e) Articles of association as amended;
- (f) Description of business activities;
- (g) Audited annual accounts of the last three years;
- (h) Summary of financial key data (turnover and profit/loss data) for the past three years;
- (i) Name of the authorised recipient nominated by the applicant (within the meaning of art. 8a ZustG)(*Zustellungsgesetz* - Service Act), as well as an authorised representative within the meaning of art. 10 AVG (the persons may be identical), stating phone and fax numbers as well as mail and e-mail addresses (see chapter 5.3);

- (j) any other matters whose communication or non-disclosure might considerably affect the decision of the Telekom-Control Commission in the review to be carried out prior to the allocation of frequencies within the meaning of art. 15 subsec. 2 TKG.

2.1.2 Information on the applicant's partners

The information (if applicable) specified under lit. (a) to (f) shall be submitted for every partner, shareholder, holder of options, participating certificates, preferred stock, bond capital or other securities issued by the applicant. If the applicant has a great number of partners (shareholders), the following information on the principal partners shall be provided. With regard to minority shareholders holding smaller capital shares (up to 5%), general information will be sufficient, unless the interest is considered to be significant when art. 91 f BörseG (Stock Exchange Act) are applied accordingly. In this connection the Telekom-Control Commission will demand further information if this is considered necessary.

- (a) Name (company, place of business (address), date and place of establishment);
- (b) Description of the main business activities;
- (c) Relationship to the applicant (e.g. number and type of capital shares or securities held); syndicate or consortium agreements;
- (d) Parent company;
- (e) Audited annual accounts of the last three years;
- (f) Summary of financial key data (turnover and profit/loss data) for the past three years;

If persons hold capital shares or other securities in the applicant as trustee or in a similar function on behalf of a third party, this shall be stated and the above mentioned details with regard to the economic owner shall be provided.

If the partner (shareholder) is part of a group of companies, also the consolidated financial key data of this group shall be provided.

2.1.3 Information on consortia

In the case of consortia or joint ventures the following additional information is required:

- (a) The role of each consortium member and details on the resources, experience or expert knowledge each member contributes.

(b) The type of relationship between the members as well as details on:

- Syndicate agreements, consortium agreements and/or
- Joint venture agreements;
- Declarations of intent;
- Partner agreements.

Furthermore, the same information as specified in chapter 2.1.2 shall be added to the application with regard to the consortium members.

2.2 Technical competence, service quality and coverage obligation

Pursuant to art. 15 subsec. 2 TKG, there must be no reason to assume that the applicant will not provide the service applied for according to the licence to be awarded, in particular with regard to quality and coverage obligation.

In connection with the coverage obligation it will be reviewed in particular to what extent the applicant might be able to comply with the requirements laid down in the draft of the Licence and Frequency Allocation Document (Annex A) with regard to coverage of the population and time schedule for network roll-out.

2.2.1 Details on existing mobile networks

If the applicant already operates a second generation mobile network in Austria and plans to use this network as base platform for the UMTS/IMT-2000 network or plans to use infrastructure elements of the existing network for the UMTS/IMT-2000 network, respectively, or intends to offer services which make use of the infrastructures of both the existing second generation mobile and the UMTS/IMT-2000 networks (e.g. services with multi-mode terminals for GSM/UMTS/IMT-2000), the following information on the existing mobile network will be required:

(a) Details on the infrastructure:

- Overview of the network architecture (including graphics)
- Locations of all essential infrastructure elements of the radio network (BTS, BSC, ...) and the core network (MSC, SGSN, GGSN, ...) in electronic format (GIS) and map printouts; significant technical characteristics of the individual infrastructure elements (frequency range, capacity, ...)
- Links between infrastructure elements (directional radio, leased lines, own lines) in electronic format (GIS) and map printouts; capacities of the individual connections
- Interconnections with other networks (interconnection points, capacity)

(b) Current coverage of the population

- (c) Current number of subscribers (split into customers with contracts and customers with pre-paid cards)
- (d) Short description of the currently offered services

2.2.2 Standards for radio interface

In the application, the applicant shall specify the standards, according to chapter 4.5.4, he intends to use.

2.2.3 Integration of existing mobile networks

If several networks (GSM and UMTS/IMT-2000) are to be jointly used, as described in chapter 2.2.1, the respective planning designs for integration of the networks shall be provided.

If the applicant plans to obtain access to the mobile network of another operator by means of national roaming, these planning designs shall be provided as well.

2.2.4 Roll-out of the UMTS/IMT-2000 network

(a) Details on the planned infrastructure:

- Overview of the network architecture during roll-out
- Locations of essential infrastructure elements of the radio network (node B, RNC,...) and the core network in electronic format (GIS) and map printout; significant technical characteristics of the individual infrastructure elements (frequency range, capacity, ...)
- Links between infrastructure elements (directional radio, leased lines, own lines) in electronic format (GIS) and map printout; capacities of the individual connections
- Interconnections with other networks (interconnection points, capacity)

(b) Planned coverage of the population during roll-out (at least complying with the coverage of the population as required in Annex A)

(c) Short description of the planned services and the quality of the services

2.2.5 Guarantee amounts

With regard to the guarantee amounts concerning network roll-out and coverage obligation, the applicants are referred to art. 9 of the draft of the Licence and Frequency Allocation Document (Annex A).

2.3 Financial strength

Applicants have to prove that they have the financial resources required for the roll-out and operation of a third generation mobile communications network.

In this respect particular attention has to be paid to the fact that the financial strength and stability shall be such as to sustain a rise in the frequency usage fee offered in the course of the auction.

The application documentation shall comprise the following documents:

2.3.1 Business plan

The applicants shall prepare a business plan for the services applied for, according to the frequencies to be allocated, on the basis of their strategy, their assessment of the market as well as their rating of the operational business of the next ten (10) years, starting as of licence award. For the first five (5) years this business plan shall be detailed as specified in Annex B. For the next five (5) years the required information may be presented in aggregate form. The applicants shall take care that the frequency usage fee offered in the application as well as any frequency usage fee offered in the course of the auction process is in accordance with the financial situation described in the application and the anticipated business practices.

If the applicant considers it useful, extensions beyond the scope of Annex B will be possible any time and also welcome.

The application for frequency allocation shall be accompanied by a bank guarantee. The details of the bank guarantee are laid down in chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**

2.3.2 Financing

The applicants furthermore have to prove their putting up of capital, which is in line with the business plan provided in the application. For this purpose the following information is required:

Financing from own resources: Time schedule and putting up money for equity capital, including planned issues of partnership capital

Borrowing: Credit lines, securities made available, terms of the loans and the creditors of all loans for the first three years

2.4 Declaration of Completeness

In addition, a Declaration of Completeness (Annex C) shall be enclosed with the application, which attests that, in the application, all information required in this tender documentation as well as all information relevant to the assessment of the facts by the Telekom-Control Commission is accurate and complete.

3 Regulatory framework

The regulatory framework for mobile operators in Austria is explained in this chapter in greater detail.

3.1 Infrastructure

Pursuant to art. 7 subsec. 2 TKG the owners of or persons otherwise entitled to use an antenna mast or a power line mast have to permit its shared use by holders of a licence for the provision of a public telecommunications service if this is technically feasible, in particular with regard to frequencies. The owner of or person otherwise entitled to use a mast shall perform, or have performed, the changes required for that reason, if the changes are minor and the joint user bears the costs. The right to site sharing also comprises the joint use of the infrastructure required for operation. Pursuant to art. 7 subsec. 3 TKG, an appropriate amount of money shall be paid for this joint use, which shall take into account the costs for erection, including the costs for acquisition, as well as the current operating expenses of the systems jointly used. If no agreement can be reached between the parties, they may apply to the Regulatory Authority, pursuant to art. 7 subsec. 5, which will then decide on the conditions of site sharing.

Furthermore, it is possible to conclude agreements on the shared use of antennas and cabling. However, contrary to the shared use of antenna masts pursuant to art. 7 subsec. 2 TKG, such an agreement cannot be legally enforced. In areas subject to the coverage obligation the remaining infrastructure has to be operated by the respective operator himself. In this case no shared use is permitted.

3.2 National Roaming

3.2.1 National Roaming 3G-2G

Art. 49a subsec. 8 TKG empowers the Regulatory Authority to add collateral clauses to the allocation of frequencies. Pursuant to art. 49a subsec. 9 TKG, also collateral clauses are permitted which grant UMTS/IMT-2000 operators not operating a GSM network a title to national roaming 2G-3G. In the case that frequencies for the provision of a third generation public mobile communications service are allocated to a bidder who already holds a licence for the provision of a second generation public mobile communications service it may be provided that this bidder will be obliged to make available network capacities (national roaming) to other holders of licences for the provision of a third generation public mobile communications service who, on their part, do not have a licence for the provision of a second generation public mobile communications service. Subject to technical feasibility, such network capacities shall be provided for a specified period of time not exceeding four years. For national roaming an appropriate fee shall be agreed. Disputes in this respect will be settled by the Telekom-Control Commission, the procedure pursuant to art. 41 TKG being applied correspondingly. Otherwise, an agreement under civil law on national roaming 3G-2G may be concluded any time, in which, however, the required coverage obligation by means of self-operated network has to be complied with.

The Telekom-Control Commission will impose an obligation on operators holding a licence for the provision of both second and third generation mobile services to provide national roaming according to the provisions in the Licence and Frequency Allocation Document (Annex A). This obligation will take effect only after the holder of the licence for the provision of a third generation public mobile communications service has taken up operation of his network and has achieved 20 % coverage of the population.

The services to be offered in the scope of national roaming will comprise GSM bearer services (including GPRS), GSM teleservices and GSM supplementary services if the roaming partner provides them to his customers himself. The services shall be offered to the roaming partner in the same quality as provided in his own network.

After expiry of the period provided in the Act, national roaming may be continued on the basis of agreements under civil law. The coverage obligations imposed on the operators remain unaffected by that.

3.2.2 National Roaming 3G-3G

In areas not covered, under the coverage obligation, by means of a self-operated network it is possible to conclude agreements under civil law with regard to national roaming 3G-3G (roaming between national UMTS/IMT-2000 networks). However, there exists no legal obligation for that.

3.3 Directional radio frequencies

This award procedure does not provide for the allocation of directional radio frequencies to UMTS/IMT-2000 operators. Such frequencies have to be applied for at the respective competent authority.

3.4 Network access

Possible applications for network access to 3G networks will be considered on the basis of the respective legal provisions. In this connection reference is made to the developments of the guidelines under European law (e.g. Communications Report 1999 of the European Commission (COM(1999)539)).

4 Frequency allocation procedure

4.1 Structure of the procedure

As already mentioned in chapter 1.2, the frequency allocation procedure consists of two stages. In the first stage compliance with the criteria specified in art. 15 subsec. 2 subpar. 1 and 2 is reviewed pursuant to art. 49a subsec. 1 TKG. Applicants not complying with the prerequisites of art. 15 subsec. 2 subpar. 1 and 2 TKG will be excluded from the process pursuant to art. 49a subsec. 6 TKG. Furthermore, it is checked if applicants are under common control of a group of companies. In such case a preliminary auction for participation in the frequency auction will be held for each group of affiliated companies. In the second stage, the bidders to be allocated the frequencies will be determined by means of an auction which also consists of two stages.

1. In the first stage 12 frequency packages of 2×5 MHz² each of paired spectrum will be put up for auction. The maximum number of frequency packages a bidder may obtain in this stage depends on the application although he may not bid for more than 3 frequency packages in the first stage (see chapter 4.2). In order to remain in the auction at least 2 frequency packages have to be bought in this stage.
2. The bidders who have applied for frequency packages for the second stage of the auction process and have obtained at least two of them in the first stage are entitled to participate in the second stage. In the second stage 5 frequency packages of 5 MHz each of unpaired spectrum will be put up for auction, as well as those packages of paired spectrum which have not been auctioned off in the first stage. The maximum number of frequency packages to be obtained in this stage again depends on the application where a maximum of 2 frequency packages of unpaired spectrum and 1 frequency package of paired spectrum may be applied for (see chapter 4.2).

The number of frequency packages to be actually allocated will be determined by the auction.

4.2 Subject matter of the application

A total of 17 frequency packages (see chapter 4.5.3), i.e. 12 frequency packages of 2×5 MHz² each of paired spectrum (1920 – 1980 MHz / 2110 – 2170 MHz) and 5 frequency packages of 5 MHz² each of unpaired spectrum (1900 – 1920 MHz and 2020 – 2025 MHz), will be put up for auction.

The frequency packages in the paired band will be sold in the auction in the form of abstract packages. With abstract frequency packages, the exact position in the frequency spectrum is not defined prior to the auction. Allocation of the abstract frequency packages bought in the auction to concrete frequency channels will be performed subsequent to the auction process according to the rules laid down in chapter 4.6. The four frequency packages in the unpaired band 1900 - 1920 MHz are also sold in the auction as abstract pack-

² Because of required frequency guard bands the bandwidths of individual frequency packages may be smaller than 5 MHz (see item 4.5).

ages. The frequency package in the unpaired range 2020 – 2025 MHz is referred to as concrete package in the auction process.

Frequency packages	Width	Position in the spectrum
12 packages of paired spectrum	2x5MHz	abstract
1 package of unpaired spectrum	5MHz	2020 – 2025 MHz
4 packages of unpaired spectrum	5MHz	abstract

TABLE 2: SUBJECT MATTERS OF THE APPLICATION

In the application, the applicant shall state the maximum number of frequency packages he wants to buy in the auction in each stage. For each frequency package applied for he acquires a bidding right for the auction (see chapter 4.4.3). The frequency packages applied for shall be secured by a bank guarantee (see chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**). The minimum and maximum numbers of frequency packages that may be applied for can be seen in the following table:

	Minimum	Maximum
1 st stage	2 frequency packages	3 frequency packages
2 nd stage ³		
paired spectrum	no frequency package	1 frequency package
unpaired spectrum	no frequency package	2 frequency packages

TABLE 3: FREQUENCY PACKAGES TO BE APPLIED FOR PER STAGE

In the application form (Annex D) the applicant shall state the number of frequency packages applied for and the frequency usage fee offered.

³ In the second stage 5 frequency packages of approx. 5 MHz each of unpaired spectrum will be put up for auction, as well as the frequency packages in the paired band which have not been sold in the first stage.

4.3 Conditions of entry

The applicant shall have legal personality and full legal capacity within the meaning of art. 9 AVG. The applicant shall have his principal residence (or place of business in case of legal entities) in a contracting state of the European Economic Area. Every company or every natural person - also within consortia - will be admitted to the frequency auction only once.

4.3.1 Affiliated companies

Of several applicants under common control of a group of companies (within the meaning of art. 244 HGB (Commercial Code) or art. 15 AktG (Company Law) and art. 115 GmbHG (Private Company Law)) or otherwise directly or indirectly affiliated as described in art. 41 KartG 1988 (Restrictive Trade Practices Act) in the course of this tender only one applicant will be admitted to the frequency auction. The same shall apply if applicants are affiliated in a manner that one applicant can exert substantial influence with regard to competition on the other applicant (e.g. by syndicate agreements). For the purpose of the present tender substantial influence with regard to competition is assumed to exist if there exist significant interests within the meaning of art. 91f BörseG (Stock Exchange Act), except for mere financial participations.

In individual cases it shall be also considered if the applicants are perhaps in a process of unbundling. In such cases, above all, decisions already taken by the authorities responsible for competition (both at national and EU levels) shall be taken into account (e.g. the obligations contained in the licences with regard to carrying out the separation etc.).

If two or several applicants affiliated as described above apply for frequencies, a selection procedure will be carried out among these applicants in the course of which the applicant will be determined who will participate in the frequency allocation procedure.

This selection procedure will be carried out separately for each group of affiliated applicants in the form of an auction. The minimum bid to participate in this auction is the minimum bid per frequency package in the paired range specified in the application. The successful applicants will be admitted to the frequency auction. The bid made by the respective applicants in the last round shall be, for these applicants, the minimum bid per frequency package in the paired range for the first round of the frequency auction.

4.3.2 Changes in ownership structure

Any change of the applicant as person or any other - also indirect - substantial change in the applicant's structure of interests is not permitted during the procedure. In any case, a substantial change will be considered a change in a substantial interest (exceeding the percentage thresholds in art. 91f BörseG) (Stock Exchange Act) or the initial acquisition of such substantial interest, applying art. 91f BörseG correspondingly, with the exception of mere financial participations.

The above paragraph shall not apply to changes in ownership structure ordered by the cartel authority or to changes whose execution is obligatory because of proceedings of the cartel authorities. In the application, the applicant shall inform the Telekom-Control Commission about all pending or anticipated proceedings concerning ownership structure and enclose in complete form any pertinent decisions with the application. Also after submis-

sion of the application the Telekom-Control Commission shall be notified without delay of any changes in ownership structure in compliance with such obligations.

4.3.3 Minimum bids in the application

To assess the applicants' reliability and seriousness the applicants shall submit a minimum bid for each frequency package applied for to participate in the auction (see art. 49a subsec. 4 TKG). Table 4 shows the amounts of the minimum bids for frequency packages in the paired and unpaired frequency ranges.

Frequency package	Minimum bid
Package of 2x5 MHz of paired spectrum	ATS 700.000,000.- (Euro 50.870,983.92)
Package of 1x5 MHz of unpaired spectrum	ATS 350.000,000.- (Euro 25.435,491.96)

TABLE 4: MINIMUM BIDS

If a higher frequency usage fee is offered in the application than specified in Table 4, in the paired range a frequency usage fee of the same amount shall be offered for each frequency package. The same shall apply to the unpaired range. The amount of the frequency usage fee shall be offered as an integer multiple of ATS 1 million.

4.3.4 Bank guarantees

The applicant shall secure the frequency usage fee for the frequency packages applied for by means of an abstract bank guarantee callable at first call by a bank of good financial standing. To prove the financial standing of this bank the rating of an internationally recognised rating agency shall be made known. The sole condition of validity contained in the bank guarantee shall be the allocation of frequencies to the applicant according to this tender. The guarantee shall state the Republic of Austria as beneficiary and shall be valid from 1 November 2000 at the latest until at least 31 March 2001.

Upon completion of the procedure the bank guarantees of the applicants who were not allocated the frequencies applied for will be returned to them. The bank guarantees of the applicants who are allocated frequencies in the course of this tender will be returned after full payment of the frequency usage fee.

The amount of the bank guarantee results from the minimum bids per frequency package stated in Table 4, multiplied by the number of frequency packages applied for.

For the first stage of the auction process a minimum of 2 and a maximum of 3 frequency packages may be applied for, which results in bank guarantees for the first stage in the following amounts:

Application variant	Bank guarantee
2 frequency packages in the paired range	ATS 1.400.000,000.-- (Euro 101.741,967.84)
3 frequency packages in the paired range	ATS 2.100.000,000.-- (Euro 152.612,951.75)

TABLE 5: BANK GUARANTEES IN THE FIRST STAGE OF THE AUCTION PROCESS

For the second stage of the auction process up to 2 frequency packages in the unpaired range and a maximum of 1 frequency package in the paired range may be applied for. This results in bank guarantees for the second stage in the following amounts:

Frequency packages	Number of frequency packages which may be applied for	Bank guarantee
Frequency packages in the unpaired range	1	ATS 350.000,000.--(Euro 25.435,491.96)
	2	ATS 700.000,000.— (Euro 50.870,983.92)
Frequency packages in the paired range	1	ATS 700.000,000.--(Euro 50.870,983.92)

TABLE 6: BANK GUARANTEES IN THE SECOND STAGE OF THE AUCTION PROCESS

The bank guarantees for both stages shall be enclosed with the application. If a higher bid than the minimum bid pursuant to chapter 4.3.3 is submitted, the bank guarantee need not cover the amount offered beyond the minimum bid.

4.3.5 Documents for application

Proper written applications shall contain the information specified in chapter 2. In addition, a Declaration of Completeness (Annex C) shall be enclosed with the application, which attests that, in the application, all information required in this tender documentation as well as all information relevant to the assessment of the facts by the Telekom-Control Commission is accurate and complete.

4.4 Auction process

4.4.1 Admission to the auction

The applicants who were neither excluded from the frequency allocation procedure pursuant to art. 49a subsec. 6 TKG nor eliminated by notice in the course of the preliminary auction concerning affiliated companies (see chapter 4.3.1) will be admitted to the auction.

4.4.2 Outlines of the auction process

The auction will follow an open ascending simultaneous multiple round format in two stages. The detailed rules of the auction process will be served to the parties, pursuant to art. 49a subsec. 7 last sentence TKG, 2 weeks prior to the start of the auction at the latest. The Telekom-Control Commission plans to publish the draft of the auction rules in August 2000 on the web site of Telekom-Control GmbH (www.tkc.at) and to serve the rules of procedure to the applicants as soon as possible after the end of the period for submission of applications.

In the first stage the 12 frequency packages in the paired frequency range are put up for auction. The maximum number of packages a bidder may buy in this stage is limited by the bidding rights he has acquired upon applying for the frequency packages (see chapter 4.4.3) (on condition that he has not been excluded from participating in the auction, see chapter 1.2.1). A bidder who buys only one or no package at all in this stage will be eliminated from the process and is not entitled to take part in the second stage. If such bidder holds the highest bid for one of the frequency packages in the last round of the auction process, this package will be put up for auction again in the second stage.

All bidders who acquire at least 2 frequency packages in the first stage are entitled to take part in the second stage. In the second stage 1 concrete frequency package in the unpaired range, 4 abstract frequency packages in the unpaired range and abstract frequency packages in the paired range whose number depends on the outcome of the first stage will be put up for auction. The maximum number of packages a bidder may buy in this stage is limited by the bidding rights he has acquired upon applying for the frequency packages (see chapter 4.4.3).

4.4.3 Eligibility (bidding rights)

For each frequency package applied for the applicants will receive a bidding right for the respective stage of the auction process (see chapter 4.2). The rules of the auction process have been designed such that in each round of the auction process a bidder may submit an active bid for a frequency package per bidding right. If a bidder does not make use of one of the bidding rights applied for in one round of the auction process, he will lose the bidding right not used. In order to remain in the auction, in the first stage at least two bidding rights have to be used in each round.

4.4.4 First bid for the auction process

Basically, a bid (first bid) shall be submitted in the amount of the minimum bid (pursuant to chapter 4.3.3, in particular Table 4) in the first round of the auction process.

The bidders who made a higher bid than the minimum bid in the application also have to submit a bid in the first round of the auction process at least in the same amount as the bid submitted in the application.

This shall also apply analogously to bidders participating in the selection procedure for the elimination of affiliated companies (see chapter 4.3.1). This selection procedure will be carried out for each group of affiliated companies in the form of an auction prior to the start of the frequency auction. The successful companies will be admitted to the frequency auction. The bid made by the respective companies in the last round shall, for these companies, be the bid per frequency package of paired spectrum for the first round of the frequency auction.

4.5 Frequency spectrum

In the course of the frequency allocation procedure for third generation mobile communications systems the frequencies for the terrestrial component of UMTS/IMT-2000, which the Federal Minister of Transport, Innovation and Technology allocated to the Regulatory Authority pursuant to art. 47 subsec. 3 TKG, will be allocated to applicants.

4.5.1 International legislative framework with regard to the frequency spectrum

The legislative framework laid down for Europe by CEPT/ERC forms the basis for the usage of frequencies in Austria. The following CEPT/ERC decisions and recommendations are relevant to the terrestrial component of UMTS/IMT-2000:

- ERC/DEC/(97)07
„ERC Decision on the frequency bands for the introduction of the Universal Mobile Telecommunications System (UMTS)“
- ERC/DEC/(99)25
„ERC Decision on the harmonised usage of spectrum for terrestrial Universal Mobile Telecommunications System (UMTS) operating within the bands 1900 – 1980 MHz, 2010 – 2025 MHz and 2110 – 2170 MHz“
- ERC/DEC/(00)01
„ERC Decision extending ERC/DEC/(97)07 on the frequency bands for the introduction of terrestrial Universal Mobile Telecommunications System (UMTS)“

The following CEPT/ERC recommendation is in preparation:

- „Draft ERC Recommendation T/R xx-yy: Cross-Border Coordination of [UMTS/IMT-2000] Systems“

The CEPT/ERC decisions can be accessed at www.ero.dk.

4.5.2 Available frequency spectrum

In Austria the frequency spectrum stated in Table 7 is available for allocation to applicants and UMTS/IMT-2000 usage.

	Frequency range	Bandwidth
Paired	1920 – 1980 MHz/ 2110 – 2170 MHz	2x60 MHz
Unpaired	1900 – 1920 MHz/ 2020 – 2025 MHz	25 MHz

TABLE 7: AVAILABLE FREQUENCY SPECTRUM

This frequency spectrum comprises the entire frequency range which, in the decisions ERC/DEC/(97)07, ERC/DEC/(99)25 and ERC/DEC/(00)01, has been provided for allocation of terrestrial UMTS/IMT-2000 spectrum to operators. According to ERC/DEC/(99)25, the frequency range 2010 – 2020 MHz is set aside for unlicensed operation („self provided applications“) and is not available for allocation to applicants.

4.5.3 Division of the frequency spectrum in frequency packages

The frequency spectrum is divided in frequency packages of 5 MHz⁴. The division in 5 MHz packages complies with the provisions in the decision ERC/DEC/(99)25 and ensures that all UMTS/IMT-2000 standards can be used.

For the paired frequency range (2x60 MHz) 12 frequency packages of 2x5 MHz each (5 MHz from the uplink and 5 MHz from the downlink ranges with a duplex spacing of 190 MHz each) are available. In the unpaired range (25 MHz) 5 packages of 5 MHz each are available.

The 12 frequency packages in the paired frequency range (1920 – 1980 MHz/ 2110 – 2170 MHz) are auctioned off as abstract packages. With abstract frequency packages, the exact position in the frequency spectrum is not defined prior to the auction. Allocation of the abstract frequency packages bought in the auction to concrete frequency channels will be performed subsequent to the auction process, according to the rules laid down in chapter 4.6.

The frequency package in the unpaired range 2020 – 2025 MHz is referred to as concrete package in the auction process. The four frequency packages in the unpaired range 1900 - 1920 MHz will be sold as abstract packages. The allocation of the abstract frequency packages bought in the auction to concrete frequency channels will be also performed subsequent to the auction process, according to the rules laid down in chapter 4.6.

⁴ Because of required frequency guard bands the bandwidths of individual frequency packages may be smaller than 5 MHz (see item 4.5).

4.5.4 Radio interface standards

The standards used for the radio interface shall be part of the IMT-2000 family concept and shall be listed in the recommendation ITU-R M.1457. The following radio interfaces are contained in the recommendation:

- IMT-2000 CDMA direct spread
- IMT-2000 CDMA multi-carrier
- IMT-2000 CDMA TDD
- IMT-2000 TDMA single-carrier
- IMT-2000 FDMA/TDMA

The applicant shall specify the standards he intends to use already in the application.

Switching to a different standard of the IMT-2000 family concept at a later date requires the consent of the Telekom-Control Commission. In any case, it shall be ensured that operators in the adjacent frequency spectrum are prevented from interference and deteriorations (see also art. 14 of the draft of the Licence and Frequency Allocation Document).

4.5.5 Frequency usage conditions

4.5.5.1 Frequency allocation

The ERC decision ERC/DEC/(99)25 forms the basis for frequency allocation and identification of frequency guard bands. This decision is based on the UMTS radio interface UTRA. However, it can be applied analogously to the other IMT-2000 standards as well. Table 8 contains the conditions to be observed.

Frequency range FDD	1920 – 1980 MHz/2110 – 2170 MHz
Transmit frequencies for mobile station FDD	1920 – 1980 MHz
Transmit frequencies for base stations FDD	2110 – 2170 MHz
Duplex spacing FDD	190 MHz
Frequency range TDD	1900 – 1920 MHz/2020 – 2025 MHz

TABLE 8: CONDITIONS FOR FREQUENCY ALLOCATION

In TDD (Time Division Duplex) mode the same frequency channel is used for transmitting and receiving. In FDD (Frequency Division Duplex) mode different frequency channels are used for transmitting and receiving, the spacing between these channels being referred to as duplex spacing.

If the UMTS radio interface UTRA (UMTS Terrestrial Radio Access) is employed, the parameters specified in ERC/DEC/(99)25 Annex 1 shall be complied with.

4.5.5.2 Frequency guard bands

Frequency guard bands are required to delimit applications in adjacent frequency bands. The frequency guard bands are defined according to ERC/DEC/(99)25 and can be seen in Table 9.

Frequency guard band	Width
1900.0 – 1900.1 MHz	0.1 MHz
1920.1 – 1920.3 MHz	0.2 MHz
1979.7 – 1980.0 MHz	0.3 MHz
2024.7 – 2025.0 MHz	0.3 MHz
2110.0 – 2110.3 MHz	0.3 MHz
2169.7 – 2170.0 MHz	0.3 MHz

TABLE 9: FREQUENCY GUARD BANDS

For the unpaired frequency band 2020 – 2025 MHz the lower band edge is defined at 2019.9 MHz.

The spectrum thus available can be seen in Table 10.

	Frequency range	Bandwidth
paired	1920.3 – 1979.7 MHz / 2110.3 – 2169.7 MHz	2x59.4 MHz
unpaired	1900.1 – 1920.1 MHz 2019.9 – 2024.7 MHz	20 MHz 4.8 MHz ⁵

TABLE 10: AVAILABLE SPECTRUM AFTER DEDUCTION OF THE FREQUENCY GUARD BANDS

⁵ According to ERC/DEC/(99)25 Annex 1, the carrier frequency shall be an integer multiple of 200 kHz, which means that the available bandwidth is asymmetrical.

4.5.5.3 Allocation of concrete frequency channels

The abstract frequency packages bought in the auction are allocated to concrete frequency channels subsequent to the auction process, according to the rules laid down in chapter 4.6. Because of the frequency guard bands specified in chapter 4.5.5.2 individual frequency packages may comprise only a frequency spectrum of 4.8 MHz instead of 5.0 MHz.

4.5.5.4 Spectrum masks

For the band edges of a frequency spectrum allocated to an operator for base stations the spectrum masks specified in Table 11 shall be complied with.

Frequency spacing Δf of the 3dB mark of the measuring filter from the frequency band edge	Maximum permitted power level	Measuring bandwidth
0 – 0.2 MHz	- 14 dBm	30 kHz
0.2 – 1 MHz	$(-14 - 15(\Delta f/\text{MHz} - 0.2))$ dBm	30 kHz
>1 – 10 MHz	- 13 dBm	1 MHz
> 10 MHz	- 30 dBm	1 MHz

TABLE 11: SPECTRUM MASKS

The spectrum mask defines the maximum electromagnetic emissions generated by the operator's radio system that fall into the spectrum adjacent to the operator's frequency spectrum. The maximum permitted power level is the maximum power, integrated across the respective measuring bandwidth, which a transmitter may supply to the antenna feeder of the measuring configuration.

4.5.5.5 Restrictions of usage in border areas of neighbouring states

According to the usage conditions specified in the frequency allocation by the Federal Minister of Transport, Innovation and Technology to the Telekom-Control Commission pursuant to art. 47 subsec. 3 TKG, in border areas frequencies for UMTS/IMT-2000 networks are available only to a limited extent because of the coordination activities with the neighbouring countries. In the neighbouring countries the provision of spectrum for the UMTS/IMT-2000 frequencies is handled in different ways. Details on the availability of the individual frequency ranges in border areas and the resulting actual usage options for the border areas will be clarified at a later date. In the border areas the individual frequency ranges will be subject to different coordination conditions. Restrictions in terms of frequencies and quantity will differ from area to area, depending on whether coordination will have to extend to two or three countries. Further restrictions are to be expected if e.g. directional radio in the neighbouring country requires considerable protection measures with deep border zones.

The international coordination of frequencies, which for Austria is carried out by the Federal Minister of Transport, Innovation and Technology, will lead to restrictions of usage, since in border areas it will be necessary to divide the possible usages (frequency packages, codes, reduction of performance or field strength) equally among the individual countries. As a rule, the border zones for the mutual coordination of mobile networks will be approx. 15 km deep.

The resulting actual usage conditions will be laid down in the operating authorisations.

4.5.5.6 Coordination between operators

According to the usage conditions specified in the frequency allocation by the Federal Minister of Transport, Innovation and Technology to the Telekom-Control Commission pursuant to art. 47 subsec. 3 TKG, usage of adjacent frequency packages shall be coordinated between the operators of the individual UMTS/IMT-2000 networks with regard to the locations of the base stations.

4.5.5.7 Protection of directional receivers

For the protection of stationary directional receivers of the Telecommunications Authorities the peak value of the field strength caused by the UMTS/IMT-2000 transmitters, measured with a bandwidth of ≥ 300 kHz, must not exceed 105 dB μ V/m at the locations specified in the draft of the Licence and Frequency Allocation Document.

4.5.5.8 TDD usage in the paired band

Flexible usage of TDD in the range 1920 – 1980 MHz, pursuant to ERC/DEC(99)25, will be possible only if radio compatibility with the mobile networks and services adjacent to the spectrum can be demonstrated.

4.5.5.9 HAPS platform as location of base stations

The use of High Altitude Platform Stations (HAPS), according to the recommendation ITU-R M.1456, will be possible only if radio compatibility with the mobile networks and services adjacent to the spectrum can be demonstrated in Austria and in adjoining countries.

4.5.5.10 Adaptations of the technical parameters

The specified technical conditions and parameters may be subject to change, depending on the progress of standardisation and the international agreements in the field of frequency coordination.

4.6 Allocation of concrete frequency channels

The allocation of the abstract frequency packages bought in the auction to concrete frequency channels will be carried out subsequent to the auction process. The allocation will take place considering all required technical conditions, the number of licences resulting from the auction, the optimum allocation, as far as possible, of the abstract frequency packages to concrete frequency channels as well as in a manner which allows the best possible usage of the frequencies. As far as possible and practical, it will be attempted to take together the packages of paired and unpaired spectrum each, which the bidders bought in the auction, and to allocate them as contiguous frequency range. Because of the required frequency guard bands pursuant to chapter 4.5.5.2, individual packages will comprise a bandwidth of 4.8 MHz instead of 5 MHz for delimitation of applications in adjacent frequency ranges. Upon allocation, the provisions pursuant to ERC/DEC(99)25 Annex 1 will be complied with.

4.6.1 Agreement of the successful bidders

Subsequent to the auction process, the successful bidders will have the opportunity to reach an agreement regarding allocation of the concrete frequency channels. The Telekom-Control Commission will instruct Telekom-Control GmbH, as its sub-office, to assist them in reaching an agreement. If, within one week, all successful bidders settle on a variant for allocation of the concrete frequency channels and the variant complies with the frequency usage conditions, the Telekom-Control Commission will allocate the frequency channels accordingly. If no agreement is reached, allocation will be performed according to chapter 4.6.2.1 for paired frequency ranges and according to chapter 4.6.2.2 for unpaired frequency ranges.

4.6.2 No agreement of the successful bidders

If the successful bidders cannot reach an agreement, the concrete frequency channels will be allocated directly after expiry of the period of one week specified in chapter 4.6.1, according to the rules laid down below.

4.6.2.1 *Paired frequency spectrum*

Upon completion of the auction process a ranking of the successful bidders will be made according to the total of their bids for all frequency packages in the paired range they bought in the auction. If two or more bidders made the same total bid, the ranking of these bidders will be decided by lot. The successful bidders may, in line with their ranking, choose a contiguous frequency range from a pattern provided by the Telekom-Control Commission, which corresponds to the number of packages bought in the auction.

The Telekom-Control Commission will define the pattern to be applied, in line with the auction result, upon completion of the auction, considering all necessary technical outline conditions as well as in a manner to provide for the best possible usage of the frequencies. The pattern will define concrete, if possible, contiguous frequency ranges for specific standards, representing a pooling of frequency channels, in line with the auction result. In this course, for the same standards - as far as this is practical according to the technical outline conditions - the contiguous frequency ranges consisting of several frequency channels will be sorted according to the number of packages in the frequency spectrum. The contiguous ranges with the greatest number of packages will be allocated to the lower

frequencies, the ones with the lowest number of packages to the higher frequencies. Because of the guard band requirements individual contiguous ranges will be allocated one or two channels with a bandwidth of 4.8 MHz instead of 5.0 MHz. These channels of smaller bandwidth will be allocated to the contiguous ranges, starting at the lower frequencies; if required, these channels will be allocated also to contiguous ranges at higher frequencies.

4.6.2.2 Unpaired frequency spectrum

The frequency package in the band 2020 – 2025 MHz is referred to as concrete in the auction process. Thus, upon completion of the auction process the allocation to a concrete frequency channel already exists.

The four abstract frequency packages in the band 1900 – 1920 MHz will be allocated to concrete frequency channels after allocation of concrete frequency channels of the paired range.

In line with the auction result, a corresponding pattern will be defined according to which for certain standards frequency packages will be allocated to concrete frequency channels. The pattern to be applied will be defined in line with the auction result, considering all necessary technical outline conditions as well as in a manner to provide for best possible usage of the frequencies.

The concrete frequency channels in the band 1900 – 1920 MHz will be allocated according to the following rules:

- a) The successful bidder who was allocated the paired range which in the frequency spectrum is directly adjacent to the unpaired range, i.e. the paired range from 1920 MHz upwards, will be allocated the unpaired range directly adjacent to the paired range (i.e. from 1920 MHz downwards), if this is applicable and practicable according to the technical outline conditions.
- b) The remaining successful bidders who have bought abstract packages of unpaired spectrum will be ranked according to the total of their bids for all abstract packages of unpaired spectrum they bought. If two or more bidders made the same total bid, the ranking of these bidders will be decided by lot. In line with their ranking, these bidders may choose the concrete frequency channels from the given pattern.

5 Modalities

The following chapters contain information on the deadlines to be observed and further essentials of the procedure.

5.1 Rights in tender documents

With the application for frequency allocation the applicant irrevocably agrees that the Telekom-Control Commission may use, without limitation, all information and documentation provided in connection with the application for the purposes of the procedure and review of compliance with the notice and any other procedures related to the licence.

5.2 Applications for allocation of frequencies as well as for licences

shall be addressed to

Telekom-Control Commission

Mariahilferstraße 77-79

A-1060 Wien/Vienna

Österreich/Austria

The application for the allocation of frequencies (in short "application") shall be received by the Telekom-Control Commission in sealed form (e.g. envelope, parcel) by 13 September 2000, 2 pm (local time), stating "UMTS/IMT-2000". Applications received after this date will not be considered. For practical reasons, applications for licence award should be submitted together with applications for frequency allocation.

Applications for frequency allocation as well as licence applications shall be submitted in writing, in German in one original and five (5) copies as well as in electronically readable format (CD-ROM or floppy disk in MS-Word or Excel format). One copy shall be submitted in loose-leaf form. The applicants may submit a combined application for both frequency allocation and licence award, which is practical as it will simplify the procedure.

Changes as well as the withdrawal of applications after the end of the submission period are not permitted. This does not apply to raising the amount of the offered frequency usage fee in the course of the auction.

The application must not comprise more than 300 pages in a 12 point font (for Annex B no font standard has been specified). However, required enclosures, e.g. business reports and maps may be attached additionally also in English.

5.3 Authorised recipient

In their application the applicants shall nominate an authorised recipient in Austria (see chapter 2.1.1). The application shall be accompanied by an unrestricted authorisation to accept service signed on behalf of the company. If a different authorised recipient is designated, a new unrestricted authorisation to accept service shall be submitted without delay.

5.4 Clarifying information

For the purposes of preparing their applications the potential bidders who paid ATS 5000,- (Euro 363,36) for the provision of the tender documentation may clarify possible questions on the tender documentation in a round of questions with the Telekom-Control Commission. The Telekom-Control Commission reserves the right to decide on a case-by-case basis if a question will be answered.

Questions to the Telekom-Control Commission may be submitted exclusively by fax (0043 1 58058 9402) or in writing until 28 July 2000, 10 am local time (date and time of receipt). These questions will be answered exclusively by fax or in writing by 21 August 2000 (date of dispatch).

The questions submitted to the Telekom-Control Commission will be collected and forwarded together with the answers to all above mentioned potential bidders without disclosing their names.

If the Telekom-Control Commission considers it necessary or appropriate to clarify questions with the applicants, the applicant irrevocably agrees upon his application to answer these questions within the reasonable period of time specified individually and to provide the required information later on.

5.5 Enquiries - consultants

In this tender procedure the Telekom-Control Commission may obtain support from consultants for findings and enquiries (art. 49a subsec. 11 TKG). This refers, inter alia (but in no way exclusively) to enquiries in connection with the clarifying information set out in chapter 5.4, enquiries in connection with the review of the eligibility criteria pursuant to art. 15 subsec. 2 TKG and support in the auction process.

5.6 Inspection of records

On request, all applicants, to the same extent, shall be given the right to inspect the records. No separate appeal shall be permitted against the refusal of inspection of records (art. 17 AVG).

The Telekom-Control Commission recognises that in the course of this procedure a great deal of information will be provided whose inspection may cause damage to the legitimate interests of a party or third parties. Furthermore, the subject matter of the procedure may comprise information whose inspection by the parties would endanger the tasks of the authority or interfere with the purpose of the procedure. Therefore, the Telekom-Control Commission reserves the right to exempt the respective parts of the records from inspection.

To guarantee the confidential nature of the sensitive information provided, the applicants shall mark in their applications the data they consider to be company and business secrets. In addition, a copy of the application shall be submitted in a version from which the company and business secrets have been removed, while it must be obvious that this is an adjusted version. Moreover, the Telekom-Control Commission reserves the right to exempt additional parts of the records from inspection within the meaning of art. 17 subsec. 3 AVG. In the same way, the Telekom-Control Commission reserves the right to give access to parts of the records referred to as company and business secrets by the applicants if damage to the legitimate interests of a party or third parties or a danger to the tasks of the authority is not expected to occur.

The applicants agree to use the information about other applicants they obtain on the basis of this procedure only for the purposes of this procedure.

5.7 Review and information obligations

Each applicant is requested to review himself the information provided in this tender documentation together with the attachments and notify the Telekom-Control Commission of any notes or corrections, e.g. from a technical point of view.

5.8 Publication

The Telekom-Control Commission intends to publish the names of the applicants, the standards specified (see chapter 2.2.2) and the bids submitted (see chapter 4.4.4) by them. Furthermore, the applicants admitted to the auction, their bids in the respective auction rounds as well as the frequency allocation will be made available on a web site for informational purposes.

5.9 Annulment of the tender, termination/discontinuance of the procedure

Pursuant to art. 49a subsec. 12 TKG, the Telekom-Control Commission is entitled to annul the tender for important reasons and to terminate the procedure, at any stage, for important reasons, in particular if

1. the Telekom-Control Commission discovers collusive behaviour in applicants and an efficient, fair and non-discriminatory procedure cannot be carried out;
2. no or only one applicant meets the requirements pursuant to art. 49a subsec. 1 TKG;
3. no or only one applicant who meets the requirements pursuant to art. 49a subsec. 1 TKG actually participates in the determination of the highest bid;
4. the procedure shows that the applicants apply for less frequency spectrum in total than is provided for allocation.

The aforementioned does not constitute a claim for compensation; government liability claims remain unaffected.

6 Fees

6.1 Frequency usage fee

In case of frequency allocation the frequency usage fee offered in the course of the auction shall be paid according to the following time schedule:

- within seven days of service of the Licence and Frequency Allocation Notice the amount corresponding to the minimum bid for this frequency package, pursuant to Table 4, shall be paid for each acquired frequency package;
- within six weeks of service of the Licence and Frequency Allocation Notice the remaining amount of the frequency usage fee offered shall be paid.

Upon default (including delayed or incomplete payment) of the frequency usage fee the licence and the frequency allocation will lapse. Regardless of this fact, the Republic of Austria shall be entitled in such case to draw the bank guarantee provided by the applicant as well as to collect the frequency usage fee that may not be covered by that guarantee by means of administrative enforcement

6.2 Licence fee

To cover the administration costs arising from the licence award a fee pursuant to art. 17 subsec. 1 TKG shall be paid. The amount of this fee was fixed in the *Telekommunikationsgebührenverordnung* (Telecommunications Fees Ordinance TKGV, BGBl II No.29/1998), section 2, chapter C. (Licence fees) subpar. 2, at ATS 100,000.-- (one hundred thousand Austrian Schillings). The licence fee shall be paid within 14 days of service of the Licence and Frequency Allocation Notice.

6.3 Frequency usage fees

Pursuant to art. 51 TKG, inter alia, frequency usage fees shall be paid for the usage of frequencies. The fees will be prescribed by the telecommunications offices in the course of granting the operating authorisation.

6.4 Consultancy costs

Any costs arising from experts or consultants in the course of the procedure, who may be consulted by the Telekom-Control Commission during any stage of the procedure, shall be borne on a pro rata basis by the applicants who are allocated the frequencies (art. 49a subsec. 11). These costs will be prescribed in the Licence and Frequency Allocation Notice and will be payable within 14 days of service of the Licence and Frequency Allocation Notice

7 Telecommunications environment

The following information refers to the Austrian telecommunications environment. This information are not binding in a legal sense.

7.1 The Austrian economy

The following table contains indicators⁶ of the Austrian economy.

Population (1999)	8.094,097
Area	83,858.28 km ²
Permanent settlement area (1998)	38.1%
GDP current prices (1999)	ATS 2.683 billion
GDP growth (1998/1999)	2.8%
Consumption expenditure of private households (1998)	ATS 1.420 billion
Gross investments (1998)	ATS 646 billion
Consumer price index (1999)	0.6% (12 months)
Unemployment rate (1998 lt. ILO)	4.5%

TABLE 12: ECONOMIC INDICATORS

7.2 The Austrian telecommunications market

Until 1996 the *Post- und Telegraphenverwaltung* (Postal and Telegraph Administration), as part of state administration, held a monopoly in all essential areas of public telecommunications. In the field of public mobile telephony a GSM 900 MHz licence was granted to Ö-CALL-MOBIL Telekommunikation Service GmbH (now max.mobil.) at the beginning of 1996, thus creating a duopoly situation. At the end of August 1997, another licence for the provision of mobile voice telephony in the GSM 1800 MHz range was awarded to Connect Austria Gesellschaft für Telekommunikation GmbH. The fourth licence was awarded to tele.ring Telekom Service GmbH in May 1999.

Complete liberalisation of the telecom markets took effect on 1 January 1998, thus eliminating the barrier to market entry, laid down in administrative acts, to retain the monopoly in the fields of infrastructure and fixed voice telephony. Until 31 December 1999 a total of 111 fixed network licences was granted to 83 companies, among them 62 licences for the provision of public voice telephony services and 49 for the public provision of leased lines.

⁶ Sources: ÖSTAT, WIFO

7.3 The Austrian mobile market

7.3.1 Mobile operators and frequency spectrum

At present 4 operators are licensed to provide services on the Austrian mobile communications market. The following table gives an overview of the dates of market entry of the respective operators.

Operator	System	Licence granted in	Licence fee	Start of operation
Mobilkom (D network)	TACS			1990
Mobilkom (A1)	GSM 900		ATS 4 bio.	1994
max.mobil.	GSM 900	January 1996	ATS 4 bio.	October 1996
Connect	GSM 1800	August 1997	ATS 2.3 bio.	August 1998
tele.ring	GSM 1800	May 1999	ATS 1.35 bio.	May 2000

TABLE 13: MOBILE COMMUNICATIONS OPERATORS IN AUSTRIA

The frequency spectrum of the operators is shown in Figure 2. 2x22.2 MHz in the GSM 1800 frequency band have not been allocated yet. Additional frequency allocations from this spectrum are planned for spring 2001.

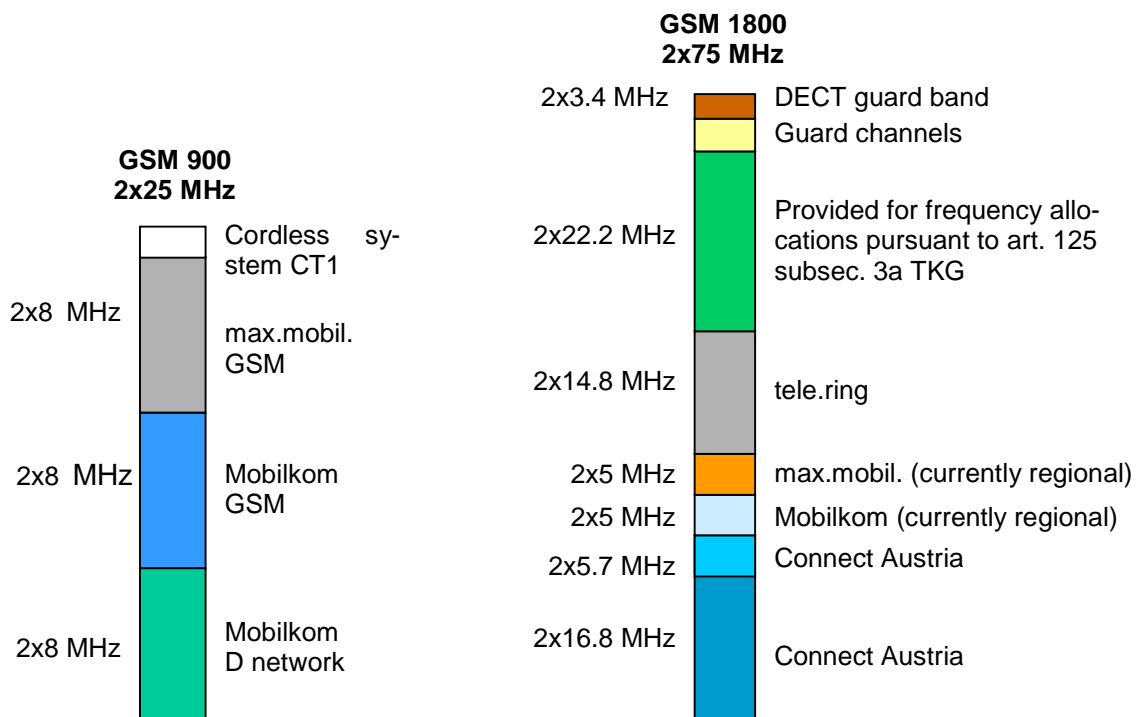


FIGURE 2: FREQUENCY ALLOCATIONS IN THE GSM 900 AND 1800 BANDS (AS OF 1 JAN 2000)

7.3.2 Development of mobile subscribers

The following figure shows the development of the subscribers in the individual mobile communications networks as well as the overall development.

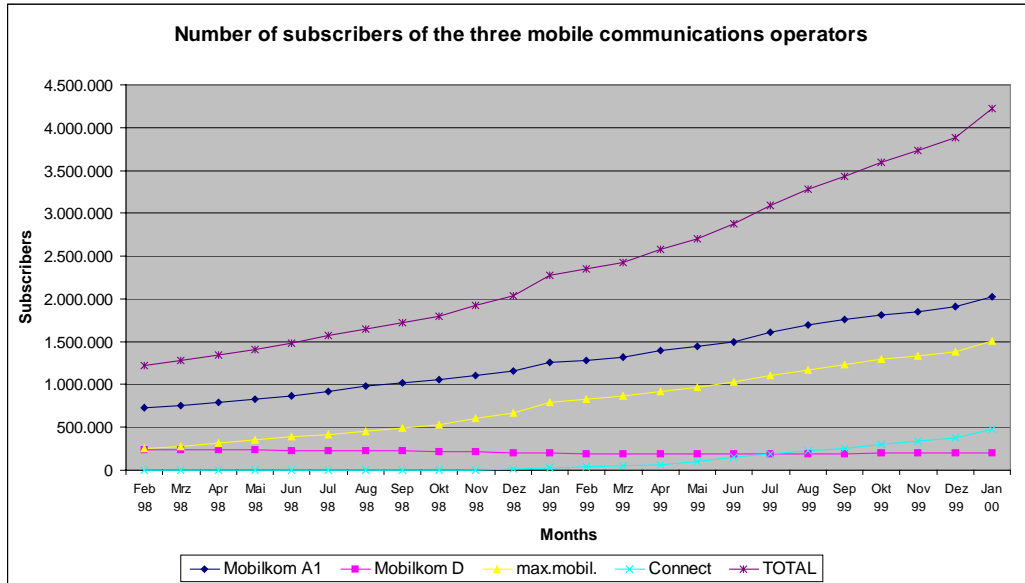


FIGURE 3: NUMBER OF MOBILE SUBSCRIBERS

7.3.3 Market shares by subscribers

At the end of 1999, Mobilkom (A1 and D networks) held a total of almost 53%, max.mobil. 36% and Connect 11% of all subscribers.

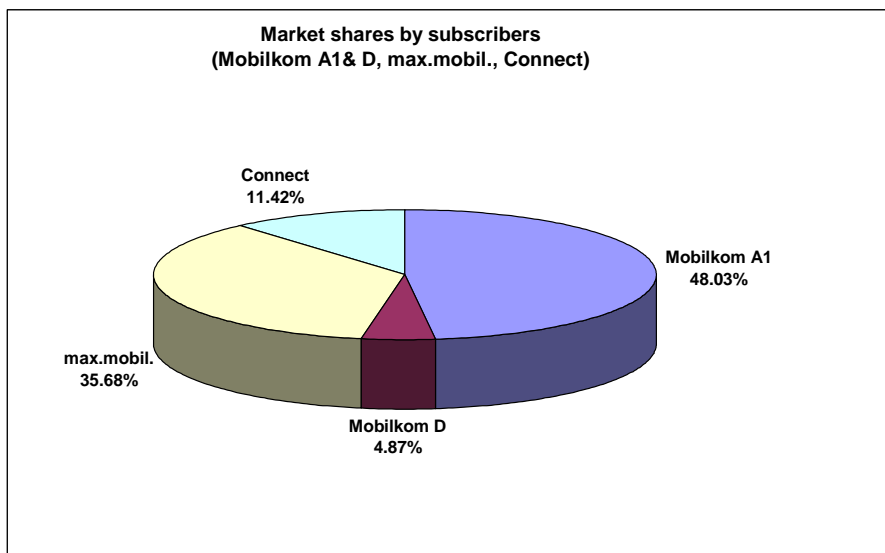


FIGURE 4: MARKET SHARES HELD BY SUBSCRIBERS (END OF 1999)

7.3.4 Development of the penetration rate

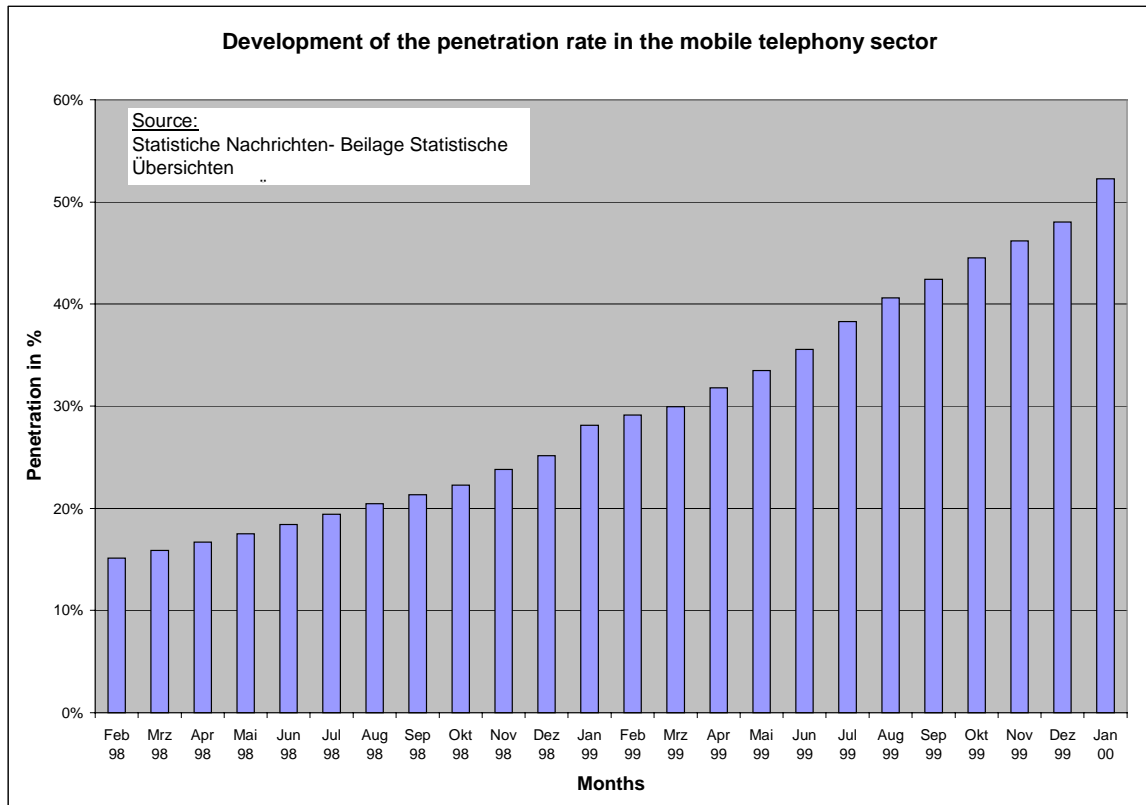


FIGURE 5: PENETRATION RATE IN THE MOBILE TELEPHONY SECTOR IN AUSTRIA

ANNEX A

Draft of the Licence and Frequency Allocation Document

Draft of the

**LICENCE AND FREQUENCY ALLOCATION
DOCUMENT**

**Enclosure to the Notice of the
Telekom-Control Commission of ... K 15/00-..**

§ 1 Scope of the licence

The licensee obtains the right to provide the public voice telephony service via mobile radio and other public mobile radio services by means of self-operated mobile communications network pursuant to the Federal Act on Telecommunications (*Telekommunikationsgesetz – TKG*), the ordinances issued on the basis of this act and the subsequent provisions, with standards of the IMT-2000 family concept needing to be specified for the radio interface pursuant to § 4 of the Licence and Frequency Allocation Document.

The mobile communications system shall comply with the following minimum requirements according to Decision No. 1999/128/EC of the European Parliament and the Council of 14 December 1998 on the coordinated introduction of a third generation mobile and wireless communications system (UMTS) in the Community:

1. Multimedia capability, applications with unlimited and limited mobility in different geographical environments, exceeding the capabilities of second generation systems like GSM.
2. Efficient access to the Internet as well as to Intranets and other services based on the Internet Protocol (IP).
3. Voice transmission at a quality comparable to fixed networks.
4. Portability of services independent of the respective UMTS environment if necessary (e.g. public/private/intra-company; fixed/mobile).
5. Seamless operating environment including unlimited roaming with GSM as well as between the terrestrial and satellite-based parts of UMTS networks.
6. New terrestrial radio interface for access to all services (also packet-switched services), allowing asymmetrical transmission and selection of the bandwidth/data rate in harmonised frequency bands.
7. Call handling, services control, location and mobility management including all roaming functions on the basis of the further development of existing core networks, such as an advanced GSM core network, considering convergence between mobile and fixed networks.
8. In addition, by concluding roaming agreements the licensee shall ensure full community-wide provision of services.

§ 2 Frequency allocation

Pursuant to art. 49a subsec. 1 and Abs 8 TKG, the licensee will be allocated the following frequencies for use within the scope of the licence:

Paired spectrum:

Unpaired spectrum:.....

The width of the spectrum and the exact position will be added upon completion of the frequency allocation procedure.

Each frequency may be put into operation only on the basis of an authorisation from the Telecommunications Authority (art. 49 subsec. 1 TKG). The usage conditions are contained in § 15 of the Licence and Frequency Allocation Document. The restrictions on usage in border areas to neighbouring countries will be determined in the operating authorisations after completion of international frequency coordination.

Common provisions

§ 3 Scope, term

The licence and the frequency allocation shall be valid for the entire territory of Austria and shall apply for a limited period until 31 December 2020.

§ 4 Standard

The standards of the IMT-2000 family concept for the radio interface not yet included will be added according to the standards specified in the application.

§ 5 Operator code

The allocation of the operator code for public mobile networks shall be carried out pursuant to art. 57 TKG and Annex 2 sec. C subpar. 3 Numbering Ordinance (BGBl. II No. 416/1997).

If the licensee also holds a licence for the provision of second generation public mobile communications services, the following provision will have to be included:

The operator code allocated for the second generation mobile communications network may be also used for the third generation mobile communications network.

§ 6 Terminal equipment

The licensee shall be obliged to connect mobile communications equipment to his UMTS/IMT-2000 network, complying with the respective 3G standard used and meeting the basic requirements of the Directive 1999/5/EC of the European Parliament and the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

§ 7 Roaming 3G-3G

The licensee shall be entitled to conclude roaming agreements with other 3G operators.

§ 8 Coverage obligation

1. By means of the frequency spectrum allocated, coverage pursuant to subsec. 2 below shall be ensured. The degree of coverage is defined as the part of the total resident population for which coverage has been achieved.
2. UMTS/IMT-2000 services shall provide the following coverage on a commercial basis:

25 % coverage by 31 December 2003

50 % coverage by 31 December 2005.

In the covered areas a carrier service at a data rate of at least 144 kbits/sec shall be provided.

The degree of coverage specified in subsec. 2 shall be provided by means of a self-operated network. A self-operated network is a network in which the following network elements are operated by the licensee himself:

- the key elements in the field of the core network, i.e. switch, VLR and HLR
- the key elements of the radio network, i.e. RNC and node B.

The licensee shall be entitled to shared use of antenna masts and power line masts pursuant to art. 7 subsec. 2 to 8 TKG. In addition, the licensee shall be entitled to conclude agreements under civil law with other licensees on the shared use of antenna and associated cabling. Figure 1 shows the configuration of a mobile communications network.

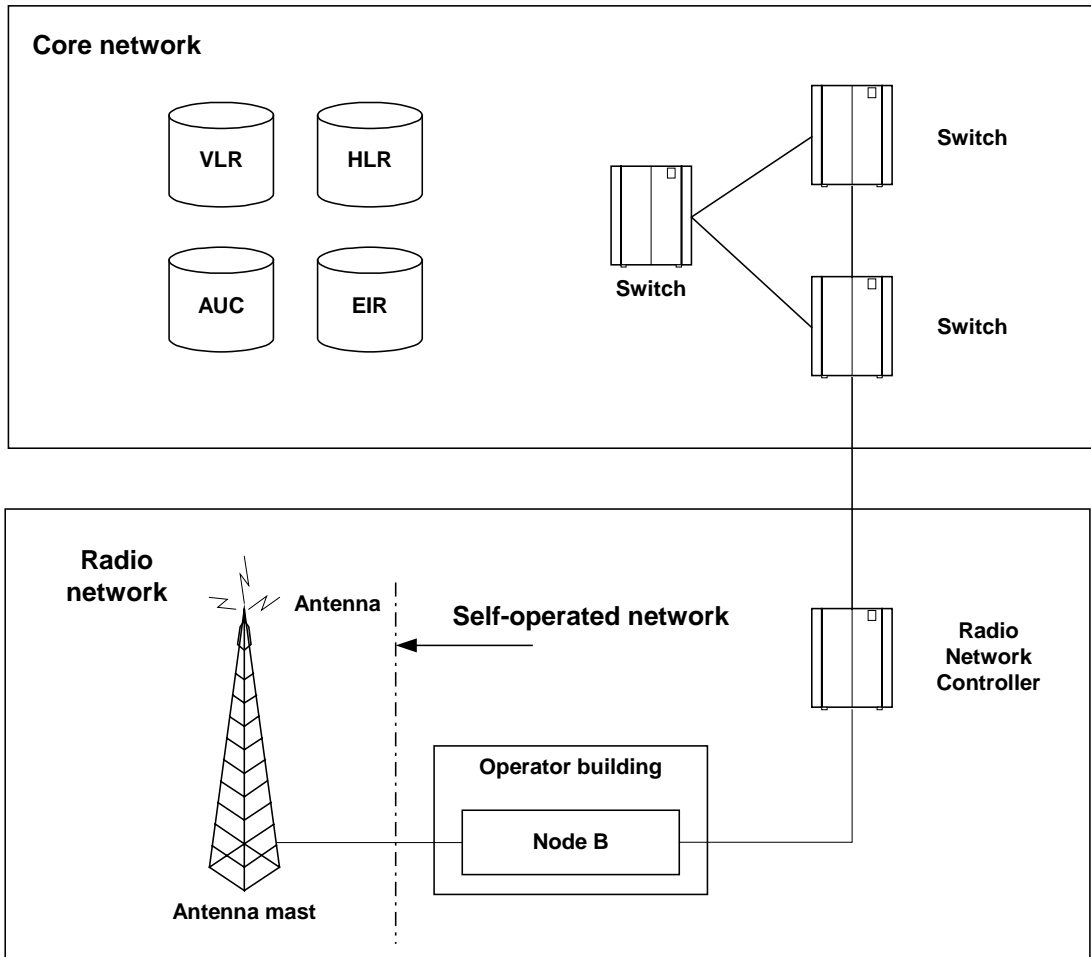


FIGURE 1: CONFIGURATION - MOBILE COMMUNICATIONS NETWORK

§ 9 Proof and review of coverage

The covered areas will be determined on the basis of simulation calculations performed by the licensee by means of recognised simulation tools. The base stations in operation on the deadline and their technical parameters will form the basis. As input parameters for the simulation calculations realistic usage data of the radio cells shall be used, based on real measured data and quality parameters. The simulation calculations shall refer to coverage outside of buildings with typical terminal equipment available on the market.

The population units (smallest possible covered or uncovered areas) shall be either enumeration districts for the provincial capitals and, otherwise, places/localities according to ÖSTAT. An enumeration district is considered as covered if the main area of the enumeration district is stated to be covered according to the above criteria. A place/locality is considered to be covered if the central point of the place (places are already available as point data) is stated to be covered according to the above criteria. Coverage of the resident population of Austria is calculated by adding up the population of all covered enumeration districts (provincial capitals) and all covered places/localities (remainder). The degree of coverage is the quotient of the resident population covered and the total population of Austria.

Two months each after expiry of the deadlines specified in art. 8 subsec. 2 at the latest the licensee shall provide the following documents in electronic format to the Telekom-Control Commission, the data having to refer to 31 December of the respective previous year:

- List of all base station locations including the geo-coded data (GIS format), cells and frequency channels
- Traffic intensity and usages of the cells
- Other key parameters for the simulation calculations
- Map of Austria with base stations and covered areas – Best-Server-Plot (GIS-Format)
- List of covered places/localities and enumeration districts, respectively
- Degree of coverage calculated from that

The data shall be transmitted on the basis of a data model specified by the Telekom-Control Commission.

The Telekom-Control Commission will review coverage by means of measurements. The costs for the review shall be borne by the licensee.

If the coverage specified in art. 8 subsec. 2 cannot be achieved, the licensee shall pay the following amounts:

Guarantee amount for failure to meet the specified coverage by 31 December 2003					
Coverage of the population	<5%	<10%	<15%	<20%	<25%
Guarantee amount in ATS millions (Euro millions)	275.206 (20)	247.6854 (18)	220.1648 (16)	192.6442 (14)	165.1236 (12)

TABLE 1: GUARANTEE AMOUNTS UNTIL 31 DECEMBER 2003

Guarantee amount for failure to meet the specified coverage by 31 December 2005					
Coverage of the population	<10%	<20%	<30%	<40%	<50%
Guarantee amount in ATS millions (Euro millions)	275.206 (20)	247.6854 (18)	220.1648 (16)	192.6442 (14)	165.1236 (12)

TABLE 2: GUARANTEE AMOUNTS UNTIL 31 DECEMBER 2005

§ 10 National Roaming 3G-2G

Depending on whether the licensee already holds a licence for the provision of second generation mobile communications services or not, the Licence and Frequency Allocation Document will either contain a right or an obligation:

Version 1: Obligation

The licensee shall be obliged to provide network capacities, subject to technical feasibility, for a period of 4 years to other holders of licences for the provision of a third generation public mobile communications service who do not hold a licence for the provision of second generation public mobile communications services, on condition that the licensee thus entitled has achieved 20 % coverage of the population. Compliance with this requirement will be reviewed in a procedure pursuant to § 9 of this document. An appropriate fee shall be agreed between the parties involved. Disputes in this respect will be settled by the Telekom-Control Commission.

The services to be offered in the scope of national roaming shall comprise GSM bearer services (including GPRS), GSM teleservices and GSM supplementary services if the obliged licensee provides them to his customers himself. The services shall be offered to the roaming partner in the same quality as provided in his own network.

Version 2: Title

The licensee shall be entitled, after having achieved 20 % coverage of the population, to use, for a maximum of 4 years, the network capacities of a licensee who holds licences for the provision of both second and third generation mobile communications services. Compliance with this requirement will be reviewed in a procedure pursuant to § 9 of this document. An appropriate fee shall be agreed between the parties involved. Disputes in this respect will be settled by the Telekom-Control Commission.

The services to be used in the scope of national roaming shall comprise GSM bearer services (including GPRS), GSM teleservices and GSM supplementary services if the roaming partner provides them to his customers himself. The services shall be offered in the same quality as provided by the roaming partner in his own network.

§ 11 Change in ownership structure

Changes in ownership structure of the licensee, either direct or indirect, shall be notified to the Telekom-Control Commission. Substantial changes require the consent of the Telekom-Control Commission. In any case, a substantial change is considered a change in or the initial acquisition of considerable interests, applying art 91f BörseG (Stock Exchange Act) analogously, as well as any other change which might affect the licensee's independence with regard to competition. Consent by the Telekom-Control Commission is to be given - subject to conditions or obligations as required - if the licensee continues to meet the requirements specified in art. 15 subsec. 2 TKG also following the change in ownership structure requested and the independence of other licensees with regard to competition can be guaranteed.

§ 12 Supervision rights

At the request of the authority the licensee shall furnish all required information and, as necessary, grant permission to the authority to inspect the records.

Orders of the authority pursuant to art. 83 subsec. 3 TKG shall be met within the reasonable period specified.

Pursuant to art. 13 TKG, the licensee shall notify the Regulatory Authority of the start of operation as well as the introduction of new services in time before operation starts and new services are introduced.

In addition, the licensee shall transmit to the Telekom-Control Commission quarterly, within 14 days of the end of the quarter at the latest, in electronic format the number of subscribers with contracts and pre-paid cards broken down in months, sales figures, figures of traffic intensity and interconnections with other networks split into speech/data channels and signalling channels (interconnection points, capacity) on the basis of a data model specified by the Telekom-Control Commission.

The following data shall be transmitted annually within two months of the end of the year at the latest on the basis of a data model specified by the Telekom-Control Commission:

- Overview of the current network architecture
- Locations (GIS format) of essential infrastructure elements of the radio network (base stations, controllers, ...) and the core network (switch, ...); significant technical characteristics of the individual infrastructure elements (frequency range, capacity, ...)
- Connections between infrastructure elements (directional radio, leased lines, own lines); capacity of the connections
- Infrastructure shared with other operators
- Measuring data for quality parameters and traffic intensity

If the licensee operates a second generation mobile network in Austria and uses this network as base platform for the UMTS/IMT-2000 network or uses infrastructure elements of the existing network for the UMTS/IMT-2000 network, respectively, or offers services which make use of the infrastructures of both the existing second generation mobile and the UMTS/IMT-2000 networks (e.g. services with multi-mode terminals for GSM/UMTS/IMT-2000):

The above information shall be also provided for the second generation mobile communications network.

§ 13 Violation of the licence obligations

1. Violations of the obligations under this licence established by the Telekom-Control Commission shall be removed by the licensee within the reasonable period of time specified.
2. The licensee shall be obliged to notify to the Telekom-Control Commission the persons responsible, within the meaning of art. 9 VStG (*Verwaltungsstrafgesetz* - Administrative Offences Act), for the administrative provisions to be applied as well as the licence obligations.

§ 14 Change of the licences

The Telekom-Control Commission may change individual provisions of the licence prior to its expiry if such change is required to safeguard important public interests.

In addition, the licence may be changed later on

1. upon application, if due compliance with the provisions of the licence notice, in particular the collateral clauses, is no longer reasonable because of changed circumstances, if and as far as this does not interfere with interests to be safeguarded by the Telekom-Control Commission and fair competition;
2. upon application or by virtue of office, if an adjustment of the frequencies allocated for usage in the licence notice is required because of changed technical or legal conditions in the interest of efficient frequency administration and fair competition and if the change with regard to the frequencies allocated for usage is not of fundamental nature;

3. by virtue of office with regard to such frequencies allocated to a licensee for usage, which he does not use even after expiry of any periods of time specified by notice.

Furthermore, the Telekom-Control Commission may, upon application of the licensee, modify the licence such that the licensee obtains the right to use a different standard of the IMT-2000 family from the one specified in § 4 of the Licence and Frequency Allocation Document. The consent to a change of the standard may be given if it can be guaranteed that this will not cause interference or deteriorations of any kind, in particular to operators in adjacent frequency spectrums.

§ 15 Usage conditions for the frequency spectrum

Spectrum masks

For the band edges of an allocated frequency spectrum for base stations the spectrum masks specified in Table 3 shall be complied with.

Frequency spacing Δf of the 3dB mark of the measuring filter from the frequency band edge	Maximum permitted power level	Measuring bandwidth
0 – 0.2 MHz	- 14 dBm	30 kHz
0.2 – 1 MHz	$(-14 - 15(\Delta f/\text{MHz} - 0.2))$ dBm	30 kHz
>1 – 10 MHz	- 13 dBm	1 MHz
> 10 MHz	- 30 dBm	1 MHz

TABLE 3: SPECTRUM MASKS

The spectrum mask defines the maximum electromagnetic emissions generated by the licensee's radio system that fall into the spectrum adjacent to the licensee's frequency spectrum. The maximum permitted power level is the maximum power, integrated across the respective measuring bandwidth, which a transmitter may supply to the antenna feeder of the measuring configuration.

Restrictions of usage in border areas of neighbouring states

In border areas frequencies for UMTS/IMT-2000 networks are available only to a limited extent because of the coordination activities with the neighbouring countries. In the neighbouring countries the provision of spectrum for the UMTS/IMT-2000 frequencies is handled in different ways. Details on the availability of the individual frequency ranges in border areas and the resulting actual usage options for the border areas will be clarified at a later date. In the border areas the individual frequency ranges will be subject to different coordination conditions. Restrictions in terms of frequencies and quantity will differ from area to area, depending on whether coordination will have to extend to two or three countries. Further restrictions are to be expected if e.g. directional radio in the neighbouring country requires considerable protection measures with deep border zones.

The international coordination of frequencies will lead to restrictions of usage, since in border areas it will be necessary to divide the possible usages (frequency packages, codes, reduction of performance or field strength) equally among the individual countries. As a rule, the border zones for the mutual coordination of mobile networks will be approx. 15 km deep.

The restrictions of use in border areas to neighbouring countries will be laid down in the operating authorisations after completion of the international frequency coordination.

Coordination between operators

Usage of adjacent frequency packages between the operators of the individual UMTS/IMT-2000 networks shall be coordinated by the operators with regard to the locations of the base stations.

Protection of directional receivers

For the protection of the stationary directional receivers of the Telecommunications Authorities specified in Enclosure 1 the peak value of the field strength caused by the UMTS/IMT-2000 transmitters, measured with a bandwidth of ≥ 300 kHz, must not exceed 105 dB μ V/m.

TDD usage in the paired band

Flexible usage of TDD in the range 1920 – 1980 MHz, pursuant to ERC/DEC(99)25, will be possible only if radio compatibility with the mobile networks and services adjacent to the spectrum can be demonstrated.

HAPS platform as location of base stations

The use of High Altitude Platform Stations (HAPS), according to the recommendation ITU-R M.1456, will be possible only if radio compatibility with the mobile networks and services adjacent to the spectrum can be demonstrated in Austria and in adjoining countries.

Adaptations of the technical parameters

The specified technical conditions and parameters may be subject to change, depending on the progress of standardisation and the international agreements in the field of frequency coordination.