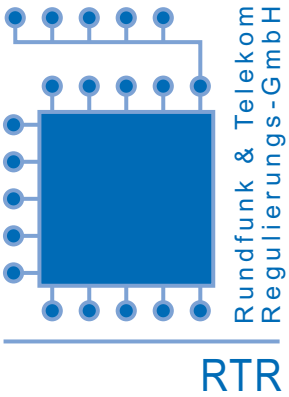
Communications Report 2004



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Preface

The communications markets, that is, the markets for broadcasting and telecommunications, are of crucial importance to the economy as a whole as well as the information society of the 21st century. They make a decisive contribution to a location's attractiveness, to job creation and to economic growth. They also act as an engine of development for new technologies and innovative services, as well as reinforcing cultural diversity and identity. In order to create an environment which supports this constant process of change, the Austrian legislature devised a regulatory institution to support the process of convergence in its regulatory activities and to serve as a high-level competence center.

RTR (Rundfunk und Telekom Regulierungs GmbH, the Austrian Regulatory Authority for Broadcasting and Telecommunications) carries out a broad range of activities in order to fulfill its duties as defined under Austrian law with due attention to its regulatory objectives. The main purposes of regulation are to enable and ensure sustainable competition in a fair and transparent form and to generate benefits for Austria as a business location and for its consumers.

As RTR is a convergent regulatory institution for broadcasting and telecommunications, the fulfillment of our duties hinges on implementing the relevant legal requirements and objectives in such a way that efficient competition in terms of innovation, quality and diversity is ensured in the development of the communications markets. At the same time, the interests of all stakeholders – policymakers, the business world and consumers – have to be protected. In our decisions, which comply with European and international rules and are completely independent of individual lobbies and interests, we make efforts to ensure a maximum of competence, objectivity and effectiveness. In our regulatory work, we constantly bear in mind the objectives of maintaining Austria as a highly attractive location and its leading position in Europe's information society.

In line with the principle of transparency, the Communications Report continues our reporting tradition of recent years by documenting the regulatory authority's work as well as the development of communications markets in 2004. In terms of content, the report focuses on giving a detailed description of regulatory work in broadcasting and telecommunications carried out by the regulatory authorities KommAustria, Telekom-Control Commission and RTR, in addition to providing key market data from the media and telecommunications industries. Finally, the report includes a description of RTR itself, a company managed according to the principles of economy and expedience as is prevalent in the private sector.

With this publication, we are pleased to provide the interested public with greater insight into our extensive activities.

Vienna, June 2005 *Alfred Grinschgl* *Georg Serentschy*

1. Management summary

1.1 Introductory remarks on the Communications Report

Objectives of the report:
- *Fulfillment of legal reporting obligations*
- *Current overview of markets*

The 2004 Communications Report serves to meet various legal reporting requirements under the Austrian Communications Act (KommAustria Act, or KOG) and the Austrian Telecommunications Act 2003 (TKG 2003):

- Represented by its two managing directors for the Telecommunications and Broadcasting Divisions, RTR is required under Art. 7 Par. 2 KOG to report to its owner (the Austrian federal government) on the business activities of the company. In this respect, the Communications Report provides a specific account of the duties RTR fulfilled, its staff development as well as its operating expenses over the year.

- In addition, RTR also reports to the relevant bodies in the Austrian federal government and to the Austrian National Council on the fulfillment of regulatory objectives set forth in the relevant material laws. This requirement is mainly based on RTR's reporting obligations under Art. 34 Par. 2 TKG 2003. In accordance with Art. 24 Par. 2 TKG 2003, this report must also include information on unfair practices in value-added services as well as all measures taken as a result.

- Finally, the Communications Report provides in-depth and realistic insight into the problems and challenges involved in RTR's legally founded efforts to enable more competition and diversity in the broadcasting and telecommunications industries in the interest of consumers and the economy.

The main topics covered in this report are as follows:

1. **Management summary:** This section provides the reader with a brief overview of RTR's reporting requirements as well as the other topics addressed in the Communications Report.

2. **Objectives of regulatory activities:** RTR makes an important contribution to achieving the objectives of regulatory activities as specified in the relevant laws, specifically the Austrian Telecommunications Act 2003 (TKG 2003), the Austrian Communications Act (KOG) and the Austrian Signatures Act (SigG). For this reason, the objectives of RTR's regulatory activities are presented at the beginning of the report.

3. **RTR's position in the regulatory environment:** RTR cooperates with a large number of authorities relevant to regulation on both the national and international stage. These connections are described in detail in order to provide the reader with a better understanding of RTR's cooperation arrangements and the division of tasks.

4. RTR's activities in 2004: This section reviews the organization's activities in the course of the business year 2004 in separate reports on the Broadcasting and Telecommunications Divisions' respective contributions to the achievement of RTR's regulatory objectives.

For example, the section on the Broadcasting Division describes the regulatory activities of the Austrian Communications Authority (KommAustria), for which RTR provides operational support, in the fields of radio and television broadcasting. The areas of broadcasting frequency management and frequency coordination as well as the upcoming transition to digital broadcasting are also discussed at length. The section also includes information on Austrian press and journalism subsidies, for which KommAustria assumed responsibility as of January 1, 2004.

For the Telecommunications Division, RTR's activities as the operational arm of the Telekom-Control Commission are described on the basis of the decisions made. The focus of these activities lay on market definition and analysis procedures as well as interconnection, WLL frequency allocation and supervisory activities regarding electronic signatures. The official duties of RTR described in detail in Section 4 include end-consumer dispute resolution, the administration of communications parameters and the issuing of ordinances.

5. The Austrian communications markets: This section contains a variety of information and data on the development and state of the advertising market (broken down into major media categories) as well as the markets for listeners, viewers and readers. The information on advertising and consumer markets is based on data which is collected regularly and generally acknowledged by market participants (e.g., data from FOCUS Media Research, Media-Analyse).

Based on the overall development of the telecommunications market, this section also provides more detailed information on rates/charges, revenues and volumes.

6. The company: This section contains information on RTR itself, covering internal topics such as staff development, RTR's annual accounts and the RTR Supervisory Board.

In this part of the report, RTR's management gives an account of the operational implementation of its regulatory objectives in the interest of all market participants and for the benefit of the consumer. This implementation work is mainly underpinned by endeavors to ensure operational efficiency and effectiveness in the fulfillment of RTR's regulatory objectives. RTR's management also employs international benchmarking as a measure of efficiency in the provision of official services and in its activities as a competence center.

1.2 RTR's statutory duties and objectives

All of RTR's activities are based on its legally defined duties and its regulatory objectives. The main objective of regulation in general is to enable and ensure competition in a fair and transparent form and to generate economic benefits for the consumer. One important prerequisite for achieving this objective is the development of state-of-the-art infrastructure throughout the country.

This summary gives a brief overview of RTR's legal duties and the resulting objectives of the organization. In addition, it presents the specific activities RTR has carried out in order to fulfill its individual duties and to achieve its defined objectives.

Development of communications markets: Crucial to the overall economy

Due to their strong multiplier effects, the communications markets (i.e., the broadcasting and telecommunications markets) are of crucial importance to a country's overall economy as well as its cultural identity. Therefore, the long-term and sustainable development of these markets is also decisive in determining how attractive a country is as a business and media location.

Naturally, it is not possible to fulfill these legal duties without a secure financial basis. In this context, it should be noted that the Austrian Administrative Court overturned parts of Art. 10 KOG and thus the financial basis for RTR's Broadcasting Division in a ruling handed down on October 7, 2004. The legal provisions amended in response to this ruling have already gone into effect (see Section 3.3.1.3).

1.3 RTR's contribution to achieving regulatory objectives

1.3.1 Basis: Economy – sector – consumers

Communications markets are highly important to the economy as a whole and thus for Austria as a business location, especially as substantial growth and innovation impulses emanate from this sector. As a result, positive development is especially important in this field.

In recent years, the telecommunications sector has grown faster than the Austrian economy in terms of GDP. Future growth opportunities can mainly be found in broadband services and in the increased mobility of services and applications. Many companies are faced with difficult investment decisions with regard to timing and scope, hence they require clear and reliable underlying conditions as well as further prospects of sustainable market growth.

In order for consumers to enjoy the benefits of both existing and new services, they have to be available throughout the country at high quality and fair prices. Consumer confidence also plays an important role and can be encouraged by ensuring a high level of consumer protection.
The development of the broadcasting market is closely linked to that of the advertising industry, which was characterized by stagnation and decline in 2001 and 2002. The years 2003 and 2004 saw positive developments on the advertising markets, which also generally benefited broadcasters as well.

In addition to its economic implications, the broadcasting sector also plays an important role in society and politics, in particular with regard to the diversity of opinions and the maintenance of cultural identity.

Competition as a means to an end

The purpose of regulation is to ensure that consumers and the economy can enjoy a variety of product and service offerings, high quality, fair pricing and nationwide availability in telecommunications services. In the field of broadcasting, another especially critical issue is open public access to information.

RTR's duty to promote competition through regulation

One essential means by which the regulatory authority achieves its objectives is promoting competition through targeted regulation. In its activities, the regulatory authority makes specific contributions to this end on the basis of its legal duties and responsibilities. Therefore, one essential prerequisite for successful regulation is clear principles on which the regulatory authority can base its actions.

RTR's approach to regulation

The regulatory authority acts according to clearly defined principles:

Independence: In its decisions, the regulatory authority is independent of individual interests and can thus take on the role of a neutral mediator, catalyst, or "arbitrator" in conflicts and disagreements on the market.

Transparency: The regulatory authority provides the market with comprehensive information and conducts public consultations in order to enhance transparency for stakeholders.

Comprehensive overviews: In light of the highly dynamic markets and complex relationships with other decisions, each individual decision requires a wholistic approach.

Convergence: In response to the convergence of the broadcasting and telecommunications markets, RTR operates as a convergent regulatory body which deals with both of these areas.

Feedback to stakeholders: In order to ensure that experience gained in the regulatory authority's day-to-day operations is used in the optimum manner, RTR advises market participants and provides lawmakers with the feedback necessary to continue developing Austria's legal framework.

Efficiency: Through efficient structural and process organization and the targeted use of the available resources, RTR was able to perform additional tasks in 2004 without increasing its total expenses.

1.3.2 Broadcasting: Contribution to the achievement of objectives under the KommAustria Act (KOG)

The objectives to be pursued by KommAustria in its regulatory activities are defined in Art. 2 Par. 2 of the KommAustria Act as follows:

1. To facilitate market access for new providers

2. To ensure the diversity of opinions and encourage quality in broadcasting programs, including the technical prerequisites for their dissemination

3. To develop technical and economic plans for dual broadcasting in Austria

4. To ensure that content providers adhere to minimum European standards, especially in the interest of child, youth and consumer protection

5. To optimize the utilization of Austria's broadcasting frequency range

6. To provide expert knowledge regarding convergence between audiovisual media and telecommunications, and to encourage the development of markets in the audiovisual media and telecommunications sectors

7. To create and maintain modern, high-quality communications infrastructure in order to reinforce the high quality of Austria as a media location.

In the paragraphs below, selected activities carried out by RTR in the reporting period are described in light of these objectives.

Activities to facilitate market access for new providers

The primary activities to be mentioned in this context are the licensing procedures carried out by KommAustria in the fields of terrestrial radio and satellite television. In the year 2004, numerous radio licenses were issued, including the first license for a nationwide private radio station (Kronehit) on the basis of an amendment to the Austrian Private Radio Act which went into effect on August 1, 2004.

Activities to ensure the diversity of opinions and encourage quality in broadcasting programs, including the technical prerequisites for their dissemination

In this area, KommAustria's primary responsibility was its legal supervision of private broadcasters in Austria. An amendment to the KommAustria Act which took effect on August 1, 2004, expanded KommAustria's responsibilities in this field. Since then, KommAustria's responsibilities have also included monitoring potential infringements of advertising regulations by ORF; KommAustria is required to report any such potential violations to the Federal Communications Senate *(Bundeskommunikationssenat)*. In the case of legal violations committed by private broadcasters, KommAustria fulfills its duties as legal supervisory body and initiates official proceedings in response to these violations.

Activities to develop technical and economic plans for dual broadcasting in Austria

In addition to professional cooperation in media policy measures aimed at promoting dual broadcasting, various activities in broadcasting digitization and in the management of the Digital Platform Austria working group serve the objective of improving the general circumstances for

a dual broadcasting market with balanced competitive opportunities. Moreover, the authority carried out numerous activities as a competence center, for example the publication of two volumes of RTR publications on dual broadcasting.

Activities to ensure adherence to minimum European standards, especially in the interest of child, youth and consumer protection

All of KommAustria's activities in the legal supervision of private broadcasters as well as its monitoring of advertising activities serve this purpose, as does the close observation of the media market.

Activities to optimize the utilization of Austria's broadcasting frequency range

The efficient use of the frequency spectrum is a priority observed in all areas of KommAustria's regulatory work, be it in the digitization of broadcasting, in the granting of licenses, or in revocation procedures in cases of double coverage. In 2004, four frequency allocations belonging to ORF in the Linz area were revoked by KommAustria due to disproportionate double coverage.

Activities to provide expert knowledge regarding convergence

In this field, RTR's activities as a high-level competence center as well as its international activities in the field of broadcasting digitization are particularly worthy of mention. Especially in the digitization of broadcasting transmission platforms, it is important to consider the future development of all forms of communications infrastructure as well as their interaction.

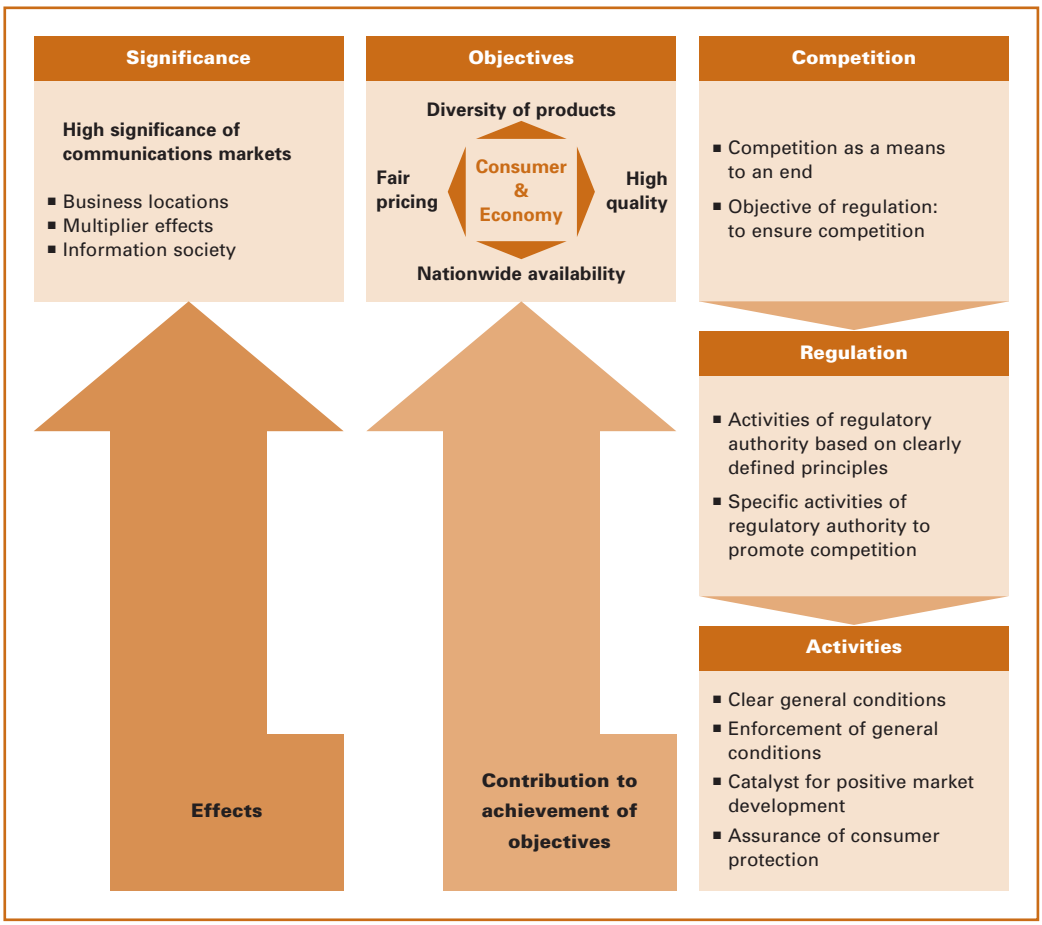
Activities to create and maintain modern, high-quality communications infrastructure

Activities in the field of broadcasting digitization, which are among the central duties of KommAustria and RTR, pursue the objective of creating independent, sustainable communications infrastructure for the Austrian media industry. One particularly notable accomplishment in this area was RTR's leading role in the execution of trial operations for digital terrestrial television (DVB-T) and additional interactive applications based on the MHP standard. RTR's administration of the Austrian Digitization Fund, which was set up in 2004, also serves this purpose and ensures platform independence at the same time.

1.3.3 Telecommunications: Contribution to the achievement of objectives under the Austrian Telecommunications Act 2003 (report pursuant to Art. 34 Par. 2 TKG 2003)

The objectives and duties of the regulatory authority are defined in the relevant legislation in Austria. In 2004, a number of specific individual measures were taken in order to support the achievement of these objectives either directly or indirectly. The diagram below illustrates these measures in context:

Figure 1: Activities and achievement of objectives



Creating and ensuring clear and fair general conditions to strengthen the market

In particular, the regulatory authority contributed to the improvement of general conditions through the following activities and the accompanying results and decisions:

Market analyses: A majority of the market analyses required under Austria's new legal framework were completed in 2004. As regards the implementation process, Austria is therefore among the leading countries in Europe. The regulatory authority was also able to ensure a smooth transition from Austria's old legislation to the new legal framework.

Frequency allocation: Fair and non-discriminatory frequency allocation procedures have made additional resources available to the market. The WLL frequencies allocated in the 3.5 GHz band have opened up another broadband access channel to the final consumer, which will generate new competitive impetus on the broadband market, and the recently allocated GSM frequencies can be used to improve quality in mobile communication even further.

Communications parameters: Two new RTR ordinances (EEN-V, KEM-V) made it possible to enhance the clarity of general conditions, especially in the field of value-added services, and to improve consumer protection.

Network access: In order to ensure functioning competition, it is especially important to ensure open network access. In the course of various procedures, RTR was able to resolve a number of essential issues, such as the prerequisites for network access applied to virtual mobile network operators.

Mobile number portability: Several procedures were concluded with a view to defining processes and general conditions for these measures, which are required by the EU. Eliminating this barrier to switching networks (i.e., the need to change telephone numbers when switching providers) has reinforced competition on the market.

Universal service: In order to ensure nationwide coverage with basic services for all consumers, the conditions for the provision, scope and financing of universal services have to be clearly defined. With the cooperation of RTR, it was possible to conclude a private-law agreement on the financing of universal service for the years 1999 to 2004, thus eliminating previous uncertainties in this regard.

Activities to ensure adherence to general conditions

Once the general conditions are made clear, it is necessary to enforce them. A number of examples illustrate the specific results attained in this area in 2004:

Market agreements: In the course of ADR procedures and mandatory dispute resolution procedures, RTR made efforts to resolve disputes at an earlier stage and thus to avert proceedings before the Telekom-Control Commission.

Supervisory procedures: In order to verify adherence to general conditions, the regulatory authority conducted various supervisory procedures (e.g., regarding the resale of subscriber line services ["monthly base fee"]).

Rate approval procedures: Rate changes submitted by Telekom Austria were reviewed and approved.

Electronic signatures: RTR's activities as the supervisory authority for electronic signatures ensure adherence to general conditions. The public key infrastructure operated by the authority provides a maximum of security.

Activities to promote the further development of networks and services

In addition to its activities in official procedures, the regulatory authority also takes measures which are generally intended to promote positive development on the market. A few examples from the year 2004 are listed below.

Broadband initiative: RTR continued its broadband initiative (launched in 2003) with the objective of "placing Austria at the forefront of the information society." In 2004, the focus of the regulatory authority's activities in this area lay on raising awareness and supporting the Austrian Federal Ministry of Transport, Innovation and Technology in the execution of Austria's broadband initiative.

VoIP: In the field of Voice over IP services, a public discussion began in the European Union as well as the U.S. on how the existing legal framework can be applied to these services. For this purpose, RTR carried out a national consultation and published its preliminary position with a view to increasing clarity on the market.

ENUM: In 2004, Austria demonstrated its position as a forerunner in the field of ENUM once again. On the basis of an agreement concluded by RTR and enum.at, it was possible to launch commercial ENUM operations by the end of the year.

Activities to ensure high-level consumer protection

Given the increasing variety of services offered as well as the constant development of these services, consumer protection is a high priority. Well-informed and satisfied customers are an essential driver of continued market growth. A number of examples illustrate the contributions the regulatory authority has made to consumer protection.

Arbitration in end-consumer disputes: The number of complaints received in 2004 increased by 120% compared to 2003, a fact which underscores the increased need for consumer protection. Most complaints were related to dialer programs and value-added services.

Review of general terms and conditions: One of RTR's ongoing activities is the review of the general terms and conditions of business reported by companies in the industry. In many cases, it is necessary to resolve interpretation issues pertaining to the end-consumer rights defined in the Austrian Telecommunications Act 2003 (e.g., for call barring).

New ordinances: RTR was also able to integrate its experience in new ordinances in order to meet the increased need for consumer protection in certain services. For example, provisions in the Communication Parameters, Fees and Value-Added Services Ordinance (KEM-V) effected substantial improvements in consumer protection with regard to dialer programs.

Use of numbers for their specified purpose: RTR regularly reviews the use of numbers in order to prevent misuse in this area.

Telecommunications guide: For the first time, a book for end-consumers was published in order to provide them with advice and background knowledge on the complex world of telecommunications.

1.4 Outlook

An annual report is only a snapshot of activities, and although a number of concrete measures were taken in 2004 to promote the development of markets, the regulatory authority and market participants will have to face many challenges in 2005 as well. The specific focus areas expected in 2005 are as follows:

1.4.1 Broadcasting Division: Focus areas in 2005

Ongoing regulatory activities: In 2005, a number of licensing and allocation procedures are planned, including the re-issue of regional private radio licenses in the Austrian provinces of Styria and Salzburg, where the first private radio stations in Austria went on the air ten years ago. In addition, the market analysis procedure for the broadcasting market will be completed in 2005.

Advertising monitoring: The systematic monthly monitoring of advertising in private radio stations and ORF will remain a special focus of KommAustria's regulatory work. Responsibility for advertising monitoring was assigned to KommAustria as an additional legal duty in August 2004. Moreover, KommAustria and RTR plan to work toward a common interpretation of the law on the basis of judicial decisions made to date by organizing expert events and publications.

Broadcasting digitization: Activities in this area will focus on the invitation to tender for a license to construct and operate Austria's first DVB-T multiplex platform (scheduled for May 2005), as well as frequency planning and coordination with neighboring countries and preparations for the 2006 planning conference in Geneva. These measures will be complemented by new test operations, the continued implementation of the Digitization Plan and the administration of the Austrian Digitization Fund.

Austrian Television Film Fund: After a successful first year managing the Austrian Television Film Fund, RTR has now adapted the guidelines for grant awards. In 2005, the Austrian Television Film Fund will be a central focus of the Broadcasting Division's activities.

1.4.2 Telecommunications Division: Focus areas in 2005

Completion of market analyses under the new legal framework: The currently ongoing market analyses for the wholesale international roaming and wholesale broadband markets are scheduled for completion in 2005. The first step in the analysis of the wholesale broadband market was an amendment to the Telecommunications Markets Ordinance 2003 (TKMVO 2003). The analysis of the international roaming market is being conducted in close cooperation with EU regulatory authorities.

Preparation of next market definition project: Every two years, the regulatory authority revises its definition of relevant markets in Austria. In preparation for this process, an empirical study is planned for 2005.

Procedures to enforce general conditions: The number of procedures and specific issues dealt with in this context will depend on the requests submitted by parties on the market. From the current perspective, multiple procedures regarding fee amounts for wholesale products (e.g., mobile termination) can be expected.

Additional clarifications regarding VoIP: Market developments indicate significant growth rates for VoIP. At the international level, a number of important decisions can be expected in 2005. The regulatory authority therefore plans to specify the general conditions for VoIP more precisely in the upcoming year.

Continued activities regarding infrastructure competition (e.g., the broadband initiative) in order to promote the further development of infrastructure and services.

Improvement of market status information: On the basis of the Communications Survey Ordinance (KEV), which first went into effect in 2005, and RTR's fundamental reporting obligations contained in the ordinance with regard to market status, we can expect an improvement in information provision in 2005.

2. Objectives of regulatory activities

Objectives and tasks of the regulatory authority under Austrian law

Rundfunk und Telekom Regulierungs-GmbH (RTR) was established as a convergent regulatory authority. The duties assigned to RTR by law can be divided into six general areas:

1. Operational support for the Telekom-Control Commission (TKK)
2. Operational support for the Austrian Communications Authority (KommAustria)
3. Execution of RTR's own official tasks
4. Management of a competence center for issues related to media and telecommunications convergence
5. Administration and awarding of grants from the Austrian Digitization Fund
6. Administration and awarding of grants from the Austrian Television Film Fund.

All of RTR's activities in 2004 contributed to achieving the regulatory authorities' objectives as defined in the relevant Austrian laws.

Objectives of regulation under Art. 1 TKG 2003
Regulatory measures are designed to serve the following purposes:

1. To create modern electronic infrastructure in order to promote high-level locational quality

Creation of modern infrastructure

2. To ensure equal opportunities and operative competition in the provision of communications networks and communications services by

Ensuring competition

   a) Ensuring that all users derive maximum benefit in terms of choice, price and quality
   b) Preventing distortion or restriction of competition
   c) Encouraging efficient investment in infrastructure and promoting innovation
   d) Ensuring efficient use and the effective management of frequencies and numbering resources

3. To promote the interests of the citizens by

Promotion of citizens' interests

   a) Ensuring that all citizens have access to universal service
   b) Ensuring protection for consumers, in particular by simple and inexpensive dispute resolution procedures as well as a high level of protection of personal data and privacy
   c) Providing information, in particular in the form of transparent tariffs and general terms and conditions
   d) Ensuring the integrity and security of public communications networks.

The measures listed above are to be technology-neutral to the greatest possible extent.

Duties and objectives under the Austrian Communications Act (KOG)
In this context, the tasks of the regulatory authority are as follows:

- Issuing broadcasting licenses
- Issuing licenses to operate the technical equipment required for broadcasting
- Legal supervision of private broadcasting organizations
- Administration of resources in the Digitization Fund and the Television Film Fund
- Monitoring adherence to advertising regulations by private broadcasters and ORF.

The regulatory authority's objectives are as follows:

- To facilitate market access for new providers
- To ensure the diversity of opinions and encourage quality in broadcasting programs, including the technical prerequisites for their dissemination
- To develop technical and economic plans for dual broadcasting in Austria
- To ensure that content providers adhere to minimum European standards, especially in the interest of child, youth and consumer protection
- To optimize the utilization of Austria's broadcasting frequency range
- To provide expert knowledge regarding convergence between audiovisual media and telecommunications, and to encourage the development of markets in the audiovisual media and telecommunications sectors
- To create and maintain modern, high-quality communications infrastructure in order to reinforce the high quality of Austria as a media location.

Competence center (Art. 5 KOG)
Under Art. 5 Par. 3 No. 5 KOG, RTR is responsible for setting up and managing a competence center specifically for media and telecommunications convergence issues (see also Art. 9 KOG, "Competence center").

Duties under the Signatures Act
As the operational arm of the Telekom-Control Commission, RTR is in charge of supervising the providers of certification services under the Austrian Signatures Act.

New duties under the Communications Survey Ordinance (KEV)
The Communications Survey Ordinance (KEV) went into effect on October 10, 2004. The provisions of Art. 4 Par. 2 require RTR to carry out statistical surveys in the field of communications on a quarterly basis and to compile the resulting statistical reports.

Duties under Art. 7 of the Austrian E-Commerce Act (ECG)
Under Art. 7 ECG, RTR is required to maintain a registry of persons and companies who do not wish to receive commercial communication via electronic mail. People and companies can have their names entered in this registry free of charge.

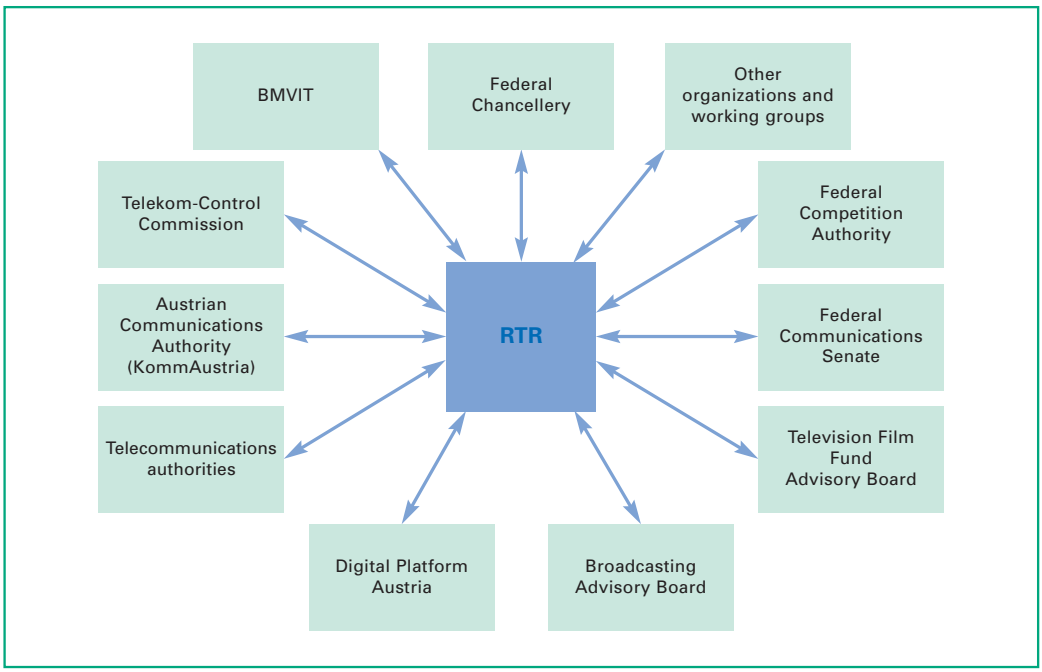
3. RTR's position in the regulatory environment

3.1 National context

RTR's cooperation with the relevant Austrian regulatory authorities

In order to enable RTR to achieve the goals described above, the organization is integrated into a differentiated regulatory context with the following general structure:

Figure 2: RTR in the Austrian regulatory environment



Federal Chancellery (BKA)

RTR cooperates with the BKA on various levels: As authorities which are subordinate to the BKA, KommAustria and RTR are bound by the instructions of the Federal Chancellor in broadcasting matters. At the operational level, RTR cooperates closely with the Media Department (V/4) in the BKA's Constitutional Service, especially in matters related to the digitization of broadcasting, the continued development of a dual broadcasting market and events pertaining to media policy.

Federal Ministry of Transport, Innovation and Technology (BMVIT)

The Federal Ministry of Transport, Innovation and Technology is responsible for defining framework conditions for the telecommunications market. On the basis of its experience in day-to-day implementation, RTR provides the Ministry with advice regarding the further development of these conditions.

RTR is a convergent regulatory institution.

Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR)

RTR was established under the Austrian Telecommunications Act, which took effect on April 1, 2001, and the authority's main duty is to provide administrative support for KommAustria and the Telekom-Control Commission (TKK). As the operational arm of KommAustria and TKK, RTR carries out basic preparatory work for regulatory decisions. The Managing Director of the Broadcasting Division is appointed by the Austrian Federal Chancellor, while the Managing Director of the Telecommunications Division is appointed by the Austrian Federal Minister of Transport, Innovation and Technology. In the specific technical matters handled by these divisions, the managing directors run their respective units on their own; in all other matters, decisions are made jointly by both directors. During the year 2004, the managing directors at RTR were:

- Broadcasting Division: Alfred Grinschgl
- Telecommunications Division: Georg Serentschy.

100% of the company's shares are held by the Austrian federal government.

RTR provides operational support for the TKK.

Telekom-Control Commission (TKK)

The Telekom-Control Commission makes vital decisions pertaining to telecommunications regulation. Its duties are defined in Art. 117 TKG 2003 (see Section 4.2.1.1).

In 2004, the Commission comprised the following members:

- Eckhard Hermann (Chairman)
- Erhard Fürst
- Gottfried Magerl
- Elfriede Solé (Alternate Member)
- Martin Hagleitner (Alternate Member)
- Peter Knezu (Alternate Member)

RTR provides operational support for KommAustria.

The Austrian Communications Authority (KommAustria)

The Austrian Communications Authority (KommAustria) is directly subordinate to the Federal Chancellor of Austria. In 2004, KommAustria consisted of Michael Ogris (Head), Franz Prull (Deputy Head), a legal expert and two staff members for activities in the field of press and journalism subsidies. In its external business activities, KommAustria is an independent body and relies on RTR for operational support in the performance of its functions.

Since the Press Subsidies Act 2004 (PresseFG 2004) and the amendment to the Journalism Subsidies Act 1984 (PubFG) went into effect on January 1, 2004, KommAustria has been responsible for managing and awarding press and journalism subsidies.

Within the scope of its official activities, the authority makes first-instance decisions and performs its duties under the following laws:

- Austrian Communications Act (KommAustria Act, or KOG)
- Private Radio Act (PrR-G)
- Private Television Act (PrTV-G)
- Telecommunications Act 2003 (TKG 2003)
- Press Subsidies Act 2004 (PresseFG 2004)
- Journalism Subsidies Act 1984 (PubFG)
- Access Control Act (ZuKG).

Telecommunications authorities
Under TKG 2003, the term "telecommunications authorities" refers to the Federal Ministry of Transport, Innovation and Technology (as the highest authority), the Telecommunications Offices subordinate to the ministry, as well as the Radio and Telecommunications Terminal Equipment Office. The duties of the Telecommunications Offices are governed by Articles 112 to 114 TKG 2003. In material terms, the Telecommunications Offices can be considered "generally responsible," that is, local Telecommunications Offices are responsible for all tasks which are not explicitly assigned to another authority (such as the BMVIT, TKK, KommAustria or RTR) under TKG 2003. For the Telecommunications Division, the competence of the telecommunications authorities as the first-instance administrative penal authority is also relevant.

KommAustria is responsible for managing the frequency spectrum for terrestrial broadcasting and for issuing building and operating permits for terrestrial broadcasting facilities. Monitoring adherence to the technical parameters approved for such facilities is the responsibility of the telecommunications authorities.

Digital Platform Austria
The Digital Platform Austria working group was established by the Austrian Federal Chancellor under Art. 21 PrTV-G in order to support the regulatory authority in creating a plan for the introduction of digital broadcasting.

The group held its founding plenary assembly in early 2002. Since then, the group has organized expert panel meetings in the fields of law, technology and market/content at various intervals. Plenary meetings are held on a regular basis.

The working group consists of some 300 experts representing broadcasters, service providers, network operators, industry, trade, science and research as well as consumer protection organizations. The group's activities are managed by the regulatory authority (KommAustria) with operational support from RTR.

Broadcasting Advisory Board
In 2004, the Broadcasting Advisory Board consisted of six members appointed by the Austrian federal government:

- Eduard Pesendorfer (Chairman)
- Milan Frühbauer
- Kurt Lukasek (Deputy Chairman)
- Daniel Witzani
- Michael Rami
- René Tritscher.

The board was set up as an advisory body for KommAustria and must be given the opportunity to submit comments before licenses are issued or programming changes are made.

Federal Communications Senate (BKS)
The Federal Communications Senate, which was established within the Federal Chancellery, is responsible for handling appeals against KommAustria decisions and for the legal supervision of the Austrian Broadcasting Corporation (ORF).

Under Art. 12 Par. 1 KOG, the five members of the BKS, three of whom have to be appointed judges in Austria, are independent in the performance of their duties and not bound by any instructions (a "panel authority with the powers of a court"). After nomination by the federal government, the members of the BKS are appointed by Austria's Federal President for a term of six years. The BKS currently consists of the following members:

- Ekkehard Schalich, Austrian Supreme Court (Chairman)
- Wolfgang Pöschl, Vienna Superior Court (Deputy Chairman)
- Rainer Geissler, Vienna Commercial Court
- Prof. Christoph Grabenwarter, University of Graz
- Georg Karasek (attorney at law).

Federal Competition Authority
The regulatory authorities also cooperate with the Federal Competition Authority, which has the right to submit comments and motions in matters related to general competition law.

Other organizations and national working groups
In addition to the bodies mentioned above, RTR also works with other relevant institutions and organizations such as the Austrian Federal Chamber of Economics, Austrian Chamber of Labor, Consumer Information Association, universities and specialized colleges, the Telecommunications Research Center Vienna and the Working Group for Technical Coordination in Telecommunications (AK-TK).

3.2 Lines of command and levels of appeal

Various means of appealing against the regulatory authorities' decisions

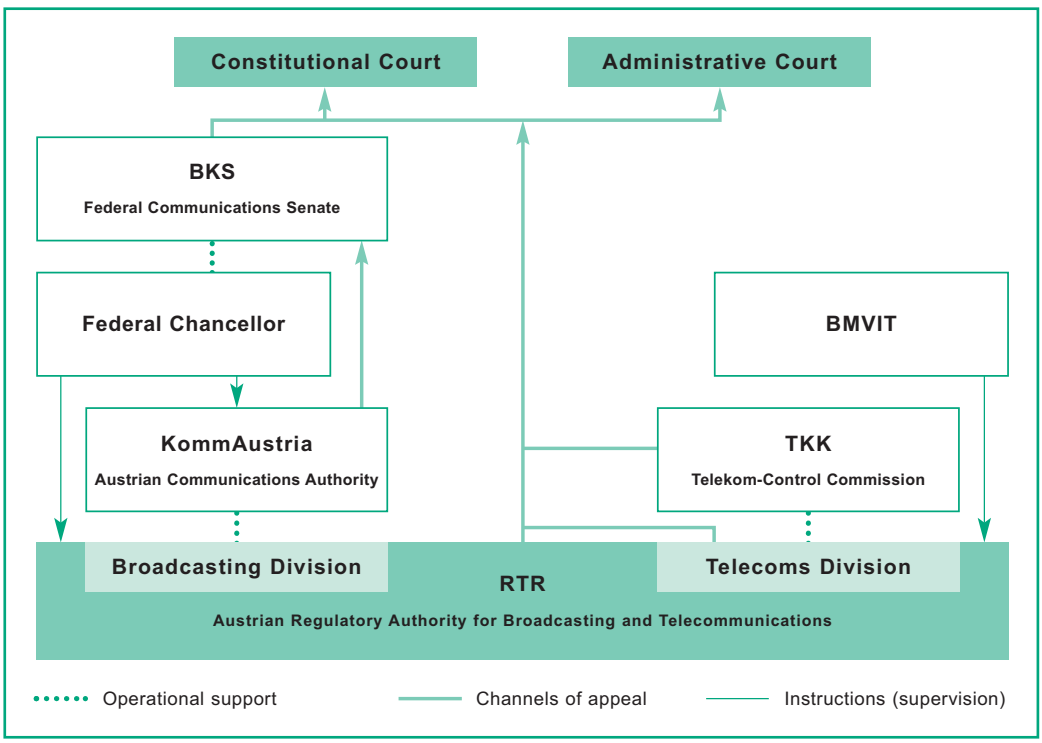
The Austrian Federal Chancellor has the power to issue instructions for KommAustria as well as the Managing Director of RTR's Broadcasting Division, to whom instructions must be submitted in writing.

In the field of telecommunications, the Austrian Federal Minister of Transport, Innovation and Technology is authorized to issue instructions for the Managing Director of RTR's Telecommunications Division; these instructions also have to be in written form. Finally, the chairperson of the Telekom-Control Commission (or the member designated in TKK's rules of procedure) and the head of KommAustria also have the power to issue instructions for RTR's staff in technical matters, except in the preparation of expert opinions.

The Telekom-Control Commission is set up as a panel authority with the powers of a court, and it is not bound by instructions from any authority (Art. 133 No. 4 B-VG). Appeals against RTR's official decisions can be submitted to the Austrian Administrative Court and/or the Austrian Constitutional Court.

Appeals against Telekom-Control Commission decisions can be filed with the Constitutional Court and the Administrative Court in the form of complaints, while appeals against KommAustria decisions can be filed with the Federal Communications Senate (BKS) as the second instance. Further appeals against BKS decisions can be submitted to Austria's high courts.

Figure 3: Lines of command and levels of appeal



3.3 Decisions of the high courts, Administrative Court and Constitutional Court

3.3.1 Broadcasting

3.3.1.1 Federal Communications Senate (BKS)

KommAustria's official decisions can generally be contested by means of appeals decided on by the BKS. The BKS issues decisions on the cases themselves and can change official first-instance decisions in any way. As an exception, this competence is assigned to the Independent Administrative Board *(Unabhängiger Verwaltungssenat)* in Vienna in administrative penal cases.

KommAustria decisions confirmed after appeals to the BKS

In the reporting period, the BKS issued 14 decisions in response to appeals. In all cases, the official first-instance decisions handed down by KommAustria were confirmed. These appeals included a decision on the revocation of radio frequency allocations to ORF in Linz (for more information, please refer to Section 4.1.2.7), which was the first decision of its kind issued by KommAustria. An appeal against this decision was filed with the Austrian Administrative Court, which accorded the complaint a suspensive effect until a decision is made.

In another decision, the BKS had to rule on an "appeal" against a KommAustria decision to reject an application for press subsidies. The BKS rejected the appeal as impermissible, as press subsidies are allocated within the federal government's private-sector administration activities and not in the course of an administrative procedure. Official decisions or levels of appeal under administrative law are therefore not applicable. The Austrian Constitutional Court subsequently refused to hear the complaint regarding this official decision and thus rejected the complaint regarding KommAustria's original decision because no official decision had been issued at the highest level of appeals.

At the end of the reporting period, a total of 17 appeal procedures were still pending in the BKS, five of them due to the Austrian Administrative Court's overruling of earlier decisions.

In its capacity as the (first-instance) legal supervisory authority for ORF, the BKS also decides on reports filed by KommAustria in the course of its advertising monitoring activities (for further information, please refer to Section 4.1.6).

3.3.1.2 Austrian Administrative Court (VwGH)

BKS decisions on appeals were generally confirmed in reviews by the Austrian Administrative Court.

BKS decisions on appeals are subject to review by the Austrian Administrative Court. In contrast to the BKS, the Administrative Court does not decide on the cases themselves; instead, it can overturn BKS decisions where appropriate, which then requires the BKS to issue a new decision.

After an initial ruling in 2003, the Administrative Court has now handed down a number of rulings on BKS decisions regarding appeals.

The Administrative Court confirmed the BKS' decisions in 19 cases, including the award of a license for nationwide private television broadcasting for ATVplus and the highly publicized and widely discussed decision regarding the 92.9 MHz band in Vienna, for which the license was issued to Radio Arabella instead of HitFM. In the licensing procedure for 106.0 MHz in Innsbruck, the Administrative Court confirmed the BKS' decision: In this case, the BKS had awarded the radio license to Frau Hitt Radio GmbH (now KRONEHIT Radio BetriebsgmbH), thus overturning KommAustria's first-instance decision. However, the complaint was accorded a suspensive effect for the duration of the procedure before the Administrative Court, meaning that the licensee in the first-instance decision, Lokalradio Innsbruck GmbH (Welle 1 Innsbruck), was able to remain on the air for the time being. Upon delivery of the confirming decision of the Administrative Court, which emphasized the special role of the diversity of opinions (in this case among radio stations) in the selection procedure, Lokalradio Innsbruck was forced to cease operations.

In five cases, BKS licensing decisions were overturned, which meant that the cases were returned to the BKS for reconsideration. While insufficient justification was cited as the main reason for the rejection in three cases, the Administrative Court found violations of the law in terms of content in two BKS decisions (which were similar to one another): In contrast to the previous instances, the Administrative Court deemed changes in the applicants' articles of association to include a legally required clause (Art. 7 Par. 4 PrR-G) to be a substantial change in the application which was not permissible after the end of the tender submission period. With regard to selection procedures, all changes are to be considered substantial if they have an effect on participation in the selection procedure or on the selection decision to be made. Thus a new decision has to be issued regarding the licenses in question, 107.5 MHz in Graz (Kronehit) and 106.2 MHz in the town of Salzburg (Welle 1 Salzburg). Beyond these individual cases, this decision will also influence the future course of procedures at KommAustria, as all essential information relevant to the selection decision will have to be presented at the time of application and *ex post* corrections will not be not permitted.

In response to these decisions, the Administrative Court abolished the provision requiring the articles of association in Art. 7 Par. 4 PrR-G, as practical experience had shown that the legal protection of other shareholders against precipitant transfers of ownership (i.e., the primary purpose of the provision) was no longer considered necessary.

3.3.1.3 Austrian Constitutional Court (VfGH) – Financing of RTR

RTR's financing provisions deemed unconstitutional – new provisions required

In a ruling issued on October 7, 2004 (G 3/04), the Constitutional Court ruled on whether the provision under Art. 10 KOG governing the financing of RTR using contributions from market participants was constitutional (more information on the financing of RTR can be found in Section 6.3). This decision was prompted by ORF's complaints about the financing contributions officially prescribed by BKS in the appeals process.

In its ruling, the Constitutional Court overruled the passages regarding the Broadcasting Division in the original version of Art. 10 KOG (which remained in effect from April 1, 2001 to August 19, 2003) as unconstitutional. Later versions, in particular the one currently in force, as well as the financing of the Telecommunications Division were not affected by the ruling.

The provisions were deemed unconstitutional on the following grounds: The Constitutional Court essentially ruled that the duties handled by KommAustria and RTR partly concern broadcasters alone (directly or indirectly), but that these tasks also have a significance which goes beyond the market participants themselves and should actually be considered part of broadcasting policy, which in turn means that they concern the general public. As a result, the expenses incurred by RTR in fulfilling these duties should also be covered by the general public, that is, from tax revenues. Moreover, in the opinion of the Constitutional Court, RTR's legal obligation to set up and manage a competence center, in particular with regard to issues of the convergence of media and telecommunications, is not sufficiently specified, especially with regard to its scope. As a result, the court ruled that RTR was allowed excessive latitude in defining the scope of its activities and thus also its financing needs.

The Constitutional Court had no objections to the federal government's exercise of legislative powers to govern financing outside of the financial constitution and outside of administrative procedure; to the market participants' general obligation to pay financing contributions (for those tasks which are not exclusively in the interest of the general public); or to the calculation of such contributions on the basis of revenues.

Upon the delivery of the ruling at the end of December 2004, the relevant legal experts at BKA and BMVIT began working on new provisions regarding the financing of RTR in compliance with the Austrian constitution.

3.3.2 Telecommunications

3.3.2.1 Proceedings before the Austrian Constitutional Court (VfGH)

Nine complaints regarding TKK decisions were filed with the Austrian Constitutional Court.

In 2004, nine complaints regarding TKK and RTR decisions were filed with the Constitutional Court. Five of these complaints involved interconnection procedures in which operators were ordered to enable mobile number portability. In addition, two complaints regarding the ascertainment of significant market power and the resulting obligations imposed pursuant to Articles 38 to 47 TKG 2003 are still pending before the Constitutional Court. Finally, one complaint was filed in connection with fee approvals under Art. 18 TKG (1997) and one in connection with parties' rights to submit comments under Articles 35 ff TKG 2003. In this context, the activities of the regulatory authority involved preparing comments on a total of three petitions for suspensive effect as well as preparing refutation documents.

In the reporting period, the Constitutional Court refused to hear complaints in five procedures and rejected petitions for suspensive effect in three cases.

3.3.2.2 Proceedings before the Austrian Administrative Court (VwGH)

18 complaints regarding TKK decisions were filed with the Austrian Administrative Court.

In the period under review, 18 complaints and five petitions for suspensive effect were filed with the Administrative Court in response to Telekom-Control Commission decisions. These complaints involved five interconnection procedures; five procedures related to the allocation of frequencies; four procedures in which a company was identified as possessing significant market power and subjected to obligations under Articles 38 to 47 TKG 2003; two procedures under Art. 18 TKG 2003; one procedure regarding the approval of fees under Art. 18 TKG (1997); and one petition for the recognition of parties' rights to submit comments under Articles 35 ff TKG 2003. In this context, the activities of the regulatory authority included preparing refutations of petitions for suspensive effect as well as other refutations.

3.4 The international regulatory environment

RTR cooperates internationally with institutions relevant to regulation.

RTR's integration at the international level is a substantial component of its regulatory activities and one of the authority's legal duties. Both divisions cooperate closely with comparable institutions and authorities in other countries.

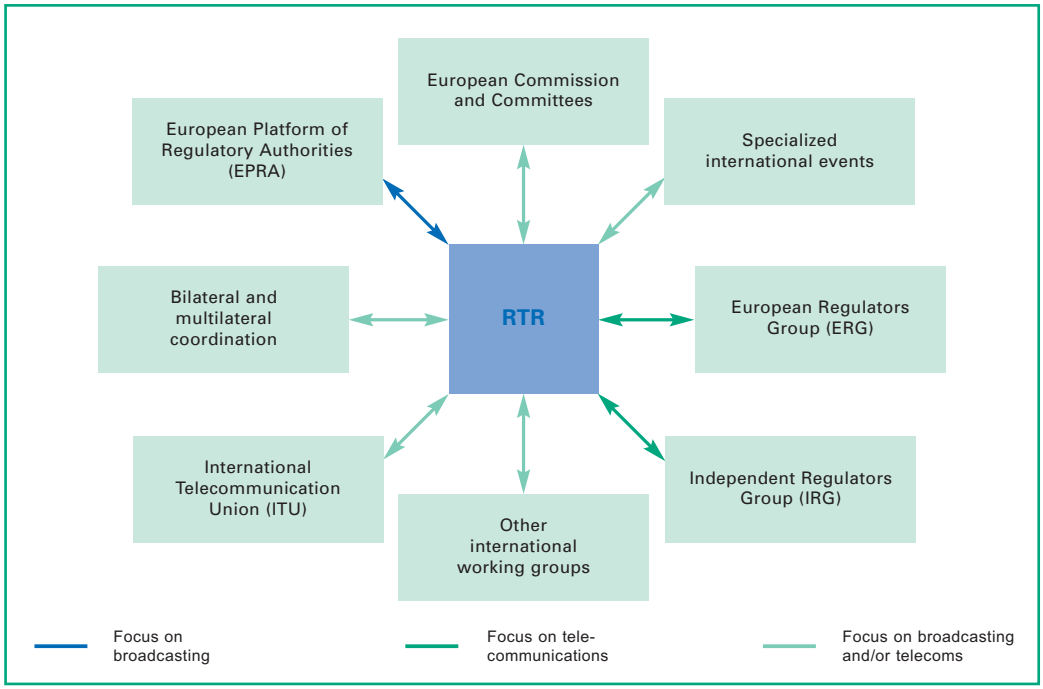
The internationalization of the communications markets has inevitably resulted in close cross-border coordination and cooperation activities among individual regulatory institutions. Regulatory activities and their potential effects on the market can not be confined to a single geographical or national market but must always be considered in their international market environment. This is especially true of the areas where regulatory decisions have direct or indirect effects on the quality of Austria as a business location.

In many cases, international activities are also designed as immediate measures to protect the interests of Austria in the further development of communications technologies. In this specific context, it is worth mentioning RTR's active participation in international frequency coordination and planning activities.

Moreover, the international exchange of experience and benchmarking with regulatory authorities also contributes know-how to RTR's activities in Austria.

The diagram below illustrates the international context in which RTR operates.

Figure 4: RTR in the international regulatory context



For further information and a description of the international activities of RTR's two divisions, please refer to Sections 4.1.8.8 and 4.2.19.1.

4. RTR's activities in 2004

4.1 Broadcasting Division

In 2004, the regulatory activities of RTR's Broadcasting Division were characterized by several new duties and new conditions in the legal framework. At the beginning of the year, the Austrian Digitization Fund and the Austrian Television Film Fund were set up within RTR. At the same time, KommAustria was also assigned responsibility for administering press and journalism subsidies in Austria. In addition, media policy measures aimed at promoting a dual broadcasting system also created a number of new legal duties for the Broadcasting Division.

4.1.1 General conditions in broadcasting regulation

4.1.1.1 Amendments to Austria's private broadcasting laws

Amendments to Austrian broadcasting law in 2004

When the Austrian Broadcasting Law Amendment of 2004 (BGBl. I No. 97/2004) went into effect, the legal framework governing broadcasting in Austria was subjected to sustainable reform. With this amendment, Austria's broadcasting laws were improved on the basis of practical experience, especially in areas where enforcement difficulties had arisen. In addition, the measures required in order to completely implement the European Union's new legal framework for electronic communications were taken, and legal supervision of the Austrian Broadcasting Corporation (ORF) was streamlined.

One substantial change in the Private Radio Act (PrR-G) was the new regulation regarding frequency allocation, which serves to counteract the further fragmentation of radio broadcasting due to the creation of especially small coverage areas which can not survive independently, accords priority to existing radio broadcasters, and at the same time streamlines the process of allocating unused frequencies. Due to another new provision, it is now possible to make fundamental programming changes with the approval of KommAustria, thus enabling radio broadcasters to respond quickly to changing market conditions. Finally, the legal basis was created for nationwide licensing in order to establish a viable radio landscape in the dual broadcasting system.

The changes introduced in the Private Television Act (PrTV-G) generally concern access to the facilities required for digital television broadcasting (multiplex platforms, access control systems or application program interfaces). In connection with the launch of digital terrestrial television in Austria, the licensing procedure for a multiplex operator was also defined more precisely. Finally, must-carry requirements imposed on cable network operators will serve to enhance the presence of channels with Austria-specific content.

4.1.1.2 Amendment to the KommAustria Act (KOG)

Since the Austrian Communications Act was amended, KommAustria has been responsible for monitoring ORF and its subsidiaries' adherence to advertising regulations and for initiating procedures in cases where there is justified suspicion of infringements (Sections 3 and 4 of the ORF Act, or ORF-G) by filing reports to the Federal Communications Senate. For this purpose, KommAustria has been taking representative samples of broadcasting programs at monthly intervals in accordance with these legal requirements and publishing the results of their evaluations on the RTR web site. As previously, KommAustria is directly responsible for decisions regarding violations committed by private broadcasters, while the legal supervision of ORF and its subsidiaries is assigned to the Federal Communications Senate.

4.1.2 Regulatory activities in radio broadcasting

4.1.2.1 Licensing procedures

Allocation of transmission capacities

In 2004, 14 licensing procedures were carried out in the field of radio broadcasting as a result of applications submitted under Art. 12 PrR-G. These procedures dealt with transmission capacities which had not yet been allocated to a private radio broadcaster or to ORF.

Applications for the allocation of new transmission capacities can be filed with KommAustria at any time. The applications are made public and have to include essential technical parameters pertaining to the intended use of the transmission capacities.

In cases where no objections are raised, the transmission capacity can be allocated to the applicant. However, in the case of justified objections, the transmission capacity has to be put out to public tender (in the *Wiener Zeitung*, daily newspapers, and on the RTR web site) in order to provide other parties with an opportunity to file applications within a period to be defined by KommAustria. If different applications are then submitted (i.e., including improvements, extensions or the creation of a new coverage area), they are reviewed according to the sequence specified in Art. 10 PrR-G.

Art. 12 PrR-G (old version) stipulates that unallocated transmission capacities shall be allocated in the sequence defined in Art. 10 PrR-G:

- The allocation of transmission capacities to ORF takes top priority, but only if such capacities are required to meet coverage obligations pursuant to Art. 3 ORF-G.
- This is followed by improvements in the coverage situation of previously licensed radio broadcasters. However, this does not include geographical expansion.
- Finally, such transmission capacities are to be made available according to their availability for nationwide private radio broadcasting.

- In the next step, KommAustria has to review whether the transmission capacity applied for will be used to create a new coverage area (licensee) or to expand an existing coverage area. Both possibilities are considered to be legally equivalent alternatives. The decisive criteria in this context include the diversity of opinions, economic efficiency in radio broadcasting as well as political, social and cultural considerations.

In any case, double or multiple coverage is be avoided wherever possible.

Four new coverage areas

In 2004, four radio broadcasting licenses were granted for newly created coverage areas:

Baden 94.2 MHz, Bregenz 91.5 MHz, Linz 96.7 MHz and Ybbs an der Donau 96.5 MHz.

4.1.2.2 Allocation of frequencies for the expansion of existing coverage areas

Improvements in three existing coverage areas

Three procedures carried out under Art. 12 in conjunction with Art. 10 PrR-G (old version) served to improve coverage quality in existing coverage areas:

- Gmünd 95.7 MHz, to improve the coverage area of Antenne Kärnten
- Schwaz 2 100.2 MHz, to improve the coverage area of Unterländer Lokalradio GmbH in the lowlands of Tyrol and Zillertal valley
- Neunkirchen 98.2 MHz, to improve the coverage area of Party FM in the area surrounding Wiener Neustadt.

Four existing coverage areas expanded

Four procedures carried out under Art. 12 in conjunction with Art. 10 PrR-G (old version) served to expand existing coverage areas:

- Hermagor 98.4 MHz, to expand the coverage area of Kronehit Villach
- Kremsmünster 106.6 MHz, to expand the coverage area in central Upper Austria
- Göttweig 107.1 MHz, to expand the Tulln coverage area for Donauradio Wien GmbH (Radio Arabella)
- Spittal/Drau 99.3 MHz, to expand the coverage area of Kronehit Villach.

In five procedures, applications were rejected or dismissed for lack of technical feasibility or due to the insufficient size of the coverage area requested.

Several procedures not yet completed

An additional five allocation procedures were initiated in 2004 but had not been completed by the end of the reporting period:

- Innsbruck 3, Natterer Boden 92.9 MHz
- Lienz 106.4 MHz
- Lind im Drautal 102.3 MHz
- Hintertux 89.2 MHz
- Scheffau/St. Johann in Tirol/Kitzbühel 88.9 MHz.

New allocation system since August 1, 2004

The amendment to the Private Radio Act which went into effect as of August 1, 2004 now provides for a streamlined system of allocating transmission capacities.

Restricted tender procedure for applications involving coverage improvements

Under the current version of Art. 12 Par. 4 PrR-G, if an application for improvements in coverage is deemed feasible and permissible in terms of communications engineering, it is announced to the radio broadcasters licensed for the area to be covered by the requested transmission capacity. Within two weeks of delivery of the announcement, those radio broadcasters then have the right to apply for allocation of the transmission capacity themselves if the transmission capacity in question could also serve to improve coverage in their own areas. In such (counter-)applications, the applicants are also required to specify the coverage deficiencies to be remedied by the transmission capacity in question.

If another radio broadcaster submits an application in such a restricted tender procedure and is able to provide evidence that allocating the transmission capacity to the broadcaster's coverage area would bring about a greater improvement of deficiencies in its coverage area, the transmission capacity is to be allocated to that broadcaster and not to the original applicant.

The decision as to whether such an improvement is greater is based on the principle of economy in frequency usage (with special attention to avoiding double or multiple coverage), the number of people affected by the coverage deficiencies (resident population) as well as the geographical extent and severity of the coverage deficiencies.

In the case of applications for the creation of new coverage areas, technical range is now also taken into consideration:

Technical range now relevant in new license procedures

An application is to be rejected in cases where the technical range is less than 50,000 people and the applicant does not provide evidence that an independent radio station in the coverage area would serve special local needs and that the radio station can be financed in the long term despite its low range. Applications are also to be rejected in cases where the technical range is between 50,000 and 100,000 people – with due attention to the existing coverage level with Austrian private radio stations and the competitive situation on the radio market – and one can not reasonably expect radio broadcasting to be financially viable in the requested coverage area in the long term.

Moreover, the regulatory authority may also issue an ordinance which reserves the requested transmission capacity for planning new coverage areas.

4.1.2.3 Nationwide radio licensing

On December 6, 2004, KommAustria issued KRONEHIT Radio BetriebsgmbH the first license for nationwide private radio broadcasting in Austria. This nationwide license was created by transferring the individual licenses for ten radio stations in the Kronehit group to KRONEHIT Radio BetriebsgmbH, formerly Radio Privat Niederösterreich GmbH. A total of 28 frequencies were included in this nationwide license.

Legal basis

The legal basis for nationwide broadcasting licensing for private terrestrial radio is the amendment to the Private Radio Act which went into effect on August 1, 2004. Until April 30, 2005, existing radio broadcasters were allowed to transfer their licenses to a joint-stock company,

which could then apply for a nationwide license. One specific prerequisite for nationwide licensing is a technical range covering more than 60% of Austria's population. The original licenses are rendered void once the official decision issuing the nationwide license takes legal effect.

Kronehit programming

The newly licensed private radio station broadcasts a full 24-hour program in AC (adult contemporary) format under the name "KRONEHIT" and has defined itself as an entertainment station for adults in Austria. In addition to its programming focus on music, entertainment information from Austria and the rest of the world, and content relevant to the target group (sports, events, etc.), the station's programming also includes various services such as weather and traffic information.

Coverage area

On the basis of the official decision published by KommAustria, the following areas are now covered by Kronehit: The provinces of Vienna, Lower Austria and Burgenland, as well as the towns of Salzburg and Innsbruck, the town of Linz and parts of the greater Linz area, Perg, Vöcklabruck, Gmunden, the Wels area, Schärding, Grieskirchen, Ried im Innkreis and Braunau am Inn. In addition, the station covers the town of Villach, parts of the greater Villach area, as well as the districts of Zell am See, Tamsweg, St. Johann im Pongau, Hallein and Kitzbühel. Due to a recent decision handed down by the Austrian Administrative Court, the nationwide license does not include the Graz coverage area. In total, KRONEHIT Radio BetriebsgmbH reaches approximately 64% of Austria's population.

As all parties to the procedure waived their rights to legal remedies, the official decision went into effect on December 16, 2004, and broadcasting operations began on December 17, 2004.

4.1.2.4 Event and educational radio stations

Temporary licenses for event and educational radio programs

In the year 2004, KommAustria once again granted licenses for several event and educational radio stations. These licenses are granted under Art. 3 Par. 5 PrR-G and are limited to a few months for the provision of local broadcasting services in the context of a temporary, independent public event (event radio), as well as licenses for training or educational institutions in their local area if the programs are related to the functions performed by these institutions (educational radio).

The following licenses were granted in 2004:

- Six event radio stations: One station for the Austrian Conference of Bishops on Catholic Day 2004 in Mariazell; one station for the Linz tourism association in the context of the Linz Cultural Summer 2004; one station in the course of the Gutenstein summer festival in Lower Austria; one station organized by "Njoy Radio" for the "Romans" exhibition in the Lower Austrian Provincial Exhibition; one radio station linked to the "Green Panther Gala" in Graz; and one station to mark the 100th anniversary of the spa town of Bad Vöslau in the summer and fall of 2004. One application submitted by WERT-Impulse Beratungsgesellschaft für ganzheitliches Management GmbH for an event radio license during the advent festival in Baden was rejected because Christmas markets are not considered an independent event as specified under Art. 3 Par. 5 No. 1 PrR-G. An additional application for the extension of the event radio license for another "Romans" exhibition in 2005 was still pending at the end of the year.

- Two educational radio stations: Both the specialized college (FH) in St. Pölten (Campus Radio) and the secondary school in Freistadt (RADIUS 106.6) were issued educational radio licenses for an additional year. At the end of 2004, two applications were still under review: Studio Lannach's educational radio station in the Deutschlandsberg district and Melange Medien GmbH's training radio station in the Graz area.

4.1.2.5 Legal supervision of radio broadcasters

4.1.2.5.1 Infringement and license revocation procedures under the Private Radio Act

Two types of procedures: Legal violations and license revocations

Under Art. 25 PrR-G, KommAustria decides on complaints and (by virtue of its office) on PrR-G violations by private radio broadcasters. No such complaints were submitted during the reporting period. Official monitoring focused on adherence to advertising regulations under the new advertising monitoring scheme; for more information, please refer to Section 4.1.6 on advertising monitoring. Aside from that, legal supervision was essentially confined to KommAustria's ongoing review of radio broadcasters, accompanied by in-depth random sampling.

In addition, under Art. 28 PrR-G KommAustria is required to initiate a license revocation procedure in the case of repeated or severe violations of the law, in the case of unapproved programming changes, and in cases where a radio broadcaster no longer fulfills the legal requirements regarding ownership structure (Articles 7 to 9 PrR-G). In the first step, such a procedure ends with a request to restore legal compliance and to make arrangements to avoid such violations in the future. Only once the broadcaster fails to fulfill this request or such a violation is found more than once is it possible to revoke the broadcaster's license.

One procedure of this type was completed in the reporting period. In this case, the radio broadcaster had outsourced responsibility for radio broadcasting operations to an excessive extent (in the opinion of KommAustria) without ensuring an appropriate level of influence. Under Art. 3 Par. 4 PrR-G, radio licenses are non-transferable except in the case of overall legal succession under corporate law. The contracts concluded in this case were interpreted as a circumvention of this restriction on transferability. The licensee was requested to restore the situation to a legally compliant state. The complaint procedure regarding the second-instance confirmation of this official decision was still under review by the Austrian Administrative Court at the end of the reporting period.

4.1.2.5.2 Obligation to report changes in ownership structure under Art. 22 Par. 4 and 5 PrR-G (previously Art. 7 Par. 5 and 6 PrR-G)

Ongoing monitoring of ownership structures to ensure a diversity of opinions

Articles 7 to 9 PrR-G define the licensing requirements, including reasons for exclusion as well as provisions designed to prevent excessive media concentration for the sake of a diversity of opinions, to be complied with throughout the license's entire period of validity. Violations of these requirements are grounds for the revocation of broadcasting licenses.

In order to enable the regulatory authority to monitor compliance with these provisions, Art. 22 Par. 4 PrR-G stipulates that any changes in ownership or partnership structures (either directly in the radio broadcasting organization or indirectly in the parent company) must be reported to the regulatory authority. In special cases (if a new partner acquires more than 50% of a

radio broadcaster's shares directly), a statement is to be obtained from KommAustria before this change in ownership is effected in order to determine whether the change complies with the provisions under Articles 7 to 9 PrR-G.

Numerous changes in ownership structure were submitted during the reporting period. Many of these reports were related to the consolidation of interests in radio stations held by Styria Media AG (especially Antenne Steiermark) as well as the rearrangement of stakes in connection with the nationwide radio license issued to what is now KRONEHIT Radio BetriebsgmbH. In the course of dissolving the Tyrolean radio station *(Tiroler Funkhaus)*, a number of ownership changes were also reported, especially the full takeover of Tiroler Regionalradio (formerly Antenne Tirol, now Life Radio Tirol) by the publishing house J.S. Moser GmbH (*Tiroler Tageszeitung* newspaper). Finally, the Fellner family's two private foundations which operate in the radio sector increased their investments in the industry by taking over additional radio broadcasters. In addition to the consolidation of ownership in Vienna (Antenne Wien), acquisitions were also made in Wels (now Antenne Wels) and Innsbruck (formerly Arabella Innsbruck, now – along with the previously held license for the Tyrolean lowlands – Antenne Tirol).

4.1.2.6 Procedures under telecommunications law in the field of radio broadcasting

4.1.2.6.1 Private broadcasters

KommAustria as a "one-stop shop" responsible for licensing under broadcasting law as well as telecommunications procedures.

For the sake of simplicity in administration ("one-stop shopping"), KommAustria is responsible for licensing under broadcasting law as well as licensing radio systems for the provision of broadcasting services under telecommunications law. The latter responsibility applies to the radio systems of private broadcasters as well as those belonging to ORF.

If an application under TKG 2003 refers to the construction and operation of a new radio communications system as well as the allocation of a new transmission capacity to the broadcaster, this will be published and (if other interested parties apply) may also bring about a subsequent tender procedure pursuant to Articles 12 and 13 PrR-G.

In contrast, applications under telecommunications law without direct reference to broadcasting law are generally based on planned technical changes in radio communications systems, such as the use of new transmitter antennas, site changes or output enhancements.

All such applications are reviewed for compatibility with existing domestic and foreign transmitters by RTR's Broadcasting Frequency Management Department. In most cases, especially in applications for a completely new transmission capacity, this requires an international coordination procedure in order to obtain approval from potentially affected neighboring countries.

In applications for changes, it is then possible to approve planned modifications to radio broadcasting systems. In the case of applications which are also subject to broadcasting law, the relevant procedure is continued in accordance with that legislation.

In 2004, KommAustria approved 16 applications for changes in radio communications systems for private radio broadcasters. At the end of the year, another three applications were still pending.

4.1.2.6.2 ORF

In light of its responsibility for all broadcasting organizations, KommAustria continued to document and record all radio and television transmitter stations belonging to ORF and private broadcasters. ORF has approximately 1,800 transmitter stations at 470 locations in Austria.

Change in existing permits: Tunnel radio

Two applications submitted by ORF for the modification of a license to construct and operate rebroadcast receiver and transmitter stations for terrestrial analog radio (VHF) were approved by way of an official decision; in both cases, ORF planned to increase the station's maximum radiated power. In addition, the construction and the operation of 23 VHF tunnel radio systems were approved for ORF.

Allocation of transmission capacities

In the reporting period, ORF was also allocated four frequencies at two different locations in order to ensure coverage with ORF radio channels. The official decision issued by KommAustria on February 6, 2004 (KOA 1.800/04-3) allocated to ORF the transmission capacity PINSWANG 93.9 MHz in order to ensure coverage with ORF's Ö3 radio station. With the official decision issued by KommAustria on June 9, 2004 (KOA 1.800/04-16) and the confirmation decision of July 7, 2004 (KOA 1.800/04-18), ORF was also allocated the frequencies ELLMAUTAL 87.9 MHz, ELLMAUTAL 90.6 MHz and ELLMAUTAL 99.4 MHz in order to ensure coverage with the ORF radio stations Ö1, Ö2 (Radio Salzburg) and Ö3. In both cases, the corresponding construction and operation permits were issued. However, until the coordination procedure is completed, these permits are valid on the condition that they are only used for experimental purposes and can be revoked at any time.

Single-frequency and short-wave broadcasting

In digital radio broadcasting, the permits granted to ORF for the construction and operation of several transmitter stations for further technical testing of the T-DAB single-frequency network were extended until December 31, 2005 for Vienna and until April 1, 2005 for Innsbruck. In the field of short-wave radio, ORF was granted a permit to use frequencies from the WARC 92 band extensions for the period from October 31, 2004 to March 27, 2005.

4.1.2.7 Frequency spectrum optimization

Revocation of transmission capacities

In the official decision issued on June 16, 2004 (KOA 1.800/04-14), ORF's authorization to use its radio frequencies at the location LINZ 2 Freinberg (91.8 MHz: Ö1; 95.8 MHz: Ö2 Upper Austria; 99.4 MHz: Ö3; 102.0 MHz: FM4) was revoked under Art. 11 Par. 2 PrR-G.

Art. 11 Par. 2 PrR-G states that the regulatory authority is to revoke an existing use authorization for a frequency in cases where the authority decides that the broadcaster is providing double or multiple coverage in the area in question. This decision is made after a hearing with the authorized broadcaster.

Double coverage in Linz

ORF radio stations cover the town of Linz via the principal transmitter LINZ 1 Lichtenberg on the following frequencies: 97.5 MHz: Ö1; 95.2 MHz: Ö2 Upper Austria; 88.8 MHz: Ö3; and 104.0 MHz: FM4. Opinions drawn up by official experts indicated that the entire area of the LINZ 2 Freinberg location was already covered with sufficient field strength by the LINZ 1 Lichtenberg

location, meaning that the area in question had 100% double coverage. ORF argued that LINZ 1 Lichtenberg was unable to ensure satisfactory quality in some areas (specifically on the slope of Pöstlingberg mountain and in Urfahr). However, this area only comprises 3,000 residents, or 2% of the population covered by the LINZ 2 Freinberg transmitter. Therefore, despite ORF's arguments regarding the need for sufficient reception quality, the level of double coverage was 98% and thus deemed disproportionate.

ORF has filed a complaint with the Austrian Administrative Court.

For these reasons, the authorizations for these four transmission capacities had to be revoked in order to make them available to other radio broadcasters. With its decision of October 14, 2004 (GZ 611.194/0001-BKS/2004) the Federal Communications Senate rejected ORF's appeal against the official decision, thus making it legally enforceable. However, ORF subsequently filed a complaint with the Austrian Administrative Court on December 1, 2004.

4.1.3 Regulatory activities in television broadcasting

4.1.3.1 Must-carry procedures

KommAustria mediates in disputes regarding must-carry requirements in cable networks.

With the amendment to the Private Television Act (PrTV-G), the must-carry requirements imposed on Austrian cable network operators were expanded as of August 1, 2004. The provision in Art. 20 PrTV-G specifies the television channels which have to be broadcast by cable television network operators in any case. These channels include those of ORF, the nationwide private channel ATVplus, and up to two local channels upon request.

The recently expanded requirements include an additional Austria-specific channel of supra-regional interest as well as private terrestrial channels which can be received in the cable network's coverage area. In the latter case, the channel has to be broadcast on an activated spot in the network's channel lineup. KommAustria is responsible for decisions in cases of dispute.

In the reporting period, one must-carry application was submitted to KommAustria. However, after the legally required official mediation procedure and additional negotiations between the broadcaster and the cable network operator, the parties were able to reach an agreement and the procedure was discontinued in early 2005.

4.1.3.2 ORF procedures under telecommunications law

KommAustria is also responsible for granting permits under telecommunications law for the construction and operation of ORF's broadcasting transmitter stations (i.e., not only those of private broadcasters). The authority's activities in the field of radio broadcasting as well as the documentation and registration of all radio and television transmitter stations are described in Section 4.1.2.

Changes in existing permits

In the field of television broadcasting, ORF submitted four applications for changes in permits for rebroadcast receiver and transmitter stations, all of which were approved by way of official decisions. These applications specifically referred to changes in rebroadcast reception and to increases in maximum radiated power for regular operation. In addition, one application submitted by ORF for a permit to construct and operate an ORF television feed system was also approved by means of an official decision.

4.1.3.3 Frequency spectrum optimization

Expiration of licenses

Licenses expire if they remain unused for one year.

Under Art. 5 Par. 7 PrTV-G, television broadcasting licenses are to expire in cases where the regulatory authority determines (after a hearing with the broadcaster) that the license has not been used for a continuous period of one year, for reasons to be justified by the broadcaster. This provision is intended to prevent licenses from remaining unused.

In the reporting period, the regulatory authority made such a determination regarding the terrestrial analog television license granted to LFT tirol tv GmbH & Co KG. Its coverage area (parts of the Tyrol) consisted of "leftover" parts of the nationwide frequency chain which were not claimed by ATVplus when this station was issued a nationwide license. The licensee apparently considered the installation of terrestrial broadcasting facilities to be economically unviable, and the license expired upon completion of this procedure.

As the transmission capacities in question are suitable for the introduction of digital terrestrial television, they were not put out to tender again after the expiration of the license under Art. 17 Par. 1 in conjunction with Art. 12 No. 5 PrTV-G; instead, they were added to the frequency pool for digital terrestrial television.

4.1.4 Satellite broadcasting

Five new satellite licenses, six new channels

The uniform licensing procedure for satellite television and radio broadcasting is governed by Art. 4 ff of the Private Television Act.

In 2004, KommAustria granted five new satellite broadcasting licenses:

- MEC Sport und Entertainment GmbH (RaceOn TV): License for a specialized 24-hour channel with live broadcasts and recordings of horse races, primarily produced by the broadcaster. The channel is broadcast in encrypted form and can be received by subscription at horse racetracks, sports cafés, betting agencies, etc., but not in private households. This channel did not go on the air during the reporting period.

- TIV Kabel-Fernsehgesellschaft m.b.H (gotv): License for a specialized 24-hour channel focusing on "music and leisure information" for young people aged 14 to 25. This channel is broadcast via the digital satellite ASTRA 1G, 19.2° East.

- Franz Ressel Handels GmbH (INXTC TV and X-Plus TV): License for two 8-hour channels specializing in erotic entertainment. These channels are broadcast in encrypted form. EUROTIC-TV: License for an 8-hour channel specializing in talk shows and news broadcasts.

- A3 Privatfernsehen Betriebs GmbH (Alpen Adria TV): License for a 24-hour channel covering the fields of education, culture, entertainment, music, shows, sports, shopping and news. As regards films and series, the channel focuses on European (primarily Austrian) productions. This channel did not go on the air during the reporting period.

- R.T.C Radio-Television-Communications-HandelsgmbH (YES TV): This channel offers a 24-hour program mainly produced by the broadcaster itself and includes a TV shopping program as well as elements such as contests and free gifts.

Changes and extensions of satellite licenses are also subject to approval under Art. 6 PrTV-G. The following changes/extensions were approved by KommAustria in 2004:

Changes and extensions of satellite licenses

- Premiere Fernsehen GmbH (Premiere Austria): Approval of two additional channels containing a compilation of films from the genres comedy/entertainment, thrillers/crime/suspense as well as action and drama under the name of Premiere Film. The same content is broadcast on these channels in German and English.

- Pro Sieben Austria GmbH (Pro Sieben Austria): The existing schedule was expanded to include two Austria-specific programs which may last up to 60 minutes per day. In addition, the Austria-specific content is also broadcast on the Kabel 1 parent channel.

One application for a license to broadcast via satellite was dismissed due to the fact that KommAustria was not responsible for the application. The applicant was unable to provide evidence of its fulfillment of the licensing prerequisites under Art. 3 PrTV-G (among other things, being incorporated or having its main offices in Austria).

4.1.5 Public communications networks and services

Communications networks must be reported to the regulatory authority under Art. 15 TKG 2003.

The obligation to report the planned operation or provision of a public communications network or service for broadcasting transmission (radio and television) and additional broadcasting services includes dissemination by means of terrestrial transmitters, cable networks and satellites. The launch, modification or discontinuation of such operations are each to be reported separately. Regardless of their place of incorporation, all organizations providing communications services in Austria are subject to this reporting requirement. After receiving a complete notification report, KommAustria issues a confirmation (general approval) pursuant to Art. 15 Par. 3 TKG 2003.

In practice, this reporting obligation is especially relevant to the broadcasting activities of cable network operators. In the reporting period, KommAustria issued 76 general approvals to cable network operators in accordance with Art. 15 Par. 3 TKG 2003. In early 2004, one general approval of communications service provision for terrestrial broadcasting was issued to ORF after the appropriate notification report was submitted.

4.1.6 Advertising monitoring

Sample-based monthly evaluation of all broadcasting channels

Due to the recent amendment of Austrian broadcasting laws (BGBl. I No. 97/2004), KommAustria has been responsible for performing regular analyses (at least at monthly intervals) of all broadcasters' programs containing advertisements since August 1, 2004. In this context, KommAustria is now responsible for monitoring ORF and its subsidiaries' adherence to advertising regulations, in addition to the authority's previous responsibility for the legal supervision of all private broadcasters (including adherence to advertising regulations under the PrR-G and PrTV-G).

In fulfilling this duty, KommAustria is obligated to publish the results of the analyses mentioned above in a suitable form. This is done via the RTR web site. In cases where a violation of advertising regulations is suspected, the broadcaster concerned is immediately requested to submit comments regarding the potential infringements. KommAustria can only identify *potential* violations of the law at this stage of the procedure.

Once the broadcaster's comments have been taken into consideration, the following may occur:

- If there is no (or no longer) justified suspicion of a violation of the relevant regulations, the procedure is discontinued.

- If there is justified suspicion that ORF or one of its subsidiaries has violated one of the relevant regulations, a report is filed with the Federal Communications Senate, which then has to decide on the case in a legal violation procedure under Art. 11a KOG.

- If there is justified suspicion that a private broadcaster has violated the relevant regulations, KommAustria is to pursue this violation by virtue of its office in a legal violation procedure under Art. 60 ff PrTV-G and Art. 25 ff PrR-G.

In its sample-based monitoring of advertising activities, KommAustria is to ensure that a representative cross-section of programs from various areas (culture, sports, reports, news, shows, feature films, etc.) is analyzed.

From August to December 2004, KommAustria monitored programs on ORF's two television channels, various broadcast shows on the nationwide radio channels Ö3 and FM4, as well as most of ORF's regional radio channels broadcast throughout each province. Likewise, the shows of Tourismus Fernsehen GmbH (TW1), an ORF subsidiary, were also subjected to these analyses.

At the same time, KommAustria also evaluated shows from ATV Privatfernseh-GmbH's nationwide television channel (ATVplus), the channel broadcast by Sat.1 Privatfernsehen GmbH (Sat.1), the Vienna area channel Puls City TV GmbH (Puls TV), the Linz area channel broadcast by Privatfernsehen GmbH (LT1) as well as the Salzburg area channel of Salzburg TV Fernsehgesellschaft m.b.H. (Salzburg TV). As for private radio stations, KommAustria performed evaluations of radio shows put on by N&C Privatradio Betriebs GmbH (Radio Energy), Antenne Wien Privat Radio Betriebsgesellschaft m.b.H. (Antenne Wien), Radio Eins Privatradio GmbH (88.6 MHz), Donauwelle Radio Privat Niederösterreich GmbH (Kronehit Niederösterreich),

Donauradio Wien GmbH (Arabella Wien 92.9 MHz), Antenne Steiermark Regionalradio GmbH (Antenne Steiermark), Life Radio GmbH & Co KG (Life Radio), Antenne Kärnten – Regionalradio GmbH & Co KG (Antenne Kärnten), Antenne Salzburg GmbH (Antenne Salzburg), Vorarlberger Regionalradio GmbH (Antenne Vorarlberg), the Radio Stephansdom church foundation as well as Freier Rundfunk Oberösterreich GmbH.

The most commonly identified infringements of advertising regulations pertained to the requirement that editorial content be strictly separated from advertising and to the provisions regarding sponsored shows. Such violations were identified in the television and radio shows of ORF as well as those of private broadcasters to an equal extent. In addition, KommAustria also submitted reports to the Federal Communications Senate with regard to potential violations of provisions regarding limits on product placement in ORF television shows. The decisions on advertising violations issued by KommAustria regarding private broadcasters are not yet legally enforceable. With regard to reports on potential violations of ORF Act advertising regulations (submitted to the Federal Communications Senate), most of the legal violation procedures to be handled by the Federal Communications Senate are still pending.

The current status of all procedures related to advertising monitoring is published on the RTR web site at http://www.rtr.at/werbebeobachtung (in German).

4.1.7 Broadcasting market analysis

Under Art. 37 TKG 2003, a market analysis is to be carried out for the markets defined in the Relevant Markets Recommendation of the European Commission[1] at regular intervals in order to determine whether one or several companies have significant market power on the respective market and whether effective competition prevails on each market.
Based on the circumstances in Austria, KommAustria subdivided the market for "Broadcasting transmission services to deliver broadcast content to end users" defined by the European Commission into the following markets:

1. Market for terrestrial television broadcasting
2. Market for television broadcasting via cable networks
3. Market for satellite television broadcasting
4. Market for terrestrial VHF radio broadcasting
5. Market for terrestrial AM radio broadcasting
6. Market for radio broadcasting via cable networks and satellites if the signals are transmitted to end-users.

[1] Commission Recommendation of February 11, 2003, on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.

For each of these markets, a market analysis is to be conducted if the three criteria specified in the European Commission's Relevant Markets Recommendation are fulfilled. These criteria are:

1. High and non-transitory barriers to market access exist.
2. The market does not tend toward effective competition on its own.
3. The application of competition law alone would not be sufficient to create and ensure effective competition.

In its ordinance of January 14, 2004 (Broadcasting Market Definition Ordinance 2004, or RFMVO 2004), KommAustria determined that the (end-user) markets for terrestrial television broadcasting and for terrestrial VHF radio broadcasting meet the three criteria, therefore it was necessary to carry out a market analysis for those markets.

On January 23, 2004, KommAustria commissioned official experts at RTR to write an expert opinion. The experts were to review whether effective competition prevails on each market in the RFMVO 2004 from an economic standpoint. In this context, the presence of economic market power, especially according to the criteria defined in Art. 35 Par. 2 and 4 TKG 2003, was to be reviewed.

RTR began collecting data on January 23, 2004 in order to gather the necessary information from broadcasters for the market analysis.

On the basis of this data, RTR then drew up market analysis opinions, which were conveyed to ORF (as a party to the procedure) for comments.

On December 6, 2004, KommAustria instructed the official experts at RTR to write another opinion. In this case, the experts were to establish which specific obligations under Articles 38 to 46 and/or Art. 47 Par. 1 TKG 2003 would be suitable from an economic standpoint for the Austrian Broadcasting Corporation (ORF) as a potential SMP company in order to address the competition problems identified in the market analysis opinions of October 2004 on the relevant markets.

These opinions were completed in December and passed on to ORF for comments.

On January 19, 2005, ORF informed KommAustria that it considered the request for comments superfluous, as the company had shifted its broadcasting infrastructure and operations to Österreichische Rundfunksender GmbH & Co KG (ORS).

In response, KommAustria issued yet another instruction for opinions to RTR's official experts, this time for an investigation of the competitive conditions on the relevant markets under the new circumstances arising from ORF's spinoff and – if necessary – on the application of specific obligations under Articles 38 to 46 and/or Art. 47 Par. 1 TKG 2003.

These opinions were completed in February 2005 and passed on to ORS for comments.

4.1.8 Broadcasting frequency management and frequency coordination

4.1.8.1 The working basis for frequency management

Frequency management and frequency coordination are a very important part of KommAustria and RTR's day-to-day work in the field of broadcasting. These activities serve the interests of ORF as well as those of the private broadcasters.

The field of broadcasting frequency management covers the following broadcasting services:

- Analog terrestrial television broadcasting
- Digital terrestrial television broadcasting (DVB-T)
- VHF analog radio
- Digital terrestrial audio broadcasting (T-DAB)
- MW (medium wave)
- SW (short wave)
- DRM (Digital Radio Mondiale)
- Satellite broadcasting.

In order to ensure the efficient utilization of the frequency spectrum and to avoid interference between individual radio services and stations, coordination is necessary within Austria and generally with neighboring countries as well. In the frequency bands dedicated nationally and internationally to the broadcasting services mentioned above, other radio services are also operated in addition to broadcasting services.

International coordination procedure required for new transmission capacities

The fundamental rules for international coordination are laid down in the ITU's Radio Regulations. In general, the International Telecommunication Convention stipulates that radio broadcasting stations can only be put into operation once they have been coordinated with all of the telecommunications authorities affected.

For most radio services, especially those in which coordination activities are highly involved and complex, there are additional international conventions within the framework of the ITU (such as Regional Radio Conferences) or under agreements and conventions within the Conférence Européenne des Administrations des Postes et des Télécommunications (CEPT).

Specifically, broadcasting frequency management is governed by the following international broadcasting agreements:

- Stockholm 61 (ITU conference)
- Chester 97 (CEPT conference)
- Geneva 84 (ITU conference)
- The special agreement of Wiesbaden 95, revised in Maastricht 2002 (Band III),
- The special agreement of Maastricht 2002 (L-Band)
- Geneva 75 (ITU conference).

Short wave transmission is coordinated under the Radio Regulations and the international High Frequency Coordination Conference (HFCC), an association of broadcasting operators.

New terrestrial transmission capacities to be used by broadcasting operators can only be developed in the course of coordination procedures, which generally last three to six months.

Decisive factors in the coordination process: Topography, altitude, radiated power.

The number of countries to be included in the coordination process for conventional broadcasting in Bands I, II, III, IV and V essentially depends on sectoral radiated power, the altitude of the transmitter, and the mean ground elevation in an area of three to 15 km around the transmitter.

When coordination requests are evaluated, the authorities review not only whether the new frequencies will cause interference for broadcasting transmitters already in operation but also whether they might impinge on existing rights recorded as entries in the relevant frequency plans.

Each coordination procedure under the ITU convention mentioned above is divided into two stages: The first stage involves bilateral coordination with neighboring countries, after which the results are reported to the ITU Radiocommunication Bureau. The ITU then publishes all requests in a circular, specifying a period for justified objections. If no objections are raised, the procedure is considered successfully completed. Once entered in the frequency plan, the frequency is accorded international protection rights.

4.1.8.2 Frequency management activities

International coordination and frequency negotiations to secure frequency resources for Austria

Experience has shown that media policy and frequency management are closely interrelated in the field of broadcasting: Media policy as well as applicants usually require more frequencies than frequency management can provide due to the physical laws of wave propagation. For this reason, it is crucial for Austria to protect its interests in international coordination and frequency negotiations with the authorities in neighboring countries and to negotiate the use of available resources in a cooperative manner. The last point is especially important with regard to preparations for RRC06 (Regional Radio Conference 06, the conference to follow up on Stockholm 61). RRC06 will be a planning conference for DVB-T, and a frequency plan will be drawn up to govern future DVB-T networks over several decades.

Once again, the regulatory authority's international coordination activities in 2004 focused on the application of the coordination procedures according to the international agreements mentioned above.

The number of coordination procedures initiated by Austria in 2004 as well as those which required review by Austrian authorities are listed in Table 1 below:

Table 1: **Number of coordination procedures**

Country	VHF radio	Analog TV	Digital TV
Austria	28	25	4
Bosnia-Herzegovina	13	6	0
Czech Republic	41	7	5
Germany	21	0	59
France	62	0	0
Hungary	30	20	25
Croatia	28	62	2
Italy	0	458	82
Poland	12	4	17
Serbia and Montenegro	0	6	0
San Marino	0	15	9
Switzerland	44	17	10
Slovakia	9	1	99
Slovenia	43	21	1
TOTAL	**331**	**642**	**313**

In preparation for the introduction of DVB-T in Austria and RRC06, the year under review saw various forms of bilateral, trilateral and multilateral frequency negotiations with Switzerland, Germany, Poland, the Czech Republic, Slovenia, Croatia, Slovakia and Hungary.

In the course of preparations for RRC06, a large number of frequency coordination groups have formed in Europe and have already begun to develop frequency plans for RRC06. Austria is working with the countries mentioned above in four main groups.

The objective is to plan one DVB-T and up to three T-DAB coverages in Band III and six to seven DVB-T coverages in Bands IV and V which can be used for digital terrestrial broadcasting services in the "all-digital future" (i.e., once all analog terrestrial television channels have gone off the air).

On the basis of allotment limits, topography and the existing analog transmitter network infrastructure, the television channels 5-12 and 21-69 are to be coordinated in the allotment regions like a large multi-dimensional puzzle in cooperation with the relevant frequency administrators, after which they will be allotted in the working groups.

The following main working groups met a total of nine times in 2004: Germany, Switzerland and Austria (chaired by Switzerland); Germany, Czech Republic, Poland and Austria (chaired by Austria); Slovakia, Hungary and Austria (chaired by Hungary); Hungary, Croatia and Austria (chaired by Austria).

Due to the favorable topography for frequency planning in the west of Austria, a very sound plan has already been developed in cooperation with frequency administrators in neighboring countries. As the frequency situation in the east of Austria is more difficult, many issues are still unresolved. One major focus of activities in the year 2005 will be to find solutions and develop alternatives in this part of Austria.

4.1.8.3 Activities in licensing and allocation procedures

With regard to double coverage, technical expert opinions on frequency engineering are decisive factors in licensing procedures.

One essential task in broadcasting frequency management is the preparation of technical expert opinions for KommAustria under the PrR-G and the PrTV-G. Depending on the instruction issued or the procedure itself, these expert opinions cover various factors in connection with the technical implementation of transmission capacities, such as the feasibility of the transmission capacity, active/passive interference, intermediate frequency interference, coverage capabilities, coordination probability, double and multiple coverage, extension or densification of an existing license, number of residents covered, and compatibility with aviation radio systems. Practical experience has shown that expert opinions provide an important basis for decision-making in the procedures carried out by KommAustria.

In addition, a total of 15 extensive expert opinions and statements were drawn up for KommAustria in the process of handling numerous private radio applications (new licenses as well as modifications of technical parameters in existing frequencies). Two technical expert opinions were drawn up for KommAustria in the course of the nationwide radio licensing procedure.

In addition, a total of 29 radio (23 for tunnel radio) and five television applications submitted by ORF were reviewed in light of frequency engineering, mainly for modifications of the characteristic technical parameters of transmitter stations. The corresponding coordination procedures and registrations were carried out in line with coordination agreements and ITU Radio Regulations.

4.1.8.4 Frequency register

RTR's broadcasting transmitter map allows targeted information queries.

Another duty of the regulatory authority under the PrR-G and PrTV-G is to maintain the Austrian frequency register. All licensed VHF and television broadcasting transmitters are to be entered in the frequency register, which gives a comprehensive and up-to-date overview of all licensed transmitter stations belonging to ORF and private broadcasters. This data is also available to the public on the RTR web site (http://www.rtr.at). In addition to register listings, an interactive transmitter map was developed for the RTR web site in cooperation with the company WIGEOGIS in 2004 in order to allow visitors to the web site to view a graphic display of approved transmitters. A variety of possible queries allow the user to search for and display specific transmitters or broadcasting operators. Some 2,300 transmitters are included in the frequency register and transmitter map. Of those transmitters, approximately 2,000 are ORF stations (including transmitters belonging to municipalities), while the remaining 300 transmitters are operated by private broadcasters.

4.1.8.5 Measurement vehicle

Since early 2003, RTR has had a measurement vehicle with the equipment necessary to record, clarify and document measurements to support the regulatory authority in fulfilling its duties in the field of frequency management.

In 2004, the measurement vehicle was used often in the course of licensing procedures and complicated coordination procedures. The vehicle also saw increased use in the field of analog and digital television, especially in the DVB-T trial in Graz.

Intensive measurements were also taken in the course of redesigning the transmission network for nationwide licensing as well as the optimization of coverage for various private radio stations. Numerous test broadcast measurements in order to verify the feasibility of frequency plans and interference measurements were also included in approximately 60 measurement projects carried out in 2004.

4.1.8.6 DVB-T trial in Graz

Theoretical coverage analyses generated by planning software served as a basis for stationary and mobile measurement trips as well as portable indoor measurement series. In particular, the consistency of mobile measurements with these analyses was demonstrated quite clearly. This will also ensure an appropriate degree of certainty in future planning. In addition, the coverage maps made it possible to narrow down the selection of households for the market research accompanying the trial.

During the testing stage, coordination for Channel 69 (Schöckl) was initiated for future operations. In combination with Channel 62, this will make it possible to set up a multi-frequency network and make the necessary network structure available for mobile tests (e.g., for handover testing).

4.1.8.7 DVB-T network planning

Based on the analysis of the analog television network in Styria, sample initial evaluations were carried out for the future DVB-T network for various reception modes (stationary, mobile and portable indoor). For the purpose of stationary coverage, it was determined that the number of broadcasting transmitters could be reduced compared to ORF's analog transmitter network. For seamless mobile and portable indoor coverage, the broadcasting network will have to be expanded to include a large number of new transmitters in addition to the existing analog locations.

These results served as the basis for an expert opinion on the transition to DVB-T in Austria, written by Prof. Thomas Hirschle, Director of the Landesanstalt für Kommunikation in Baden Württemberg, Germany, and published in RTR's series of papers.

4.1.8.8 International activities

Prerequisite for the successful digitization of broadcasting: Cooperation of KommAustria and RTR in international working groups

In the period under review, RTR's international activities in broadcasting frequency management were characterized by preparations for the introduction of DVB-T in Europe and beyond. Activities within the ITU focused on ensuring the success of the RRC06 planning conference. The region for which frequency plans are being developed includes Europe, Africa and parts of Asia. In CEPT activities, European countries made joint preparations for the conference. In bilateral and multilateral meetings at the administrative level, pre-coordinated frequency plans were developed as requirements to be submitted at the conference.

4.1.8.8.1 Conférence Européenne des Administrations des Postes et des Télécommunications (CEPT)

The CEPT groups relevant to broadcasting (mentioned below) worked to revise the Stockholm 61 agreement. The first part of this process, RRC04, has already been completed. Frequency management issues as well as technical fundamentals according to the latest developments and findings were discussed and submitted as Europe's preparatory contributions to the ITU conference. In the working groups, leading European experts from over 40 CEPT member countries worked to develop a joint strategy for the introduction of DVB-T and T-DAB in Europe.

4.1.8.8.2 Frequency Management Working Group (FMWG)/RRC06 WG

Before RRC04, the main task was to draw up European Common Proposals (ECPs) for this conference. After the successful completion of RRC04 in May 2004, CEPT undertook a major restructuring and redistribution of tasks with regard to the second part of the conference in 2006. Due to the high priority of preparatory work, a separate group with high-level decision-making power was formed: The RRC06 Working Group (RRC06 WG). The group's working methods and terms of reference were drawn up and approved by the European Communication Council (ECC). The first meeting of the RRC06 Working Group took place in Budapest in September. In the future, the group will decide on all joint activities in preparation for the RRC06 conference.

4.1.8.8.3 CEPT Working Group FM PT24/PT1 and PT2

Due to the restructuring mentioned above, two project teams were formed under the RRC06 WG: PT1 (Regulatory and Procedural Studies) and PT2 (Intersessional Planning). FM PT24 discontinued its work once the RRC04 conference was completed.

PT1 is specifically devoted to preparing the text of the new agreement. In addition, equal access to frequency resources and regulations for the transition phase will also be dealt with. PT2 focuses on frequency planning. In addition to considering non-broadcasting services such as military radio or radio astronomy, this group is mainly tackling the special challenge of mixed planning for DVB-T and T-DAB in Band III.

4.1.8.8.4 International Telecommunication Union (ITU)

In the reporting period, RTR's main activities in broadcasting frequency management were related to enabling DVB-T as a replacement for analog television within the framework of the International Telecommunication Convention. The most significant event of the year was the RRC04 conference. Moreover, intersessional work (between RRC04 and RRC06) has already begun in the Regulatory and Procedural Group (RPG). The result will be an input document for RRC06 which – like ST61 or GE84 – governs the coordination of DVB-T and the administration of the digital frequency plan.

4.1.8.8.5 RRC04 (May 10 – 28, 2004)

First major milestone in the development of a frequency plan for digital broadcasting services

The agenda for this conference was defined in Revised Resolution 1185 issued by the ITU Council. The technical report for the first session was drawn up by Task Group 6/8. A total of 102 delegations (915 participants) registered for the conference; in the end, 95 delegations (774 participants) actually attended. A total of four delegates from KommAustria and RTR attended the conference.

By taking part in various commissions and working sub-groups, KommAustria and RTR have ensured that they can represent Austria's interests as effectively as possible at the RRC06 planning conference. On the basis of the conference's results, it was possible to carry out further planning activities in broadcasting frequency management and to compile Austria's requirements according to the detailed relational data formats to such an extent that realistic intermediate results can be expected in the trial.

4.1.8.8.6 MHP Implementation Group

Within the framework of CoCom's activities, the European Commission formed the MHP Implementation Group with the objective of exchanging experience regarding the introduction of interactive television in EU member states. To date, the group has held two meetings, which were attended by representatives of Austrian broadcasting and the electronics industry in a delegation headed by KommAustria.

4.1.9 Digitization of broadcasting

4.1.9.1 Digital Platform Austria

As mentioned in Section 6 of the Private Television Act (PrTV-G), the promotion of digitization in broadcasting is one of the core duties assigned to KommAustria and RTR. The introduction of digital broadcasting on all transmission platforms (cable, satellite and terrestrial) is a major challenge for every country, especially as specific market circumstances have to be taken into consideration and at the same time the process has to be coordinated with neighboring countries.

Digital Platform Austria supports the regulatory authority.

In order to support KommAustria's strategic work in the process of digitization, Austria's Federal Chancellor founded the Digital Platform Austria working group in early 2002. This group consists of over 300 experts from all areas affected by the digitization of broadcasting

The working group is managed by KommAustria and RTR as its operational arm. In addition to regular plenary meetings (once or twice per year), the group also holds expert panel meetings devoted to the topics of law, technology and market/content.

In the reporting period, the working group held two plenary meetings.

On May 13, 2004, a symposium was held on the occasion of the DVB-T trial in the Graz area. With Austrian State Secretary for the Arts and Media Franz Morak in attendance, top representatives of the project's core partners – ORF, RTR, Siemens Austria, and Telekom Austria – presented the pilot project. The technical high point of the event was a talk given by one of the leading researchers on the development of digital television in Europe: Ulrich Reimers from the Institute for Communications Technology at Braunschweig Technical University in Germany.

In a second plenary meeting on December 14, 2004, the working group was presented with the complete final report on the Graz DVB-T pilot project, and the project partners discussed their insights and findings. In addition, the essential results from the accompanying market research on consumer acceptance (commissioned by RTR) were presented.

In addition to the ongoing management of the Digital Platform Austria working group, KommAustria's regulatory activities in the field of broadcasting digitization focused on two areas: On the one hand, KommAustria ensured that the legal prerequisites for the DVB-T trial in Graz were met by granting pilot test permits under Art. 22 PrTV-G to all broadcasters involved in the project. On the other hand, the authority began preparing the invitation to tender for Austria's first regular terrestrial multiplex platform in early 2005. In the course of the tender procedure, KommAustria will also have to define selection principles in case there are several eligible bidders. These principles will account for the results of the DVB-T pilot project in Graz, and members of the Digital Platform Austria will have an opportunity to contribute suggestions in the relevant expert panel.

4.1.9.2 DVB-T trial in Graz

Pilot project in Graz as an integral part of Austria's overall DVB-T strategy

The DVB-T pilot project !TV4GRAZ for digital terrestrial television and additional interactive services based on the MHP standard can be seen as an integral part of Austria's overall strategy for the introduction of digital broadcasting.

For KommAustria and its operational arm RTR, the trial provided essential technical and strategic insights regarding the invitation to tender for a license to operate Austria's first multiplex platform, scheduled for the first half of 2005. In this context, the main question concerned the features of digital terrestrial broadcasting which should be emphasized in the introductory stage: Variety of channels, interactivity, picture and reception quality, or new modes of reception (portable indoor, mobile reception).

Broadcasters, the relevant sectors of the economy, and consumers should be prepared for the opportunities and challenges associated with broadcasting digitization by participating directly in the pilot project or indirectly by means of accompanying public relations work.

In the !TV4GRAZ pilot project, the full technical cycle of interaction in digital television broadcast by terrestrial means was completed in Austria for the first time between June and August 2004. The project was based on the DVB-T (Digital Video Broadcasting – Terrestrial) standard used to broadcast television signals. Additional interactive services were programmed and broadcast on the basis of the European MHP (Multimedia Home Platform) operating system standard.

Experience with MHP-based applications to benefit all platforms

The majority of investments involved developing MHP-based interactive applications and establishing a complete cycle of interaction in digital television. In this way, the experience gained in the Graz test project will benefit digitization on all broadcasting platforms (cable, satellite and terrestrial) for broadcasting organizations and application developers alike, as well as promoting Austria as a media location.

In addition to the key partners ORF, RTR, Siemens Austria and Telekom Austria, numerous other companies also participated in the project. The project was managed by the Institute of Communication Networks and Satellite Communication at the Graz University of Technology / Joanneum Research.

150 test households in Graz were equipped for reception with set-top boxes manufactured by Humax, Nokia, Philips und Fujitsu Siemens and designed to support return channel connections as well as MHP-based applications. The test households' use of the boxes as well as opinions on the additional interactive content offered were documented by the market research organization Fessel-GfK and the evolaris foundation in Graz.

By means of multiplexing, ORF broadcast four digitized television channels using the bandwidth required for one conventional channel: ORF 1, ORF 2, ATVplus and the interactive channel !TV4GRAZ, which was created specifically for the pilot tests. !TV4GRAZ's schedule consisted of ORF shows and content from six private television broadcasters (ATVplus, gotv, ProSieben Austria, Sat.1 Austria, Steiermark 1 and Atv Aichfeld).

In this part of the project, special emphasis was placed on the additional digital interactive services broadcast along with !TV4GRAZ's television programs. For each show, an MHP portal in the broadcaster's individual design offered numerous interactive functions. An electronic program guide (EPG) was developed as an independent MHP product and provided viewers with an overview of the content broadcast on the four channels at all times.

These MHP applications were conceived by the television broadcasters and mainly programmed in the development departments at Siemens Austria, BearingPoint, Sony NetServices and PLOT. Through the MHP portals, the viewer could access current news, weather forecasts, additional information on the show currently on the air, as well as a variety of other information. The set-top boxes, which were equipped with conventional modems or ADSL connections, also made it possible to test return channel-based functions. For example, viewers could easily vote on controversial topics discussed in shows or vote for their film request of the week using their remote controls. These functions could also be used to order merchandise. An application developed by Österreichische Sportwetten GmbH – tipp3 live! – also enabled the test households to bet on soccer matches. Current voting results, betting odds and the like were broadcast to the viewers via the MHP portals.

Data transmitted via the return channels was bundled, evaluated and prepared by the Interactive Application Center set up at Siemens Austria and forwarded to the specific addressees (portal and application providers).

The pilot project was financed by the Austrian Digitization Fund and the Province of Styria.

The project was funded by the participating companies themselves as well as the Austrian Digitization Fund set up at RTR in early 2004. The trial was also supported by the Styrian Business Promotion Agency (SFG). Although the pilot project involved terrestrial broadcasting as the platform for the forward channel, investments in this infrastructure accounted for less than 10% of project expenses.

The total expenses of this project came to approximately EUR 11.1 million, of which EUR 9.7 million can be attributed to the core partners ORF, RTR, Siemens Austria and Telekom Austria. The remaining EUR 1.4 million was distributed among the other project participants: ATV Privatfernseh GmbH (ATVplus), ATV Aichfeld Film- und Videoproduktion GmbH (AiTiVi), Österreichische Sportwetten GmbH, TIV Kabelfernsehgesellschaft mbH (gotv), Sat.1 Privatrundfunk und Programm Gesellschaft mbH, SevenOne Media Austria GmbH (Pro7), Tourismusfernsehen Gesellschaft mit beschränkter Haftung (TW1), and Styria Medien AG (Steiermark 1).

Under the guidelines for the financing of regional pilot projects by the Austrian Digitization Fund, up to 50% of project costs can be funded from this source The Styrian Business Promotion Agency (SFG) offered to support the project with funding of up to EUR 1.5 million. According to the relevant provision in the Digitization Fund guidelines, the maximum funding amount was limited to 60% of the total net costs to each project partner. The companies which received grants, the title of each project sponsored, and the respective grant amounts have been published on RTR's web site.

Results, insights and outlook

Results and insights from the pilot project in Graz

- Integration of Austria into an international network (DICE)
- Increased public awareness regarding digital television
- Accumulation of know-how among television broadcasters, IT companies and institutions
- Creation of a functioning interactive communication cycle based on the MHP standard
- Standardization of set-top boxes as a critical success factor
- Input for the continued development of MHP
- Need for compatibility of MHP products among various providers/manufacturers
- Development of business models for digital television
- Expectations regarding the electronic program guide (EPG)
- Viewer acceptance of MHP-based additional services (market research)
- Functionality of the return channel and Interactive Application Center
- Picture quality and portability as essential performance features
- Experience with mobile television reception
- Frequency engineering experience
- Insights regarding DVB-T's prospects of success.

RTR's comprehensive final report on the 2004 DVB-T pilot project in Graz is available as a download on the RTR web site under the heading "Digital Platform Austria" (in German and English).

4.1.10 Austrian Digitization Fund

The Austrian Digitization Fund was set up at the beginning of 2004 under Art. 9a Par. 1 KOG and is provided with an annual endowment of EUR 7.5 million from Austrian broadcasting fees which are collected together with ORF programming fees but generally allocated to the federal budget.

RTR drew up a set of guidelines for Digitization Fund grant awards which are still under review by the European Commission in an approval procedure under state aid law. The guidelines for grant awards to regional pilot projects from the Digitization Fund went into effect on January 1, 2004. Grants can only be awarded on the basis of these guidelines if they do not compromise trade between the countries belonging to the European Economic Area (EEA). According to the guidelines, grants can be awarded for projects which pursue one of the following objectives under Art. 9b KOG:

- Pilot projects and research projects related to digital broadcasting and additional services
- The development of new programs and services which make use of the additional programming and interactive benefits of digital transmission and go beyond the limits of conventional broadcasting programs
- Grants to broadcasters to facilitate the transition from analog to digital transmission
- Measures intended to create financial incentives for consumers to switch to digital terrestrial reception at an early stage
- Grants promoting the purchase of terminal devices required for the reception of digitally transmitted broadcasting programs.

Grants are awarded according to technology-neutral criteria with due attention to all transmission means and platforms for digital broadcasting as well as comments submitted by KommAustria. In addition, under Art. 9b No. 9 of the KommAustria Act, the expenses of KommAustria and RTR for the creation and implementation of the Austrian Digitization Plan are to be covered directly by the Austrian Digitization Fund.

In 2004, the grants awarded by RTR mainly centered around the DVB-T pilot project in Graz. The objective of the project was to create and test the entire technical cycle of interactive television using DVB-T in the forward channel and the MHP standard for interactive additional services. The total expenses involved in the project came to approximately EUR 11.1 million. Under the guidelines for the financing of regional pilot projects by the Austrian Digitization Fund, up to 50% of project costs can be funded from this source (cf. Section 4.1.9).

The year 2004 was generally characterized by preparatory activities for the transition from analog to digital broadcasting, especially in the field of terrestrial broadcasting (DVB-T). Through the targeted deployment of funds, Austria was able to meet the high European standard in this field, which is crucial to the future of the information society. Specific areas explored in the interactive television applications segment also attracted attention at the European level, and major contributions were made to reinforcing Austria's position as a media location and to the competitiveness of Austrian broadcasters. Moreover, RTR's measures raised the awareness of consumers and the general public with regard to the social compatibility of the transition to digital broadcasting.

4.1.11 Austrian Television Film Fund

Endowment: EUR 7.5 million minus administration costs

At the beginning of 2004, the Austrian Television Film Fund was established within RTR. The fund is endowed with EUR 7.5 million per year, which (after deduction of RTR's personnel and material expenses) is intended to support the production of television films, series and documentaries, to contribute to improving the quality of television production and the capacity of the Austrian film industry, to ensure diversity in Austria's cultural landscape, and to contribute to strengthening the audiovisual sector in Europe.

The legal basis for the fund is defined in Articles 9f to 9g in conjunction with Articles 9c to 9e of the Austrian Communications Act (KOG). These provisions describe the objectives of grants and how the funds are raised. Art. 9h KOG stipulates the establishment of a review board which is responsible for submitting comments on the extent to which the projects submitted are worthy of funding. The board consists of five members, each of whom are appointed by the Federal Chancellor for a term of three years. Members are required to have experience in the film industry as well as several years of relevant practical experience.

Grant decisions are made by the managing director of RTR's Broadcasting Division on the basis of the grant guidelines and with due consideration of the review board's comments.

In 2004, the Television Film Fund review board consisted of the following members:

- Roland Teichmann, Austrian Film Institute (Chair)
- Georgia Tornow, film20 (Deputy Chair)
- Kurt Mayer, director and producer
- Werner Müller, Austrian Federal Chamber of Economics
- Reinhard Schwabenitzky, director and producer.

4.1.11.1 Grant guidelines

Grant decisions are made by the managing director of the Broadcasting Division

RTR drew up guidelines for Television Film Fund grant awards in 2003, after which the guidelines had to be approved by the European Commission in an approval procedure under state aid law. In Decision C(2003)4634 fin (State Aid No. N 512/2003), the European Commission had approved RTR's guidelines for grants from the Austrian Television Film Fund by December 31, 2004. Apart from additional provisions regarding personal and material qualifications, the guidelines specify the procedure, payment arrangements, reporting (supervision rights), accounting, final review and reimbursement of grants as well as the terms and conditions of the contract in greater detail.

New guidelines with stricter reversion of rights

On the basis of experience gained over the first three application dates, the guidelines were revised in the summer of 2004. With regard to the projects supported, it was necessary to define minimum standards for contractual arrangements between television stations and television producers. Therefore, one major change was required in Section 3.6 of the guidelines, which covers agreements with television broadcasters. The new provision provides for a stricter reversion of rights, which is now required without any exceptions (after seven years or, in the case of television series, ten years). At the same time, new provisions have been introduced which make it possible for a television broadcaster which finances production costs to retain exclusive rights in its licensed region, especially for the protection of premiere broadcasts. Once the review board had returned a positive opinion, the guidelines were submitted to the European Commission for notification.

The new provisions regarding contracts with television broadcasters were coordinated with the Vienna Film Fund. This harmonization will allow applicants for the large number of projects financed by RTR as well as the Vienna Film Fund to take a stronger position with regard to rights vis-à-vis the television broadcasters involved in financing the productions.

In connection with the new version of the guidelines, Prof. Oliver Castendyk of the Erich Pommer Institut in Babelsberg was commissioned to write an expert opinion on reasonable license shares in television productions. In an event attended by Franz Morak, Austrian State Secretary for the Arts and Media, as well as representatives of major Austrian film production companies, the expert opinion was presented to the relevant audience on November 11, 2004. The new provision in Section 3.6 of the guidelines is based on the recommendations previously submitted in the rough draft of the opinion. The opinion will appear in RTR's series of papers in 2005.

4.1.11.2 Projects supported

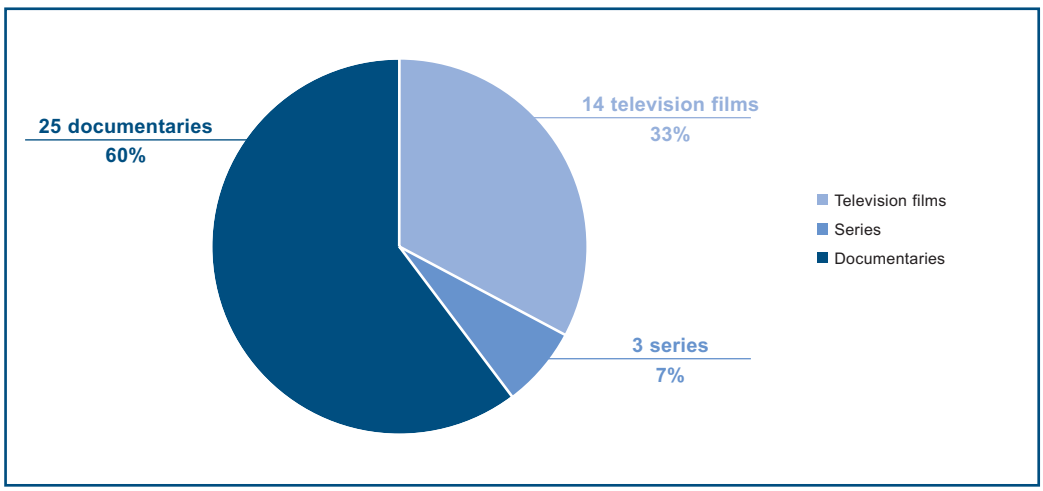
There were five application dates in 2004, and a total of 81 projects were submitted. Some of these applications were retracted by the applicants themselves because the projects were not yet fully developed (among other reasons), and in some cases project applications were resubmitted. Other projects did not meet the requirements specified in the guidelines and the grant purposes described in the Austrian Communications Act, thus the applications were rejected.

48 projects supported in 2004

A total of 48 projects (15 television films, three television series and 30 television documentaries) submitted by various producers and covering a wide variety of topics and lengths were supported with grants totaling some EUR 7.8 million. As a result, 42 grant offers amounting to approximately EUR 7.2 million were valid as of December 31, 2004.

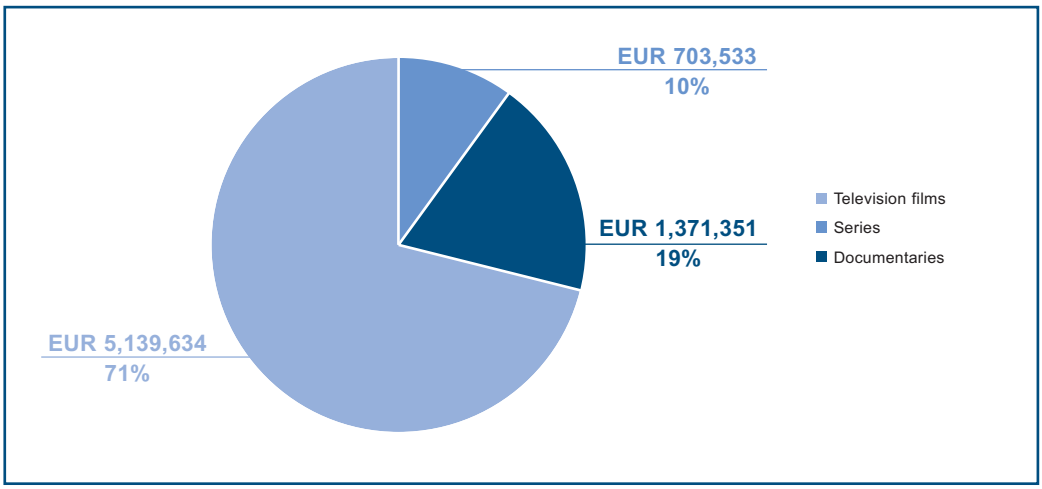
All grant decisions can be viewed on the RTR web site at http://www.rtr.at.

Figure 5: Number of projects supported in 2004



Grants were awarded for 25 documentaries, three television series and 14 television films; the funds awarded for television films were the highest at EUR 5.14 million due to the higher production costs involved.

Figure 6: Funds granted in 2004



Through the allocation of grants in the year under review, it was possible to realize a number of productions which could not have been carried out (or not with a comparable scope or quality) without funding from the Television Film Fund.

The projects supported by RTR therefore strengthened Austria directly and indirectly as a media location: A considerable share of the planned expenses in Austria, which amounted to approximately EUR 29 million (four times the grant amount allocated), will go to the Austrian film industry. Production companies, lighting and sound equipment rental companies, other companies in the industry, and Austrian filmmakers received various assignments in the course of the productions supported.

In addition, the regulations regarding the reversion of rights – although exceptions were possible in the guidelines for 2004 – had the effect of raising the producers' awareness of their own libraries of rights as a "hidden reserve" and as a source of income, as well as prompting co-financing television broadcasters to agree to the reversion of rights.

The objective of enhancing the independence of producers with the new regulation regarding the reversion of rights (i.e. without exceptions) will be pursued further in 2005 through the application of the amended guidelines.

With regard to productions with international investors, a total of 48 foreign partners are involved in the 42 projects with valid grants; 38 of those partners are from Germany.

One example in this context is the cooperation of Wega Film and Ziegler Film/Germany, which carried out the shooting for *Geierwally*, *Die Landärztin*, *Hengstparade* and *Fünf Sterne-Kerle inklusive* in Austria.

With the grant funds awarded, Lisa Film Produktion GmbH succeeded in taking over the production of *Weißblaue Wintergeschichten* and to shift the locations from Bavaria to Austria.

The large-scale production *Die Patriarchin*, directed by Carlo Rola, was also shot partly in Vienna and Salzburg in October. In this context, the Austrian company Star Film (producer: Reinhard Schwabenitzky) was able to complete a three-part production in cooperation with Moovie-the art of entertainment.

4.1.12 Press and journalism subsidies

In 2004, KommAustria decided on the allocation of funds under the Press Subsidies Act 2004 (PresseFG 2004) and Section II of the Journalism Subsidies Act 1984 (PubFG). These decisions were previously made by the Austrian federal government.

4.1.12.1 Press subsidies

The Press Subsidies Act 2004 (which went into effect on January 1, 2004) introduced sweeping reforms in federal press subsidies, which have been awarded since 1975. In addition to the continued (albeit modified) subsidization of daily and weekly newspapers as well as associations for journalist education and press clubs, new subsidies are available for the purpose of "promoting quality and securing the future": For the first time, subsidies were allocated in 2004 for the internal training and education of next-generation journalists, for the employment of salaried foreign correspondents, for reading promotion and for research projects in the field of the press and publishing.

In accordance with the new legal provisions, KommAustria defined and published the grant guidelines for the observation periods 2003, 2004 and 2005. In addition to general explanations, the guidelines contain detailed descriptions of the individual areas for which subsidies are available in order to provide applicants with the best possible information prior to the relevant observation period. As the guidelines will be reviewed and adapted on a yearly basis, experience gained in practice will be used in their further development.

KommAustria called upon the Press Subsidies Commission as an advisory body not only before deciding on these guidelines but also before allocating the subsidies themselves. As in the past, this body consists of six members and a chairperson, with two members each being appointed by the Austrian Federal Chancellor, the Association of Austrian Newspapers and the relevant trade union. The Federal Chancellor appointed Clement Achammer, an attorney in Vorarlberg, and Claus Hörr, a department head in the Federal Chancellery. The Association of Austrian Newspapers appointed its managing director Walter Schaffelhofer as well as Georg Waldstein, the publisher of *Gewinn* magazine. The trade union is represented by Gisela Vorrath and Fritz Wendl. These members elected Otto Oberhammer as their chairman, especially as he had already served several terms in this position.

Subsidies allocated:

In 2004, subsidies amounting to EUR 13,507,295.48 were paid out.

Table 2: Press subsidies allocated in 2004

Type of subsidy		Amount paid out in EUR	Applications	Applications approved
Distribution subsidies under Section II		**4,757,895.48**	**63**	**59**
Amt. paid to:	▪ Daily newspapers	2,571,857.98	15	14
	▪ Weekly newspapers	2,186,037.50	48	45
Special subsidies for daily newspapers under Section III		**6,993,700.00**	**10**	**7**
Promotion of quality and security for the future under Section IV		**1,755,700.00**	**66**	**54**
Amt. paid for:	▪ Internal training and education for next-generation journalists	188,222.14	17	13
	▪ Associations for journalist education	743,654.88	7	6
	▪ Foreign correspondents	231,068.58	6	6
	▪ Reading promotion	402,454.40	17	17
	▪ Research projects	136,000.00	13	6
	▪ Press clubs	54,300.00	6	6
Total		**13,507,295.48**	**139**	**120**

Detailed information on the subsidies awarded, in particular on the individual newspapers subsidized, can be found on the RTR web site at http://www.rtr.at.

4.1.12.2 Journalism subsidies

Periodicals which support the general education of citizens have been subsidized since 1972 under Section II of the Journalism Subsidies Act. In 2004, these grant decisions became KommAustria's responsibility. The authority was supported by the Journalism Subsidies Advisory Board as an advisory body. The 17 members of this board represent various areas of the public sphere: The political parties represented in Austria's National Council, the relevant trade union, science and academics, education, churches and religious communities, periodicals publishers, presses and freelance journalists. In addition, various federal ministries and the Chamber of Tax Consultants and Certified Accountants have the right to submit suggestions.

In 2004, 101 periodicals which serve the general education of citizens were supported with subsidies amounting to EUR 379,271.40. A total of 25 applications were rejected because they did not fulfill the prerequisites defined in Section II of the Journalism Subsidies Act.

4.2 Telecommunications Division

4.2.1 Principles and regulatory framework

In February 2002, a new set of EU directives comprising the Framework Directive, the Access Directive, the Authorisation Directive and the Universal Service Directive was published in the Official Journal of the European Union. This was followed by the Directive on Privacy and Electronic Communications in May 2002. These directives were implemented in Austrian national law in the TKG 2003, which went into effect on August 20, 2003.

This new legal framework has brought about substantial changes in key areas of competition regulation, such as market definition, market analysis and the imposition of suitable regulatory instruments.

For example, the four previously defined relevant markets were subdivided into a total of 17 telecommunications markets on the basis of the European Commission's Recommendation on Relevant Markets and the RTR ordinance implementing this recommendation. While under the TKG (1997) a company identified as having significant market power (SMP) was subjected by law to a large number of special obligations (such as non-discrimination), the regulatory authority is now required to impose remedies suitable for eliminating the specific competition problems in cases where an SMP company is identified in an official procedure. Moreover, consultations are to be held on the identification of SMP and the imposition of suitable remedies in a procedure pursuant to Articles 128 and 129 TKG 2003 and must involve the general public, other European regulatory authorities and the European Commission (see also Section 4.2.19.2).

Finally, another step toward complete liberalization was taken by permitting frequency trading and enabling the modification of usage conditions.

RTR's work in individual areas in 2004 is described in this section according to this schematic description. Detailed documentation on specific procedures can be found on the RTR web site at http://www.rtr.at/Regulierung/Entscheidungen (in German).

The relevant procedure numbers are indicated in this section in order to facilitate the retrieval of specific decisions.

4.2.1.1 Responsibilities of TKK and RTR

In enforcement of the Austrian Telecommunications Act 1997 (TKG [1997]; BGBl I No. 100/1997), two regulatory authorities were established in Austria: The Telekom-Control Commission (TKK) and Telekom-Control GmbH (TKC). As of April 1, 2001, TKC was transformed into the Telecommunications Division at RTR. The separation of responsibilities among the Telecommunications Division, Broadcasting Division, the Telekom-Control Commission and KommAustria is also clearly defined in TKG 2003 (BGBl. I No. 70/2003 as amended by BGBl. I No. 178/2004). Art. 115 TKG 2003 assigns the Telecommunications Division general competence in all duties assigned to the regulatory authorities unless such duties are specifically reserved for the Telekom-Control Commission.

Under Art. 117 TKG 2003, the following duties are assigned to the TKK:

- Ordering shared use in cases of dispute under Art. 9 Par. 2
- Decisions in procedures under Art. 18 Par. 3
- Exercising the right to raise objections under Art. 25
- Calculation of financial compensation to be paid from the Universal Service Fund under Art. 31
- Calculation of contributions to be paid into the Universal Service Fund under Art. 32
- Identification of companies with significant market power on each relevant market and the imposition of specific obligations under Art. 37
- Decisions in procedures under Articles 23 Par. 2; 38; 41; 44 Par. 1 and 2; 46 Par. 2; 47; 48; and 49 Par. 3
- Approval of general terms and conditions as well as rates/charges and exercising the right to raise objections under Articles 26 and 45
- Allocation of frequencies under Art. 54 Par. 3 No. 2 for which a provision is made in the frequency usage plan under Art. 52 Par. 3
- Decisions on the transfer of frequencies under Art. 56
- Changes in frequency licenses under Art. 57 and revocations under Art. 60
- Decisions on the right to operate communications networks or provide communications services under Art. 91 Par. 3
- Decisions regarding injunctions under Art. 91 Par. 4
- Identification of infringements and the skimming of excessive gains under Art. 111
- Submission of requests to the Cartel Court under Art. 127.

4.2.1.2 National working groups

In a deregulated voice telephony market with many network operators, the coordination of procedures (especially in technical matters) among individual network operators is crucial for numerous functions involving multiple networks, such as value-added services or number portability. Therefore, in early 1999 RTR founded the Technical Coordination Working Group (AK-TK) as a platform for discussion among network operators and their industrial suppliers.

Objective of AK-TK: Development of recommendations

The main objectives of the AK-TK are to enable a general exchange of information and to develop recommendations as to technical and administrative processes between operators. Although these recommendations are not legally binding, they provide important facts which – assuming compliance with the regulatory framework – can be taken into consideration in disputes before the TKK, which generally strives to resolve conflicts by facilitating negotiations between the operators and sees the working group as a means of achieving this end.

In the plenary meetings of the Technical Coordination Working Group, various working subgroups are formed and assigned to defined areas, results are discussed, and draft recommendations are voted on. RTR has no voting rights in this forum; the regulatory authority primarily acts as a catalyst to reconcile conflicting views between the operators as well as regularly contributing current issues for further work and discussion topics.

The working group has produced substantial results on specific issues (e.g., technical specifications for number portability in fixed-link networks) and regarding the general atmosphere among operators. RTR will continue to promote the AK-TK as an important forum in the Austrian telecommunications market and invites all network operators to participate actively in the working group.

As of September 10, 2003, the AK-TK adopted new rules of procedure which account for the new provisions of the TKG 2003 and the reorganization of decision-making procedures.

The following meetings were held in 2004:

- Technical Coordination Working Group for Telecommunications (plenary meeting)
- AK-TK Value-Added Services Subgroup
- AK-TK Number Portability Subgroup
- AK-TK Fraud Subgroup
- AK-TK ENUM Subgroup.

Intensive coordination with the market within such national working groups enables RTR to detect developments at an early stage and to account for them in the relevant regulatory decisions.

Regulatory Dialog for Mobile Communications: An informal platform for discussions of regulatory issues

Another important discussion platform set up by RTR in 2001 is the Regulatory Dialog for Mobile Communications. The objective of this platform is to enable an ongoing discussion of regulatory issues with mobile operators outside of official procedures, and to exchange views on selected issues such as market delineation and market analysis under the new legal framework, mobile gateways, etc. For this purpose, approximately eight meetings are held per year and mainly attended by experts representing Austrian mobile communications operators and the regulatory authority. The topics discussed and any documents accompanying lectures are published on the RTR web site. This exchange of opinions is carried out entirely without prejudice to any future procedures before the TKK.

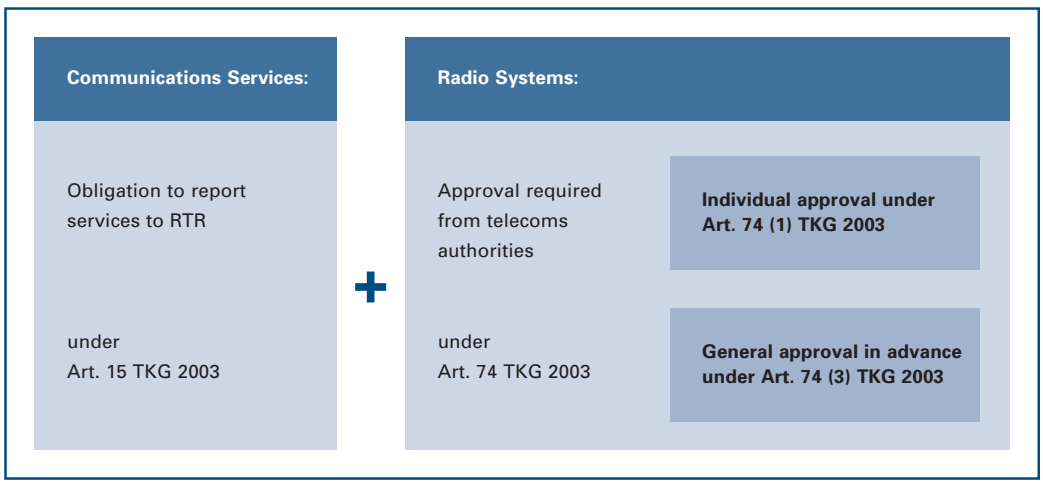
4.2.2 Promotion of market access

4.2.2.1 Services subject to reporting requirements / general approvals

New system of general approvals facilitates market entry.

While licensing was mandatory under Art. 14 TKG (1997), the TKG 2003 facilitates market entry for new communications service providers in that the operation/provision of public communications networks and services need only be reported to the regulatory authority. This eliminates the need for license award procedures and the accompanying licensing fees. The requirements previously reviewed in the license award procedure (i.e., economic and technical capabilities) no longer need to be verified in the new reporting procedure.

Figure 7: General approvals



The range of services subject to the reporting requirement was enlarged.

When the TKG 2003 went into effect, however, the range of reported services was enlarged. Under the TKG (1997), for example, resellers of communications services (e.g., resellers of carrier network services, call shops, Internet cafés, etc.) were explicitly exempted from the reporting requirement. Under the TKG 2003, these market participants are also subject to the requirement. In order to ensure the rapid processing of reports, the regulatory authority developed a web interface with which reports and changes can be submitted quickly and unbureaucratically.

A list of companies which have reported the operation/provision of a public communications network or service can be found on the RTR web site.

Companies published in three categories

Due to the transitional provision under Art. 133 Par. 4 TKG 2003, license certificates under Art. 14 TKG (1997) and confirmations of reports submitted under Art. 13 TKG (1997) are considered equivalent to confirmations pursuant to Art. 15 TKG 2003. For this reason, companies subject to the reporting requirement under Art. 15 TKG 2003 are published by RTR in three categories:

- Companies which hold a license under Art. 14 TKG (1997) (i.e., issued under the old legal framework)

- Companies which reported their services under Art. 13 TKG (1997) (under the old legal framework)

- Companies which reported their services under Art. 15 TKG 2003.

RTR's web interface facilitates reporting.

The benefit of communication between the parties concerned and the authority via the web interface lies in the fact that the party subject to the reporting requirement is able to comply with various reporting obligations using the web interface and to submit requests via this medium as well ("one-stop shopping"). Parties can access the web interface using the access information assigned to each company, and companies can also define user authorizations for their employees based on a selected set of user roles. It is therefore possible to report changes in reported services or user/company data from any computer with Internet access quickly and efficiently, and the regulatory authority can process requests and reports more rapidly. Messages are transmitted immediately, thus reducing potential sources of error. Should the regulatory authority need to contact the user, the employee handling the respective case is provided with up-to-date contact data immediately without having to switch applications on screen. The confidentiality of communications and the authenticity of reports submitted are ensured by secure infrastructure, and the server history makes it possible to trace all errors and potential cases of misuse at any time.

4.2.3 Creation of clear and fair general conditions – Market analyses

4.2.3.1 General

SMP as a prerequisite for the imposition of ex ante obligations

Both the old and the new legal frameworks for electronic communications networks are essentially based on the idea that specific restrictions and obligations are imposed *ex ante* on companies with significant market power (SMP companies) and, in contrast to general competition law, market power need not necessarily be abused in order for these restrictions and obligations to apply (*ex post* regulation). In many cases, it is only through this process of identifying significant market power and the related legal consequences that new service providers are able to commence business activities. The regulatory consequences associated with significant market power are thus asymmetrical and designed to support the process of liberalization and orientation toward competition.

The new legislation's systematic approach to competition regulation generally provides for a three-stage process:

Stage 1: Market delineation

The first stage involves delineating communications markets which may be subject to sector-specific regulation. In accordance with the relevant provisions, RTR issued the Telecommunications Markets Ordinance 2003 (TKMVO 2003), which went into effect on October 17, 2003 and defined 16 telecommunications markets in compliance with the European Commission recommendation of February 11, 2003 on the relevant product and service markets in the electronic communications sector.

Stage 2: Market analysis

The second stage provides for the analysis of these markets by the Telekom-Control Commission with a view to determining whether effective competition prevails on the markets or whether one or more companies have significant market power. A company is considered to have significant market power if it occupies (alone or together with others) such a strong economic position that it is able to behave independently of competitors, customers and users to a considerable extent.

The national legal framework defines a number of criteria for the regulatory authority which are to be considered in particular when assessing whether a company has significant market power.

Stage 3: Imposition of specific obligations

Finally, the third stage involves the definition of specific obligations ("regulatory instruments") which can be use to resolve the current and potential competition problems identified in cases where the Telekom-Control Commission comes to the conclusion in a market analysis procedure that effective competition does not prevail on a certain market and thus one or more companies has significant market power as defined in the TKG 2003. On the other hand, the authority is required to remove previous *ex ante* obligations if effective competition is identified on a specific market and thus no company has significant market power any longer. In accordance with the EU's legal requirements, the TKG 2003 provides for the following potential regulatory instruments:

Regulatory instruments are defined in TKG 2003.

- Non-discrimination obligations
- Transparency obligations
- Accounting separation obligations
- Obligation to grant access to and use of specific network facilities
- Price regulation and cost accounting obligations for the provision of access
- Regulatory measures with regard to end-user services
- Obligations to provide leased lines
- Obligations regarding end-user rates/charges
- Call-by-call and carrier pre-selection.

In 2004, the regulatory authority was able to complete a majority of market analyses in the relevant individual markets. The market analyses currently still in progress (wholesale international roaming and wholesale broadband markets) are scheduled for completion in 2005.

At the end of 2004, the status of market analyses was as follows:

Table 3: Status of market analyses at the end of 2004

Telecommunications Markets (under TKMVO 2003)					Status
#	Markets according to TKMVO				Analysis / Draft / Consultation / Decision
1	Retail	Fixed-link	Access	Residential	
2	Retail	Fixed-link	Access	Non-residential	
3	Retail	Fixed-link	National calls	Residential	
4	Retail	Fixed-link	National calls	Non-residential	
5	Retail	Fixed-link	International calls	Residential	
6	Retail	Fixed-link	International calls	Non-residential	
7	Wholesale	Fixed-link	Origination		
8	Wholesale	Fixed-link	Termination	Indiv. networks	
9	Wholesale	Fixed-link	Transit		STOP EC veto
10	Retail	Leased lines	Min. set up to 2 Mbit/s		
11	Wholesale	Leased lines	Trunk segments		
12	Wholesale	Leased lines	Terminating segments		
13	Wholesale	Unbundling			
14	Wholesale	Mobile	Origination		
15	Wholesale	Mobile	Termination	Indiv. networks	
16	Wholesale	Mobile	International roaming		Scheduled for 2005
	Wholesale	Broadband			Scheduled for 2005

The details and results of these analyses are described more specifically below. The status of market analysis in the Broadcasting Division is discussed in Section 4.1.7.

4.2.3.2 Market analysis procedure for fixed-link wholesale markets

4.2.3.2.1 Market definition

RTR's TKMVO 2003 defined three relevant wholesale markets in fixed-link telecommunications as of October 17, 2003: The market for origination in the public telephone network at fixed locations, the market for termination in individual public telephone networks at fixed locations, and the market for transit services in the public fixed-link telephone network.

Origination, termination and transit as wholesale services

Origination refers to a wholesale service provided by subscriber network operators where traffic initiated by the users at the network termination points of their own communications network is carried to the nearest exchange capable of interconnection with other networks. An interconnectable exchange is one at which such traffic is handed over to at least one other network operator. Termination is a wholesale service provided by each subscriber network operator in which incoming traffic is carried from the last interconnectable exchange before the network termination point to the termination point in the subscriber network. Transit services refer to carrying traffic between two exchanges which are interconnectable with different networks or between two zones around interconnectable exchanges. Transit services are therefore provided by communication network operators in order to cover certain line sections and can not be considered origination or termination as described here.

While there are markets for origination services and transit services throughout Austria, termination services have a unique characteristic in that the service of termination can only be rendered by the provider to which the subscriber is connected. Therefore, these are network operator-specific termination markets, that is, each subscriber network operator has its own termination market as defined under Art. 1 No. 8 TKMVO 2003.

4.2.3.2.2 Market analysis

With the resolution passed by the Telekom-Control Commission on October 20, 2003, market analysis procedures under Art. 37 TKG were initiated under the codes M 7/03 (origination), M 8/03 (termination) and M 9/03 (transit).

Opinions drawn up by RTR experts

In addition, official experts at RTR were instructed to draw up an economic expert opinion on the question of whether competition prevails on the markets in question and whether self-sustaining competition is found in those markets from an economic standpoint. This expert opinion ("market analysis opinion“) was completed in May 2004.

Subsequently, the Telekom-Control Commission reguested another opinion. In this case, the experts were to establish which specific obligations under Articles 38 to 46 and/or Art. 47 Par. 1 TKG 2003 (regulatory instruments) would be suitable from an economic standpoint for potential SMP companies in order to address the competition problems identified in the market analysis opinion of May 2004 on these markets. This expert opinion (the "regulatory instruments opinion") was completed in August 2004.

4.2.3.2.2.1 Origination – M 7/03

Telekom Austria as a significant market power operator on the origination market

On the basis of the expert opinions mentioned above and in due consideration of the comments received, the Telekom-Control Commission issued an official decision on December 20, 2004 (M 7/03-52) stating in accordance with Art. 37 Par. 2 TKG 2003 that Telekom Austria has significant market power on the origination market. The TKK made this determination after a thorough investigation of market shares (in the period investigated, Telekom Austria had a market share of nearly 95% of the overall market measured in terms of traffic minutes), the existing barriers to market entry, market development, demand-side countervailing power, previous market behavior, the market result as well as other economically relevant market power indicators.

In the analysis of the origination market, the following potential competition problems (i.e., behaviors for which the SMP company has incentives due to the market circumstances) were identified:

1. Excessive prices: Telekom Austria has an incentive to set excessively high prices in order to maximize its profits.

2. Vertical transfer of market power through denial of access: Telekom Austria could have incentives to transfer its market power to the end-consumer carrier markets by denying sufficient access to origination services, thus barring competition from those markets (foreclosure).

3. Margin squeeze: As the largest subscriber network operator by far, Telekom Austria could have incentives to subject other operators to a margin squeeze by charging excessively high prices in order to force them out of the end-consumer markets or to compromise their competitive position sustainably.

4. Vertical transfer of market power using non-price variables: Telekom Austria could offer other operators, in particular carrier network operators, less favorable terms than it does to its own organization and thus create disadvantages for its immediate competitors on the carrier markets.

5. Horizontal transfer of market power: Telekom Austria could offer origination services only in combination with transit services, meaning that power on the origination market would be transferred to the transit market.

Ex ante obligations imposed in order to address competition problems

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003:

1. An interconnection obligation under Art. 41 Par. 2 No. 9 TKG 2003

2. An obligation under Art. 42 TKG 2003 to base charges for origination services on the forward-looking long-run average incremental costs (FL-LRAIC) of an efficient operator (price regulation)

3. A non-discrimination obligation under Art. 38 Par. 1 and Par. 2 TKG 2003

4. An obligation under Art. 38 Par. 3 TKG 2003 to publish a standard offer for origination services

5. An obligation under Art. 40 Par. 1 TKG 2003 to maintain separate accounts and to set up a cost accounting system on the basis of which it must also be possible to calculate the costs of an efficient operator (as specified by FL-LRAIC).

In the procedure, the TKK also dealt extensively with the issue of appropriateness, coming to the conclusion that these obligations are indeed reasonable and do not constitute an unacceptable intervention in Telekom Austria's activities.

The existing obligations imposed on Telekom Austria due to its position of market power identified under Art. 33 TKG (1997) in conjunction with Art. 133 Par. 7 TKG 2003 were abrogated under Art. 37 Par. 2 in conjunction with Art. 133 Par. 7 TKG 2003 as regards the origination market.

4.2.3.2.2.2 Termination – M 8a/03 to M 8k/03

Termination markets defined specifically for each operator

As mentioned above, termination services can only be rendered by the provider network to which the subscriber is connected. Therefore, as each subscriber network operator has its own termination market under Art. 1 No. 8 TKMVO 2003, there is no (unified) termination market throughout Austria; instead, termination markets are specific to each network operator. Once the necessary data was available from data collection in the process of drawing up the relevant expert opinion, Procedure M 8/03 was therefore subdivided into individual procedures for each termination network operator, and the sub-procedures were assigned the codes M 8a/03 to M 8k/03.

The analysis of these markets yielded the following insights:

- The market share of each operator is always 100% on its own termination market.
- Insurmountable barriers to market entry exist (each new operator forms its own market but can never enter an existing termination market).
- Economic incentives (especially) to raise termination charges exist.
- No countervailing buyer power (CBP) exists which could discipline this market power.

Therefore, termination markets can be characterized as resistant monopoly markets. For the reasons mentioned above, the TKK came to the conclusion that each operator has significant market power on its own termination market. On Telekom Austria's termination market as well as those of the other operators, however, different competition problems were identified, thus prompting the imposition of differentiated regulatory instruments.

Telekom Austria's termination market

On Telekom Austria's termination market, the same competition problems were identified as those prevailing on the origination market. In Procedure M 8a/03 (regarding termination services), Telekom Austria was therefore subjected to regulatory instruments analogous to those imposed on the origination market. As in the case of the origination market, the existing obligations imposed on Telekom Austria due to its position of market power identified under Art. 33 TKG (1997) in conjunction with Art. 133 Par. 7 TKG 2003 were abrogated under Art. 37 Par. 2 in conjunction with Art. 133 Par. 7 TKG 2003 as regards the termination market.

The obligations imposed govern charges and other factors.

Other operators' termination markets

In the termination markets of the other network operators in Austria (Informations-Technologie Austria GmbH, Colt Telecom Austria GmbH, tele.ring Telekom Service GmbH, Telekabel Wien GmbH, eTel Austria AG, Equant Austria Telekommunikationsdienste GmbH, UTA Telekom AG and LIWEST Kabelmedien GmbH), the only competition problem identified was an incentive to set excessively high prices in order to maximize profits.

In order to address this competition problem, the operators were subjected to a form of price regulation. In contrast to Telekom Austria, however, these operators were not obligated to base their charges on the forward-looking long-run average incremental costs (FL-LRAIC) of an efficient operator, because calculating FL-LRAIC involves great expense and effort for the implementation of a cost accounting model and the accounting separation necessary to support this approach. This did not appear to be appropriate in the case of the other operators (i.e., all except Telekom Austria).

Price regulation is necessary for all operators with significant market power.

Therefore, the operators were required under Art. 42 Par. 1 TKG 2003 to use a benchmarking method to calculate charges for the interconnection service of termination in their public fixed-link telephone networks, with Telekom Austria's charge for regional termination serving as a base value. In this requirement, the TKK based price regulations under TKG 2003 on the proven concept of reciprocity, which had been applied under the previous legal framework of the TKG (1997). If an operator is able to provide evidence of higher costs, these can be used as the basis for higher charges in a dispute resolution procedure under Art. 50 TKG 2003.

4.2.3.2.2.3 Transit – M 9/03

Analysis of the transit market indicates effective competition.

On the basis of the market analysis opinion completed in May 2004, the TKK came to the conclusion that effective competition prevails on the transit market. This result was essentially justified by the fact that the transit services offered by Telekom Austria – that is, "bundled" transit services offered in combination with termination or origination as well as "unbundled" transit services – are already being replaced by internal services to a substantial extent. On the one hand, this means that operators which were previously (only) interconnected via Telekom Austria's network indirectly and thus forced to use Telekom Austria's unbundled transit service are now interconnecting directly to an increased extent, thus they no longer require transit services. On the other hand, more interconnections are now being realized at the lower level of Telekom Austria's network ("subscriber exchanges"), meaning that bundled transit services are no longer being provided by Telekom Austria because only its termination and origination services are being used. Direct interconnection between alternative operators (including mobile networks) as well as interconnection with Telekom Austria at the lower network level are replacing

the services assigned to the transit market. Therefore, these internal services are also assigned to this market from an economic and legal perspective. Due to the relatively easy substitution of Telekom Austria's transit services with in-house services, a sufficient price-disciplining effect also exists with regard to transit charges. In the TKK's opinion, this means that Telekom Austria is not able to demand excessively high prices for its services, nor "to behave to an appreciable extent independently of competitors, customers and ultimately consumers" (Art. 35 Par. 1 TKG 2003). In consideration of the internal services mentioned above, Telekom Austria's market share was just under 45% in 2003 – and decreasing rapidly. Moreover, alternative network operators with their own infrastructure also offer transit services to other alternative network operators.

Coordination procedures and the "veto" of the European Commission

Draft decision coordinated with the European Commission

On July 20, 2004, a draft TKK decision to discontinue the market analysis procedure due to the identification of effective competition on the transit market as well as a draft decision removing the applicable obligations imposed on Telekom Austria due to its previous SMP position were submitted to the European Commission for notification under Art. 129 TKG 2003 ("Coordination procedure").

After a request for information was answered by the regulatory authority on August 4, 2004, the European Commission opened a Phase II procedure on August 20, 2004, in which the Commission communicated serious doubts as to the compatibility of the draft resolution with EU law ("serious doubts letter").

In justification of its views, the European Commission essentially stated that direct interconnection, which was (as described above) considered a substitute for unbundled transit and thus part of the transit market in the draft resolution, is located outside the relevant market. According to the letter, the regulatory authority did not conduct a sufficient review as to whether network operators which use transit services can switch "quickly to other products or services" (i.e., direct interconnection) in response to price changes. Moreover, there was insufficient evidence to indicate that network operators which no longer require transit services due to direct interconnection "actually offer their means of production on the (relevant) market in the form of newly created capacity." Besides, the European Commission had reservations regarding the inclusion of transit services among mobile networks and between mobile and fixed-link networks in the transit market, and regarding the identification of effective competition on this market given Telekom Austria's market share of almost 45%.

Veto issued by the European Commission

Once the TKK had held discussions with the European Commission and submitted extensive documentation with additional explanations on September 1, September 9 and October 7, 2004, and after the required consultation of the Communications Committee (CoCom) on October 13, 2004, the European Commission conveyed a decision on October 20, 2004 ordering the TKK to retract the draft measures (i.e., a "veto" decision). This decision essentially cited the same reasoning as in the serious doubts letter of August 20, 2004, with – in RTR's view – only sparse content-based references to the comprehensive additional information provided, which commented on the doubts raised by the European Commission in detail. The procedure is still pending.

4.2.3.3 Market analysis procedure for fixed-link retail markets

4.2.3.3.1 Market definition

Six retail markets defined in the fixed-link segment

RTR's TKMVO 2003 defined six relevant retail markets in fixed-link telecommunications as of October 17, 2003:

1. Market for access to the public telephone network at a fixed location for residential customers

2. Market for access to the public telephone network at a fixed location for non-residential customers

3. Market for publicly available local and/or national telephone services provided at a fixed location for residential customers

4. Market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers

5. Market for publicly available international telephone services provided at a fixed location for residential customers

6. Market for publicly available international telephone services provided at a fixed location for non-residential customers.

4.2.3.3.2 Market analysis

With the resolution issued by the Telekom-Control Commission on October 20, 2003, market analysis procedures under Art. 37 TKG were initiated under the codes M 1/03 (Residential access), M 2/03 (Non-residential access), M 3/03 (Local/national services for residential customers), M 4/03 (Local/national services for non-residential customers), M 5/03 (International services for residential customers) and M 6/03 (International services for non-residential customers). As mentioned above, the purpose of such procedures is to determine whether effective competition prevails on the respective market, or one or more companies possess significant market power.

In addition, official experts at RTR were instructed to draw up an expert economic opinion on the question of whether competition prevails on the markets in question and whether self-sustaining competition is present in those markets from an economic perspective.

The Telekom-Control Commission then commissioned another opinion in which the experts were to establish which specific obligations under Articles 38 to 46 and/or Art. 47 Par. 1 TKG 2003 (regulatory instruments) would be suitable from an economic standpoint for potential SMP companies on these markets in order to address the competition problems identified in the market analysis opinion of May 2004. This regulatory instruments opinion was completed in August 2004.

4.2.3.3.3 Results of the procedures

4.2.3.3.3.1 Market for access to the public telephone network at a fixed location for residential customers

Telekom Austria as an SMP operator

On the basis of the expert opinions mentioned above and in due consideration of the comments submitted in the procedure as well as the consultation and coordination procedures under Art. 128 and Art. 129 TKG 2003, the TKK issued an official decision pursuant to Art. 37 Par. 2 TKG 2003 on December 20, 2004, M 1/03-61, determining that Telekom Austria possesses significant market power on the "Market for access to the public telephone network at a fixed location for residential customers" as defined in Art. 1 No. 1 TKMVO 2003.

The TKK made this determination after a thorough investigation of market shares (in the period investigated, Telekom Austria had a market share of nearly 95% of the overall market in terms of quantity), the existing barriers to market entry, market development, price developments, innovation activity, previous market behavior, the market result as well as other economically relevant market power indicators.

In the analysis of the access market for residential customers, the following potential competition problems (i.e., behaviors for which the SMP company has incentives due to the market circumstances) were identified:

1. Excessive prices: Telekom Austria has an incentive to set excessively high prices in order to maximize its profits. Due to the *de facto* monopolist market structure and substantial barriers to market entry, there is a danger that without the appropriate price regulation Telekom Austria could exercise its market power by setting excessively high prices (defined as prices which are significantly higher than the costs of providing the service and which allow the company to derive higher profits than would be possible in a competitive market in the long term) to the detriment of the end-consumer. Exercising market power by setting excessively high prices leads to allocation inefficiencies and thus to deadweight losses.

2. Existence of barriers to market entry: The local infrastructure can only be reproduced by alternative providers with difficulty or only with high sunk costs, capital requirements and risks; palpable barriers to switching providers are also a factor.

3. Horizontal transfer of market power: With excess profits from its monopolist position, Telekom Austria could subsidize the use of predatory pricing on the carrier markets through illegal cross-subsidization, thus transferring market power in the connection market to potentially competitive market segments.

Obligation to allow carrier selection

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003:

1. An obligation under Art. 46 Par. 1 TKG 2003 to provide its subscribers with access to the services of all interconnected operators of publicly available telephone services by means of carrier (pre-)selection

2. An obligation under Art. 41 Par. 2 No. 2 TKG 2003 in conjunction with Art. 38 TKG 2003 to provide a standard offer with regard to the resale of access services within two months of the time when the official decision regarding these services goes into force

3. A non-discrimination obligation under Art. 38 Par. 1 and Par. 2 TKG 2003

4. An obligation under Art. 43 Par. 1 in conjunction with Par. 2 and Par. 3 TKG 2003 to submit its general terms and conditions of business as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval (retail rates and charges have to comply with the cost-based standard)

Cost-based charges still required

5. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system.

In the procedure, the TKK also dealt extensively with the issue of appropriateness, coming to the conclusion that these obligations are indeed reasonable and do not constitute an unacceptable intervention in Telekom Austria's activities.

The existing obligations imposed on Telekom Austria due to its position of market power identified under Art. 33 TKG (1997) in conjunction with Art. 133 Par. 7 TKG 2003 were abrogated under Art. 37 Par. 2 in conjunction with Art. 133 Par. 7 TKG 2003 as regards the retail market for access to the public telephone network at a fixed location for residential customers as specified in Art. 1 No. 1 TKMVO 2003.

4.2.3.3.3.2 Market for access to the public telephone network at a fixed location for non-residential customers

Telekom Austria as an SMP operator

On the basis of the expert opinions mentioned above and in due consideration of the comments submitted in the procedure as well as the consultation and coordination procedures under Art. 128 and Art. 129 TKG 2003, the TKK issued an official decision pursuant to Art. 37 Par. 2 TKG 2003 on December 20, 2004, M 2/03-61, determining that Telekom Austria possesses significant market power on the "Market for access to the public telephone network at a fixed location for non-residential customers" as defined in Art. 1 No. 2 TKMVO 2003.

The TKK made this determination after a thorough investigation of market shares (in the period investigated, Telekom Austria had a market share of nearly 95% of the overall market in terms of quantity), the existing barriers to market entry, market development, price developments, innovation activity, previous market behavior, the market result as well as other economically relevant market power indicators.

In the analysis of the access market for non-residential customers, the following potential competition problems (i.e., behaviors for which the SMP company has incentives due to the market circumstances) were identified:

1. Excessive prices: Telekom Austria has an incentive to set excessively high prices in order to maximize its profits.

2. Existence of barriers to market entry: The local infrastructure can only be reproduced by alternative providers with difficulty or only with high sunk costs, capital requirements and risks; palpable barriers to switching providers are also a factor.

3. Horizontal transfer of market power.

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003:

1. An obligation under Art. 46 Par. 1 TKG 2003 to provide its subscribers with access to the services of all interconnected operators of publicly available telephone services by means of carrier (pre-)selection

2. An obligation under Art. 41 Par. 2 No. 2 TKG 2003 in conjunction with Art. 38 TKG 2003 to provide a standard offer with regard to the resale of access services within two months of the time when the official decision regarding these services goes into force

3. A non-discrimination obligation under Art. 38 Par. 1 and Par. 2 TKG 2003

Cost-based charges still required

4. An obligation under Art. 43 Par. 1 in conjunction with Par. 2 and Par. 3 TKG 2003 to submit its general terms and conditions of business as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval (retail rates and charges have to comply with the cost-based standard)

5. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system.

In this case as well, the existing obligations imposed on Telekom Austria under Art. 33 TKG (1997) in conjunction with Art. 133 Par. 7 TKG 2003 were abrogated for the market in question.

4.2.3.3.3.3 Market for publicly available local and/or national telephone services provided at a fixed location for residential customers

Telekom Austria as a significant market power operator

On the basis of additional expert opinions, the TKK decided on a draft enforcement measure under Art. 128 Par. 1 TKG 2003 in Procedure M 3/03 on December 6, 2004, determining that Telekom Austria has significant market power on the retail market for "publicly available local and/or national telephone services provided at a fixed location for residential customers" as specified in Art. 1 No. 3 TKMVO 2003.

The TKK made this determination after a thorough investigation of market shares, the existing barriers to market entry, market development, price developments, vertical integration, the market result as well as other economically relevant market power indicators.

In the analysis of the retail market for publicly available local and/or national telephone services provided at a fixed location for residential customers, the following potential competition problems were identified:

1. Especially due to the specific structural characteristics of the market, Telekom Austria has significant market power on the retail market for publicly available local and/or national telephone services provided at a fixed location for residential customers and still profits from a significant and stable share of market revenues of just over 50% as well as the barriers to market entry, which are also considerable in the case of local/national telephone services.

2. Market behavior dimension: Despite the existing *ex ante* fee regulation of Telekom Austria, there are still sustained competition problems due to asymmetrical pricing options and the lower customer retention capabilities of alternative network operators.

3. Horizontal transfer of market power: With excess profits from its monopolist position, Telekom Austria could subsidize the use of predatory pricing on the retail market for publicly available local and/or national telephone services provided at a fixed location for residential customers through illegal cross-subsidization, meaning that market power in the connection market (where Telekom Austria has a 95% market share) could be transferred to the potentially competitive retail market for publicly available local and/or national telephone services provided at a fixed location for residential customers.

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003 in conjunction with Art. 128 Par. 1 TKG 2003:

Approval still required for rates and charges

1. An obligation under Art. 43 Par. 1 in conjunction with Par. 2 and Par. 3 TKG 2003 to submit its general terms and conditions of business (including service descriptions) as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval (retail rates and charges have to comply with the cost-based standard)

2. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system.

These instruments were imposed on Telekom Austria after the respective consultation and coordination procedure.

Obligations arising from TKG (1997) were abrogated. At the end of the period under review, this procedure was still pending.

4.2.3.3.3.4 Market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers

Telekom Austria as a significant market power operator

In this market as well, the TKK issued a draft enforcement measure under Art. 128 Par. 1 TKG 2003 in Procedure M 4/03 on December 6, 2004, determining that Telekom Austria has significant market power on the retail market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers as specified in Art. 1 No. 4 TKMVO 2003.

In the analysis of the retail market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers, the following potential competition problems were identified:

1. Especially due to the specific structural characteristics of the market, Telekom Austria has significant market power on the retail market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers and still profits from a significant and stable share of market revenues of just over 60% as well as the barriers to market entry, which are also considerable in the case of local/national telephone services. This is also due to its long-running contractual relationships with customers and their resulting loyalty as well as the former monopolist's high level of recognition (reputation), which can not be attained (or only with great difficulty) by alternative operators.

2. Market behavior dimension: Despite the existing *ex ante* fee regulation of Telekom Austria, there are still sustained competition problems due to asymmetrical pricing options and the lower customer retention capabilities of alternative network operators. However, this effect is being mitigated increasingly due to intensified infrastructure activities on the part of the alternative operators on the non-residential market.

3. Horizontal transfer of market power: With excess profits from its monopolist position, Telekom Austria could subsidize the use of predatory pricing on the retail market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers through illegal cross-subsidization, meaning that market power in the connection market could be transferred to the potentially competitive retail market for publicly available local and/or national telephone services provided at a fixed location for non-residential customers. In addition, the danger of predatory pricing is to be viewed in connection with product bundles, which are extensive in some cases and go beyond TKMVO 2003's scope of application in others.

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003 in conjunction with Art. 128 Par. 1 TKG 2003:

Cost-based rates and charges still required

1. An obligation under Art. 43 Par. 1 in conjunction with Par. 2 and Par. 3 TKG 2003 to submit its general terms and conditions of business (including service descriptions) as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval (retail rates and charges have to comply with the cost-based standard)

2. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system.

These instruments were imposed on Telekom Austria after the respective consultation and coordination procedure.

Obligations arising from TKG (1997) were also abrogated in this case. At the end of the period under review, this procedure had not been completed.

4.2.3.3.3.5 Market for publicly available international telephone services provided at a fixed location for residential customers

Effective competition on this market

On the basis of the expert opinions mentioned above, the TKK issued an enforcement measure under Art. 128 Par. 1 TKG 2003 in Procedure M 5/03 on December 6, 2004, determining that effective competition prevails and thus no operator has significant market power on this retail market.

This result was mainly justified by the fact that the market share of the largest operator – Telekom Austria – on this market is approximately 45%, including the market shares of Telekom Austria's resellers and the revenue shares arising from the use of calling cards, especially from Telekom Austria's public payphones.

Compared to the market for local/national telephone services for residential customers, carrier network operators enjoy greater latitude in pricing due to the larger number of possible call destinations on the market for international telephone services provided for residential customers.

Due the lower dependence on infrastructure, greater selection and the higher price sensitivity among customers, the barriers to market entry are lower on the market for international services for residential customers than on the market for local/national services for residential customers (Art. 1 No. 3 TKMVO 2003) and the market for international services for non-residential customers (Art. 1 No. 6 TKMVO 2003).

In addition, new providers can enter the market for international services provided for residential customers in selected segments (i.e., certain international calling destinations). This can be done more quickly and easily than covering all international destinations.

Removal of previous obligations imposed on Telekom Austria

A draft enforcement measure was issued under Art. 37 Par. 3 in conjunction with Art. 133 Par. 7 TKG 2003 (draft decision on M 5a/03, December 6, 2004) to lift the existing obligations imposed on Telekom Austria due to its position of market power identified under Art. 33 TKG (1997) in conjunction with Art. 133 Par. 7 TKG 2003 on the market for publicly available international telephone services provided at a fixed location for residential customers.

At the end of the period under review, this procedure had not been completed.

4.2.3.3.3.6 Market for publicly available international telephone services provided at a fixed location for non-residential customers

Telekom Austria as a significant market power operator

In this market as well, the TKK issued a draft enforcement measure under Art. 128 Par. 1 TKG 2003 in Procedure M 6/03 on December 6, 2004, determining that Telekom Austria has significant market power on the market for publicly available international telephone services provided at a fixed location for non-residential customers as specified in Art. 1 No. 6 TKMVO 2003.

In the analysis of the market for publicly available international telephone services provided at a fixed location for non-residential customers, the following potential competition problems were identified:

1. Especially due to the specific structural characteristics of the market, Telekom Austria has significant market power on the market for publicly available international telephone services provided at a fixed location for non-residential customers and still profits from a significant and stable share of market revenues of just over 60% as well as the persistent and considerable barriers to market entry in the case of international telephone services. Alternative operators can only persuade customers and overcome the existing barriers to switching operators by offering considerable price advantages. These barriers are relatively high in this market because reliability requirements and other quality features are especially important and market-relevant services are often purchased within the framework of bundled transactions.

2. Excessive prices: Due to the costs of switching, the danger exists that Telekom Austria will exercise its market power to the detriment of non-residential consumers by charging excessively high retail prices.

3. Horizontal transfer of market power: In addition, the danger of a horizontal transfer of market power exists in the provision of bundled products which competitors can only replicate to a limited extent. This problem is further exacerbated by the high importance of individual overall solutions on the market in question.

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003 in conjunction with Art. 128 Par. 1 TKG 2003:

Draft still calls for approval of rates and charges

1. An obligation under Art. 43 Par. 1 in conjunction with Par. 2 and Par. 3 TKG 2003 to submit its general terms and conditions of business (including service descriptions) as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval (retail rates and charges have to comply with the cost-based standard)

2. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system.

These instruments were imposed on Telekom Austria after the respective consultation and coordination procedure. In the procedure, the TKK also dealt extensively with the issue of appropriateness, coming to the conclusion that these obligations are indeed reasonable and do not constitute an unacceptable intervention in Telekom Austria's activities.

At the end of the period under review, this procedure was still pending.

4.2.3.4 Market for unbundled access

Telekom Austria as a significant market power operator

With the official decision issued on October 27, 2004 (M 13/03-52), the TKK determined under Art. 37 Par. 2 TKG 2003 that Telekom Austria has significant market power on the market for "Wholesale unbundled access (including shared access) to metallic loops and sub-loops, for the purpose of providing broadband and voice services" as specified in Art. 1 No. 13 TKMVO 2003.

The TKK made this determination after a thorough investigation of market shares (in the period investigated, Telekom Austria had a market share of nearly 100% of the overall market in terms of revenues), vertical integration, countervailing buyer power, the existing barriers to market entry, market developments, as well as other economically relevant market power indicators.

In the analysis of the market for wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services, the following potential competition problems were identified:

1. Denial of access: Unbundling provides alternative operators with a greater degree of autonomy and flexibility, and given sufficient unbundling these operators could put competitive pressure on Telekom Austria with their own products, especially in the downstream retail markets. Telekom Austria therefore has no interest in enabling this competition and thus losing revenues; in fact, Telekom Austria has far more incentives directed against competition.

2. Excessive prices: Telekom Austria has an incentive to impede or prevent competitors from taking advantage of the opportunities arising from unbundled access (flexible offers for retail customers) by means of excessive (unregulated) prices. Pricing motivated by such considerations could generate higher cost structures among competitors, which would render them unable to market their products at prices which cover their costs (i.e., danger of a margin squeeze).

3. Definition of non-price parameters to impede competition: Telekom Austria is also able to prevent competitors from providing their services by means of non-price parameters. This can be done, for example, by delays in service provision, denial or excessive pricing of essential additional services (e.g., collocation), provision of lower-quality wholesale services, or by the (unilateral) definition of (technical) standards which are unsuitable for competitors or can only be implemented at significant expense.

Obligations largely similar to previous regulations

Due to the competition problems identified, the following regulatory instruments were imposed on Telekom Austria in accordance with Art. 37 Par. 2 TKG 2003:

1. An obligation under Art. 41 TKG 2003 to provide access to local loops in its network, including parts thereof (partial unbundling), shared use and the annex services required for this purpose
2. An obligation under Art. 38 Par. 3 TKG 2003 to provide a standard offer for the market services in question within one month of the official decision's entry into legal effect
3. A non-discrimination obligation under § 38 TKG 2003
4. An obligation under Art. 42 TKG 2003 to offer the market services in question in unbundled form and at costs no higher than those of efficient service provision (FL-LRAIC)
5. An obligation under Art. 40 Par. 1 TKG 2003 to maintain accounting separation and to set up a cost accounting system
6. An obligation under Art. 42 Par. 1 TKG 2003 to deploy a cost accounting system which also enables calculation of the costs of efficient provision for the market services in question.

4.2.3.5 Market analysis procedure for leased-line markets

4.2.3.5.1 Market definition

Leased lines were divided into three relevant markets.

In the course of the market analysis procedures initiated by the TKK in October 2003, three markets for leased lines were also investigated: The retail market for the minimum set of leased lines, which comprises certain types of leased lines up to 2 Mbit/s, as well as the wholesale markets for trunk segments and terminating segments of leased lines. The two wholesale markets include comprise leased lines which are used as upstream products by communications network operators and service providers in order to offer communications services for retail customers. Trunk segments refer to those leased lines or sections thereof which do not generally reach the subscriber's network access point (NAP), but link interconnection points in those 28 Austrian towns where Telekom Austria has realized its points of interconnection for the telephone network. In contrast, terminating segments refer to all leased lines (or sections thereof) at the wholesale level which are not classified as trunk segments.

4.2.3.5.2 Market analysis

Once the TKK initiated the appropriate procedures on October 20, 2003 (retail market: M 10/03; wholesale market for trunk segments: M 11/03; wholesale market for terminating segments: M 12/03), RTR's official experts drew up market analysis opinions on whether effective competition prevails on these markets. The opinions were written on the basis of data collected by RTR for the purpose of market analysis.

In addition, the TKK commissioned RTR's official experts to compose further opinions as to which specific obligations under TKG 2003 would be suitable from an economic standpoint for addressing the competition problems identified in the market analysis opinions for each relevant market.

4.2.3.5.2.1 Wholesale market for trunk segments – M 11/03

Effective competition identified on this market

The market analysis procedure regarding the wholesale market for trunk segments of leased lines was discontinued on July 19, 2004, after the completion of a consultation and coordination procedure. The procedure was discontinued because effective competition prevails on this market: No company possesses a significant level of market power, and the number of companies already operating on the market as well as their geographical presence and network capacities ensure a sufficient degree of competition. In particular, over the medium term no operator could raise prices above costs for connections between the "trunk towns" without losing market share.

4.2.3.5.2.2 Retail market for the minimum set of leased lines for certain types of lines up to 2 Mbit/s – M 10/03

Telekom Austria: Significant market power

With regard to the retail market for the minimum set of leased lines for certain types of lines up to 2 Mbit/s, the TKK carried out a consultation and coordination procedure and determined in an official decision on October 27, 2004, that Telekom Austria has significant market power on this market. The TKK therefore imposed specific obligations on Telekom Austria pursuant to TKG 2003 in order to counteract the competition problems identified.

Specific obligations imposed in order to eliminate competition problems

Among other things, Telekom Austria was obligated to offer a minimum set of certain leased line types up to 2 Mbit/s in accordance with the principles of non-discrimination, cost-based pricing and transparency: Analog leased lines with voice bandwidth of normal or especially high quality, and digital leased lines with data rates of 64 kbit/s and 2,048 kbit/s. The appropriate obligations were imposed on Telekom Austria with regard to unswitched copper wire pairs as well as leased lines with data rates of n x 64 kbit/s up to and including 2,048 kbit/s.

In connection with providing this minimum offer, the TKK also obligated Telekom Austria to observe the principle of non-discrimination, to base its leased line charges on forecast costs, and to have its terms and conditions of business as well as its rates and charges approved by the regulatory authority before application.

Moreover, Telekom Austria is required to publish information in an easily accessible form regarding technical features and specifications, rates and charges (including setup charges and regular base fees), as well as provision terms and conditions with information on ordering procedures, typical delivery periods, the minimum contract period, typical repair times and reimbursement procedures. Telekom Austria was also subjected to the obligation to maintain accounting separation and a cost accounting system.

4.2.3.5.2.3 Wholesale market for terminating segments – M 12/03

Telekom Austria: Significant market power

With regard to the wholesale market for terminating segments, the TKK issued an official decision on October 27, 2004 (again after completing a consultation and coordination procedure) which identified Telekom Austria's position of significant market power on this market.

Telekom Austria was also subjected to specific obligations in this case. In general, Telekom Austria is required to provide non-discriminatory access to the terminating segments of leased lines in response to reasonable demand. This means that Telekom Austria is required to enable access to terminating segments of various bandwidths at locations specified by the customer, or (upon request) the interconnection of terminating segments to its own infrastructure as well as that of third parties. In addition, Telekom Austria is to enable the coupling of low bit-rate terminating segments and high bit-rate terminating segments at least in those towns in which the "town rate" approved by the TKK in Decision G 8/03-16 applies. Telekom Austria is required to grant unbundled access and to provide access to all necessary infrastructure elements and services (e.g., collocation) as well as annex services upon request.

Specific obligations imposed in order to eliminate competition problems

For all of the aforementioned services on the market for terminating segments, Telekom Austria was required to publish a standard offer by January 31, 2005, which must describe partial services in sufficient detail, break down service offers into individual components according to the market's needs, and indicate conditions regarding charges and any discounts.

Until the publication of the standard offer, Telekom Austria is required to provide leased lines under the previously applicable terms and conditions; upon request, existing contracts with communications network operators and service providers must be changed over retroactively to the terms and conditions applicable to the respective terminating segments within two months after the publication of the standard offer.

While Telekom Austria's rates and charges for access to terminating segments at locations specified by the customer are to be based on the costs of an efficient service provider, the fees for other access services are to be based on full costs.

With regard to companies which provide similar services, Telekom Austria is subject to a non-discrimination obligation, which requires equal treatment to Telekom Austria's own services or the services of affiliated companies.

In addition, an obligation to maintain accounting separation and a cost accounting system for this market was imposed on Telekom Austria.

4.2.3.6 Market analysis procedure for wholesale markets on the mobile network

4.2.3.6.1 Market definition

Three wholesale markets defined in the mobile segment

The TKMVO 2003 defines three wholesale markets in the mobile network segment: The market for "Access and call origination on public mobile telephone networks," the operator-specific market for "Call termination on public mobile telephone networks," and the market for "International roaming on public mobile telephone networks."

4.2.3.6.2 Market analysis

With the resolution passed by the Telekom-Control Commission on October 20, 2003, market analysis procedures with the codes M 14/03 (origination) and M 15/03 (termination) were initiated pursuant to Art. 37 TKG.

In addition, official experts at RTR were instructed to draw up an economic expert opinion on the question of whether competition prevails on the markets in question and whether self-sustaining competition is present on those markets from an economic standpoint.

Procedure M 15/03 was later subdivided into operator-specific procedures (M 15a-e/03), and the Telekom-Control Commission commissioned further expert opinions in which the experts were to determine which specific obligations under Articles 38 to 46 and/or Art. 47 Par. 1 TKG 2003 (regulatory instruments) would be suitable from an economic standpoint for potential SMP companies in order to address the competition problems identified in the market analysis opinion on the operator-specific mobile termination markets.

Market analysis for international roaming scheduled for 2005

The analysis procedure for the wholesale market for international roaming will be initiated later, as the results of the European Commission's sector inquiry have not yet been released and the independent national regulatory authorities will also intensify international coordination in order to mitigate transnational distortions of competition due to differing procedures.

4.2.3.6.2.1 Origination – M 14/03

Effective competition identified

On the basis of an expert opinion and in due consideration of the comments received, the Telekom-Control Commission discontinued Procedure M 14/03 under Art. 37 Par. 3 TKG 2003 on July 5, 2004, stating that effective competition exists on the uniform market for access and call origination on public mobile telephone networks.

In a thorough examination of indicators for the (potential) significant market power of the largest mobile operator (Mobilkom) alone as well as a (potential) significant market power position shared by mobile network operators, no evidence was found which clearly indicated that one or more companies have significant market power.

Even if significant barriers to market entry exist in the market for access and call origination and Mobilkom has a large market share (between 40% and 50%), the presence of effective competition is supported by the most essential market power indicators such as the absence of obstacles to expansion, a high level of product homogeneity, high vertical market transparency, the fact that the central parameter on the mobile markets is price and not quantity, and the lack of systemic advantages for Mobilkom in the means of production, distribution channels or access to financing.

In the course of examining (potential) shared significant market power, the majority of indicators investigated clearly do not indicate parallel behavior. In particular, the asymmetrical interests of the companies and the high cheating incentives (or the low potential for retaliation) point to offensive competitive behavior. The analysis of the incentives structure of the participating companies as well as their behavior provide clear arguments against the presence of joint market power.

No specific obligations imposed

The market result also confirms the determination that effective competition prevails on the market for access and call origination on public mobile telephone networks: Both the international price comparison as well as national price development indicate a competitive market result.

4.2.3.6.2.2 Termination – M 15a-e/03

Each network constitutes a separate market.

Termination services can only be rendered by the provider network to which the subscriber is connected. As each mobile network operator has its own termination market as defined under Art. 1 No. 15 TKMVO 2003, network operator-specific termination markets exist.

The consequences of this market definition are as follows:

- The market share of each operator is always 100% in its own market.
- Infinitely high barriers to market entry exist (each new operator forms its own market but can never enter an existing termination market).
- Economic incentives (especially) to raise termination charges exist.
- No countervailing buyer power (CBP) exists which could discipline this market power.

Therefore, termination markets can be characterized as resistant monopoly markets. For these reasons, the TKK came to the conclusion that each operator has significant market power on its own termination market. In connection with mobile termination services, the following potential competition problems were identified with regard to the mobile operators Mobilkom, T-Mobile Austria, One, tele.ring and H3G in the case of non-regulation:

1. Allocative market distortions due to excessive termination fees for calls from the fixed-link network to the mobile network. From an economic standpoint, this is the most substantial competition problem.

2. Allocative market distortions due to excessive termination fees for calls between mobile networks as well as price discrimination between on-net and off-net calls.

3. Danger of foreclosure strategies vis-à-vis small mobile network operators (Greenfielder, MVNOs) through the denial of interconnection, excessively high termination fees, price discrimination between on-net and off-net calls or other non-price tactics ("raise rival's cost" strategies).

4. Foreclosure strategies vis-à-vis fixed-link network operators in the case of overlaps in business areas (e.g., fixed-link/mobile convergence or in virtual private networks) or through increased substitution between fixed-link and mobile networks.

In light of the objectives of regulation and the central principle of appropriateness, the mobile network operators were equally subjected to the following obligations:

1. Non-discrimination obligation: With regard to the quality of termination services, mobile network operators are to offer other operators the same terms and conditions which they provide for themselves, affiliated companies or other companies. With regard to the price of termination services, the mobile network operators are to offer other operators the same terms and conditions which they provide for affiliated companies or other companies.

2. Obligation to publish a standard offer for termination services

3. Obligation to allow interconnection

Obligation to charge cost-based fees

4. Obligation to charge a fee for the interconnection service of termination in their public mobile telephone networks based on the long-run average incremental cost (LRAIC) to an efficient operator.

4.2.4 Creation of clear and fair general conditions – Frequencies

4.2.4.1 Measurement of UMTS coverage level

In the first half of 2004, the TKK carried out procedures to review the fulfillment of coverage requirements by UMTS frequency licensees.

In the UMTS frequency allocations to H3G, Mobilkom, One, tele.ring, T-Mobile Austria and 3G Mobile in November 2000, certain requirements were stipulated with regard to the levels of coverage to be reached: The operators were required to offer UMTS/IMT-2000 services commercially with a coverage level of 25% at a data rate of 144 kbit/s by December 31, 2003.

All operators fulfilled the coverage requirements

The official frequency allocation decisions also included a general description of the procedure for reviewing fulfillment of these requirements; the procedure itself was specified in early 2003 with the cooperation of all relevant companies.

The review procedures were initiated by the TKK in January 2004, and in accordance with the provisions set forth in the official allocation decisions, the companies were asked to submit the data required for the review (as of the cutoff date December 31, 2003) by March 1, 2004.

The experts appointed by the TKK then carried out the corresponding surveys on the basis of the data submitted. In the first step, specific measurement points were defined using the data from the companies concerned, then the measurements themselves were taken at those points by means of channel measurements as well as test calls.

Based on the measurement results, a statistical analysis was carried out to calculate each network operator's coverage level.

On the basis of this statistical analysis, the TKK came to the conclusion that all of the companies concerned had fulfilled the coverage requirements.

All operators had reached the required coverage level of 25% and the requirements regarding data rates, as well as offering their services commercially as of December 31, 2003.

With regard to 3G Mobile, which is still a frequency licensee, no separate review was carried out; 3G Mobile did not provide any services at the time of this procedure. Due to its ownership structure (100% of 3G Mobile's shares are owned by Mobilkom), 3G Mobile is not separately required to reach a coverage level of 25%, as this requirement is fulfilled by Mobilkom. This was defined in the TKK's decision of December 15, 2003, in which the authority approved the transfer of ownership.

The next review will take place in 2006: As of December 31, 2005, the network operators are required to reach a coverage level of 50%.

4.2.4.2 Allocation of WLL frequencies

WLL is an additional means of access to the retail consumer.

In 2004, TKK carried out a procedure to allocate frequencies in the 3.5 GHz range. These frequencies are to be used specifically for wireless local loop (WLL) technology, which will be used to connect fixed-link subscribers using wireless technology. After the BMVIT issued an ordinance in March 2004 stating that the number of frequency allocations under Art. 52 Par. 3 TKG 2003 would be limited in this range, the frequencies were assigned to the regulatory authority in April for further utilization.

Allocations were transparent and non-discriminating.

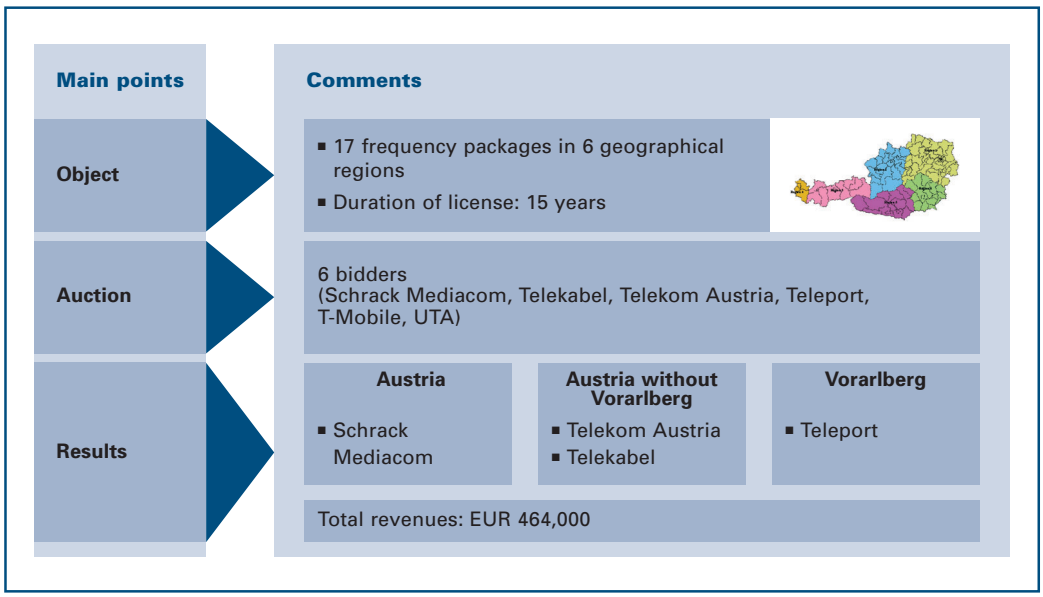
The TKK then began preparing the invitation to tender. Due to the area in which the frequencies are to be used, allocation regions were defined largely on the basis of economic regions and topographical considerations. Austria was thus divided into six regions, five of which comprised three frequency packages. In the remaining region (Vorarlberg), two frequency packages were allocated due to the region's specific circumstances with regard to frequency engineering.

The tender document was published in early July, and the tender submission deadline was September 9, 2004. At the end of this period, seven companies had filed applications for frequency allocation. Once fulfillment of the economic and technical prerequisites had been verified, all seven applicants were admitted to the auction. In the end, six companies took part in

Four companies obtained frequencies in the auction.

the auction, while one applicant withdrew its application. The auction took place in October 2004 and resulted in frequency allocations to Schrack Mediacom GmbH (nationwide), Telekabel Wireless GmbH (nationwide, except Vorarlberg), Telekom Austria AG (nationwide, except Vorarlberg) and Teleport Consulting und Systemmanagement GmbH (Vorarlberg). Total revenues from the auction came to EUR 464,000.00.

Figure 8: Overview of auction for WLL frequencies in the 3.5 GHz range



4.2.4.3 Allocation of GSM frequencies

Capacity increases using new frequencies

The TKK also carried out an allocation procedure for frequencies in the GSM-900 and GSM-1800 ranges in 2004. The BMVIT had also issued an ordinance regarding these frequencies, stating that the number of allocations would be limited. The allocation procedure was carried out largely in parallel to the WLL frequency allocation procedure. At the end of the tender submission period, three companies had filed applications for frequency allocation. All of the applicants were companies which already operated on the Austrian mobile telecommunications market. After a review of the relevant economic and technical prerequisites, all three applicants were admitted to the auction. In the auction procedure, frequencies were allocated to Mobilkom Austria AG & Co KG, One GmbH and tele.ring Telekom Service GmbH. The revenues from the auction amounted to EUR 968,000.00. The frequencies allocated will be used to expand the capacities of each operator. One GmbH, which up to that point had only used frequencies in the GSM-1800 range, was also allocated GSM-900 frequencies in this procedure. These frequencies will be used in particular to improve area coverage, as they have a longer range than GSM-1800 frequencies.

4.2.5 Creation of clear and fair general conditions – Communications parameters

Under the provisions of TKG 2003, RTR is responsible for the efficient administration of Austrian telephone numbers and all other communications parameters (special communications parameters). In the TKG 2003, communications parameters are defined as "any characters, letters, digits and signals in their entirety that serve directly for network control of communications connections."

4.2.5.1 Communications Parameters, Fees and Value-Added Service Ordinance (KEM-V)

General conditions defined in two RTR ordinances

The legal basis for the administration of addressing elements can be found in two ordinances issued by RTR: The Special Communications Parameters Ordinance (SKP-V) issued in 2003, and the Communications Parameters, Fees and Value-Added Service Ordinance (KEM-V), which went into effect on May 12, 2004. The latter ordinance defined the public numbering plan and a public dialing plan as a partial plan for communications parameters, as well as regulations governing value-added services. For the various number ranges, the ordinance defines usage features and assignment criteria, the procedure for obtaining usage rights, as well as fees and regulations regarding value-added services.

Before the KEM-V went into effect, the areas it now governs were subject to the Numbering Ordinance (NVO) issued by the BMVIT, the Ordinance on the Definition of Access Numbers for Emergency Call Services, and the Fees Ordinance (EVO 2003) issued by RTR. The KEM-V is based on those previous ordinances, and many provisions which had proven effective were included in the new regulations. Adaptations were made to accommodate new services as well as the changing requirements of the market and consumer protection.

Simplification of local area codes

The local area codes, the assignment of area codes to local network names and the geographical boundaries between local networks defined in the NVO were generally included in the annex to the KEM-V without changes in content. Through this regulation, the often-discussed sweeping changes in Austria's numbering plan were finally dispensed with. The adaptations were made in the area codes for Linz and Vienna. For historical reasons, these two local networks are still reachable using two different area codes each: (0)1 and (0)222 for Vienna, and (0)70 and (0)732 for Linz. These double area codes require additional effort in public telephone networks as well as private telephone systems and cause confusion in caller identification, as different caller numbers are displayed depending on the network through which the call is made. Therefore, starting on May 12, 2007, the only area code valid for Vienna will be (0)1, and starting on May 12, 2009, the only area code valid for Linz will be (0)732.

Transparency of charges for value-added services

One important part of the KEM-V is its comprehensive set of provisions regarding value-added services in the (0)8xx range and especially in the (0)9xx range. When such services are advertised, the exact charge per minute or event has to be indicated in EUR. The maximum rate limits were set at EUR 0.10 per minute for (0)810 numbers and EUR 0.20 per minute for (0)820 numbers. The new (0)821 range is exclusively dedicated to event-based voice and SMS/MMS message services, and the maximum charges for these calls are limited to EUR 0.20 per call (regardless of the call duration) or SMS/MMS message.

New regulations to protect consumers

For value-added services without price regulations, there are also clear requirements with regard to rates and charges. The maximum time-based rate is EUR 3.64 per minute, and event-based charges are limited to EUR 10.00 per event. The obligation to provide rate information, be it through a recording or text message, applies to all (0)9xx ranges, while there are special provisions regarding SMS and MMS services with event-based charges under EUR 0.70. In the field of SMS chat and subscription services, a number of specific regulations were defined. New provisions have been introduced for mandatory call termination, as is the case with directory assistance services. Depending on the applicable rate, calls to value-added services are to be terminated automatically by the operator after 60 minutes (for fees less than EUR 2.20 per minute) or after 30 minutes (for fees of EUR 2.20 per minute or higher).

Improvements with regard to dialer programs

The KEM-V also includes extensive provisions with regard to dialer programs: Among other requirements, dialer programs can only be offered in the (0)939 number range. An opt-in system, which has been mandatory for all fixed-link operators since January 1, 2005, ensures that these dialers are only available at the express request of the user. Additional requirements include extensive rate information obligations, the name and address of the service provider and descriptions of services, as well as a mandatory function which allows users to completely uninstall such dialer programs from their computers with ease.

4.2.5.2 Statistical analyses in telephone number administration

RTR issued a total of 535 official decisions regarding telephone number administration in 2004, a decline of approximately 21% compared to the previous year. In this context, it is necessary to note that the relatively large number of official decisions issued in 2003 was due to the introduction of telephone numbers for value-added services with event-based charges in the (0)901 and (0)931 ranges. For more information, please refer to Table 2: Number of decisions issued regarding telephone numbers.

In the administration of special communications parameters, a total of ten official decisions (three of which were negative) were issued in 2004.

Table 4: Number of decisions issued regarding telephone numbers

	2001	2002	2003	2004
Number of positive decisions	**481**	**502**	**600**	**494**
for geographical numbers	73	22	20	31
for non-geographical numbers	408	480	580	463
Number of negative decisions	**11**	**25**	**82**	**41**

The average time required to process telephone number requests was reduced from four days in 2003 to three days in 2004 (see also Table 5). 90% of all requests were completed within six days, meaning that the processing time for 90% of all requests was shortened by two days.

Table 5: Processing time for telephone number requests

Processing time for number requests (in days)	2001	2002	2003	2004
Average processing time	5.6	5	4	3
50% of all requests	4	4	3	2
90% of all requests	8	7	8	6

Efficiency in handling number requests increased further

Table 6 gives an overview of all telephone number ranges administered by RTR as of December 31, 2004, including each range's level of utilization:

Table 6: Allocated and utilized telephone numbers in Austria

	Range	Allocated	Utilized[2]	Level of utilization[2]
Geographical subscriber numbers Telekom Austria	(0)1 (0)2xx (0)3xx (0)4xx (0)5xx (0)6xx (0)7xx	27,023,000	17,913,534	66.3%
Geographical subscriber numbers (ANO)	(0)1 (0)2xx (0)3xx (0)4xx (0)5xx (0)6xx (0)7xx	4,538,800	240,879	5.3%
Area codes for private networks	(0)5	222	164	73.9%
Area codes for mobile networks	(0)6xx	7	6	86%
Dial-up internet access	(0)718	7,200	145	2%
Location-independent fixed-link numbers	(0)720	71,500	99	0.1%
Toll-free services	(0)800	78,609	10,151	12.9%
Dial-up internet access	(0)804 00	334	18	5.4%
Services with regulated maximum prices	(0)810 (0)820 (0)821	80,229	3,042	3.8%
Services with regulated maximum prices	(0)828 2	1,743	14	0.8%
Value-added services without price regulations, time-based	(0)900 (0)930	122,224	18,077	14.8%
Value-added services without price regulations, event-based	(0)901 (0)931	47,049	218	0.5%
Value-added services without price regulations	(0)939	10,700	259	2.4%
Public carrier networks	10	46	28	61%
Telephone troubleshooting hotlines	111	46	23	50%
Telephone directory assistance services	118	46	29	63%
Routing numbers for number portability	86	49	13	26.5%
Routing numbers for number portability	87	12	2	16.7%
Routing numbers for services	89	38	6	15.8%

[2] Figures indicated in terms of unabbreviated numbers, i.e., a telephone number shortened by one or two digits corresponds to 10 or 100 unabbreviated numbers, respectively.

4.2.6 Creation of clear and fair general conditions – Network access and shared use rights

Open network provision as a prerequisite for competition

One essential area of regulation involves activities to create the conditions necessary to enable new entrants to provide their services on the market. In this context, open network provision (ONP) is of crucial importance. In order to enable competition between new providers and the former monopolist, it is necessary to ensure that new providers gain access to the telecommunications network of the incumbent, essentially through the interconnection of networks.

4.2.6.1 Interconnection

4.2.6.1.1 Interconnection of a mobile virtual network operator (MVNO) – Z 19/03

4.2.6.1.1.1 Status of an MVNO under TKG 2003 – Right to interconnection under TKG 2003

Clarification of general conditions for MVNOs

On May 10, 2005, the TKK issued an official decision in Procedure Z 19/03 in which it ordered the interconnection of the MVNO Tele2 with the application's opponent Telekom Austria under Articles 48 and 50 TKG 2003.

The telecommunications networks of Tele2 and Telekom Austria were already interconnected at two fixed locations based on the provisions of the TKG (1997). This procedure was triggered by Tele2's decision to operate as a mobile virtual network operator (MVNO) using the network infrastructure of an existing mobile network operator, referred to as a national roaming partner. To this end, Tele2 had concluded a national roaming agreement with the mobile network operator One as its host network operator.

One of the legal issues to be resolved in this procedure was whether the provisions of TKG 2003 allow Tele2 the right to interconnection as an MVNO. In the procedure mentioned above, the TKK stated that in its planned MVNO project Tele2 would be providing public mobile communications services via a mobile communications network over which Tele2 has legal and actual control as defined under Art. 3 No. 4 TKG 2003, because the company had concluded a cooperation agreement with a mobile network operator and had its own core network elements. In addition, it was necessary to note that – at the time of the decision in this procedure – Tele2 was already in possession of a confirmation under Art. 15 Par. 3 TKG 2003 (general approval).

4.2.6.1.1.2 Amount of MVNO termination charges

Termination charges linked to those of the national roaming partner

On the issue of Tele2's termination charges, the TKK decided that Tele2 was entitled to termination charges in the same amount as the national roaming partner based on the following general conditions:

In connection with termination charges, TKG 2003 only includes provisions regarding the charges of companies which possess significant market power as defined under Art. 35 TKG 2003.

As Tele2 had not been identified as an SMP operator on a specific market at the time of the decision, those provisions were not applicable. The TKK thus based its decision largely on the following considerations:

In the course of interconnection between an MVNO and a third-party operator, the far larger and more expensive part of termination services (i.e., the routing of calls to the MVNO's end customer) is handled by the national roaming partner, as calls are not only routed through parts of the core network but also via the radio network of the mobile network operator (MNO). Therefore, in the opinion of the TKK this constituted grounds for ordering that equal interconnection fees be charged by the MVNO Tele2 and its national roaming partner.

4.2.6.1.2 Interconnection charges in the fixed-link network – Z 10/03 and Z 12/03

4.2.6.1.2.1 Calculation of charges

Charges reduced due to efficiency increases

On September 20, 2004, the TKK issued two decisions in Procedures Z 10/03 and Z 12/03 defining the level of charges for interconnection with a fixed-link network under Articles 48 and 50 TKG 2003. In both procedures, the application's opponent was Telekom Austria. With these decisions, the TKK once again ordered reciprocal cost-based interconnection fees (as in the previous procedures) to be considered applicable from October 1, 2003 until the completion of the corresponding market analysis procedures on the wholesale markets (Art. 1 No. 7 TKMVO 2003: fixed-link origination market, Art. 1 No. 8 TKMVO 2003: operator-specific fixed-link termination markets; Art. 1 No. 9 TKMVO 2003: transit).

The procedures were initiated on the basis of an application submitted by UTA and Tele2 on September 30, 2003. The cases were passed on to RTR for mandatory dispute resolution procedures under Art. 121 Par. 2 and Par. 3 TKG 2003 for the first time since TKG 2003 had gone into effect. As the parties were unable to reach an agreement in this dispute resolution procedure, the TKK instructed RTR's official experts to draw up an opinion determining cost-based charges for Telekom Austria for the contractual interconnection services of origination, transit, termination and the provision of the required account settlement data.

In order to determine new cost-based charges, the experts calculated average reductions of the charges for each traffic type from Procedure Z 11/02, which were applicable at the time the decisions were issued. In total, the fee reductions[3] resulting from this opinion ranged between 1.77% (for traffic type V3, regional termination) and 4.06% (for traffic type V5, regional transit). The charges for national termination and national origination were not changed. The charge for the most important traffic type – local termination in Telekom Austria's network (V33) – was reduced by 3.23%. The charge for data provision was set at the previously level defined in Procedure Z 11/02 (EUR 0.17 cents).

[3] These reductions apply to both peak and off-peak charges.

The table below shows the most important charges set in this procedure and their respective changes compared to the previously applicable charges.

Table 7: Change in interconnection charges compared to Decision Z 11/02

Values indicated in EUR cents per minute (excluding VAT)		Previous values (until Sept. 30, 2003)		Current TKK decision		Change
		Peak	Off-peak	Peak	Off-peak	%
Termination	Local	0.85	0.50	0.82	0.48	-3.23
	Regional	1.30	0.72	1.28	0.71	-1.77
	National	2.25	0.87	2.25	0.87	0.00
Transit	Regional	0.29	0.15	0.28	0.14	-4.06
	National	0.62	0.32	0.60	0.31	-2.58
Origination	Local	0.85	0.50	0.82	0.48	-3.58
	Regional	1.30	0.72	1.28	0.71	-1.77
	National	2.90	1.10	2.90	1.10	0.00

4.2.6.1.2.2 Rulings of the Austrian Administrative Court (VwGH)

The three Administrative Court rulings described below were handed down during ongoing procedures and had a substantial impact on the decisions made by the TKK in connection with interconnection charges in fixed-link networks.

Ruling on Z 11/02 – Treatment of trade and company secrets

Determinations regarding the treatment of trade and industry secrets

On February 25, 2004,[4] the Administrative Court overturned the official decision issued in Procedure Z 11/02 due to a procedural violation. In this ruling, the Administrative Court made far-reaching determinations regarding the treatment of trade and company secrets in procedures before the regulatory authority. Specifically, the Administrative Court identified substantial procedural violations in the fact that the input data used in the bottom-up cost accounting model applied in the procedure was not disclosed to Telekom Austria. According to the Administrative Court, there can be no confidential evidence in an official procedure, therefore it is of no consequence whether the data contains trade and industry secrets. The input data set used in the bottom-up model, which was also used in the procedures in question, was therefore made available to all parties for comments.

[4] No. 2002/03/0273.

Rulings on Z 23/01 and Z 26/01 – Reciprocity

In two rulings on April 28, 2004,[5] the Administrative Court overturned the official decisions issued by the TKK on February 11, 2002 (Z 23/01) and on March 18, 2002 (Z 26/01) due to legal violations in the decisions' content. The subject of both official decisions was the definition of the respective cost-based fixed-link network charges which were applicable between the parties at the time of each decision and based on reciprocity.

Ruling on fees charged by non-SMP companies

In this context, the principle of reciprocity was based on the legal opinion that cost-based charges calculated according to the FL-LRAIC standard, which by definition reflect the costs of an efficient operator, represent the price that would be established on a competitive market. Therefore, this price was also considered appropriate for companies which do not possess significant market power, regardless of the respective network operator. As a result, the same charges as those set for comparable services provided by Telekom Austria were defined for the interconnection services provided by alternative network operators for each other or for Telekom Austria. In these rulings, the Administrative Court deemed TKK's legal opinion that the (then current) FL-LRAIC charges defined for the SMP operator Telekom Austria "[also] represent an appropriate fee for non-SMP companies in any case" to be inaccurate. However, it was not ruled out that "the interconnection charges of non-SMP companies, which are to be defined with due and extensive consideration of various interests, may also be set at the same level as the cost-based charges of the SMP operator."

As Telekom Austria as well as UTA and Tele2 had applied for matching reciprocal charges in Procedures Z 10/03 and Z 12/03, it was still possible to set these charges despite the Administrative Court's ruling.

Ruling on Z 19/01 – Data provision charge

Ruling on charges for data provision

In Procedures Z 17/01 and Z 19/01, the TKK issued a partial interconnection order for transit and direct account settlement for indirect traffic in December 2001 in response to applications submitted by Telekom Austria. The application's opponents were UTA in Procedure Z 17/01 and Tele2 in Procedure Z 19/01. The background to this procedure was that in early 2001 Telekom Austria had announced to its interconnection partners its intention to switch from "cascaded charging" (practiced in the case of indirect interconnection) to direct settlement between operators which are interconnected indirectly. The cascaded charging method involved Telekom Austria paying the interconnection charges incurred by indirect traffic (for termination and origination via its network) and then collecting these charges from the source network (for termination) or the target network (for origination).

The decisions mentioned above also included regulations on Telekom Austria's provision of the data necessary for direct settlement as the transit network operator and on the charges for providing this data (data provision charge). In its ruling on May 27, 2004,[6] however, the Administrative Court overturned Decision Z 19/01 due to a procedural violation in response to a complaint submitted by Tele2; according to the Administrative Court, sufficient determinations had not been made for the purpose of setting the data provision charge.

[5] No. 2002/03/0084 and No. 2002/03/0125.

[6] No. 2002/03/0039.

The impact of the ruling on the procedures in question consisted in the fact that the draft decisions (on which consultations were held under Articles 128 f TKG 2003) still required that the data provision charge be calculated in such a way that the 4.06% reduction defined for regional transit services was subtracted from the previous charge applied between the parties (EUR 0.17 cents) from the overturned Decisions Z 19/01 and Z 11/02 issued in the procedure, because data provision is an ancillary service to transit services. With regard to the ruling handed down by the Administrative Court, however, the TKK no longer considered it sensible to recalculate the cost-based charges using this method in its final decision on September 20, 2004, because the "base value" from Procedure Z 19/01 could no longer be used. For this reason, the TKK selected an alternative method of calculating the data provision charge in which it was not necessary to refer to the overturned Decision Z 19/01.

4.2.6.1.3 Collection fee – Z 23/03

Amount of collection fee redefined

In Procedure Z 23/03, atms Telefon- und Marketing Services GmbH requested a reduction of the contractually agreed collection fee of 10% under its interconnection contract with T-Mobile Austria for fees arising from value-added services charged by the target network in the number ranges (0)900 and (0)930.

For the use of value-added services, the end-consumer is required to pay a service charge to its source network operator, which passes the payment on to the service network (or target network) operator after deducting its own collection expenses (including collection risk). In turn, the service network operator pays an amount agreed upon in a private-law agreement to the value-added service provider.

T-Mobile Austria advocated withholding a collection fee of 10%. In RTR's mandatory dispute resolution procedure prior to initiating official proceedings, the parties were unable to reach an agreement, thus the procedure was continued before the TKK. An expert opinion drawn up in the course of the procedure calculated T-Mobile Austria's collection costs to be 7.9%. With a reference to the collection fees agreed upon between other non-SMP operators, the TKK issued a decision on October 11, 2004, again setting T-Mobile Austria's collection fee at 10% because this was in line with the price level common on the market. In addition, T-Mobile Austria could not be subjected to stricter standards than Telekom Austria (which is required to charge cost-based fees), as T-Mobile Austria was identified as not having significant market power on the market for origination in public mobile telephone networks.

4.2.6.1.4 Payphone access charge – Z 8-11/04

Procedure for payphone access charges still pending

On October 14, 2004, Telekom Austria submitted applications for partial interconnection orders vis-à-vis the companies eTel, Colt, MCI and Tele2, requesting a premium in the form of a payphone access charge (PAC) for calls from its public payphones to numbers in the (0)800 range. The application was justified by the fact that calls to (0)800 numbers from public payphones had risen extremely sharply in the previous months, and the costs of using the payphones for calls to (0)800 numbers had not been compensated for by the IC charges for origination service in the carrier network in the past. Telekom Austria argued that the main benefactors of toll-free calls to (0)800 numbers from public payphones were the providers of calling card services which use numbers in the (0)800 range as well as the associated network operators, and that this goes beyond the universal service requirement for public payphones.

In the course of the mandatory dispute resolution procedure carried out by RTR prior to official proceedings (RVST 12 – 15/04) the parties were unable to reach an agreement. On December 20, 2004, the TKK instructed official experts at RTR to draw up an expert economic opinion on the costs of the public payphones as well as a technical expert opinion assessing the impact of a payphone access charge on interconnection settlement using the signaling information provided by Telekom Austria for this purpose at the interconnection interface. The procedure before the TKK was still pending at the end of the reporting period.

4.2.6.1.5 Provisions regarding services with regulated maximum prices and value-added services without price regulations – Z 13-15/04

Procedure regarding charges from value-added services still pending

Applications were submitted by eTel on December 17, 2004 and by Colt and UTA on December 23, 2004 for partial interconnection orders vis-à-vis Telekom Austria. The objective of the applications is to order revised regulations with regard to the operators' treatment of objections raised by source network operators to charges from value-added services charged by the target network. To date, these services have been governed by Annex 17 of the interconnection orders or agreements between the operators mentioned above and Telekom Austria. The applications were preceded by multilateral operator negotiations in the second half of 2004, which ended without an agreement toward the end of the year. The applications were submitted to RTR for mandatory dispute resolution procedures prior to official proceedings.

4.2.6.1.6 Continuation of Procedure Z 1/97

In its ruling of October 6, 2003, the Austrian Administrative Court overturned parts of Decision Z 1/97 – the first interconnection decision issued by the TKK for the parties Citykom Austria Telekommunikation GmbH, tele.ring Telekom Service GmbH and UTA Telekom AG against Telekom Austria AG (PTA) – due to procedural violations. With this decision, TKK ordered interconnection charges for traffic type V3 (regional termination), V4 (national termination), V5 (single transit), V6 (double transit) for the period from January 1, 1998 to December 31, 1999.

In connection with the definition of termination charges, the Administrative Court again confirmed its previous legal opinion that the forward-looking long-run average incremental cost (FL-LRAIC) approach to calculating cost-based interconnection charges is permissible. In contrast, the mere consideration of full costs is impermissible, as these contain "additional costs not incurred by an efficient operator." Therefore, the TKK's deductions from the full costs due to inefficiencies are in principle "justified under Community law, contrary to the opinion of the complainant."

With regard to transit fees, the Administrative Court further explained that there is "no doubt that transit services are also included in interconnection" and thus FL-LRAIC is to be applied as the standard for cost-based pricing. As the Administrative Court further explained, current legislation does not provide "any indications whatsoever … to support the complainant's arguments for a differentiated view of cost orientation in such charges."

Despite this confirmation of the TKK's fundamental legal views, Decision Z 1/97 was overturned due to a procedural violation. The Administrative Court did not confirm the legal view of the TKK with regard to ordering transit charges (V5 and V6) insofar as the TKK set the transit charges at the level requested by the applicant on the basis of a rule defining the burden of proof stipulated in the Interconnection Directive (the PTA had not submitted any data despite explicit requests). In the opinion of the Administrative Court, however, the rule concerning the burden of proof does not necessarily justify "the assumption that the point to be proven is true in cases where evidence is not presented." Specifically, the authority had not described how it had fulfilled "its official duty of investigation within the limits of its possibilities and of reasonable effort in light of the purpose of the procedure" in this complaint.

In the continuation of the procedure, official experts at RTR were therefore instructed to calculate the costs of efficient service provision for transit charges (V5 and V6). These costs were to be calculated using a method analogous to the one applied to termination services (to which the Administrative Court had not raised objections). This follow-up opinion confirmed that the charges ordered in the initial decision of March 9, 1998, for traffic types V5 and V6 are the best possible approximation of FL-LRAIC-based charges according to the relevant information available. The transit charges for traffic types V5 and V6 were therefore set at the same level in the new official decision.

The replacement decision of February 16, 2004 was not contested by the parties.

4.2.6.2 Local loop unbundling

Request submitted for the adaptation of unbundling charges

On September 30, 2004, UTA Telekom AG submitted an application to the TKK under Articles 48 and 50 TKG 2003 for a revised determination of unbundling charges, as the charges ordered by the TKK in its official decision of January 20, 2003 (Z 24/02) expired as of September 30, 2004.

Under Art. 121 Par. 2 and Par. 3 TKG 2003, RTR initiated a mandatory dispute resolution procedure (RVST 11/04), in which the parties were unable to reach an agreement.

Therefore, in its session on December 20, 2004, the TKK issued an instruction to the official experts at RTR to calculate Telekom Austria's cost-based charges for the services in question. The procedure was still pending as of December 31, 2004.

4.2.6.3 Line use and shared use rights

Section 2 Articles 5 ff of the TKG 2003 provides for regulations regarding line use and shared use rights. In addition to several changes in content, this section of the TKG 2003 eliminated in particular the "dual system" which existed under the previous legislation. The problem was the definition of wayleave provisions in Articles 6 to 11 TKG (1997) as well as the Telecommunications Route Act (TWG; BGBl. I No. 100/1997); these provisions overlapped in some areas.

4.2.6.3.1 Reference rate ordinances under Art. 7 TKG 2003

RTR and KommAustria empowered to issue ordinances

Under Art. 7 TKG 2003, RTR was required to set uniform nationwide reference rates for one-off compensation for the use of lines or systems secured by rights, also for the installation, operation, expansion or replacement of communication lines by their owners. These reference rates were to be defined by ordinance in agreement with representatives of the respective parties concerned within six months of the TKG's entry into effect. A similar responsibility was already defined for the regulatory authority (then Telekom-Control-GmbH, or TKC) in Art. 8 Par. 1 TKG (1997).

Reference rate set in 1998 used as the base value

After protracted negotiations, the reference rate under Art. 8 Par. 1 TKG (1997) was agreed upon with the parties concerned on August 8, 1998. The definition of this reference rate was preceded by an agreement between the Austrian Chambers of Agriculture and the Austrian Association of Electricity Companies, both of which had been authorized to negotiate by the groups involved. The reference rate defined was ATS 26.00 per running meter. This reference rate defined by TKC in 1998 was used as a base value by KommAustria and RTR when the rate was redefined in 2004. With regard to the consensus to be achieved, it was again assumed that it would be sensible to hold negotiations with the representatives of interest groups involved in 1998 – that is, the Austrian Chambers of Agriculture and the Austrian Association of Electricity Companies.

In two rounds of negotiations on November 26, 2003, and January 13, 2004, representatives of the two groups mentioned above as well as KommAustria and RTR were able to reach a consensus in which the rate of ATS 26.00 (EUR 1.89) set in August 1998 was adjusted for inflation in light of the 1996 Consumer Price Index, using a base value of 102.2 for August 1998. This adjustment resulted in a new reference rate of EUR 2.07 based on the most recent CPI value available at the time of the negotiations (November 2003: 111.8).

New reference rate defined

Based on this agreement, KommAustria and RTR each issued an ordinance on February 16, 2004, setting the uniform nationwide reference rates under Art. 7 TKG 2003 at EUR 2.07. These rates will remain valid for five years.

4.2.7 Creation of clear and fair general conditions – Mobile number portability

Mobile number portability required under EU law

While number portability between fixed-link networks was realized years ago and did not generate any significant problems or attract public attention, the introduction of mobile number portability was a subject of great interest to the public and the media. The introduction was preceded by approximately two years of discussions in working groups comprised of multiple operators attempting to find a common denominator among the different interests of the mobile network operators in Austria. Naturally, these efforts were made to varying extents in line with the differing market presence of each company. To a large degree, these working groups handled the technical preparations amicably, while the legal requirements were interpreted in various ways. The legal basis was created in Austria on August 19, 2003, in Art. 23 TKG 2003, and the corresponding ordinance was issued as the Number Portability Ordinance (NÜV) on November 4, 2003.

4.2.7.1 Procedures regarding mobile number portability

On October 30, 2003, Hutchison 3G Austria GmbH (H3G) submitted an application under 48 and Art. 50 Par. 1 in conjunction with Art. 23 Par. 1 TKG 2003 directed against T-Mobile Austria GmbH (T-Mobile Austria) and UTA Telekom AG (UTA).

Agreement reached in some areas in the dispute resolution procedure

The procedures were passed on to RTR for the execution of mandatory dispute resolution procedures under Art. 121 Par. 2 and 3 TKG 2003 prior to initiating official proceedings. In the course of this dispute resolution procedure, it was possible to reach agreement in some areas, but a number of core issues remained unresolved. The TKK issued an instruction to official experts at RTR to define a process for number porting in accordance with the requirements of the Number Portability Ordinance and to calculate the porting-related costs incurred by the source operator in the defined process.

On December 29, 2003, Mobilkom Austria AG & Co KG also submitted an application on the same issue directed against H3G. On February 11, 2004, tele.ring Telekom Service GmbH (tele.ring) submitted a similar application directed against One GmbH (One). The TKK linked the procedures for parallel execution, so that eventually all mobile communications companies and two fixed-link networks (Telekom Austria and UTA) were involved. After extensive investigations, a draft set of measures was put through a national consultation procedure and coordinated throughout Europe at the end of May 2004. The TKK issued its final decision on July 30, 2004.

4.2.7.2 Main pillars of the decision

General information on number porting

Number portability promotes competition

The idea behind number portability is to allow end-consumers to switch telecommunications service providers without changing their telephone numbers, as in such cases it may be necessary to inform a large number of people and/or customers and to change letterhead, business cards, advertisements and the like, which involves considerable time and expense. Especially in business enterprises, a number which is easy for customers to remember forms part of a company's goodwill. Number porting was introduced for fixed-link networks in Austria in May 2000, and for mobile networks on October 16, 2004, in the implementation of European directives.

Mobile number porting can refer to any mobile number, regardless of whether the subscriber has a long-term contractual relationship with the telecommunications service provider or the services are provided on the basis of prepaid cards. In general, all numbers associated with a subscriber's telephone number are transferred along with it, especially the voice mail telephone number.

Costs

Charge for number portability information: EUR 4.00

In its decision of July 30, 2004, the TKK defined essential details on the implementation of mobile number porting. In this decision, a limit of EUR 4.00 (including VAT) was set as the maximum amount to be charged to the subscriber for providing the number portability information and confirmation. The binding information sheet to be handed over to the subscriber lists all of the subscriber's liabilities to the old operator, and the confirmation is required in order to carry out the porting process.

The decision does not define the fee to be charged between the old and new operator for the porting process, as this fee is to be defined according to the cost-based standard. At the time of the decision, no reliable cost data was available because mobile number porting had not yet been carried out in Austria, meaning that cost-based calculations were not possible. Therefore, an observation period lasting until July 2005 was defined. In principle, the costs could be surveyed upon request after that period because many numbers had already been ported by that time. The operators also have the option of retroactive calculation.

Customer process

Customer-friendly "one-stop shopping" process

In order to create as customer-friendly a solution as possible, the TKK defined the process of number porting in a way which allows "one-stop shopping." The customer who wishes to transfer an existing number can complete all necessary steps in a single visit to the target operator. After authorizing the new operator, the customer can request the number portability information and confirmation (i.e., information indicating the customer's most significant obligations under the contract with the old operator). The previous operator is required to send this information to the new operator's shop within 30 minutes, where the information can be printed out and handed over to the customer. With the confirmation sent along with the information sheet, the customer can then have the number ported immediately or within a period of two months; the time for number porting is to be arranged with the old operator within ten minutes. If the subscriber wishes to have the number ported immediately, this is to be done within three working days.

Penalties

Contract penalties defined

In cases where delays in the introduction of mobile number porting or improperly fulfilled requirements prevent or considerably delay number transfers, the TKK has provided for a bilaterally applicable contract penalty which the operator harmed by the failure of the interconnection partner can demand if the former has fulfilled all obligations for number porting properly. In the first month, this contract penalty is set at EUR 20,000.00, in the next month EUR 30,000.00, and in the following month EUR 40,000.00. After that, the penalty amount is to double each month up to a maximum amount of one twelfth of 10% of the operator's revenues from the previous year.

Moreover, a contract penalty of EUR 20,000.00 is defined for non-adherence to the time limit of 30 minutes for transmitting the number porting information and confirmation or the ten-minute time limit for arranging the time and date of the actual porting process if the time limits are exceeded in more than 25% of cases in the introductory phase (until January 31, 2005) and in more than 5% of cases after February 1, 2005.

Transparency of rates

Information about the network called in order to increase the transparency of rates

As Austrian mobile networks were previously recognizable by their prefixes and in some cases there are considerable differences in costs for calls to on-net and off-net numbers, it was necessary to ensure transparency in this area as well. For this reason, the TKK determined that if a call is made to a ported telephone number, a short recording is to be played free of charge before the call is connected in order to indicate the actual network called. This recording is not to include any advertising content. In addition, the caller must also have the option of overriding the recording.

In the TKK's decision, it was especially important to ensure that, in accordance with the requirements of the Number Portability Ordinance, no restrictions of operability can be expected and that number porting does not make ported numbers more difficult to reach in any case. It was also necessary to ensure that transmission quality was not reduced. Through the porting process, in which a mobile telephone number is deregistered with the source operator and registered with the target operator, the telephone number may be unreachable for a short time. The TKK took this problem into account by requiring that registration with the target network be carried out before deregistration from the source network. This arrangement all but rules out the possibility of an interruption in service due to number porting. In addition, the regulatory authority is required to conduct an annual review as to whether these qualitative requirements are observed or can be improved. The resulting report is to be submitted to the Austrian Federal Minister of Transport, Innovation and Technology. Moreover, in terms of quality it was necessary to ensure that the possibility of "one-stop shopping" allows subscribers to have their numbers ported by the target operator easily and without long waiting times, or to initiate the porting process with the source operator in order to negotiate improvements in their contracts with that operator even after announcing their desire to switch.

In quantitative terms, the TKK's decision specifies that each operator must provide sufficient capacity to port at least 500 numbers per day. The number of actual number transfers to be expected could not be predicted exactly, but it was estimated at this level in order to account for realistic subscriber demand and at the same time not to force operators to make investments which might be uneconomical, as the level of demand for porting was unknown at the time of the decision. In addition, the decision requires operators to be able to expand these capacities very quickly in case the demand for porting is actually higher than expected. With regard to quantity, the TKK also assumed that the number of porting requests does not signify the success of porting as a service; instead, it is intended to enable subscribers to have their numbers ported quickly and unbureaucratically if desired as a means of facilitating the switch to a different telephone service provider.

4.2.7.3 Supervisory procedures regarding mobile number portability

Supervisory procedure initiated due to excessive charges

As of October 16, 2004, all mobile network operators in Austria were offering mobile number porting. All of the companies charged the maximum amount of EUR 4.00 for the creation of the number portability information sheet and confirmation. However, Mobilkom, One and T-Mobile Austria also reported an additional charge of EUR 35.00 for the actual execution of the number transfer, and this fee was actually charged to their customers.

Charges must not be "deterrent".

The TKK came to the conclusion that charging customers EUR 35.00 for mobile number porting constitutes a violation of the provisions under Art. 23 Par. 2 TKG 2003, as this amount can be construed as a "deterrent." In this context, the TKK used international benchmarks for mobile number porting which showed that number porting fees are only charged in two other EU countries (Germany and the UK); in all other countries, this service is free of charge. In addition, the fee of EUR 35.00 is close to the upper limit of the monthly base fees referenced. Subsequently, the TKK initiated supervisory procedures under Art. 91 Par. 1 TKG 2003 against Mobilkom, One and T-Mobile Austria, instructing those companies to submit their comments on the allegation of charging deterrent fees for the transfer of mobile telephone numbers.

In the course of the supervisory procedure, the operators also began to hold negotiations on the charges between operators for number porting as well as end-consumer charges. In several rounds of negotiations moderated by the regulatory authority, all of the operators except Mobilkom finally agreed to charge the end-consumer EUR 15.00 for mobile telephone number porting, plus EUR 4.00 for the creation of the number porting information sheet and confirmation (thus totaling EUR 19.00 including value-added tax). One and T-Mobile Austria then reported these fees to the regulatory authority, and the supervisory procedures against One and T-Mobile Austria were discontinued on December 20, 2004.

In Mobilkom's case, on the other hand, it was necessary to continue the supervisory procedure as Mobilkom did not report a change in the charge for number porting. The TKK assumed that excessively high charges could prevent customers from having their numbers transferred due to the reduced attractiveness of the service. In turn, this could limit competition in telecommunications. As the term "deterrent charges" is not defined more specifically in TKG 2003, reference values were used for these charges. This provision prohibiting operators from charging their customers "deterrent charges“ pursues a special objective in terms of consumer policy and competition. The purpose is to protect the customer from having to pay such a high price for an essential service such as number porting that s/he finally decides not to use that service.

From TKK's perspective, one indicator which could be used to establish the deterrent effect of a charge was the range of monthly base fees charged by mobile network operators. The monthly base fee is an amount that a subscriber is obviously prepared to pay each month for the product of mobile telephony, regardless of additional call charges. The lowest monthly base fee at the time of the decision was EUR 9.50.

Another indicator of a deterrent charge in the eyes of the TKK was the fact that customers were not charged for terminating a contract without number porting, while a fee of EUR 35.00 was charged for terminating a contract and having a number ported. In light of the comparable effort involved, this not only seemed unreasonable in the eyes of the TKK; in fact, it appeared to be designed to make it as unattractive as possible to terminate contracts and have numbers ported.

For these reasons, the TKK assumed that only a fee which is lower than the average monthly base fee for mobile telephony can fulfill the requirement of having a "non-deterrent effect," especially by European comparison. Furthermore, if the (mandatory) retrieval of the number porting information and confirmation is subject to a charge of EUR 4.00, a total amount of EUR 19.00 (including VAT) still fulfills the requirement of a non-deterrent charge. A charge higher than EUR 19.00 (including VAT) would not fulfill the requirement under Art. 23 Par. 2 TKG 2003.

Charge set for Mobilkom

Therefore, in its official decision of December 20, 2004, the TKK decided to prohibit Mobilkom from charging customers who wish to switch telephone service providers and keep their telephone numbers pursuant to Art. 23 Par. 1 TKG 2003 more than EUR 19.00 in total (including VAT). In compliance with this official decision, Mobilkom reported a fee of EUR 15.00 for mobile number porting on December 22, 2004.

4.2.8 Creation of clear and fair general conditions – Universal service

Telekom Austria responsible for universal service

Universal service is the minimum set of public services to which all end users must have access, regardless of their place of residence or business (Art. 26 TKG 2003). The service must be available throughout the country at a uniform and affordable price and at a certain quality level.

Universal service comprises the following services:

1. Access to publicly available telephone services via a connection set up at a fixed location
2. A directory assistance service covering all operators
3. Creation of a subscriber directory for all operators as well as access to this directory
4. Nationwide coverage with public payphones.

In Austria, Telekom Austria is required to provide universal service at least until the end of 2004. After that time, the Federal Minister of Transport, Innovation and Technology is required to put universal service out to public tender. If the prerequisites for an invitation to tender are not met, the obligations of Telekom Austria will be extended automatically by law.

4.2.8.1 Agreement among operators regarding compensation for universal service

RTR supports market participants in private-law agreement.

At the request of the provider and after an appropriate review of costs by the regulatory authority, the verifiable net costs arising from the provision of universal service are to be reimbursed by market participants if these costs constitute an unreasonable burden and the universal service provider's share of market revenues is below 80% (Art. 31 TKG 2003). For such cases, the regulatory authority is required to set up and administer a Universal Service Fund (Art. 32 TKG 2003).

No applications for financial compensation were submitted in 2004. However, with significant mediation and cooperation on RTR's part, a contractual agreement governing compensation for universal service costs from 1999 to 2004 was concluded between the market participants concerned without the need for a complex procedure before the regulatory authority. This agreement eliminated uncertainties with regard to the amount of expenses and revenues arising from universal service provision for the companies concerned. If no agreement had been reached, Telekom Austria would have had to submit an application for the period from 1999 to 2002 by May 2004, otherwise its right to compensation for those years of universal service would have lapsed (Art. 134 Par. 9 TKG 2003).

At the request of the operators, RTR then calculated each company's specific share of the financing requirement in accordance with the result of the negotiations and the reported revenues. In this process, calculating the contributions for the year 2003 deserved special attention, as the legal basis for universal service compensation was revised and the changes took effect in the middle of that year. The reduction of the revenue threshold for the contribution requirement from EUR 18 million to EUR 5 million increased the number of companies required to pay contributions for 2003 and 2004. The agreement affects Austria's largest fixed-link and mobile network operators, and the largest share of the financing requirement is borne by Telekom Austria and Mobilkom.

4.2.8.2 Subscriber directories and directory assistance services

The services to be offered by the universal service provider include the provision of a directory assistance service covering all operators, the creation of a subscriber directory including all subscribers to public telephone services, and the provision of access to this directory. Telephone directory assistance services are also provided by other companies specialized in this business area, and printed subscriber directories are also produced and sold by other publishers. Therefore, like the alternative providers of voice telephony services in their respective field, those companies are in competition with Telekom Austria as the universal service provider. Directive 2002/22/EG (the "Universal Service Directive") and its later implementation in TKG 2003 strike a balance between the interests of the universal service provider, its competitors and the consumer.

In order to ensure fair access to the required subscriber data for all of the companies operating in this field, the operators of public telephone services are required under Art. 18 Par. 1 No. 3 TKG 2003 to make data from their subscriber directories available upon request under Art. 69 Par. 3 and 4 to the publishers of multi-operator subscriber directories or directory assistance services either online or at least on a weekly basis in electronically readable form for a cost-based fee. If the above-mentioned parties are unable to reach an agreement regarding the terms and costs of data provision, any of the parties concerned can call in the regulatory authority. Under Art. 18 Par. 4 TKG 2003, orders issued by the regulatory authority can replace agreements between the parties.

Orders of the regulatory authority replace agreements.

In 2004, individual providers of directory assistance services initiated procedures against Telekom Austria under Art. 18 TKG 2003 before the regulatory authority. The draft measures to be issued by the regulatory authority, which contain orders pursuant to Art. 18 TKG 2003, were published for consultation pursuant to Art. 128 Par. 1 TKG 2003 in December 2004. As already determined in Decisions T 1/03 and T 2/03, the TKK's legal opinion is that each operator of a public telephone service is only required to make data available at cost-based prices on those subscribers to which it has assigned numbers itself, therefore Telekom Austria is not obligated to provide all of the data in its multi-operator directory on these terms. In the TKK's opinion, this legal interpretation, which has also been confirmed by the Austrian Administrative Court, is also supported by the ruling of the European Court of Justice on Case C-109/03. The charge to be paid by the applicant for data provision is to be cost-based, that is, the party required to provide data is only compensated for those services which are actually required to fulfill a request.

Data provision at cost-based prices required for operator's own data only

The TKG 2003 requires data to be provided online or in electronically readable form. The publishers of printed telephone directories or directories on other media such as CD-ROMs will (logically) request the transfer of the entire body of data – if necessary limited to a certain geographical area – and the ensuing updates (referred to as "offline provision"). In contrast, the providers of directory assistance services have the choice of compiling a separate database by obtaining all customer data from each operator of a public telephone service, accessing the databases of the various telephone service providers online, or using a combination of these systems to provide the relevant services.

4.2.9 Enforcement of general conditions – Dispute resolution procedures

4.2.9.1 Alternative Dispute Resolution (ADR)

ADR creates "win-win" situations.

The way in which market participants handle conflicts is also an indicator of functioning competition. In many areas of the economy, it has already been demonstrated that conflicts can often be resolved far more quickly and in a more satisfactory manner if the courts or authorities are not involved. This is mainly due to the fact that out-of-court conflict resolution mechanisms are not subject to strict procedural requirements but allow the parties concerned to guide the process themselves and thus to take the result of the conflict resolution into their own hands. With alternative dispute resolution (ADR), it is possible to create "win-win" situations between parties in disputes, which can only be done with great difficulty in official decisions. In general, ADR refers to moderation in negotiations, mediation, conciliation and arbitration. In this context, RTR especially supports moderation and mediation as forward-looking methods of conflict resolution which are guided by the parties themselves.

The Austrian legislature has also recognized that in certain cases negotiations can be a better means of resolving disputes. Accordingly, Art. 115 Par. 3 TKG 2003 stipulates that RTR may be asked to participate in negotiations on disagreements resulting from the TKG 2003 according to criteria to be published by RTR. Such a request is to be submitted to RTR in writing by all parties involved.

RTR has developed the following criteria which have to be fulfilled in order for a dispute to qualify for an ADR procedure:

The parties must present evidence that they have tried to resolve the conflict on their own. The topic of the dispute must result from the TKG 2003 and the associated ordinances, as well as being related to the field of communications services. End-consumers can not be involved in ADR procedures, as they have access to other forms of dispute resolution (such as end-consumer dispute resolution under Art. 122 TKG 2003). A conflict which has already undergone an ADR procedure or has been decided on with legal effect cannot be handled in an ADR procedure again. An ADR procedure must be requested using the ADR questionnaire.

The criteria mentioned above and the ADR questionnaire are available at http://www.rtr.at/adr (in German).

In 2003, RTR was already able to gain positive experience with ADR, and this means of dispute resolution was also received well among market participants. The fact that only one conflict was handled in an ADR procedure in 2004 can be attributed to the market analysis procedure carried out in the period (see Section 4.2.3), which necessitated a redefinition of the rules between market participants, and to the fact that market participants were able to reach civil-law agreements in many matters without having to call in the regulatory authority.

RTR expects ADR procedures to be used more frequently again once the market analysis procedures mentioned above have been completed.

4.2.9.2 Dispute resolution procedures under Art. 122 TKG 2003

RTR as conciliation body

Under Art. 122 Par. 1 TKG 2003, RTR may act as a conciliation body in cases where disputes between a customer and an operator can not be resolved in a satisfactory manner (No. 1) and in cases where violations of the TKG 2003 (No. 2) are alleged.

The complainants may be users, operators/providers of communications networks or services and interest groups.

Under the TKG 2003, RTR can now also act as a conciliation body in disputes with resellers of communications services. Another new provision is that complaints involving providers of broadcasting infrastructure (e.g., cable network operators) can be handled by means of these conciliation procedures. KommAustria has put RTR in charge of conducting these procedures.

Operators are required to take part in conciliation procedures, to provide all information necessary for an assessment of the situation, and to provide any documentation required. RTR's duty is to negotiate an amicable solution or communicate its opinion on the case in question to the parties.

The prerequisite for initiating conciliation procedures under Art. 122 Par. 1 No. 2 TKG 2003 (formerly Art. 66 TKG [1997]) is an alleged violation of TKG 2003 (formerly TKG 1997); therefore, these procedures are also suitable for disputes between operators.

4.2.9.3 Mandatory dispute resolution procedures under Art. 121 Par. 2 TKG 2003

Preliminary dispute resolution procedure with RTR

Under Art. 121 Par. 2 TKG 2003, RTR is required to conduct mandatory dispute resolution procedures before the TKK handles applications regarding the shared use of communications networks, the provision of data for subscriber directories or directory assistance services, charges for number portability, the obligation to ensure equal treatment, access to network facilities and network functions, the provision of leased lines, charges for call-by-call and carrier preselection, additional obligations regarding access and interconnection as well as the costs of interconnected lines.

In such cases, RTR must attempt to facilitate an amicable solution within six weeks. The parties to the conciliation procedure are required to participate in these proceedings, to provide all information necessary for an assessment of the situation, and to provide any documentation required.

If the parties are able to reach an agreement, the procedure before the TKK is to be discontinued; otherwise, the procedure will be continued before the TKK, which has to decide within four months of receipt of the application.

4.2.10 Enforcement of general conditions – Supervisory procedures

Art. 91 TKG 2003 essentially stipulates that in the course of its duties the regulatory authority is required to communicate potential violations of the TKG 2003 or TKG 1997 (in conjunction with Art. 133 Par. 7 TKG 2003) to the company concerned and then to take measures to enforce legal compliance after defining a period for the company to remedy such violations.

4.2.10.1 Supervisory measures of the regulatory authority

Under the TKG (1997), the regulatory authority's supervisory powers were essentially limited to issuing orders in order to enforce the rights and obligations of RTR on the basis of international regulations and the TKG (1997). This relatively unspecific provision was restricted even further by a ruling handed down by the Austrian Constitutional Court[7] in 2001 which stated that such orders can only be issued in the course of a specific administrative procedure. The possibility of imposing fines was the exclusive privilege of the telecommunications authorities, which is also the case in the TKG 2003.

However, Art. 10 of the Authorisation Directive established a new sanction mechanism which provides for a multi-stage procedure. This provision was implemented in Austrian national law in Art. 91 TKG 2003.

Under this provision, the regulatory authority can only take supervisory measures if it has reason to assume that a company has violated the provisions of the TKG 2003, an ordinance issued on the basis of the TKG 2003, or an official decision issued on the basis of the TKG 2003. Such assumptions are often based on reports submitted by third parties. However, the regulatory authority can/must also take action by virtue of its office if it detects misconduct on the part of a market participant (e.g., if procedures before the TKK reveal that an operator has not fulfilled certain requirements).

First, the regulatory authority is to communicate the relevant facts to the company concerned and to provide the company with an opportunity to submit comments. At the same time, the company is instructed to restore the situation to a state of legal compliance within a reasonable period of time after receiving such notice from RTR. If the company fails to do so, the regulatory authority is required to issue an official decision which defines the required measures and a reasonable period for implementation.

If the company disregards the measures ordered in the official decision, the regulatory authority can suspend or ultimately revoke the company's right to operate communications networks or to provide communications services until the shortcomings are remedied or a state of legal compliance is restored.

For the same reasons, the regulatory authority may also revoke allocated frequencies and communications parameters.

On the other hand, the regulatory authority can also order immediate measures in cases where violations of legal provisions pose a direct and serious threat to public order, public security or public health, or could cause serious economic or operational problems for other providers or users of communications networks or services. In such cases, the regulatory authority may issue an official decision immediately (i.e., without previously notifying the company about the identified violations) in which the company is instructed to remedy the situation without delay.

[7] 16369/2001

4.2.10.2 Violation of provisions regarding discounts

The regulatory authority conducted investigations in the performance of its supervisory functions.

In September 2004, a competitor of Telekom Austria submitted a report maintaining that the retail discounts granted by Telekom Austria violated the terms and conditions for rates and discounts approved by the TKK and constituted an abuse of significant market power.

In the course of the ensuing investigations, the competitor presented signed affidavits from its employees to underpin these allegations. After the completion of the investigation procedure (in which the TKK heard testimony from employees of Telekom Austria's competitor as well as Telekom Austria itself) and on the basis of the information provided by Telekom Austria regarding the calculation of specific discounts granted to retail consumers, the TKK came to the conclusion that the procedure was to be discontinued due to a failure to prove illegal behavior on Telekom Austria's part.

4.2.10.3 Telekom Austria's wholesale offer of line access (resale)

Procedure regarding the resale of line access was discontinued.

On December 15, 2003, Telekom Austria retracted its wholesale offer for the resale of line access services (submitted on December 15, 2003). After initiating the appropriate procedure (GZ R 3/03), the TKK instructed Telekom Austria on January 7, 2004 to present another offer to replace the retracted offer within one month. The Administrative Court ruling of February 25, 2004 overturned the TKK's decision issued in Procedure W 2/02 on June 3, 2002, in which Tele2's application for remedies for Telekom Austria's abuse of significant market power in the denial of line access had been returned due to the failure to allow the submission of comments. Therefore, on March 15, 2004, the TKK decided to continue Procedure W 2/02 and to include the results of investigations in Procedures W 3/02 and W 6/03, which dealt with the same topics.

On May 24, 2004, Telekom Austria fulfilled an additional instruction (issued by TKK on May 10, 2004) to present a wholesale offer for the resale of line access within the specified period. After further investigations, the TKK issued an official decision in the original procedure (W 2/02) on November 22, 2004, rejecting the applications of Tele2 and UTA (which was also involved in the procedure) because the TKK had come to the conclusion that the alleged discrimination on Telekom Austria's part was unfounded.

With regard to the wholesale offer submitted by Telekom Austria, which indicated a monthly fee of EUR 12.70 (excluding VAT) for POTS lines, the TKK came to the conclusion that the average base fee of EUR 14.36 (excluding VAT) – not the base fees in Telekom Austria's individual rate packages (such as the base fee for TikTak Privat: EUR 13.32 excluding VAT) – was to be used as the basis for the wholesale discount. The TKK concluded that the alleged price/cost discrepancy did not exist, as the discounted monthly rental fee was not only lower than the average base fee but also lower than the base fee for TikTak Privat. The resulting difference allows alternative providers to offer competitive services to retail consumers on the market.

The TKK also considered the amount of EUR 750,000.00 (payable after conclusion of the wholesale agreement), which was proposed by Telekom Austria as compensation for its investment and implementation costs for the necessary adaptations in switching technology as well as IT and support systems due to the launch of resale services, as well as the premium of EUR 11.32 added to the changeover charge in the wholesale offer to be reasonable in light of the total

required investment costs of approximately EUR 35 million. Although these amounts only accounted for a fraction of the actual expenses incurred, the total investment costs had to be distributed over all lines, meaning that a corresponding part of these costs is to be borne by Telekom Austria.

As the TKK did not object to the other provisions in Telekom Austria's wholesale offer for lack of evidence of discrimination, the TKK did not fulfill the applicants' request for remedies for an abuse of significant market power.

The supervisory procedure against Telekom Austria was therefore discontinued on December 6, 2004.

4.2.11 Enforcement of general conditions – General terms and conditions, rates and charges

New legal framework: Selective approval obligations

With regard to the approval of general terms and conditions as well as rates and charges, the year 2004 was characterized by the transition to the new legal framework. Probably the most relevant procedure for the market (G 30/04), in which Telekom Austria's partly amended rate structure was approved, involved a legal review which was still almost exclusively based on the TKG (1997), which stipulates an overall obligation for SMP operators to have general terms and conditions as well as rates and charges approved for fixed-link voice telephony services.

In contrast, the TKG 2003 does not provide for an overall approval obligation for the general terms and conditions and rates/charges of SMP operators.

The reason why a majority of procedures were still handled under the TKG (1997) is as follows: In cases where the regulatory authority identified a company as having significant market power under Art. 33 TKG (1997) prior to the entry into effect of the TKG 2003, the obligations for SMP operators resulting from the TKG (1997) are to remain applicable until an official decision under Art. 37 Par. 2 TKG 2003 is issued regarding that company or the obligations are abrogated in accordance with Art. 37 Par. 3 TKG 2003. The first TKK decisions in which Telekom Austria was subjected to *ex ante* regulatory instruments as an SMP operator were issued in late December 2004. For the year 2004, therefore, the old legal framework and substantial provisions in the TKG (1997) remained in effect with regard to the approval of rates and charges as well as general terms and conditions.

The decisions issued toward the end of 2004 were M 1/03 and M 2/03. In Decision M 1/03, the TKK determined that Telekom Austria has significant market power on the retail market for access to the public telephone network at a fixed location for residential customers. In Decision M 2/03, the TKK determined that Telekom Austria also has significant market power on the retail market for access to the public telephone network at a fixed location for non-residential customers.

In accordance with these decisions, Telekom Austria was subjected to an obligation to submit its general terms and conditions of business as well as its retail rates and charges (except for special offers lasting up to three months) to the regulatory authority for advance approval. Retail rates and charges have to comply with the cost-based standard, which at least applies to base fees, the setup of connections, and discounts.

At the end of the year, no official decisions under Art. 37 Par. 2 TKG 2003 had been issued with regard to the retail markets for "Publicly available local and/or national telephone services provided at a fixed location for residential customers," "Publicly available local and/or national telephone services provided at a fixed location for non-residential customers," "Publicly available international telephone services provided at a fixed location for residential customers," and "Publicly available international telephone services provided at a fixed location for non-residential customers."

Universal service and approval obligations

In addition, Art. 26 TKG 2003 requires the regulatory authority to approve on a uniform nationwide basis the rates, the changes in rates for services provided by a company subject to universal service obligations, as well as the terms and conditions for such services by applying the procedure pursuant to Art. 45 and taking affordability into account. As long as Telekom Austria is required to provide universal service, its pricing of services included in the definition of universal service will remain subject to regulation.

The only procedure of substantial importance was Procedure G 30/04 (mentioned above).

Telekom Austria changed parts of its rate structure and submitted the corresponding application, which was ultimately approved by the TKK. For example, the pulse rate for the individual second-based rate packages ("TikTak") was changed, and the generally included free minutes as well as reduced-rate "Best Friend" numbers were eliminated. At the same time, Telekom Austria also introduced its "bonus packages," which enable the customer to take advantage of certain bonuses, such as a certain number of free minutes, against payment of a fee. With regard to the TKK's review standards, it is necessary to note that in addition to the criteria of cost-based pricing and affordability, special attention was paid to ensuring that alternative providers are able to offer comparable products based on the wholesale costs of Telekom Austria.

4.2.12 Enforcement of general conditions – Signatures

Numerous procedures carried out under the Signatures Act in 2004

The Signatures Act (SigG) empowered the TKK to act as Austria's supervisory authority for electronic signatures in addition to its existing responsibilities as a regulatory authority. As in TKG 2003, RTR provides operational support for this supervisory authority under the Signatures Act. RTR's main duty in this context is to maintain secure electronic directories of certification service providers. RTR's performance of its duties under the Signatures Act is strictly separated within the company in terms of organization and financing, especially with regard to cost accounting.

In 2004, the TKK conducted 17 procedures under the Signatures Act. In addition to three cases from 2003 which were still pending at the beginning of the year 2004, 12 of the procedures were completed in 2004.

The certification service provider A-Trust Gesellschaft für Sicherheitssysteme im elektronischen Datenverkehr GmbH has been the only Austrian provider to offer qualified certificates for electronic signatures since September 2002, when it took over the certification services of Datakom Austria GmbH. In the year 2004, A-Trust reported the modification of existing certification services in six cases and the termination of a certification service in one case. The modi-

fications concerned the adaptation of existing certification services to suit new areas of deployment (especially eGovernment). One report pertained to the ATM card equipped with a chip which can be used to create secure electronic signatures on the basis of existing certifications.

Regular reviews which are required every two years were carried out for three certification service providers, including Austria's only provider of qualified certificates. The supervisory authority did not find any reason to initiate supervisory measures in any of these procedures.

Signatures for electronic invoices, administrative signatures and time stamps

As a result of an ordinance issued by the Austrian Federal Minister of Finance on electronic billing, for which RTR had also submitted comments in an assessment procedure, the need arose for certificates for "advanced" digital signatures (i.e., digital signatures which meet the requirements of Art. 2 No. 3 lit. a to d SigG). Several certification services were adapted to meet these requirements. Since September 2004, Arge Daten – Österreichische Gesellschaft für Datenschutz has been operating the A-CERT ADVANCED certification service for this specific purpose.

When the Administrative Signatures Ordinance went into effect, for which RTR had also submitted detailed comments in the assessment procedure, Mobilkom Austria AG & Co KG launched its A1 SIGNATUR certification service. In this certification service, the signature creation data is not stored in a signature creation device at the signatory's end but in a hardware security module at the provider's end. The service is suited for the creation of administrative signatures and can thus be used for eGovernment applications.

The certification service provider Web und Co – Webdesign, Multimedia und Consulting GmbH & Co KG discontinued operations in September 2004.

In November 2004, the launch of a time stamp service was reported by an Austrian certification service provider (XiCrypt Internetsicherheitslösungen GmbH) for the first time.

In July 2004, the Federal Chancellery sent out a draft amendment to the Signatures Ordinance for assessment, and RTR also submitted comments on the draft. The draft amendment was based on preliminary work carried out by the Federal Ministry of Justice, with due consideration of the previous experience of RTR and the confirmation authority A-SIT. The amendment to the Signatures Ordinance was announced in the Austrian Federal Law Gazette on December 30, 2004. The main changes are related to the fees to be charged by the supervisory authority, the review of technical components and procedures, the algorithms and parameters for secure electronic signatures, the registration process, the validity period of qualified certificates as well as the documentation period.

Maintaining the secure directory of certification service providers launched in September 2002 is a substantial part of RTR's duties in fulfillment of its statutory mandate under Art. 13 Par. 3 SigG. The directory service operated smoothly in 2004, not least due to RTR's adherence to high security standards.

This service allows the users of electronic signatures to verify the authenticity of the certificates issued in Austria by accessing a central directory. As a result, the directory makes an important contribution to the security of electronic services in Austria. All certification services (as

defined in the SigG) offered in Austria – not only those in which qualified certificates are issued – are included in the supervisory authority's directory. Providers from abroad can be registered in the Austrian directory on a volunteer basis. The directory also indicates the quality level of each certification service.

Austria's public key infrastructure is technology-neutral.

The directory was designed on the basis of a public key infrastructure. In its technical implementation, RTR paid special attention to ensuring a maximum of technological neutrality and adherence to all major technical standards, as well as coordinating the directory with the confirmation authority A-SIT. The certificates and revocation lists issued by the supervisory authority are made available on the Internet by means of Hypertext Transfer Protocol (HTTP) and Lightweight Directory Access Protocol (LDAP), each with and without a Secure Socket Layer (SSL).

On the international stage, RTR continued its activities in the Forum of European Supervisory Authorities for Electronic Signatures (FESA) founded in 2002. The forum now has 20 member organizations and deals with cooperation between the various European supervisory authorities and the harmonization of their respective activities. In particular, the results of the review process regarding the EU Signature Directive were discussed.

In early 2004, RTR composed an extensive report entitled "Four years of the Signatures Act," which describes the activities of the supervisory authority since the SigG went into effect. The report was published in RTR's series of publications and gives an overview of the technical and legal bases of electronic signatures, the Austrian market, the major technical standards and an international comparison.

4.2.13 Catalyst of positive market development – Broadband initiative

Broadband infrastructure as an essential location factor

Nationwide coverage with broadband infrastructure is an essential factor for a business location. The EU, its individual member states as well as the U.S. and Asia have intensified their efforts in this area in order to ensure that they do not suffer from competitive disadvantages due to inferior infrastructure. Especially in the age of the information society and the increasing networking of the economy and society, the availability of broadband infrastructure is an essential factor for a business location.

RTR supports the Austrian Broadband Initiative with specific contributions.

Once RTR and the Federal Ministry of Transport, Innovation and Technology (BMVIT) had launched the Broadband Initiative, the Austrian federal government made EUR 10 million available for promotion measures in 2004. In this context, RTR drew up a proposal for the BMVIT for a list of regions in Austria which are worthy of such support on the basis of the indicator model developed. In addition, RTR provided support for the BMVIT in the creation of promotion guidelines as a basis for allocating these federal funds. The promotion guidelines are intended to ensure that the available funds are allocated in line with the principles of transparency, objectivity and non-discrimination. These activities were completed in 2004, meaning that it is now up to the federal provinces of Austria to allocate the available federal and provincial funds in the course of invitations to tender. On the other hand, it is also up to the interested operators to take advantage of the available funds and opportunities.

In addition, the topic of broadband infrastructure and the need to take action in Austria were once again underscored in various lectures and discussions with political figures in order to raise awareness. Likewise, increased attention was paid to unbundling, which can provide the technical basis for retail broadband products, and an internal survey was carried out on the status of unbundling. The objective of this survey was to identify which factors can have a positive or negative impact on the development of unbundling (for details, please refer to Section 4.2.6.2). Furthermore, the TKK allocated frequencies in the 3.5 GHz range which can enable the radio-based connection of end-consumers with broadband infrastructure (see Section 4.2.4.2).

4.2.14 Catalyst of positive market development – Unbundling

Unbundling can promote infrastructural competition.

Since the first relevant order was issued in 1999, unbundling has been an essential regulatory measure and enables alternative communications network operators (such as alternative telephone network operators or Internet service providers) to connect end-consumers directly via Telekom Austria's (copper wire) access network. This means that alternative network operators no longer have to rely on constructing their own infrastructure, which would be desirable due to the greater flexibility, autonomy and sustainability it would provide, but which would be inefficient in many cases. Instead, the subscriber line between Telekom Austria's main distribution frame and the end-consumer's location can be rented under various unbundling options on terms defined by the regulatory authority and used individually to provide a wide variety of services.

On the one hand, local loop unbundling provides consumers with increased price differentiation options, and on the other hand it creates the conditions necessary for the development of new service markets as well as a further differentiation of product offerings vis-à-vis the SMP operator. This enables alternative network operators and service providers to respond flexibly to the demands of individual customer segments and to create innovative, tailored solutions. With regard to promoting high-level location quality and providing the population with high-quality and innovative services, the widely varied (especially high bit-rate) uses of subscriber lines are an especially welcome development.

Market analysis for unbundling already completed

As mentioned above, RTR's market analysis procedures also covered the relevant market for wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services, on which Telekom Austria was identified as having significant market power in the TKK's official decision in Procedure M 13/03 on October 27, 2004. Telekom Austria was also instructed to grant access to unbundled lines and the accompanying annex services, to submit a standard offer for these services by November 29, 2004, and to base its prices for access on the costs of efficient service provision.

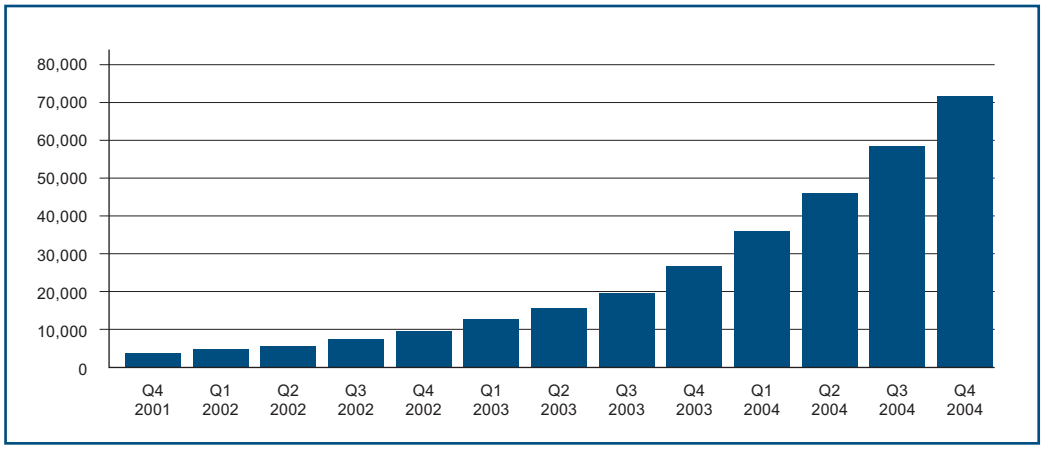
Since the official decision in the market analysis procedure mentioned above was issued, Telekom Austria's obligations on the unbundling market have no longer been based on the provisions of Regulation (EC) 2887/2000 because under Art. 27 of the Framework Directive Telekom Austria is no longer to be regarded as a "notified operator" for the purposes of this regulation.

Telekom Austria fulfilled its obligation to present the corresponding standard offer in due time. Apart from editorial changes, the content of the standard offer essentially matches the previous standard unbundling offer submitted by Telekom Austria.

Continued high growth rates in unbundled lines

The use of unbundled lines by alternative network operators showed further positive development over the year 2004, with some 72,000 local loops unbundled in Austria at the end of the year.

Figure 9: Growth in total number of unbundled local loops



Source: ECTA Broadband Scorecard

Multiple unbundling options available

In this context, a basic distinction is drawn between full unbundling and shared use of the local loop. In addition, access to parts of the local loop (partial unbundling) is also possible.

In full local loop unbundling, the copper-wire pair at the main distribution frame is no longer routed to the local switching computer at Telekom Austria but switched directly to the unbundling partner. The unbundling partner thus has access to a continuous copper-wire pair running from its service interface point to Telekom Austria's main distribution frame and on to the end consumer.

In shared use of the local loop, the unbundling partner generally provides a high bit-rate service (such as ADSL), while the frequency band for conventional telephone services is still used by Telekom Austria. Telephone and data traffic are separated by a frequency splitter at the subscriber's location and at the main distribution frame. In general, the infrastructure necessary for this purpose can be operated by the established network operator or the unbundling partner. According to the current unbundling order in Austria, the infrastructure is the responsibility of the unbundling partner, which is therefore required to operate its own equipment and splitters and to leave the telephony spectrum free for Telekom Austria.

Partial unbundling refers to the possibility of renting certain sections of the local loop as defined in the unbundling order. This can be attractive for the unbundling partner in cases where, for example, lower-range technologies are used and the central unit therefore has to be installed at a location closer to the end-consumer, or when only the existing building lines are to be used.

Therefore, in addition to the full transfer of the local loop to an unbundling partner, collocation is also especially important. Collocation generally denotes access to space at the network of another operator (Telekom Austria) in connection with local loop unbundling. This is a substantial factor in the unbundling process in terms of time as well as costs, as the space at Telekom Austria's main distribution frame locations generally first have to be adapted, provided with the appropriate equipment and connected to the network of the unbundling partner.

RTR monitors the current status of unbundling on an ongoing basis.

In the interest of sustainable development on the market, RTR deals with unbundling issues extensively and on an ongoing basis. For example, in the course of the Technical Coordination Working Group's activities (Unbundling Subgroup), RTR carried out a public consultation on issues related to very high bit-rate digital subscriber line technology in the access network in January 2004. Aside from ongoing contact with market participants in order to identify and resolve problems, RTR conducted interviews with various companies which use unbundled lines in December 2004, and the results will be made available in an RTR publication on unbundling. This publication is scheduled for release at the end of the first quarter of 2005.

4.2.15 Catalyst of positive market development – VoIP

VoIP on the way to becoming a mass market

Voice over Internet Protocol (VoIP) refers to a technology which allows voice communication via IP-based networks. In contrast to the conventional telecommunications network, the data (in this case voice data) in such networks is transferred in the form of packets. Examples of IP-based networks include in-house LANs or the Internet. In VoIP, the analog voice signal is digitized, compressed and combined in IP packets, which are then transferred via the IP-based network. At the other end of the connection, the packets are then assembled in the proper order and the voice signal is extracted. The protocols mainly used today in the field of VoIP include standards developed by the Internet Engineering Task Force IETF (Session Initiation Protocol; SIP) and the European Telecommunication Standardisation Institute ETSI (H.323), as well as proprietary protocols such as the one developed by Skype (http://www.skype.com).

While VoIP was formerly restricted to PC-to-PC connections and was quickly associated with low voice transmission quality, the situation has changed drastically in recent years.

VoIP quality has been improved steadily by better codecs, increased broadband penetration in the access network and higher available bandwidths on the Internet backbone and use in controlled (private) IP networks. As a result, VoIP is becoming increasingly attractive, especially in LAN environments. Companies with their own IT infrastructure were the first to use the existing network for data transfer as well as voice communications, for example between physically separate locations. Instead of making internal calls between these locations via the public telephone network, voice communication was handled by the existing data network.

VoIP has triggered an intensive national and international discussion process.

Another area of VoIP deployment which was explored at an early point in the field of public telephone services was the market for international telephone calls. This development largely went unnoticed by end-consumers. In international telephone connections, which in some cases involved extremely high prices several years ago, it has been possible to achieve substantial reductions in costs and prices by increasing the use of VoIP for certain parts of the connection. For this purpose, the telephone service provider routes international traffic not via expensive international leased lines or other network operators in transit (as was previously the case), but via IP-based networks in certain sections. If this network is the Internet, then certain inconsistencies in quality may arise in the case of temporary bottlenecks. If managed IP networks are used, the network operator concerned also has control of the corresponding network-dependent factors in connection quality.

VoIP has now also reached the retail market for public telephone services. One basic requirement – without which VoIP can not be used to its full potential – is a broadband connection to the Internet which is always on (i.e., ensures a constant connection). In this way, it is possible to make "toll-free" calls worldwide to other VoIP subscribers who can also be reached via the Internet. The connection is established between the terminal device of the calling VoIP subscriber and the terminal device of the called subscriber via the IP-based Internet. The frequent argument of "free telephone service" is only true to a certain extent, as the costs of the broadband connection have to be taken into consideration and especially heavy use may also exceed existing download limits. If, on the other hand, a broadband connection is already available and a sufficiently high download limit is defined, VoIP telephony (within the Internet) actually does not generate additional costs, as there are many free offers available on the Internet. In many cases, it is only possible to reach subscribers who are registered with the same provider, but it is also possible to register with various providers at the same time. If the VoIP subscriber wishes to call the conventional public telephone network, it is necessary to convert the packet-switched technology used on the Internet into the circuit-switched technology used on the telephone network. This function is handled by gateways. However, offers which make it possible to call subscribers on the conventional telephone network are subject to charges, although some highly attractive prices are offered in this area (especially for international connections).

Terminal devices have also seen major developments since the early days of VoIP: In addition to software clients and headsets for the PC, fixed-link devices (e.g., telephones with Ethernet connections) as well as mobile telephones (for WLAN access) are now available. On the outside, these devices are often practically indistinguishable from their counterparts for fixed-link and mobile networks.

Key issues: Telephone numbers, emergency calls

Intensive discussions are currently underway at the national and international level as to the extent to which this new technology is an equivalent alternative to conventional telephony and which regulatory requirements are to be applied in this area. The provisions of telecommunications law generally follow a technology-neutral approach, but acute problems arise due to the fundamental technical and operational differences between the provision of VoIP and conventional telephone services. In particular, this refers to the general question of whether VoIP is to be classified as an information, communications, or telephone service, as well as the issue of which numbers (or number ranges) should be used for VoIP. Requirements with regard to the availability of emergency numbers, including the identification of the VoIP subscriber's current location are a challenge because VoIP services are often "nomadic," that is, the subscriber

can log in via the Internet from anywhere in the world and use VoIP services. In addition, issues also arise with regard to the quality and availability of VoIP services, as well as the problem of services offered by providers outside the EU, which may compromise the enforceability of certain national regulatory provisions.

With the cooperation of the TKK, RTR dealt with the topic of VoIP intensively and in a variety of aspects in the reporting period. As a result, RTR published a position paper on VoIP and made it available for public consultation in July 2004. In this context, the main objective was clearly the regulatory classification of VoIP services in accordance with current Austrian telecommunications legislation. The comments submitted in the consultation procedure by numerous market participants aptly reflected the various perspectives of the telecommunications and Internet communities and provided another clear indication of the topic's general complexity.

Public consultation on VoIP carried out by RTR

With due attention to the results of the national consultation, RTR also expressed its position at the international level in August 2004 by participating in the consultation on VoIP issues carried out by the European Commission. Finally, RTR also made efforts within the framework of the IRG and ERG to develop a harmonized perspective on the regulatory treatment of VoIP throughout the EU. The RTR consultation document ("Public consultation on the preliminary regulatory classification of publicly offered VoIP services"), the comments of market participants submitted in the consultation procedure, and the comments submitted by RTR in the European Commission's VoIP consultation are available on the RTR web site.

The provisions with regard to national telephone numbers established in the KEM-V in May 2004 are generally neutral as regards technology. Therefore, all number ranges can be used for VoIP services as long as the conditions of use are observed in each range. For example, location-independent fixed-link network numbers in the (0)720 range might be considered for completely Internet-based nomadic services. The (0)780 range was assigned to ENUM-based services, which create a bridge between the conventional telephone network and the Internet; these numbers will be available for operation in May 2005.

4.2.16 Catalyst of positive market development – ENUM

ENUM: Austria remains at the forefront

In 2004, Austria demonstrated its position as a forerunner in the field of ENUM once again. With the launch of the ENUM Tier 1 registry by enum.at GmbH in December 2004, Austria became the first country in the world in which ENUM services are offered commercially.

Electronic Number Mapping (ENUM) constitutes a major step toward the convergence of the Internet and conventional telephony. ENUM is a protocol which translates telephone numbers from the public telephone network into Internet addressing elements. If the number of a subscriber in the public telephone network is known, it is possible to retrieve various addressing elements for that subscriber, for example Universal Resource Identifiers (URIs), provided the respective number is registered in ENUM. This can include, for example, e-mail addresses, WWW URLs for links to the subscriber's web site, SIP or H.323 addresses for VoIP, or additional telephone numbers for fax or mobile communications. Depending on the application, the ENUM translation machine can be used by ENUM-compatible terminal devices on the Internet (e.g., a PC with an ENUM soft client) or by various network nodes (e.g., a gateway between the Internet and telephone network). Although we can expect ENUM to be used primarily in connection with VoIP in the initial stages (i.e., to translate telephone numbers into VoIP addres-

ses), a number of other convergent and innovative services are also likely to arise.

RTR is the domain name holder of Austria's ENUM domain.

RTR is the domain name holder for Austria's ENUM domain, .3.4.e164.arpa, and in this capacity the regulatory authority is responsible for the policy in this domain. The recently launched commercial operation of the ENUM Tier 1 registry is based on an agreement concluded between RTR and enum.at on August 24, 2004. This contract delegates the operation of Austria's ENUM domain to enum.at, a wholly-owned subsidiary of the Internet Foundation Austria (IPA) nic.at, until the end of 2007.

General conditions defined

The general conditions for the use of ENUM within Austria's ENUM domain are defined in the agreement with enum.at. The agreement also contains provisions which affect enum.at's agreements with its partners (ENUM registrars) as well as the contracts between ENUM registrars and ENUM users.

At present, the following number ranges have been approved for ENUM use:

- Geographical telephone numbers
- Telephone numbers for private networks
- Mobile telephone numbers
- Location-independent fixed-link telephone numbers
- Telephone numbers for convergent services
- Telephone numbers for services with regulated maximum prices using the national destination code (0)800.

Telephone numbers for convergent services in the (0)780 range have been available for operations since May 2005.

One key topic covered by the agreement is the issue of validation, that is, the process of ensuring that only the subscribers authorized to use a telephone number are able to use the corresponding ENUM domain. Therefore, when an ENUM domain is requested, the applicant is required to verify that s/he is the "owner" of the corresponding telephone number and thus authorized to have the domain delegated. If this is not the case, calls, e-mails, etc. may be routed not to the actual subscriber for the telephone number but to an unauthorized third party. Therefore, the agreement contains the appropriate requirements for validation as well as escalation scenarios for problems, which in extreme cases can even lead to a general block of number ranges for ENUM delegation.

It is possible to query whether the assigned ENUM domain has been delegated for a telephone number easily using the web portal offered by enum.at (http://www.enum.at).

More information on the promising future development of ENUM can be found at http://www.rtr.at/enum. The agreement with enum.at can also be downloaded (in English and German) in this area of the RTR web site.

Once the (0)780 number range (which is specially tailored for ENUM) had been assigned to

convergent services in the KEM-V in May 2004, the launch of ENUM operations was the next logical step in the sustainable promotion of innovative activities in the field of communications.

4.2.17 Assurance of consumer protection – End-consumer dispute resolution

Consumer protection supported by RTR's activities as a conciliation body

RTR also acts as a conciliation body in cases of dispute between customers and operators. The prerequisite for the initiation of a conciliation procedure is that the customer first attempted to reach an agreement with the operator independently. If it is not possible to reach an agreement, the complaint can be submitted to the conciliation body, which will then make efforts to find an amicable solution or communicate its opinion on the case in question to the parties involved.

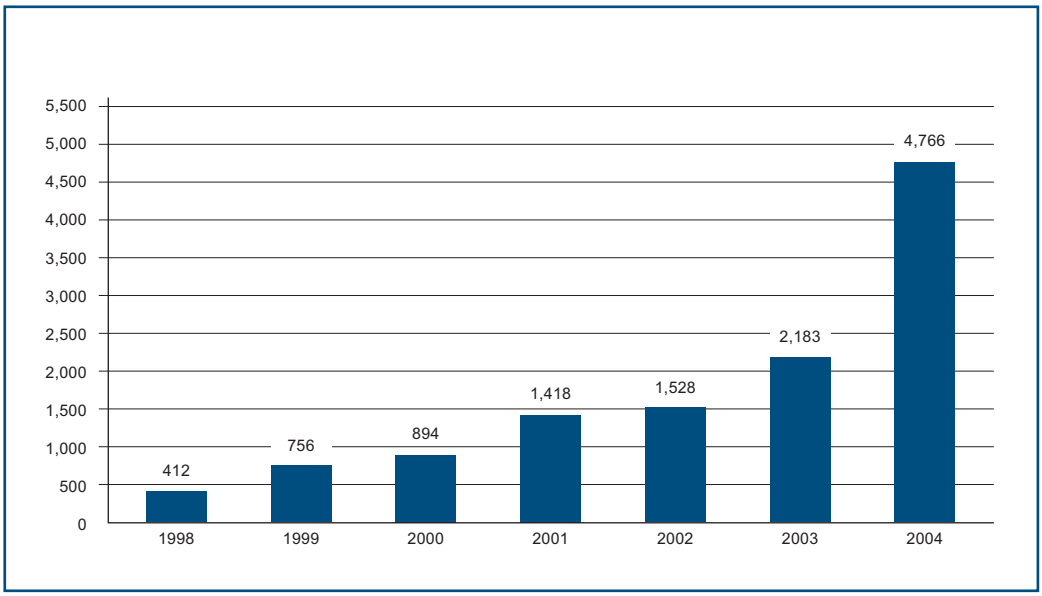
The legal basis for end-consumer dispute resolution can be found in Art. 122 TKG 2003 and the procedural guidelines issued by RTR. These guidelines were last amended on January 1, 2005. The main changes in the guidelines included the introduction of a minimum value of EUR 20.00 (including VAT) where no other interests of customers or operators are at stake beyond the individual case, and the mandatory filing of complaints using the form created by RTR for this purpose. The new procedural guidelines and the complaint form are available at http://www.rtr.at/schlichtungsstelle (in German).

2004: Number of complaints increased by 120%

In recent years, end-consumer dispute resolution has become a major area of activity at RTR, as the chart below demonstrates quite clearly.

RTR attributes this veritable explosion in the number of complaints submitted to the concilia-

Figure 10: Number of conciliation cases from 1998 to 2004



Source: RTR

tion body in the last year to its increasing level of recognition (in part due to the fact that many organizations consistently refer customers with telecommunications-related complaints to the conciliation body) and to recent decisions of the Austrian Supreme Court, which has dealt with the legal situation regarding value-added services in several cases.

Complaints prompted by high telephone bills

Many complaints are prompted by high telephone bills. In the course of the objection/conciliation procedure, it is often revealed that these bills are due to use of expensive value-added services. Here it is necessary to emphasize the fact that the number of complaints pertaining to voice connections to value-added services (dating hotlines, weather information, astrological advice, and the like) has decreased in recent years, while the number of complaints concerning data connections to value-added services (dialer programs) has increased sharply. In most cases, the Internet users were not aware of the costs incurred by downloading and executing the dialer programs, either because these costs were not (or not clearly) indicated by the provider or because the users underestimated them.

Improvement of consumer protection regarding dialer programs in the KEM-V and operators' declaration

As multiple companies are generally involved in the case of dialer programs, Austria's major operators agreed on a concerted procedure for complaints regarding value-added services and published this procedure in a joint declaration under the leadership of the Austrian Federal Economic Chamber. The number of complaints submitted to the conciliation body regarding dialer programs was one reason for the detailed requirements regarding the design of dialer programs as well as the opt-in principle applied to dialer programs in the Communications Parameters, Fees and Value-Added Service Ordinance (KEM-V). For further information, please refer to Section 4.2.18.6.

In addition to dialer programs, the charges for data transfer volumes via ADSL connections were also a common reason for complaints.
In these cases, the Internet users were often unaware of the quantities of data transferred in certain activities on the Internet (e.g., the use of file-sharing programs, listening to Internet radio stations, downloading music, etc.). In addition, the conciliation body has often determined that customers do not exactly know the volume of data included in their chosen Internet service package.

New: Complaints regarding value-added text messages

A relatively new development in 2004 was the number of complaints regarding value-added text messages (SMS). While most mobile customers are aware that a value-added service call can be highly expensive, this does not always seem to be the case with value-added text messages (i.e., sending text messages to a value-added service number). As in some cases the receipt of value-added text messages can also generate costs and customers often can not remember ordering the text message services (in the form of a subscription, etc.), these services also caused a number of complaints.

More information on the conciliation body's main areas of activity in 2004 and the experience gained with operators can be found in the conciliation body's activity report, which was published in early 2005 and is available at http://www.rtr.at (in German).

4.2.18 Assurance of consumer protection – General terms and conditions, rates and charges

4.2.18.1 Obligation to publish and report general terms and conditions

Publication and reporting obligations enable monitoring.

Under Art. 25 TKG 2003, operators and providers of communications networks and services are required to establish general terms and conditions of business in which service offerings are described[8] and to define the accompanying rates and charges. General terms and conditions as well as rates and charges must be reported to the regulatory authority and published in a suitable form prior to launching services (initial report and initial publication). Any changes to general terms and conditions or rates and charges must also be reported to the regulatory authority and published in a suitable form (report and publication of changes). If changes are "not exclusively favorable" to the subscriber, they are to be reported and published two months prior to going into effect. In such cases, the operator is also required to grant the subscriber a special right to terminate the contract under Art. 25 Par. 3 TKG 2003 (see below for further information).

In particular, non-adherence to the reporting requirement (initial reports or change reports) can constitute an administrative violation subject to a fine of up to EUR 58,000.00 (cf. Art. 109 Par. 4 No. 3 TKG 2003). The reported terms and conditions as well as rates and charges are published on the RTR web site at http://www.rtr.at/agb-eb (in German).

All communications network operators and service providers are subject to the obligations listed above. In particular, these operators/providers include the following:

- Operators of public telephone services (fixed-link and mobile telephony)
- Internet service providers (ISPs)
- Leased-line operators
- Resellers (e.g., call shops or Internet cafés) which provide a communications service as their main area of activity.

However, the providers of content services (e.g., directory assistance services, erotic hotlines, ring tones, video clips) and of value-added services are exempt from the obligation to report and publish general terms and conditions as well as rates and charges. The operators of broadcasting networks and network operators which transfer broadcasting signals are also exempt from these requirements.

4.2.18.2 Right to terminate contracts in case of changes

Subscriber's right to terminate contract in case of unfavorable changes

The TKG 2003 grants the operator the right to change general terms and conditions as well as rates unilaterally. In the case of unfavorable changes, the subscriber is thus granted a special right to terminate the contract under Art. 25 Par. 3 TKG 2003. According to this provision, subscribers (both consumers and companies) have a special right to terminate the contract free of

[8] Service descriptions are a minimum requirement in general terms and conditions (see Art. 25 Par. 4 No. 2 TKG 2003).

charge in the case of changes in general terms and conditions or rates which are "not exclusively favorable." The operator is required to communicate essential information on the changes to the customer at least one month prior to their entry into effect in a suitable form, such as printing a notice of the changes on the customer's monthly bill. At the same time, operators are required to inform the subscriber of the time at which changes will go into effect and of their right to terminate the contract free of charge until that time. Upon request, the operators are also required to send a full description of the changes to the subscriber.

Table 8: Notice period in case of changes which are not exclusively favorable to the subscriber

Legal consequences in the case of changes in general terms and conditions or rates and charges	
Category of changes for subscriber	**Legal consequences**
Exclusively favorable	Art. 25 Par. 2 TKG 2003: Obligation to report changes to regulatory authority (no objection period; changes can be applied immediately after reporting and publication)
Not exclusively favorable	Art. 25 Par. 2 TKG 2003 Obligation to report to regulatory authority and to publish changes (at least two months before entry into effect) Customer's right to terminate contract

4.2.18.3 Minimum content of general terms and conditions

The general terms and conditions to be issued by communications network operators and service providers are required to contain certain minimum information under telecommunications law. An overview of this information can be found in the figure below.

Figure 11: Minimum content of general terms and conditions

Minimum content of general terms and conditions
(Articles 25 Par. 4, 71 Par. 4, 96 Par. 3, and 104 Par. 4 TKG 2003)

- Name and address of operator (Art. 25 Par. 4 No. 1)
- Description of services (Art. 25 Par. 4 No. 2), including:
  - Description of services offered
  - Description of service quality
  - Provision / activation period
  - Types of maintenance services offered.
- Contractual period, conditions for extension and termination of service provision and the contractual relationship (Art. 25 Par. 4 No. 3)
- Compensation and reimbursement provisions in case of non-adherence to contractually agreed service quality (Art. 25 Par. 4 Z 4)
- Indication regarding the possibility of dispute resolution procedures under Art. 122 TKG 2003 as well as a short description of such procedures (Art. 25 Par. 4 No. 5)
- Provisions on the interval of periodic invoicing – no longer than three months (Art. 25 Par. 4 No. 6)
- Information on the existence of a uniform European emergency number 112 (Art. 25 Par. 4 Z 7)
- Provisions regarding caller identification options and deactivation of this function (Art. 104 Par. 4)
- Provisions regarding incorrect invoicing (Art. 71 Par. 4)
- Operator's duty to provide information on the possibility of using electronic subscriber directories (Art. 96 Par. 3; only required in general terms if not included in contract).

The terms regarding rates and charges are also subject to mandatory content requirements (see Art. 25 Par. 5 TKG 2003). These terms are subject to a reporting and publication requirement, but RTR is not generally authorized to review/approve or raise objections to them.

4.2.18.4 Review of general terms and conditions, right to raise objections

Under Art. 25 Par. 6 in conjunction with Art. 117 No. 3 TKG 2003, the TKK can raise an objection to reported general terms and conditions within eight weeks (from the date of the report) if the general terms and conditions are in violation of the TKG 2003, the ordinances issued on the basis of TKG 2003, Articles 864a and 879 ABGB, or Articles 6 and 9 KSchG. If an objection is raised, the operator is prohibited from applying the relevant clause(s) or the general terms and conditions.

In its decision of March 29, 2004 (G 53/03, available at http://www.rtr.at), the TKK raised an objection to an operator's reported general terms and conditions for the first time. In practice, the regulatory authority informs the operator concerned of any questionable clauses prior to

the end of the objection period. At the same time, the operator is given an opportunity to amend its general terms and conditions in due course (by withdrawing the previous report and filing a new report) or to submit justified comments regarding the changes. Due to improvements requested after the review of general terms and conditions by the regulatory authority, operators generally have to submit an average of two to three new reports in the course of the procedure before the terms can be handled by the TKK without problems.

While 83 reports on general terms and conditions were submitted in the year 2003, this number almost doubled in 2004 to a total of 174 procedures before the regulatory authority. The number of procedures initiated with respect to reported terms and conditions regarding rates was approximately 250.

4.2.18.5 Rights of users

A variety of end-users' rights are defined in the TKG 2003.

The TKG 2003 defines a number of specific rights for users of communications services. These rights are frequently the subject of interpretation issues in various procedures such as dispute resolution under Art. 122 TKG 2003. RTR also frequently receives general inquiries regarding the rights of users. The number and scope of these inquiries, which are received by telephone, in writing or by e-mail, rose drastically in 2004.

Three important rights of users are described briefly below.

Obligation to enter into contracts

Users enjoy special protection.

Every operator of a communications service is subject to an obligation to enter into contracts. However, this obligation is not unlimited: Operators are only obliged to enter into contracts in accordance with their general terms and conditions, which can contain considerable limitations. For example, almost all operators' general terms and conditions include possible grounds for rejection (e.g., poor credit ratings).

In connection with the obligation to enter into contracts, one question which has arisen repeatedly is that of which party has to bear the costs of setting up a connection. For example, Telekom Austria charges a flat rate for setting up a connection if the next network connection point is within a certain distance from the planned connection location. However, this flat rate only covers the connections using overhead lines. If underground lines are required for a connection, the additional costs are to be borne by the user. The sometimes high costs which can be incurred in such cases can lead to serious disputes.

Call barring

At least once per year, every operator is required to set up a block for outgoing calls to value-added services in Austria for its customers free of charge. This right does not apply to blocks placed on other number ranges (e.g., for remote international calls). Blocks on international number ranges can therefore still be subject to charges.

Qualified reminders in case of delays in payment

If a user is in arrears with payments, the operator is not allowed to deactivate the communication service without restrictions. Operators can only impose blocks once they have sent a qualified reminder to the user and defined a grace period for payment.

4.2.18.6 Value-added services

With regard to value-added services, the last sentence of Art. 24 Par. 2 TKG 2003 requires the regulatory authority to provide information on unfair practices and the corresponding measures taken in its annual report drawn up under Art. 34 Par. 2 TKG 2003.

Value-added services are especially significant in the field of dispute resolution, as the number of complaints due to charges arising from value-added services in general and dialer programs in particular has risen drastically each year. In RTR's view, the most effective countermeasure in this context is the regulatory authority's power to issue ordinances under Art. 24 Par. 2 TKG 2003. According to this provision, the regulatory authority is to issue an ordinance specifying detailed rules on the provision of value-added services in a transparent manner and in compliance with the appropriate level of user protection. RTR fulfilled this legal mandate without delay by issuing the Communications Parameters, Fees and Value-Added Services Ordinance (KEM-V) on May 12, 2004.

KEM-V: A new and extensive framework of rules

The KEM-V includes extensive provisions governing value-added services. For example, value-added services can only be provided using national telephone numbers in the (0)810, (0)820, (0)821, (0)900, (0)901, (0)930, (0)931 and (0)939 ranges, and in the range of abbreviated public numbers for telephone directory assistance services (0)118.

The provisions of the KEM-V also specifically govern advertising and rate information for value-added services, dial-up access in value-added services (dialer programs), rate limits, time limits and an opt-in principle for the provision of value-added services using dialer programs.

Advertising for value-added services
All forms of advertising must include information on the telephone number for the value-added service, rate information and a short description of the service's content. In this context, a short, meaningful description of the service is required and must indicate whether the service involves erotic content, erotic chat or a contest, for example. The rate information is to be indicated in EUR per minute or per event, as well as being easily legible and displayed in the immediate vicinity of the telephone number.

Rate information for value-added services
The Fees Ordinance 2003 (EVO 2003) already contained provisions regarding the disclosure of rate information. The EVO 2003 was abrogated once the KEM-V was issued. The KEM-V stipulates that the user is to be informed of the rate charged per minute or per event in EUR. In the case of voice services, the corresponding recording is to be played free of charge immediately after the connection is established. After hearing the rate information, the user must also be given the opportunity to terminate the connection free of charge. In the case of SMS and MMS-based data services, rate information can be provided by sending an offer text message as an initial response to the text message sent by the customer to the value-added service number. Exceptions and special provisions are made in the case of chat and subscription services. In this context, it is important to note that the KEM-V also requires telephone directory assistance services to provide rate information.

Dial-up access to value-added services (dialer programs)
Due to the numerous problems encountered in connection with dialer programs, the (0)939 number range was created for such programs with rates exceeding EUR 0.20 per minute. The KEM-V also defines an opt-in principle for the (0)939 number range, which means that this range is blocked automatically for subscribers. Only in cases where the subscriber explicitly requests access to this number range is it possible to call numbers in the (0)939 range. This opt-in principle ensures that only those subscribers who have explicitly requested activation from their communication service providers can establish connections using dialer programs.

In addition, the (0)820 and (0)939 number ranges are also subject to the provisions in the KEM-V regarding the design of dialer programs.

Rate and time limits
In the field of value-added services without regulated prices, the KEM-V provides for a maximum permissible charge of EUR 3.64 per minute and EUR 10.00 per event.

In the case of calls to value-added services with time-dependent charges in the (0)900, (0)930 and (0)939 number ranges as well as the (0)118 range, the connection must be terminated automatically after 30 minutes; if the rate per minute is less than EUR 2.20, the connection is to be terminated after a maximum of 60 minutes. This termination of the call is to be ensured by the communications service provider responsible for the network from which the service is provided.

The KEM-V has therefore introduced key provisions regarding value-added services. This extensive revision should decrease the number of complaints regarding value-added services in 2005 and counteract the almost explosive increase in the number of complaints filed in recent years.

Operators' declaration

Cooperation in handling objections related to value-added services

In light of the fact that multiple operators are usually involved in the provision of value-added services, Telekom Austria and a large number of other operators have agreed upon a new procedure for handling objections to charges for value-added services.

If a customer submits an objection to his/her operator regarding charges from the provision of value-added services, the operator will inform its customers that it is not the actual provider of the respective service. The operator is to propose that the objection be handled by the other companies involved and to assign the amount receivable to those companies. Before assigning this claim, the operator is generally required to obtain the customer's consent to the forwarding of information to the other companies involved (generally the service network provider and the service provider itself) or to give the customer the opportunity to object to the forwarding of information within a certain period of time. If the customer allows his/her data to be forwarded to the service network provider or service provider (or does not object to having this data forwarded), the operator can assign the amount receivable to the service network provider or service provider involved in the specific case. This concludes the dispute between the customer and the operator. However, the companies to which the amount receivable was assigned can still assert this claim vis-à-vis the customer.

Dispute resolution

As in previous years, the number of complaints pertaining to value-added services in general and dialer programs in particular increased drastically in 2004. The possible shortcomings of dialer programs range from insufficient or missing rate information to automatic program installation and execution without the user's intervention.

Number of dispute resolution procedures regarding value-added services increased drastically.

One new development with regard to value-added services is the increase in the number of complaints regarding event-based services. In this context, it is first necessary to note that in the (0)901 and (0)931 number ranges the first two digits of the subscriber number indicate the applicable charge per event in EUR. For example, the number (0)901/012345 would cost EUR 0.10 per event. Users who make calls to these numbers when taking part in contests on television are often not aware of the fact that each call is subject to a charge per event. As a result, high charges accumulate when the caller tries repeatedly to get through to the contest number.

In 2004, RTR also saw an increase in the number of complaints regarding (SMS/MMS-based) data services. This was especially prevalent in the case of value-added text message services in which the user does not receive information on the charges. Therefore, in 2005 RTR will also place special emphasis on adherence to the regulations applicable to data service charges.

Increase in complaints regarding SMS/MMS-based data services

Number ranges

As in previous years, RTR received numerous complaints in 2004 about erotic services offered in the (0)900 number range despite the fact that they are only permitted in the (0)930 number range. In such cases, the service network operator concerned was generally contacted directly and the numbers were blocked or the service migrated to the (0)930 range. Violations of this type were (and are still) reported to the relevant Telecommunications Office, which is responsible for initiating an administrative penal procedure if necessary. As the KEM-V allows dialer programs for high-cost value-added services to be offered only in the (0)939 number range, RTR conducted a review of dialer programs to ensure that these requirements are actually being observed. In cases where violations were identified, a supervisory procedure was initiated.

RTR reviewed the use of number ranges for their specified purposes.

4.2.19 Promotion of international harmonization

4.2.19.1 International working groups

RTR's international activities make a contribution to European harmonization and thus to the creation of comparable competitive conditions within the European Union. Another major purpose of RTR's international commitment is also to identify and implement best practices applied in other countries. These insights can be used directly in RTR's day-to-day regulatory work.

Focuses:
- *Bitstream access*
- *Mobile termination*
- *VoIP*
- *International roaming*
- *Leased lines*

Depending on the tasks and procedures of the respective international working groups, RTR cooperates in these activities in various forms.

Table 9: International working groups focusing on the implementation of the new legal framework

Group	Status of RTR	Role of RTR
ERG (European Regulators Group)	Member	Participation (as RTR)
IRG (Independent Regulators Group)	Member	Participation (as RTR)
CoCom (Communications Committee)	Observer	Advisor to BMVIT

One special challenge in 2004 was the enlargement of these working groups to include the ten new EU member states. RTR also cooperated in other international bodies (e.g., ECC, ITU, OECD, etc.).

In terms of content, work in 2004 was largely characterized by the transition from the old to the new legal framework. Therefore, this overview of RTR's most essential activities is largely based on the transition.

Harmonization in regulatory remedies

Completion of common position on regulatory remedies (IRG/ERG)

In 2003, the European Regulators Group (ERG) and the European Commission launched their joint work on the harmonized application of remedies under the new legal framework. For this purpose, joint considerations on the link between identified competition problems and the most suitable remedies were discussed and compiled systematically in a single document. The result of this effort was the publication of the "ERG Common Position on the approach to appropriate remedies in the new regulatory framework."

This paper provided the last missing piece in the harmonized approach to market analyses in Europe. The table below shows the most essential documents relevant to the harmonization of regulatory practice in the field of market regulation.

Table 10: Harmonized market analysis

Measures	Harmonization document
Market definition	Recommendation on relevant product and service markets
Market analysis and SMP	Guidelines on market analysis and the assessment of significant market power
Regulatory remedies	Common Position of ERG

Revision of the Commission recommendation on accounting separation and cost accounting (IRG/ERG/CoCom)

Harmonization in cost accounting

Due to the new legal framework's modification of requirements regarding regulatory cost accounting systems, the European Commission will publish a new version of the Recommendation on Interconnection (Part 2: Cost accounting and accounting separation) in 2005. For example, there was a need for adaptation in order to more firmly anchor the principle of neutrality with regard to technologies, as the old recommendation mainly referred to fixed-link networks. In its role as an advisor to the European Commission, ERG developed a common position on the European Commission's draft recommendation on cost accounting and carried out a public consultation. The results of both projects were included in the final draft version of this recommendation.

Completion of the common position on bitstream access (IRG/ERG)

For the purpose of harmonizing wholesale broadband access in Europe, ERG published a common position paper on wholesale bitstream access in which various forms of access are described. As a supplement, ERG also prepared a consultation procedure on a report on the technical implementation possibilities of bitstream access via cable networks; the consultation is scheduled for 2005.

Completion of Principles of Implementation & Best Practice for mobile termination (IRG)

The Independent Regulators Group published its first Principles of Implementation & Best Practice (PIBs) for mobile termination. In addition, a semi-annual snapshot of European mobile termination rates was published for the purpose of regular location analysis.

Focus on Voice over Internet Protocol (IRG/ERG)

In early 2004, the European Commission published a study on the topic of Voice over IP (VoIP), which sparked an international discussion of the following core regulatory issues in this context:

- Classification of VoIP services
- Access to emergency call services
- Network integrity and reliability
- Effects on national numbering plans
- Effects of location-independent (international) service provision.

After the European Commission carried out a public consultation in 2004 on the general regulatory conditions with regard to VoIP, the ERG began preparing to develop common positions on the most significant issues in this context toward the end of the year.

Planning and implementation of a harmonized approach to international roaming

The European Commission's Relevant Markets Recommendation also includes the wholesale national market for international roaming in public mobile telephone networks. Most regulatory authorities in Europe will carry out analyses of this market in 2005. Especially with regard to the international roaming market, harmonization throughout the EU is especially important, as differing regulatory conditions in member states may have direct effects on consumers in other member states.

In order to reinforce the cooperation among regulatory authorities, a plan for a coordinated approach in the EU was developed in 2004. As the first important step, a coordinated data collection process involving all mobile network operators was launched at the end of 2004.

Focus on leased lines (CoCom)

In its role as an advisory body to the European Commission, the Communications Committee (CoCom) cooperated in drawing up new draft recommendations on leased lines (conditions for the provision of leased lines on the wholesale market and charges for leased lines on the wholesale market, including sections of leased lines) in 2004. In addition, CoCom published a report on leased lines for 2003.

Monitoring implementation of the legal framework by the European Commission

The European Commission published its 10th annual Implementation Report at the end of 2004. In summary, the European Commission came to the following conclusions in this report:

- The electronic communications market is still growing faster than the overall economy.
- The engines of growth are mobile telephone and data services.
- The commercial operation of UMTS was launched in 2004.
- Broadband access increased sharply.

Austria at the forefront in implementation of new legal framework

- Austria is at the forefront in the implementation of the new legal framework. The Commission particularly emphasized the fact that the majority of market analyses were already notified in Austria in 2004. This means that – like Great Britain, Finland and Portugal – Austria has progressed relatively far in the implementation of the new legal framework.

4.2.19.2. International coordination procedures (Article 7 procedures)

Coordination procedures ensure harmonization.

Along with the new principles for the definition and analysis of markets, the national consultation procedure (Art. 128 TKG 2003) and international coordination procedure (Art. 129 TKG 2003) to be carried out in the case of certain planned measures are among the most significant new features of the new legal framework. Depending on the type of measure concerned, these procedures are to be carried out within Austria or also at the European level with the involvement of the European Commission and the other national regulatory authorities. In cases where the planned measure will have substantial effects on a market, the Framework Directive (as well as Art. 128 No. 1 to 4 TKG 2003) provides for an international coordination procedure in addition to the national consultation procedure for the following planned measures:

- Market definition
- Market analysis
- Interconnection
- Obligations imposed on companies with significant market power under Articles 38 to 42 TKG 2003.

Under Art. 129 Par. 2 TKG 2003, the comments of the European Commission as well as other NRAs are to be accorded the "utmost consideration" by the national regulatory authority.

Here it is necessary to note the following:

- In cases where a relevant market is defined which is different from the markets listed in the European Commission's Recommendation on Relevant Markets (Art. 36 Par. 3 TKG 2003), and

- in determining the extent to which a company has significant market power alone or together with others (Art. 37 Par. 1 TKG),

the regulatory authority's decision is to be postponed by two additional months in case the European Commission comes to the conclusion that the draft measures would create an obstacle to the Single Market or that the draft measures are not in line with European law or with the objectives listed in Art. 8 of the Access Directive (e.g., greatest possible customer benefit, promotion of investments and innovation, efficient use of radio frequencies, etc.).

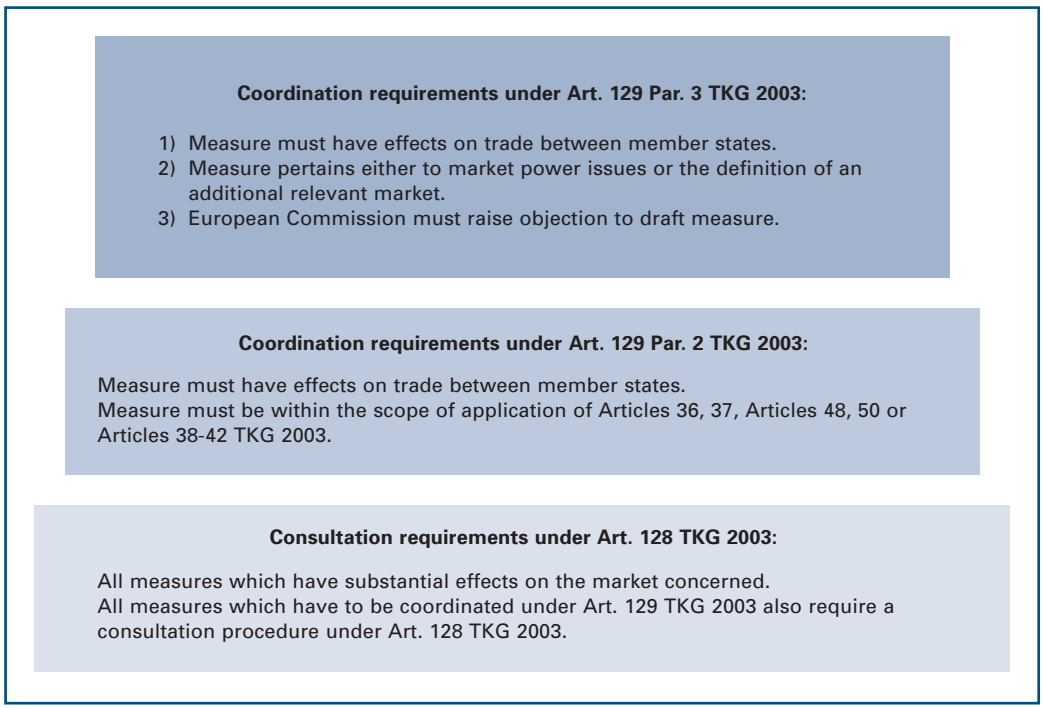
Procedures are defined precisely.

If the European Commission instructs a national regulatory authority to retract the respective draft measure within this period, the authority is to discontinue the procedure (European Commission's "veto" right). In this instruction, the European Commission is to provide a detailed and objective analysis of why the draft measure should not be implemented. At the same time, the European Commission is to submit specific proposals for changes to the draft measure, which the national regulatory authority is required to take into account when revising the relevant measure.

If the Commission does not raise such an objection during the two-month period, the national regulatory authority can issue the draft measure.

The diagram below provides an overview of the various levels of review for the measures on which consultations are to be carried out.

Figure 12: Hierarchy of review levels for measures requiring consultation



Most notifications already completed

In 2004, a total of 30 draft measures as defined under Art. 128 TKG 2003 were subjected to the international coordination procedure under Art. 129 TKG 2003 in the Telecommunications Division:

The largest number of procedures were related to the identification of significant market power and effective competition under Art. 37 TKG 2003 (significant market power procedures), as 22 such procedures were initiated in 2004. 18 of those procedures had been completed by the end of the year.

In addition, eight draft interconnection orders, including the procedures introducing mobile number porting, were coordinated internationally. All of these procedures were completed in 2004.

5. The Austrian communications markets

5.1 The Austrian media markets

5.1.1 General remarks on the year 2004

New high in gross advertising expenditures

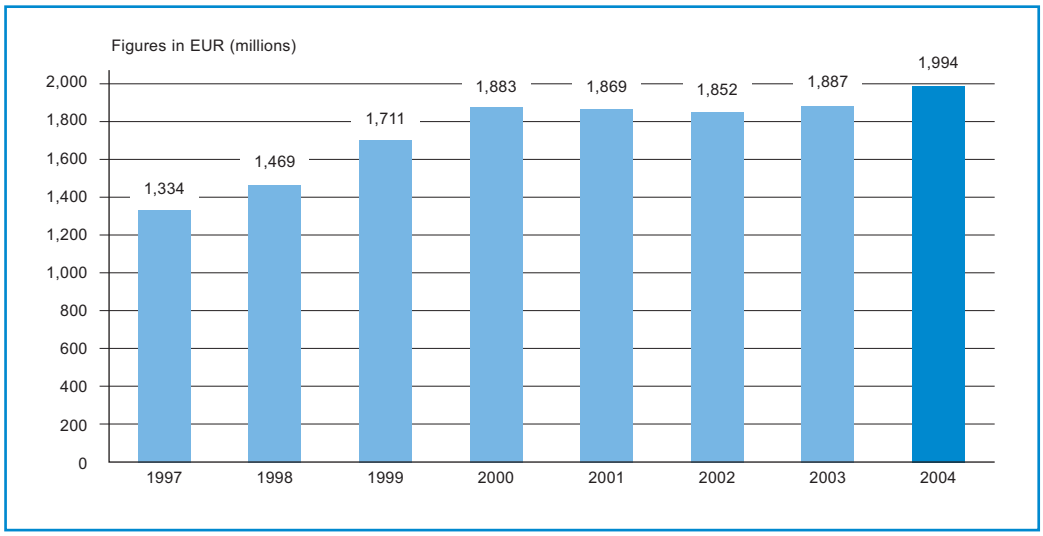
The advertising expenditure figures for 2004 clearly indicate that the advertising industry – which provides a foundation for the economic development of many media companies – is once again recovering. After a complete "crash" in 2001, which was described by Horst Pirker (President of the Austrian Association of Newspapers) as the "most severe economic crisis the media sector has ever seen," and widespread stagnation in 2002 and 2003, gross advertising spending reached a new high of EUR 1,994 million in 2004, with total revenues rising 5.7% over the previous year. Advertising expenditure therefore fell just short of the EUR 2 billion mark.

It is necessary to note in this context that the figures published by FOCUS Media Research are gross revenues (according to the relevant schedule of fees). In some cases, the actual net revenues earned by media companies deviate considerably from the gross values due to discounts commonly granted in the sector as well as agency commissions, bonuses and package offers. This depends on the market strength of each individual company. The difference between gross and net revenues ranges between 25% and 45%.

Amendment to broadcasting laws

As regards media legislation, one notable development in the reporting period is the fact that Austria's government coalition agreed on a long-discussed "media package" which included amendments to the Private Radio Act and Private Television Act as well as the KommAustria Act and ORF Act. One topic which was widely discussed among the interested public was KommAustria's right to report potential violations of advertising regulations by ORF to the Austrian Federal Communications Senate (BKS). KommAustria is still independently responsible for the legal supervision of private broadcasters.

Figure 13: Development of overall advertising expenditure



Source: FOCUS Media Research (excluding cinema / classic brochures / online advertising)

In Austria, ORF still dominates the electronic media sector, as does the *Kronen Zeitung* in the field of daily newspapers and the NEWS publishing group in the magazine sector. Austria's first nationwide terrestrial private television channel ATVplus, which was previously broadcast as ATV in most Austrian cable networks, attracted greater interest from the advertising industry in 2004 but was unable to bring about major changes given the vast dominance of ORF in the television sector.

Small media market – high concentration

By international comparison, the Austrian media market is relatively small. As mentioned above, it is also characterized by strong tendencies toward concentration and positions of market dominance. In the television sector, the nationwide television channels ORF1 and ORF2 dominate the market by a wide margin. However, their competition with Austria's private television channels – such as ATVplus and other stations which can generally only be received via local cable networks and to a small extent also by local terrestrial means – is only secondary. The real competition for the favor of Austrian television viewers is between ORF's channels and the many private and public channels from abroad (mainly Germany) which form part of the standard lineup in cable networks or satellite television. In Austria's "competition households" (i.e., households which receive a variety of German-language channels via satellite or cable), ORF's stations attained a market share of 46% in 2004 (basis: viewers in the 12+ age group).

Most of the private German-language stations offer partly Austria-specific content as a platform for the Austrian advertising industry. The trend of producing separate programming for these "Austria windows" also continued in 2004. However, from a legal standpoint most of these broadcasters are not incorporated in Austria.

Private radio broadcasters gained 3 percentage points in the 14 to 49 age group.

ORF's dominance is also highly conspicuous in the field of radio broadcasting. With its three radio stations Ö1, Ö3, FM4 and the nine Ö2 regional stations which cover each of Austria's federal provinces, ORF's market share amounted to 81% in 2004. In the advertising-relevant 14 to 49 age group – which is key to the marketability of private radio stations – ORF holds a market share of 77%. Compared to 2003, this group has shifted slightly toward the private radio stations. According to the 2004 "Radiotest" survey, Austria's private radio stations have a combined market share of 20%, three percentage points more than in the previous year. ORF's most popular station Ö3, which leads the market in this target group (14 to 49-year-olds) lost 4 percentage points but still holds a market share of 47%.

As regards the recent changes in private radio broadcasting, it is particularly interesting to note that Antenne Tirol, a station belonging to Moser Holding (owner of the *Tiroler Tageszeitung* newspaper) has been broadcasting under the channel name "Live Radio Tirol" since November 25, 2004, while the name "Antenne Tirol" now stands for the radio group belonging to the Fellner Group. Moreover, KommAustria issued Austria's first nationwide private radio license to "Kronehit" under the new provisions of the Private Radio Act (PrR-G) on December 6, 2004.

As in previous years, the print media sector is still dominated by the *Kronen Zeitung* newspaper, which is owned by Hans Dichand (50%) and the German WAZ *(Westdeutsche Allgemeine Zeitung)* Group (50%); the heated debates and legal disputes between these partners continued in 2004 as well. The market position of the *Kronen Zeitung*, which is unparalleled worldwide, manifested itself impressively in this newspaper's average reach of 43.7% in 2004. This value has remained fairly constant year after year. In the magazine sector, the Austrian media landscape is also still dominated by a powerful group of companies, the NEWS publishing group, which is also partly under the control of the German WAZ Group due to its merger with ZVB AG (a wholly-owned subsidiary of the *Kurier* publishing house). Styria Medien AG's investment in ET Multimedia AG can also be interpreted as a strategic decision in this context, specifically as a means of competing with the NEWS publishing group in the magazine sector.

In addition to the concentrations mentioned above, another unique characteristic of the Austrian media sector is the fact that a considerable number of market-relevant titles – both in magazines and daily newspapers – are under the predominant control of owners from abroad, mainly from Germany. This applies, for example, to the following companies:

- *Kronen Zeitung* (50% share held by the German WAZ Group)
- *Kurier* (WAZ Group's stake: 49.4%)
- *Tiroler Tageszeitung* daily newspaper (wholly owned by Moser Holding AG, 50% of which is owned by Athesiadruck Bolzano)
- *Der Standard* daily newspaper (49% owned by Süddeutscher Verlag)
- *WirtschaftsBlatt* daily business newspaper (50%: Bonnier Group)
- NEWS publishing group (Companies Register information: 56.0% owned by "Gruner + Jahr," a German publishing house belonging to the Bertelsmann Group; 25.3% owned by the *Kurier* publishing house, in which WAZ and the Raiffeisen Group each hold approximately 50%; and 18.7% in the hands of the Fellner family private foundation).

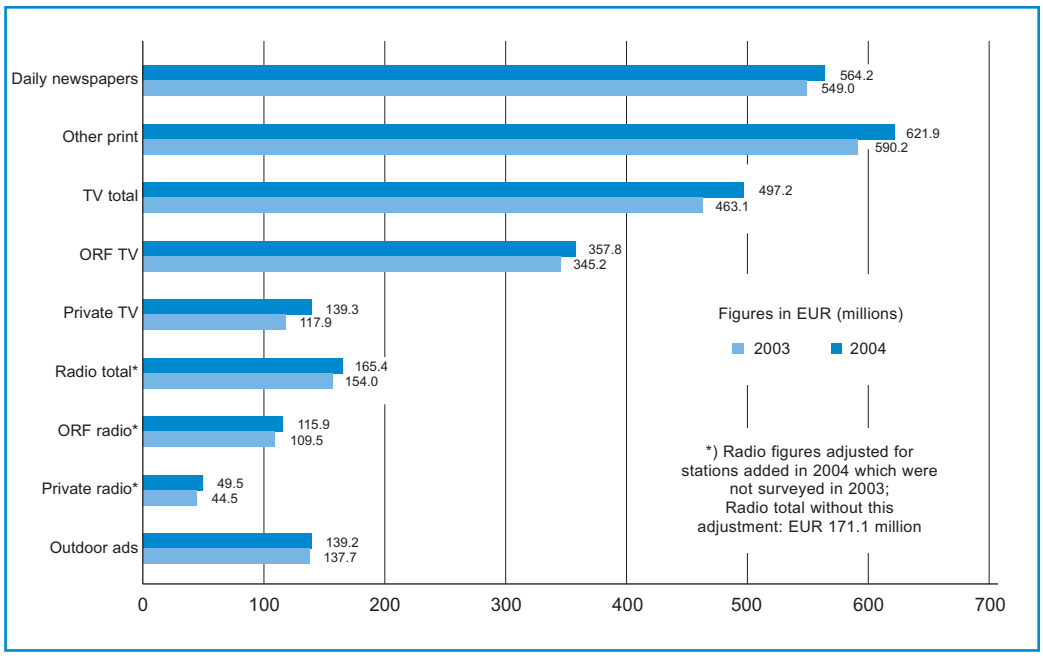
5.1.2 Advertising expenditure

Gross advertising revenues up 18% in private television

ORF saw increased advertising revenues in 2004.

All areas of the media industry were able to profit from the increase in advertising spending in 2004. Private television stations benefited most from this development, as advertising revenues increased from EUR 117.9 million in 2003 to EUR 139.3 million in 2004 (+18%). This demonstrates without a doubt that the private television market – even considering the fact that net growth is considerably lower than the gross increase – is still growing and can be expected to continue on this path in the future. ORF was also able to boost its share of advertising revenues in the television sector, recording an increase of 3.7% to EUR 357.8 million. In any case, it is worth noting that ORF's lead in the television market has narrowed: The gross advertising expenditures going to ORF were four times the amount taken in by private television stations in 2002, three times that amount in 2003, and down to 2 1/2 times in 2004.

Figure 14: Advertising expenditure: 2003 vs. 2004



Source: FOCUS Media Research (excl. cinema / classic brochures / online advertising)

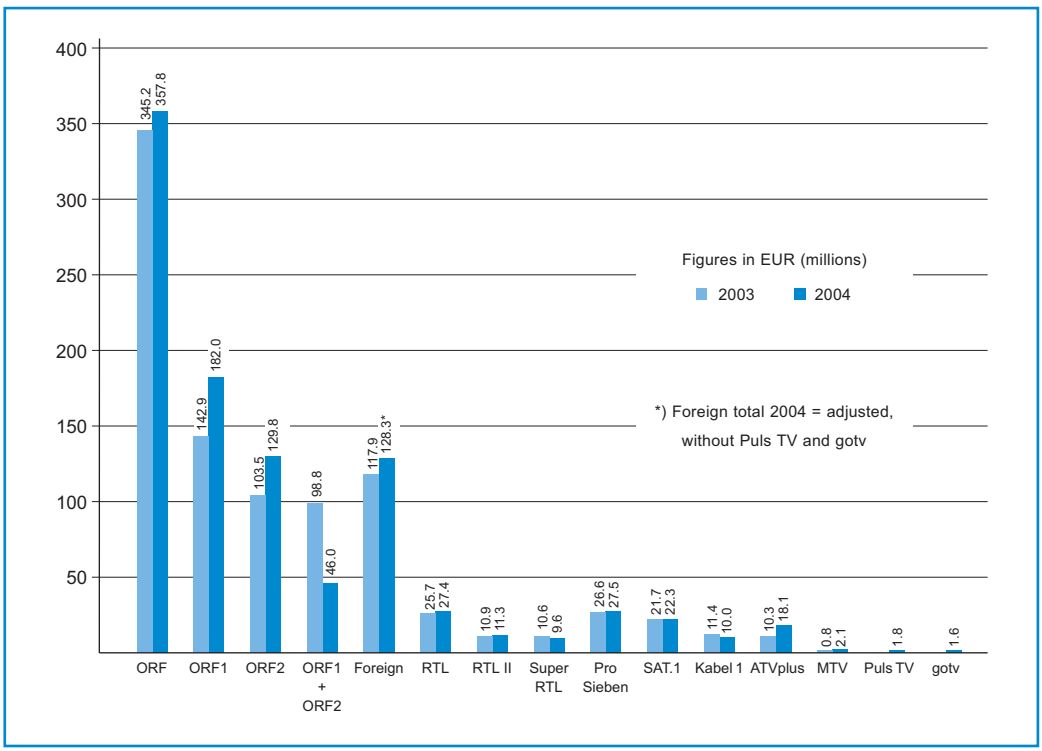
While the increase in advertising revenues between 2003 and 2004 in the print media sector (approximate average: 4%) was less significant than the rise in overall advertising expenditure (5.7%), the increase was more pronounced in radio advertising spending, which rose 7.4% to EUR 165.4 million. In order to ensure comparability, this figure does not include the advertising revenues of the radio stations added to the statistics in the 2004 survey. Including those revenues, overall advertising expenditure in the radio sector amounts to EUR 171.1 million, an increase of 11.1%.

A closer look at the development of television advertising expenditure reveals that the parallel broadcasting of television commercials on ORF1 and ORF2 decreased sharply. This was already the case in 2003, but in 2004 this figure was approximately halved to EUR 46 million. This can probably be attributed to ORF's intentionally stricter separation of the target groups addressed by these two channels, and to more precise media planning with regard to target groups on the part of the advertising industry and its customers.

Higher advertising revenues for private television broadcasters

In private television, especially the German stations with the highest reach figures took in a considerable share of Austrian television advertising revenues. This group was led by ProSieben with EUR 27.5 million in 2004. However, RTL saw the largest increase in advertising revenues and is now a very close second at EUR 27.4 million. Sat.1 Österreich is in third place at EUR 22.3 million and is therefore no longer very far ahead of the only 100% Austrian competitor ATVplus, which again saw heady growth in revenues (from EUR 10.3 million in 2003 to EUR 18.1 million in 2004) due to improved coverage and increased audience acceptance.

Figure 15: Development of television advertising expenditure



Source: FOCUS Media Research (March 2003: Introduction of MTV; June 2003: Relaunch of ATV as ATVplus)

59% of advertising expenditure in print media

No major changes were recorded in each medium's relative share of overall advertising expenditure. As in previous years, the bulk of overall advertising expenditure went to print media (2004: 59%), with 28% of overall advertising expenditure going to daily newspapers (-1.0 percentage point compared to 2003), 9.6% to regional weekly newspapers (+0.9), 16.4% to magazines and journals (-1.3), and another 5.2% to specialized periodicals (+0.3) .

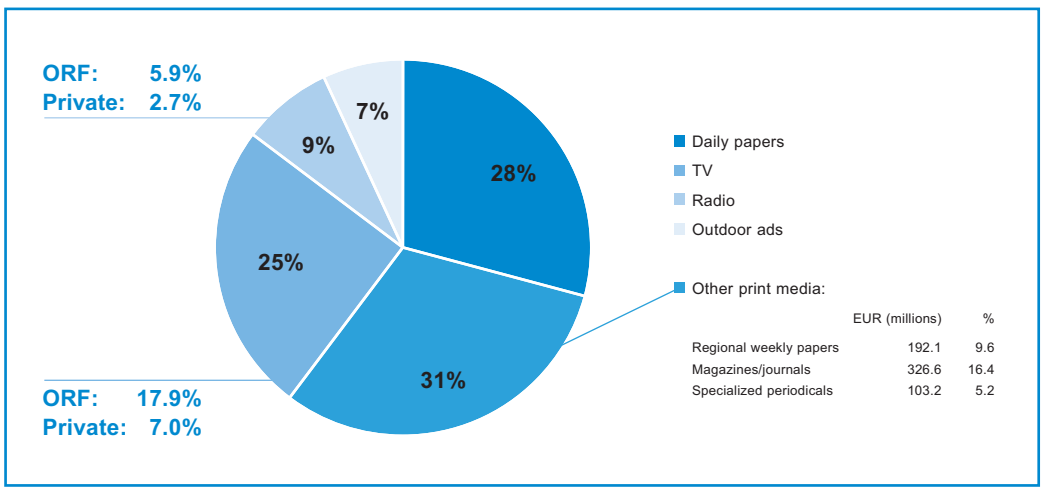
As in the past, one quarter of overall advertising expenditure can be attributed to the TV sector, although the shares of ORF and private broadcasters shifted from 19.5% and 5.1% in 2002, to 18.3% and 6.3% in 2003, and finally to 17.9% and 7.0% in 2004 (respectively), thus indicating a very clear trend.

9% of advertising revenues go to radio broadcasters.

9% of overall advertising expenditure went to the radio sector (up 1 percentage point on 2003), with the relative shares of ORF and the private broadcasters remaining roughly the same. However, it is remarkable that the ratio of advertising revenues is only 2:1 despite ORF's clear dominance in terms of radio market share: ORF's share of the 14 to 49-year-old market is 77%, while the private stations only hold 20% of this market.

Some 7% of overall advertising expenditure was invested in outdoor advertising (billboards, illuminated signs, advertising on public transportation).

Figure 16: Share of advertising in 2004 (total: EUR 1.994 billion)

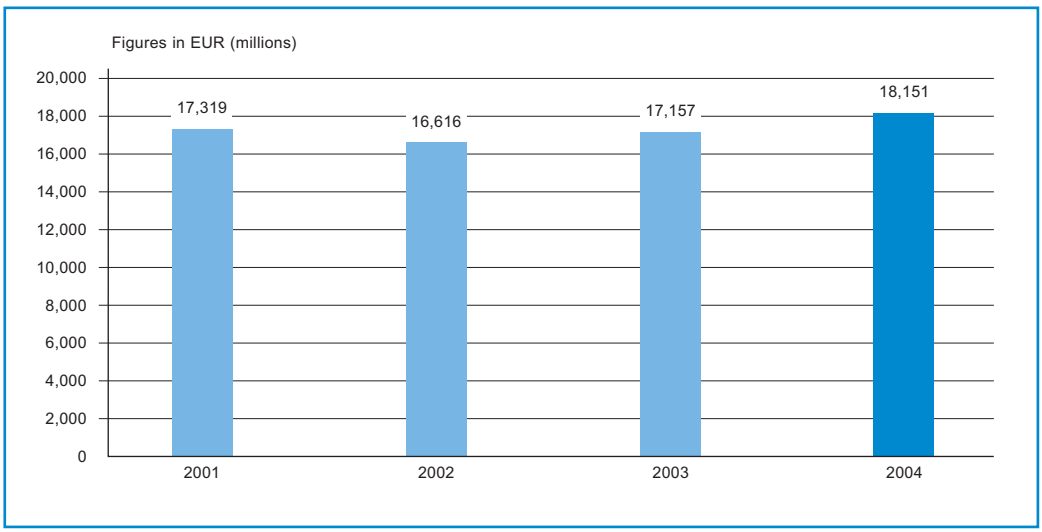


Source: FOCUS Media Research

Advertising expenditure on par with German market

Austria's geographical proximity and close economic ties to Germany as well as the countries' common language (which forms Europe's largest media market) have once again shown themselves in the similar development of advertising expenditure in the two countries. Compared to the previous years, 2004 was also a successful year for the media in Germany, where advertising spending reached a new high of EUR 18.151 billion. This represents an increase of 5.8% over the previous year (2003: EUR 17.157 billion).

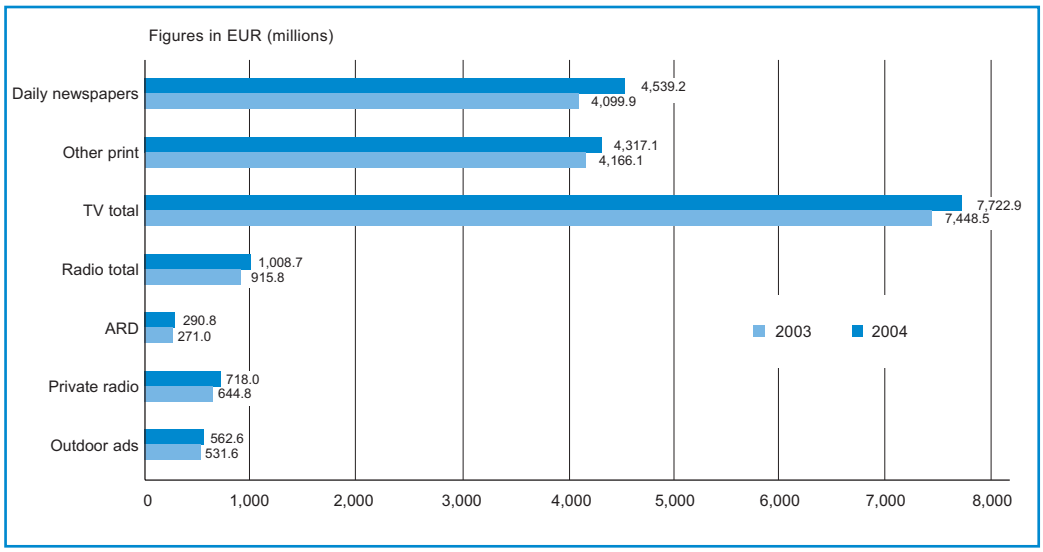
Figure 17: Development of overall advertising expenditure in Germany



Source: S+P Deutschland

It was primarily the daily newspapers (+10.7%) as well as television broadcasters (+3.7%) which profited from this upswing in 2004, while advertising expenditure in other media categories showed a decline across the board.

Figure 18: Advertising expenditure in Germany: 2003 vs. 2004

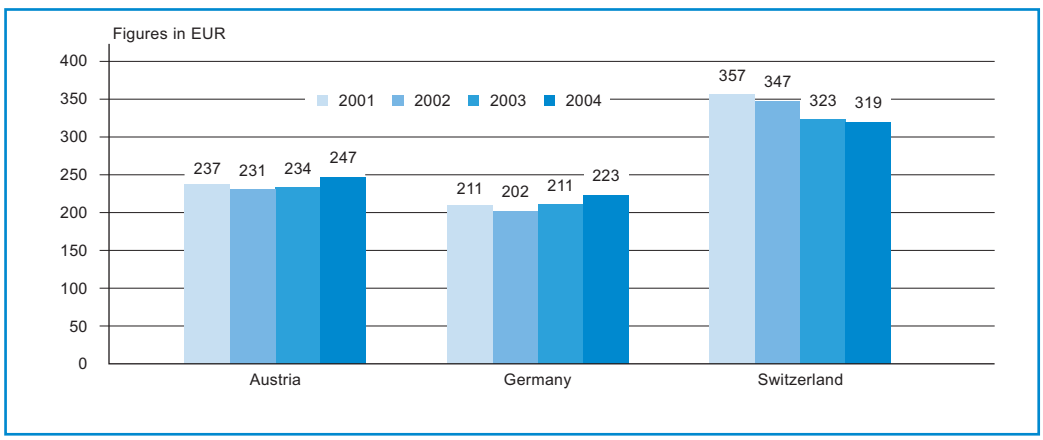


Source: S+P Deutschland

Per capita advertising expenditure rose in Austria.

Over the last decade, per capita advertising expenditure in the Austrian advertising industry has matched and even exceeded the level seen in Germany. In 2004, per capita advertising expenditure in Austria came to EUR 247 (2002: EUR 234), while the corresponding figure for Germany was EUR 223 (2003: EUR 211). Switzerland is currently developing in the opposite direction, as per capita advertising spending has dropped steadily in recent years. However, advertising spending in Switzerland is still at a considerably higher level than in Austria.

Figure 19: Per capita advertising expenditure (print / radio / outdoor ads / online)



Source: FOCUS – “Buch der Werbung 2004” (online from 2001, Austria 2003: without online advertising)

The figures indicated above do not include online advertising expenditure, which amounted to EUR 22.4 million in Austria in 2004. As the survey method was changed between 2003 and 2004, it is no longer possible to compare figures from previous years. However, the mere fact that this value is close to half of the volume of advertising expenditure in private radio broadcasting indicates the increasing effectiveness of this relatively new medium. Germany already switched to the new survey method between 2002 and 2003, thus making it possible to draw a comparison between 2003 and 2004. This comparison, which can be applied to Austria as well, shows a clear trend: Spending on online advertising increased 4% to EUR 308.4 million in 2004. With regard to online advertising expenditure, however, it is necessary to note that the difference between gross and net revenues can not be assessed on the basis of the available data material.

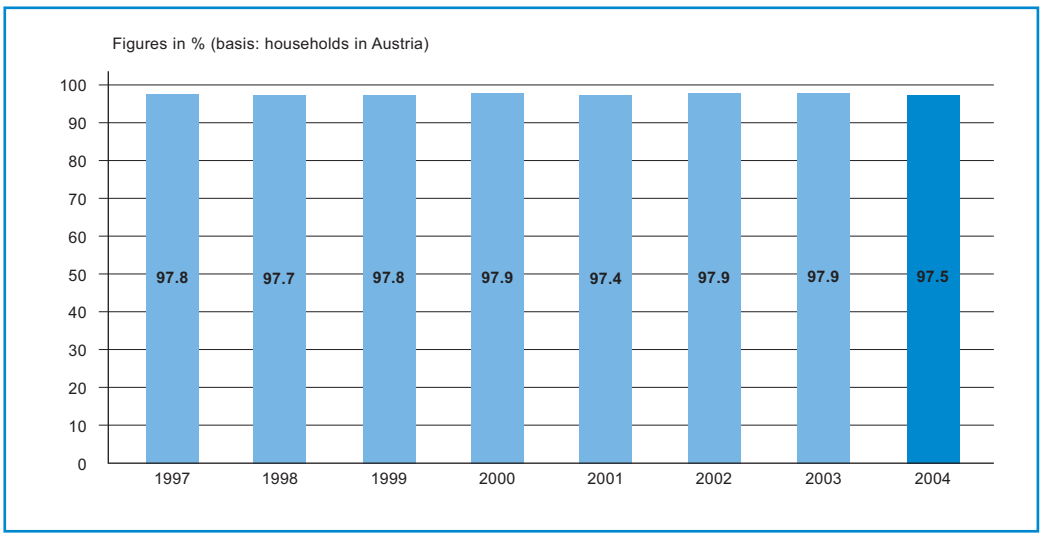
5.1.3 Television

Puls City TV for Vienna started in June 2004.

2004 was the first year in which a nationwide private television station (ATVplus) was broadcast terrestrially throughout Austria. Since the very beginning, this station's development on the market has been followed with great interest by the entire industry. The Vienna channel "Puls City TV" first brought greater diversity to the sector of television for high-density population areas in June 2004.

The vastly dominant position of ORF and its significant sociopolitical role are already visible in ORF's share of overall advertising revenues, and this dominance is undisputable on the television market. As regards the diversity of opinions and viewing habits, the television medium has always been a highly sensitive area of media policy. ORF's information programs make a highly conspicuous contribution to public opinion in Austria. After all, ORF's market share once again accounted for more than half of the television market in 2004 (basis: all transmission platforms). In this context, the market can be considered almost identical to the overall population: According to the "Media-Analyse" (Austrian Media Analysis), 97.5% of all Austrian households had at least one television set in 2004.

Figure 20: Percentage of Austrian households with television sets, 1997-2004



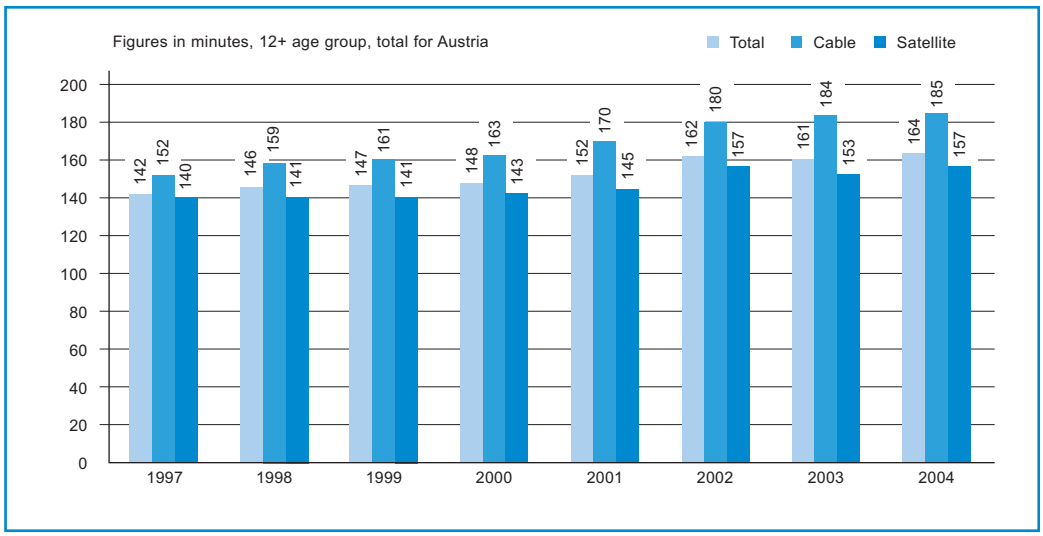
Source: Media-Analyse

Average television viewing time: 164 minutes

Television viewing time has continued to rise.

In terms of quantity, television viewing has followed a clear upward trend among viewers over 12 years of age in Austria; this was supported by relatively large jumps in 2001 and 2002. In 2004, this figure leveled off at 164 minutes per day, with generally longer viewing times in cable households and somewhat shorter times in satellite households.

Figure 21: Development of viewing time



Source: Teletest

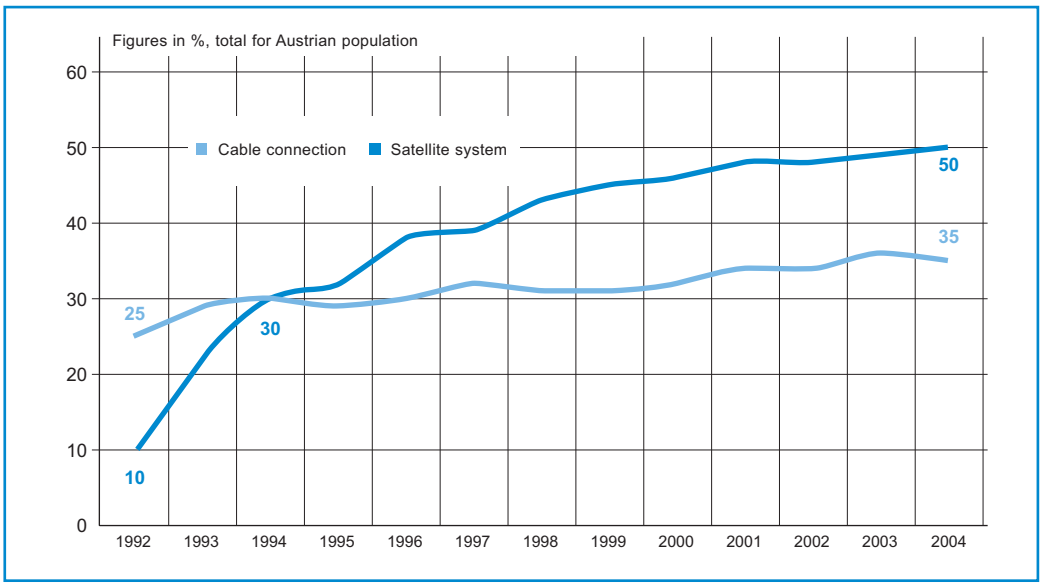
The three reception modes (terrestrial, cable and satellite) not only differ in terms of viewing habits, but also in terms of reach. In the 1960s and 1970s, television content was delivered almost exclusively via terrestrial transmitter systems and received via house antennas. In the 1980s – especially in urban areas – television channels were also disseminated via cable television networks. Satellite reception then became more popular in the 1990s, especially in areas which are not covered by cable television networks (e.g. on the outskirts or outside of urban areas).

One in two television households using satellite reception

Cable penetration stable at approximately 35%

It was not until 1994 that the percentage of Austrians receiving television channels via satellite caught up with the share of households covered by cable networks (30% each). Since then, the percentage of people covered by satellite broadcasting has increased to 50%, while the corresponding figure for cable broadcasting is only 35% (2003: 36%). This means that one in two viewers in Austria already receives television channels via satellite. However, as most Austrian households use analog satellite reception, with which ORF's television channels can not be received (in contrast to digital satellite broadcasting), these households also usually also have a house antenna for terrestrial reception.

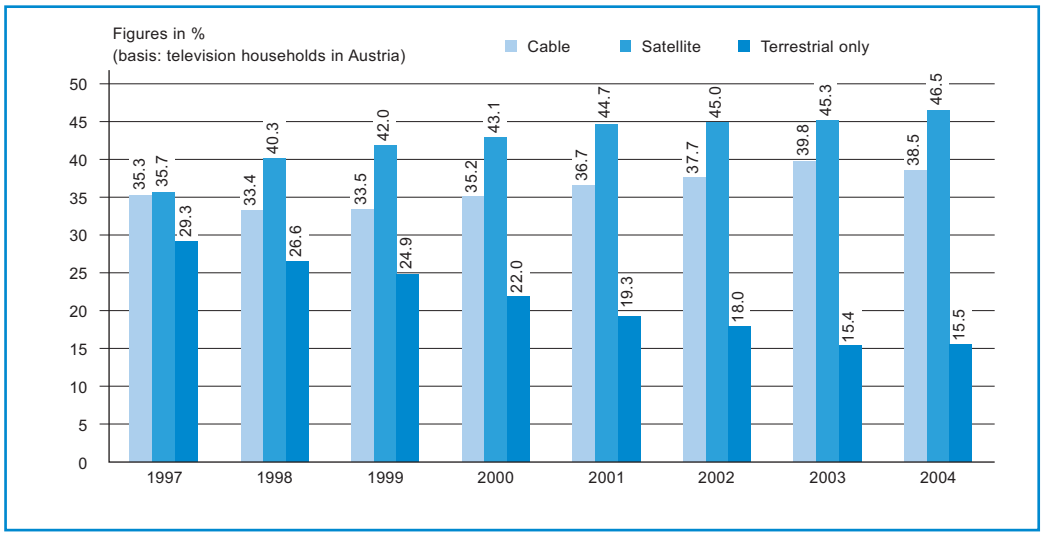
Figure 22: Development of cable vs. satellite television systems



Source: Media-Analyse

In contrast, the number of households supplied exclusively via terrestrial transmission systems has been decreasing for some time. This figure has even halved over the last seven years. Whereas 29.3% of households still received television channels exclusively via house antennas in 1997, this figure was down to a mere 15.5% in 2003 as well as 2004. Developments in the coming years will reveal whether this development has reached its bottom limit.

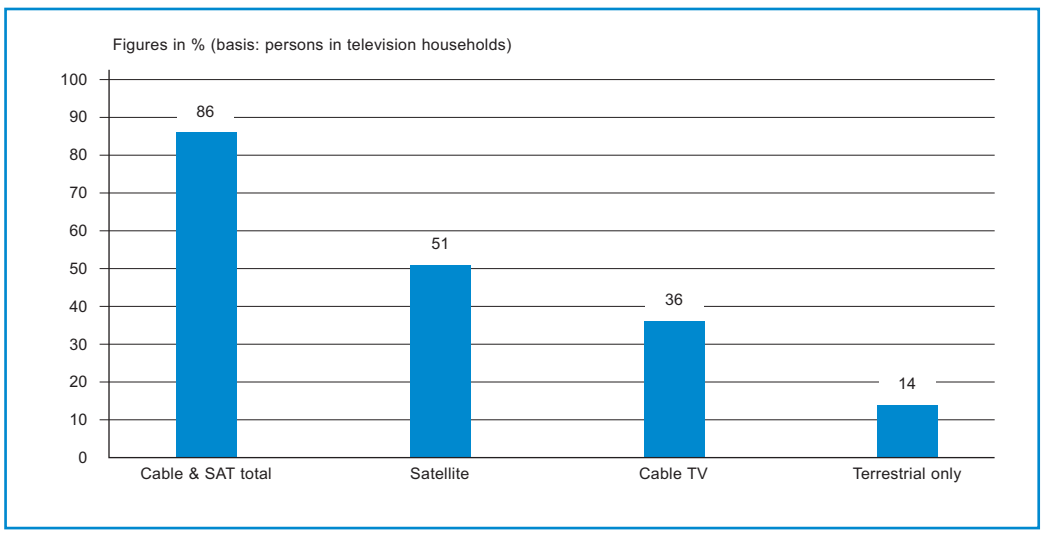
Figure 23: Development of reception modes



Source: Media-Analyse

If we take the figure of 97.5% of households with television sets as a basis, then only 14% were supplied exclusively by terrestrial means, while the percentage of cable and satellite viewers reached a record-breaking level of 86%.

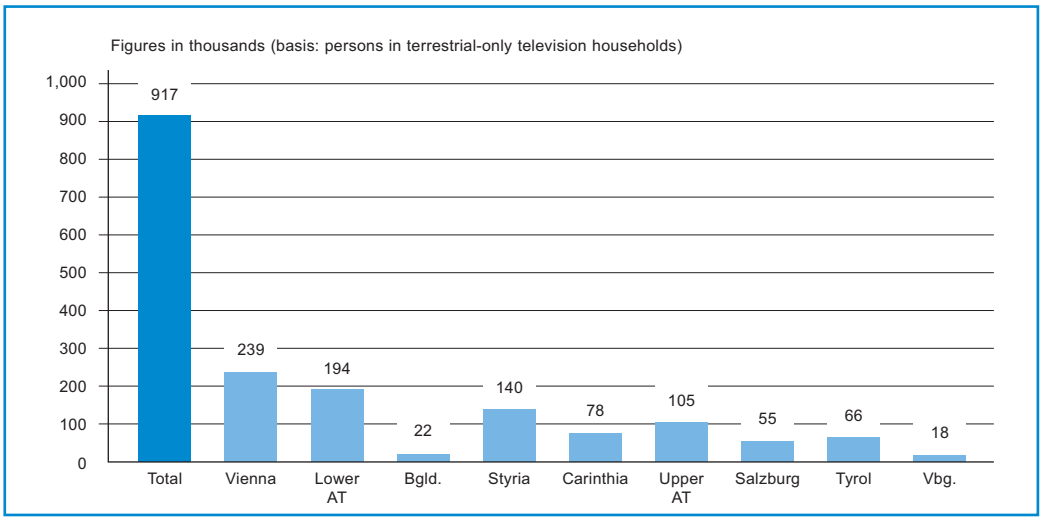
Figure 24: Reception modes in 2004



Source: Media-Analyse 2004

In terms of the number of people with at least one television set in their households, 917,000 received terrestrial television only in 2004. The largest share of these viewers was in Vienna with 239,000, followed by Lower Austria with 194,000. These figures also indicate how many people in the eastern and southern regions of Austria did not have a German-language alternative to ORF's television channels until the launch of ATVplus in 2003.

Figure 25: Terrestrial-only reception in 2004



Source: Media-Analyse 2004

While analog satellite broadcasting is still dominant today, its digital counterpart is likely to replace it completely within a few years. The advantages of digital transmission in satellite broadcasting are improved transmission quality and the ability to broadcast a larger number of channels, as well as the fact that the relevant Austrian channels can also be received via digital satellite. There is no doubt that satellite television reception will also be the most important reception mode for most households in the digital future. However, cable and terrestrial television will also retain their importance as means of disseminating local and regional channels.

Progress of digitization in television transmission platforms

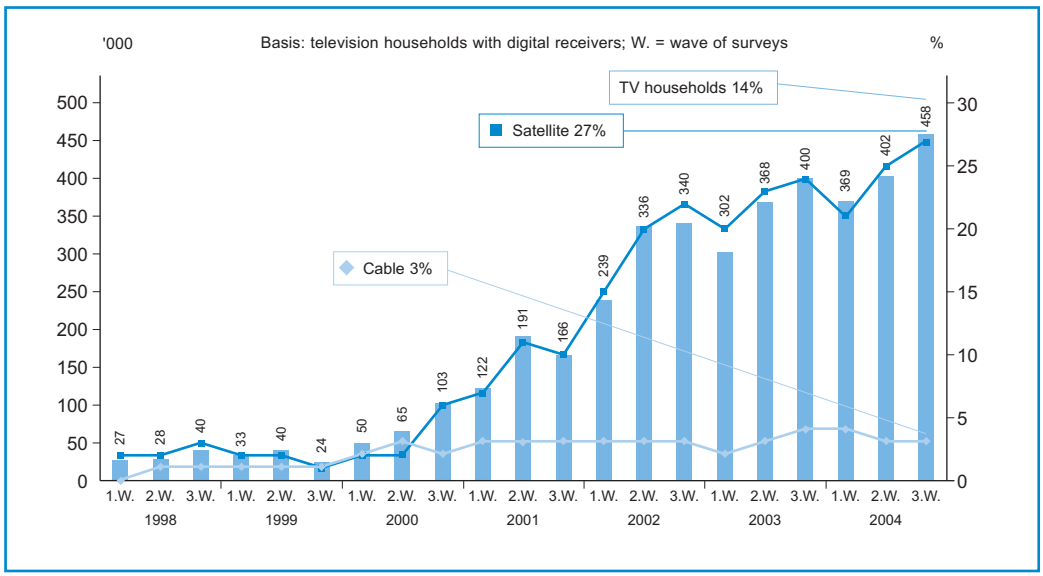
One third of Austrian satellite television households have switched to digital reception.

The three established platforms for the dissemination of television signals show varied levels of digital penetration. Digitization in the satellite segment has seen the most progress by a wide margin. Approximately one third of all satellite households have already switched to digital reception, and sales of DVB-S set-top boxes have continued to grow rapidly. The percentage of digital satellite households can be expected to reach 50% even in the next one to two years.

Digital penetration in cable households has remained stable at 4% to 5% of all cable households for some time now, although in this context it is necessary to note that not all cable network operators offer their customers a digital television option. According to information provided by Multimedia Austria, an interest group consisting of the seven largest cable network operators in Austria, 54 network operators offer digital television and supply 20,000 people with this service.

While digital television via satellite (DVB-S) and cable (DVB-C) has already become reality, digital terrestrial television (DVB-T) is just nearing the end of the preparation phase. In the summer of 2004, a trial for digital terrestrial television as well as additional interactive television services was carried out in Graz (see also Section 4.1.9.2.); this trial attracted attention far beyond Austria's borders. In 2005, KommAustria will put a license for the planning, construction and operation of a nationwide multiplex platform for digital terrestrial television out to public tender. Regular operation is scheduled to begin in mid-2006.

Figure 26: Digital penetration in Austria



Source: FESSEL-GfK Fernsehforschung / Monitoring for ORF / Per wave: N = 5,000

Overall reach of television: 69.2%

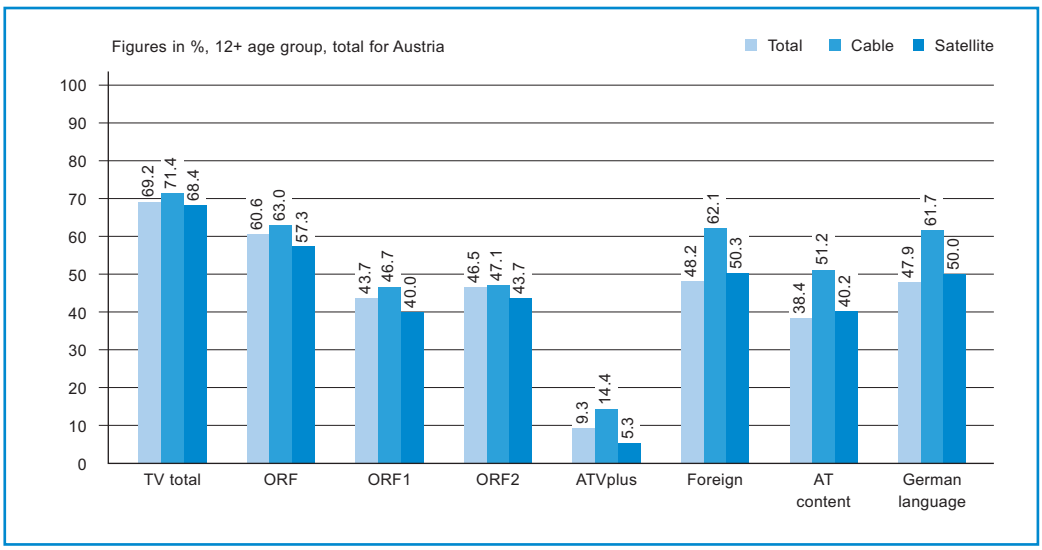
Regardless of how the channels are ultimately transmitted to the consumer, viewing habits in Austria are surveyed by the "Teletest," in which program selection and viewing time behavior are recorded in a panel of 1,500 test households selected according to demographic criteria.

ORF's reach remains stable.

The resulting daily reach figures indicate the annual average number of people over 12 who watched one of the channels on the market for at least one minute per day on a yearly average. The overall daily reach of television channels came to 69.2% in 2004. This figure was precisely the same in 2003, with the daily reach of cable television dropping slightly and that of satellite television increasing. ORF1 and ORF2 attained the highest daily reach figures with 43.7% (2003: 43.3%) and 46.5% (2003: 48.6%), respectively. After losses in 2003, the daily reach of ORF's channels appears to have stabilized in 2004.

Foreign channels were again clearly ahead of ORF2, the ORF channel with the higher daily reach in Austria (46.5%). In cable households, we have observed a very close race between foreign channels and the ORF channels combined. The foreign channels which offer partly Austria-specific content in their programming further increased their daily reach from 36.8% in 2003 to 38.4% in 2004.

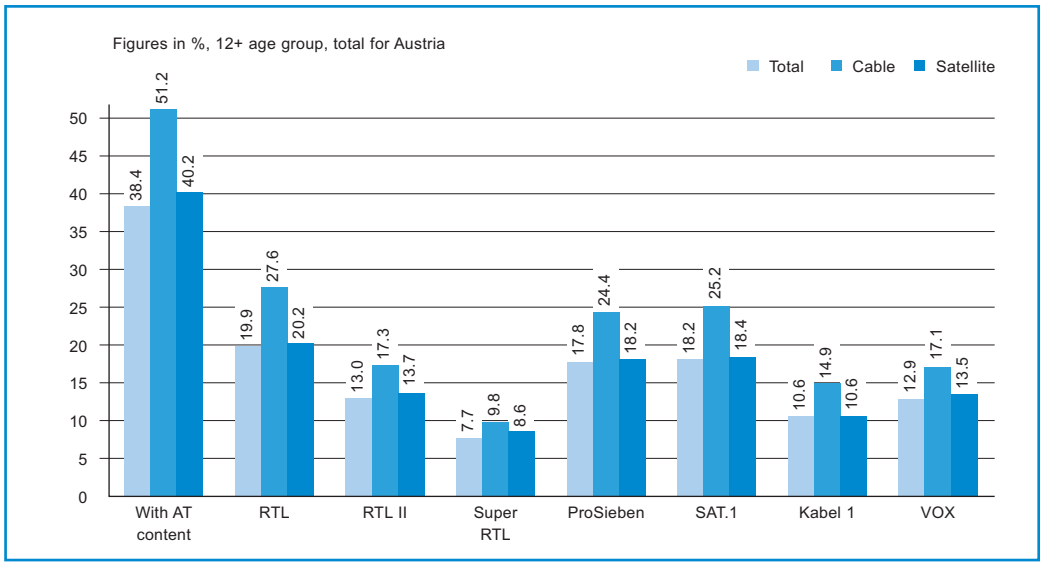
Figure 27: Daily reach of television channels in 2004



Source: Teletest

The foreign channels with partly Austria-specific content were again exceptionally strong in Austrian cable households. In 2004, these channels were even able to double their lead over ORF2 (difference in 2003: 2.0%; 2004: 4.1%). Among the channels which offer partly Austria-specific content, RTL retained its top position in terms of daily reach (19.9%, measured for all transmission modes), just ahead of Sat.1 (18.2%) and ProSieben (17.8%).

Figure 28: Daily reach of foreign channels with partly Austria-specific content in 2004



Source: Teletest

ATVplus increased its reach by 50%.

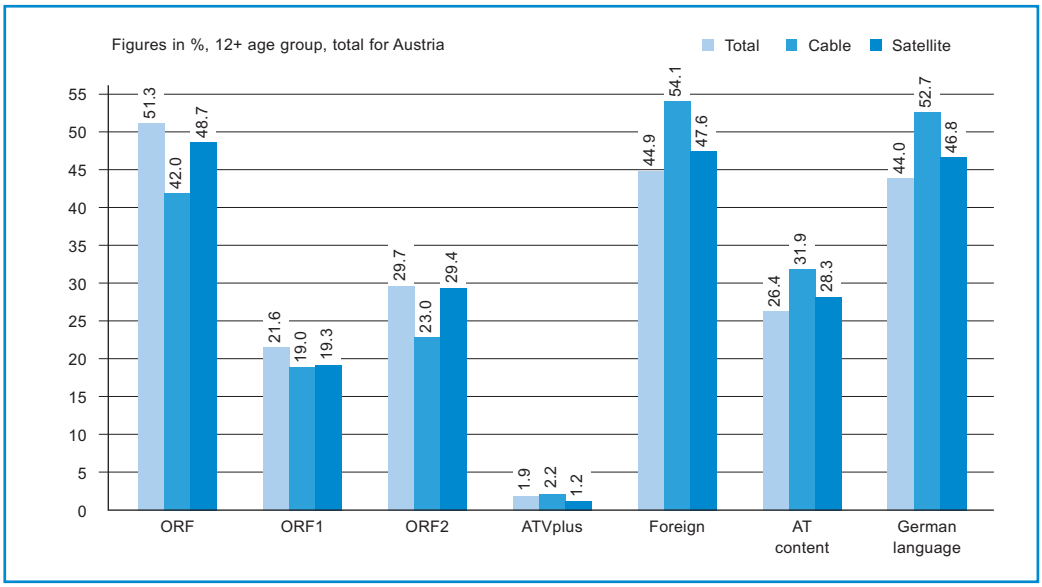
The Austrian private broadcaster ATVplus was once again able to increase its reach by approximately 50% in 2004. Its daily reach (measured in terms of viewers in the 12+ age group) was only 3.2% in 2002, when it was only available on cable networks, and rose to 6.3% in 2003. In this context, it is necessary to note that ATVplus' technical range did not increase until July 2003. In 2004, the daily reach of ATVplus came to 9.3%, thus overtaking one of the foreign channels with partly Austria-specific content (Super RTL) for the first time.

Market share: ORF in the lead, ATVplus catching up among younger viewers

Market share is the second indicator examined by the "Teletest" survey, which measures the relative market shares of each channel. Among all residents of Austria over 12 years of age, ORF's market share remained unchanged at 51.3%. This places ORF clearly ahead of the foreign stations (44.9%), although this difference actually increased from 5.4% in 2003 to 6.4% in 2004. Among the channels with partly Austria-specific content, however, the trend of increased market share in recent years has continued: Compared to 23.8% in 2003, their market share rose to 26.4% in 2004, representing a gain of 2.6 percentage points. This means that the channels with partly Austria-specific content are clearly ahead of ORF1 (21.6%), but still behind ORF2 (29.7%).

ATVplus' market share came to 1.9% in 2004, meaning that this channel is still far behind the majority of German channels with Austria-specific content.

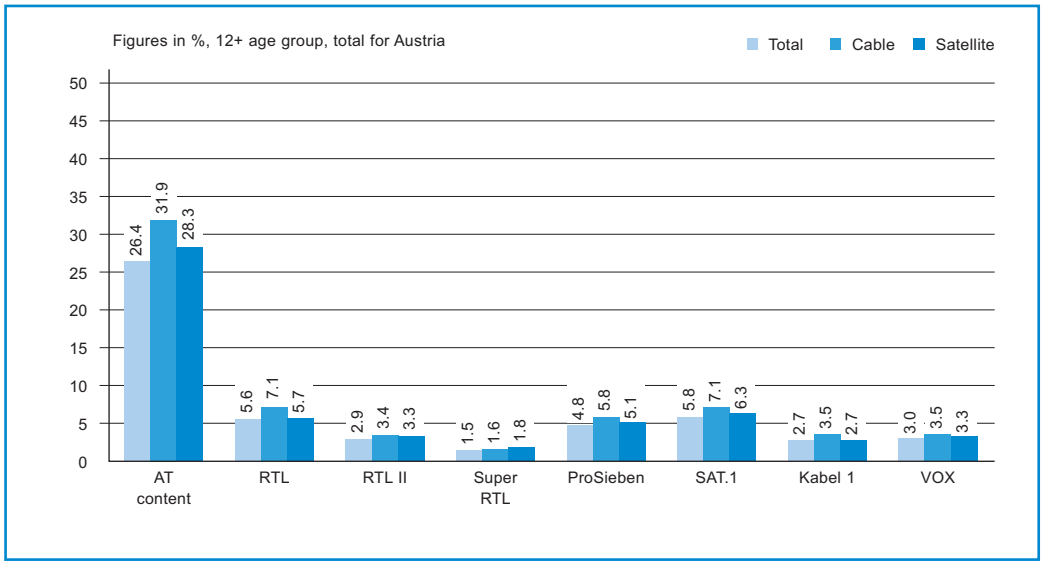
Figure 29: Market shares of television channels in 2004



Source: Teletest

A closer look at the market shares of foreign channels with Austria-specific content shows that Sat.1 (5.8%) overtook its competitor RTL (5.6%), which was formerly in first place, while ProSieben retained its third-place position (4.8%).

Figure 30: Market shares of channels with partly Austria-specific content in 2004

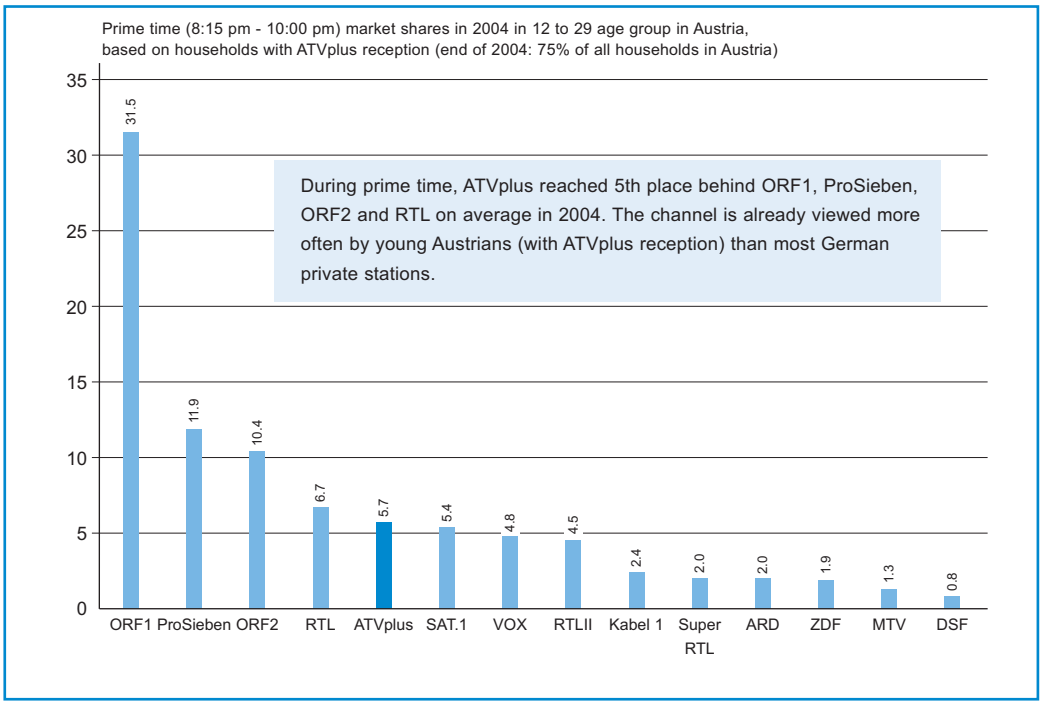


Source: Teletest

During prime time, ATVplus has a market share of 5.7% among 12 to 29-year-olds.

As ATVplus, Austria's only nationwide private television station, addresses a narrow target group of viewers between 12 and 29 years of age, an analysis of market shares in this segment yields interesting results, especially as the advertising industry is focusing on increased diversification on the market. Between 8:15 pm and 10:00 pm, which is prime time for advertising, Teletest figures indicate that ATVplus was already in fifth place in terms of market share on average over its first full year of terrestrial broadcasting in 2004. This is measured in relation to the number of households which can receive ATVplus, which came to 75% of all households in Austria at the end of the year. ORF1, which focuses on programming for younger people, leads this segment with a market share of 31.5%, while ORF2 (which is designed for older viewers) is in third place with 10.4%. ProSieben took second place with a market share of 11.9%, and RTL came in fourth with 6.7%. ATVplus (5.7%) is not at all far behind those stations and has pulled ahead of the remaining foreign channels with partly Austria-specific content, including its direct competitor in that target group RTL II (4.5%).

Figure 31: Prime time market shares in 2004



Source: Source: Teletest, January 1, 2004 to December 31, 2004, 12-29 group

5.1.4 Radio

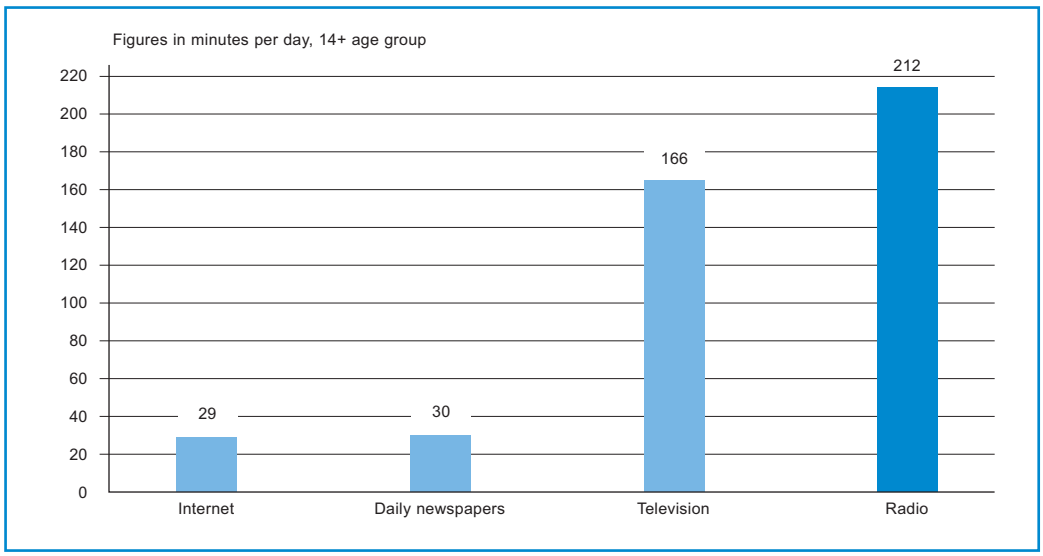
More suitable general conditions for dual broadcasting

The radio broadcasting market did not see any substantial changes in 2004. Individual changes with regard to ownership structures were only accompanied by slight movements in the market for listeners. In particular, the granting of Austria's first nationwide private radio broadcasting license in December 2004 to Kronehit – after the corresponding amendments to the Private Radio Act (PrR-G) – can be regarded as an especially interesting development. Establishing nationwide licensing was considered to be another step in the long-term process of balancing the considerable differences in market power between the two "pillars" of dual broadcasting in Austria: ORF and the private radio broadcasters.

The dominance of ORF's radio stations has, of course, still not subsided. This manifests itself quite impressively in the data collected in the "Radiotest" survey, in which the market research organization FESSEL-GfK conducts daily telephone interviews across all political districts of Austria on behalf of ORF and the private radio broadcasters. The results of these interviews are published on a semi-annual basis.

According to the "Radiotest," radio listening averaged 212 minutes per day among Austrians over 14 years of age. Therefore, radio has once again proven to be the most intensively used medium by far in Austria, followed by television with 166 minutes. As in the other media categories, daily newspaper reading time has remained constant at 30 minutes per day in recent years. This was also the case with the Internet, which was used an average of 29 minutes per day in 2004.

Figure 32: Media usage time per day

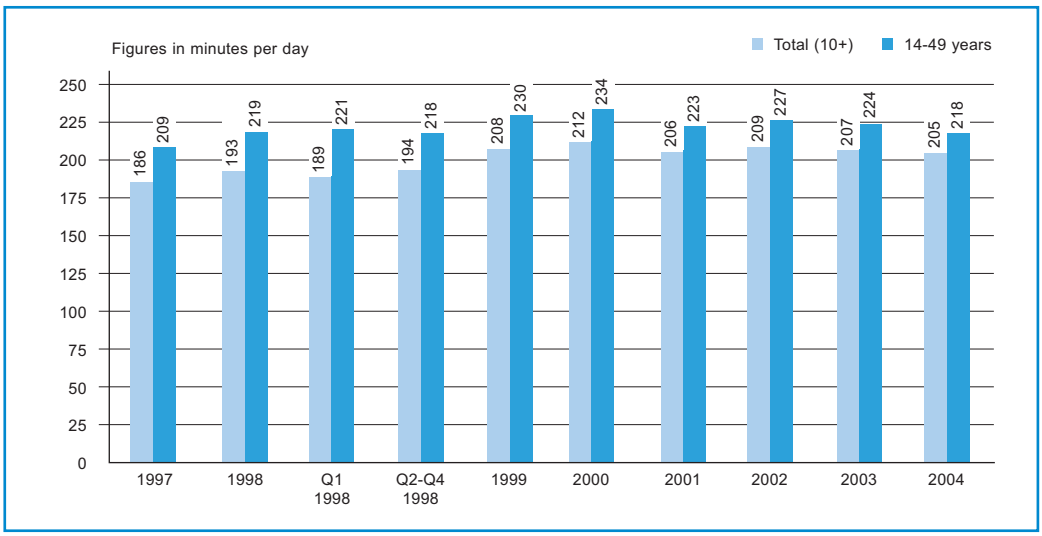


Source: Radiotest 2004, Teletest 2004, E&I 1997, AIM Spezial 2003

The results for 2004 regarding radio listening time per day point to a downward trend. These figures rose fairly rapidly between 1998 and 2000, which was doubtlessly related to the introduction of private radio stations in Austria in 1998. Similar developments could also be observed in other countries after the introduction of a dual system. However, since 2001 a slight but fairly steady decline in listening time has set in. In 2004, average listening time was down to 205 minutes, the same level as in the first year after the end of the radio broadcasting monopoly in Austria (1999: 208 minutes). In the 14 to 49-year-old age group, which is the main group

targeted by private radio broadcasters, this decrease has been even more pronounced (2004: 215 minutes; 2000: 234 minutes; 1998: 219 minutes), although listening time is still higher than the overall average, which shows that younger people generally use the medium of radio more often than older people.

Figure 33: Development of listening time

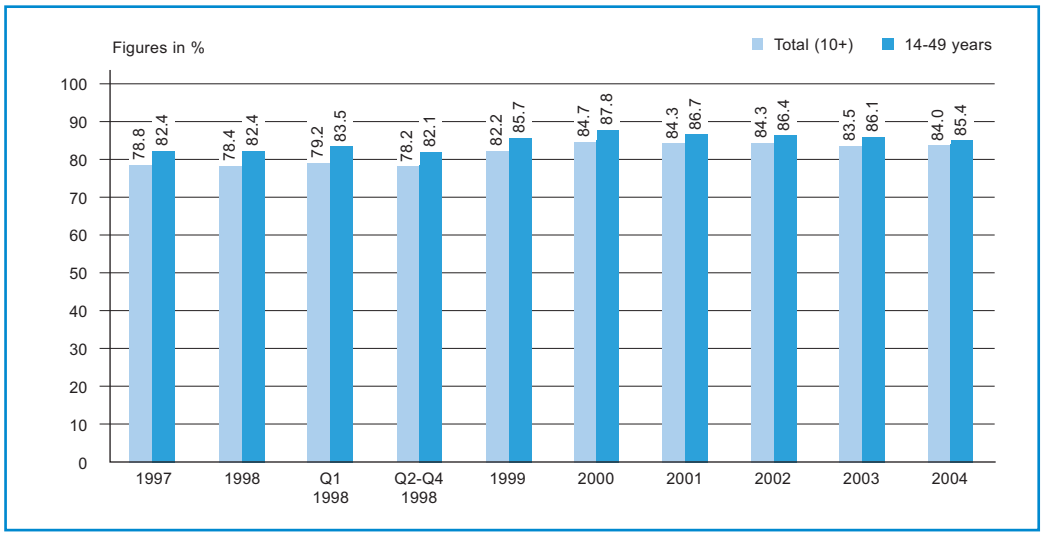


Source: Radiotest

A similar development can be identified in the daily reach of Austrian radio broadcasting in general, but with only very slight fluctuations. Radio not only reaches its listeners for a very long time, it also reaches the largest number of people. In 2004, 84.0% of people in the 10+ age group listened to at least one radio station on the market for at least 15 minutes per day (up 0.5% on 2003). In the 14-49 age group, this figure was 85.4% (down 0.7% compared to 2003). Since the high of 87.8% in the year 2000, the daily reach of radio broadcasting in the 14 to 49 age group in Austria has decreased slightly each year. This provides further support for the conclusion expressed by some observers that these figures indicate a decline in innovative activity on the Austrian radio market since the introduction of private radio broadcasting in 1998 and the sharp rise in reach figures immediately thereafter.

84% of all Austrians over 10 years of age listen to the radio on a daily basis.

Figure 34: Development of radio's daily reach



Source: Radiotest

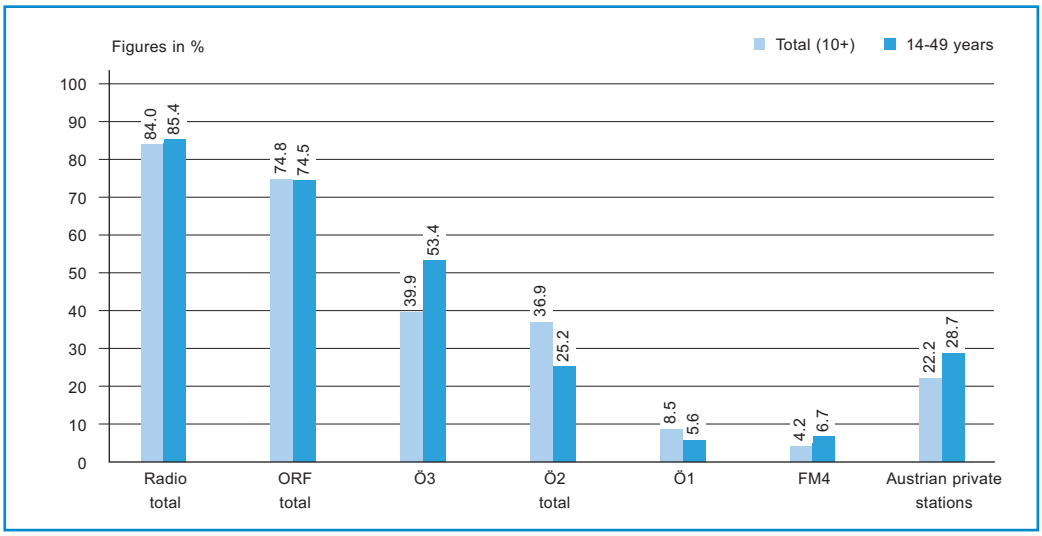
Private radio stations gain ground in 2004

Decreased reach for market leader Ö3

Contrary to the trend of generally sinking daily reach figures in the 14 to 49 age group, private radio stations in Austria increased their reach slightly in 2004, while the station with the highest reach in Austria (Ö3) saw a decline. With sometimes significant changes, private radio stations were able to expand their reach to 28.7% (up 1 percentage point on 2003), while Ö3's reach dropped to 53.4% (down 2.3 percentage points since 2003). Measured in terms of all residents of Austria in the 10+ age group, the private radio broadcasters' reach came to 22.2% (+0.8 percentage points), while Ö3 reached 39.9% (-1.4 percentage points).

The regional ORF stations for each of Austria's federal provinces, which now broadcast entirely independently of one another and see themselves as the provincial media organ for the 35+ age group, attained a total reach of 36.9% in 2004, up 0.8 percentage points from 2003. A comparison of the total reach of all ORF radio stations with that of the private broadcasters demonstrates the imbalance between these two pillars of the dual broadcasting system in Austria even more clearly: In the 10+ age group, ORF's total daily reach was 74.8% (-0.4 percentage points) in 2004, while all of the private radio stations combined only reached 22.2% (+0.8 percentage points) of this population group. As the private radio broadcasters focus on target groups relevant to the advertising industry, their results in the 14-49 age group improved in 2003 (28.7%, up 1 percentage point from 2003) but were still far behind ORF (74.5%, down 1.3 percentage points).

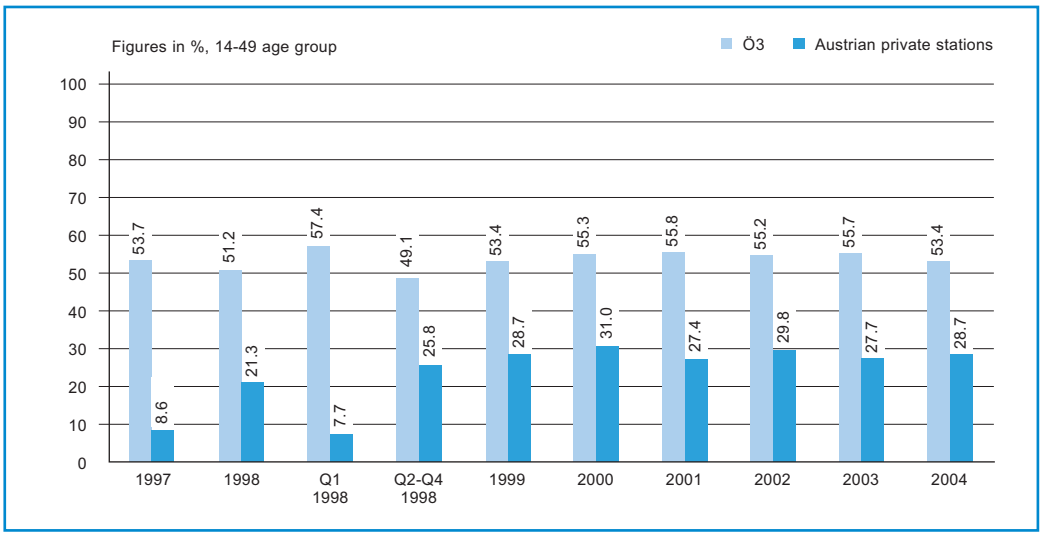
Figure 35: Daily reach of radio stations in 2004



Source: Radiotest

As mentioned above, the private radio stations were able to realize slight gains in the 14 to 49 age group, while Ö3 lost some of its reach. It remains to be seen whether this reflects a general trend, especially as these figures have fluctuated in the opposite direction each year since 2000. Up to now, the only fact which has been confirmed is that the ratio of reach figures for all private radio stations and Ö3 has remained fairly constant at 1:2.

Figure 36: Development of daily reach, Ö3 vs. private radio stations



Source: Radiotest

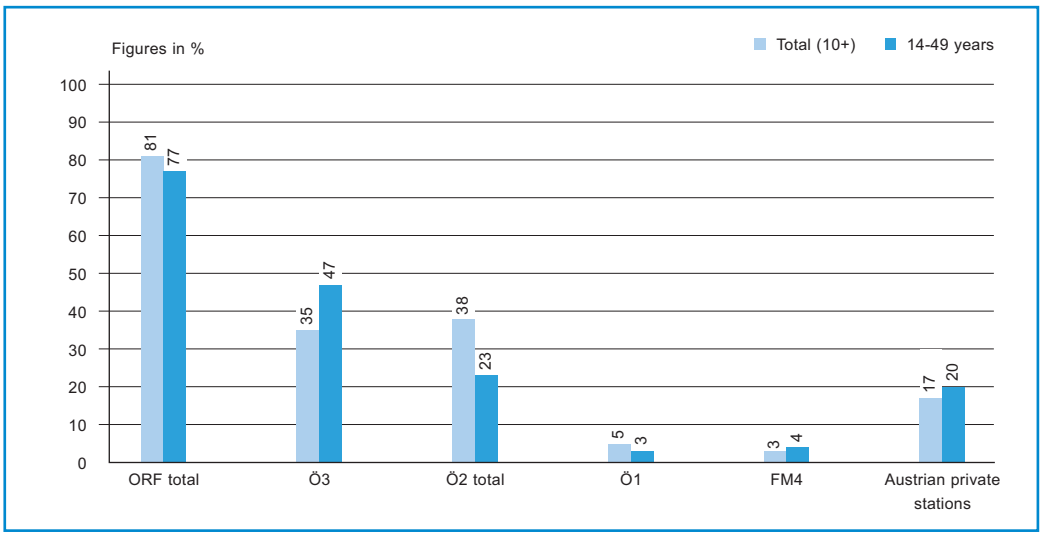
Table 11: Daily reach of Austrian radio stations

	Total	Vienna	Lower Austria	Burgenland	Styria	Carinthia	Upper Austria	Salzburg	Tyrol	Vorarlberg
Total as number of cases (unweighted)	**28,371**	**4,354**	**3,994**	**2,566**	**3,695**	**2,444**	**3,556**	**2,411**	**2,962**	**2,389**
Total daily reach										
Radio total	84.0	80.3	85.2	85.0	85.5	85.3	84.7	82.9	85.7	82.4
ORF total	74.8	65.2	78.5	78.9	77.6	81.4	75.8	73.3	75.7	75.0
Austrian private stations total	22.2	29.5	20.3	17.8	21.5	16.4	21.4	20.8	24.2	15.1
Other stations total	25.2	31.3	22.2	19.2	23.8	18.5	25.5	25.1	28.9	23.7
Minor stations total	3.8	2.8	2.3	1.7	2.6	2.9	5.0	5.6	6.0	10.0
Other minor stations	2.9	2.8	2.3	1.7	2.6	2.9	3.1	4.1	3.6	4.5
ORF's daily reach										
Ö1	8.5	12.7	7.6	5.5	7.2	7.1	8.7	8.0	6.1	6.8
Ö3	39.9	32.1	43.6	37.6	40.1	43.9	42.7	38.8	42.0	40.2
FM4	4.2	5.7	3.5	3.3	2.6	3.4	4.9	4.7	4.1	4.3
ORF regional stations total	36.9	27.3	38.6	48.1	41.3	45.6	34.7	36.6	39.4	38.9
Vienna	4.8	16.1	8.1	3.7	-	-	-	-	-	-
Lower Austria	7.9	9.2	29.4	3.2	0.5	-	1.8	-	-	-
Burgenland	2.8	4.0	2.0	42.6	0.8	-	-	-	-	-
Styria	6.3	-	0.4	3.4	40.3	0.8	0.1	0.5	-	-
Carinthia	3.3	-	-	-	0.8	45.1	-	0.1	0.5	-
Upper Austria	5.8	-	1.9	-	0.2	-	31.9	0.7	-	-
Salzburg	2.9	-	-	-	0.1	0.5	3.0	35.9	0.2	-
Tyrol	3.3	-	-	-	-	0.2	-	0.5	39.0	0.4
Vorarlberg	1.7	-	-	-	-	-	-	-	-	38.8
Private stations' daily reach										
RMS Top	22.1	29.3	20.1	17.8	21.3	16.2	21.2	20.8	24.2	15.1
Kronehit	4.4	3.7	7.3	8.4	2.8	1.6	6.8	3.2	1.7	-
HiT FM stations total	0.9	0.2	3.9	2.6	0.2	-	0.1	-	-	-
88.6 Supermix	1.4	4.8	2.1	1.3	-	-	-	-	-	-
Antenne Wien 102.5	0.6	2.4	0.5	0.3	-	-	-	-	-	-
Radio Arabella	3.3	12.1	4.5	2.3	-	-	-	-	-	-
Radio Energy 104,2	2.2	8.9	2.2	1.0	-	-	-	-	-	-
Radio Stephansdom	0.3	1.5	0.2	0.1	-	-	-	-	-	-
106.7 PartyFM	0.4	0.3	1.4	2.0	-	-	-	-	-	-
Antenne Steiermark	2.6	-	0.2	2.8	16.3	0.2	0.1	0.2	-	-
A1 Radio	0.1	-	-	-	0.5	-	-	-	-	-
mm89.6 - Das Musikradio	0.1	-	-	-	1.0	-	-	-	-	-
Soundportal	0.2	-	-	-	1.2	-	-	-	-	-
Radio Grün-Weiß	0.1	-	-	-	0.8	-	-	-	-	-
Radio West	0.0	-	-	-	0.3	-	-	-	-	-
Antenne Kärnten	0.7	-	-	-	0.1	9.8	-	0.0	0.0	-
Radio Harmonie	0.4	-	-	-	0.2	5.1	-	-	-	-
Life Radio	2.3	-	0.6	-	0.1	-	12.8	0.1	-	-
Antenne Salzburg	1.2	-	-	-	0.1	0.1	1.7	14.0	0.1	-
Welle 1 (in Salzburg/Upper AT)	0.7	-	-	-	-	-	2.1	5.2	-	-
Antenne Tirol (now Life Radio Tirol)	0.9	-	-	-	-	0.2	-	0.1	11.1	0.1
Radio Unterland-U1/Radio Arabella Tirol (now Antenne Tirol)	0.8	-	-	-	-	-	-	-	9.9	-
Radio Osttirol	0.2	-	-	-	-	0.6	-	-	1.5	-
Welle 1 (Tyrol)	0.2	-	-	-	-	-	-	-	2.0	-
Antenne Vorarlberg	0.6	-	-	-	-	-	-	-	0.0	13.7
Radio Arabella Vorarlberg	0.1	-	-	-	-	-	-	-	-	1.7

Source: Radiotest; vertical percentages; basis: 10+ age group; figures in %

In addition to calculating daily reach figures, the "Radiotest" also measures the market share of each station. These figures indicate the percentage of total radio listening time which can be attributed to an individual radio station. In the 14-49 age group, Ö3 attained a market share of 47% in 2004 (2003: 51%), while the total market share of Austrian private radio stations amounted to 20% (2003: 18%) and the nine regional stations (Ö2) for the federal provinces of Austria came to 23% (2003: 23%).

Figure 37: Market shares in 2004



Source: Radiotest

5.1.5 Print media

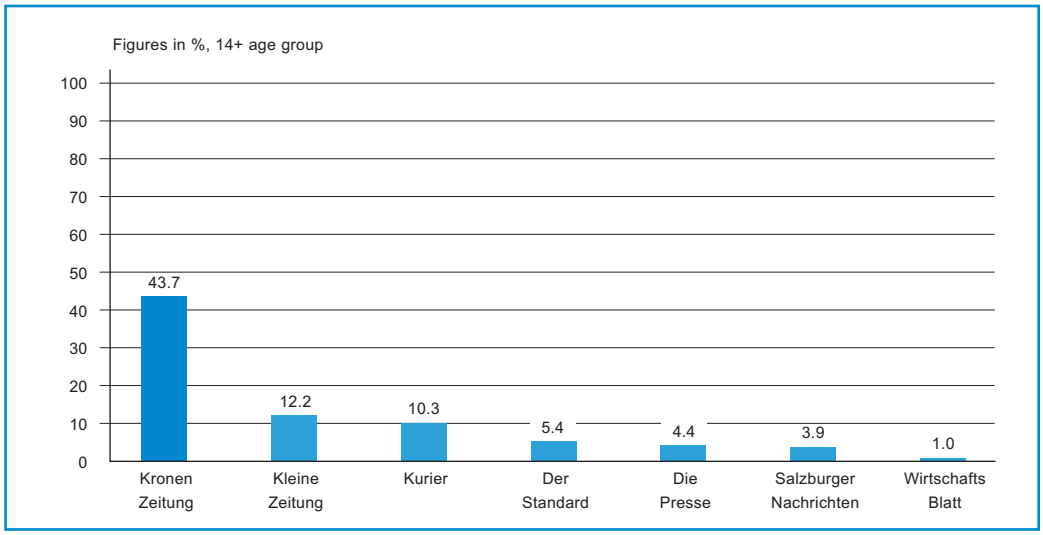
The print media sector has traditionally been highly significant in Austria. For a long time, Austrian print media have taken in a far larger share of overall advertising expenditure than in Germany, for example.

Kronen Zeitung remains undisputed market leader.

In the Austrian print media sector, 2004 was not a year of major changes, although various investments, new startups and strategic moves were followed with great interest. For example, Styria Medien AG took a stake in ET Multimedia AG early in the year, buying approximately one quarter of the group. The *Wirtschaftsblatt* daily business newspaper, of which ET Multimedia AG owns 50%, has therefore joined the family of newspapers belonging to Styria Medien AG, which include the *Kleine Zeitung* and *Die Presse*. The Styrian media group's stake in ET Multimedia is currently under review by the Austrian Cartel Court. On March 31, 2004, *U-Express*, a free newspaper for Vienna subway passengers, appeared for the last time; the newspaper was discontinued due to steadily increasing costs. Likewise, the new daily newspaper *Sport* released in July 2004 was discontinued only a few weeks after its launch, while a new free newspaper for Vienna subway passengers *(Heute)* appeared on September 6, 2004. Another new newspaper was launched in the Tyrol on September 25, 2004: *Die Neue* is a project carried out by Moser Holding, which also owns the *Tiroler Tageszeitung* daily newspaper.

As mentioned earlier, the uniquely high market concentration of the Austrian print sector can be attributed to the leading position of the *Kronen Zeitung* daily newspaper, which has remained remarkably stable: In 2003, its daily reach in the 14+ age group in Austria was 43.8%, and in 2004 this figure came to 43.7%. Therefore, the *Kronen Zeitung* once again justified its long-standing reputation as the only daily newspaper in the world which reaches such a high percentage of a country's overall population. In the areas of marketing, administration, printing and distribution, the *Kronen Zeitung* is linked via Mediaprint to the *Kurier* (the German WAZ Group holds stakes in the *Kronen Zeitung* (50%) as well as the *Kurier* (49.4%) and thus also an indirect stake in the Mediaprint distribution company). With 10.3% (2003: 11.2%), the *Kurier* has the third-highest reach in Austria, even after losing a considerable share of its readership. In contrast, the *Kleine Zeitung* owned by Styria Medien AG in Graz largely maintained its second-place ranking in Austria with a reach of 12.2% (2003: 12.4%) from its daily newspapers in the provinces of Styria and Carinthia.

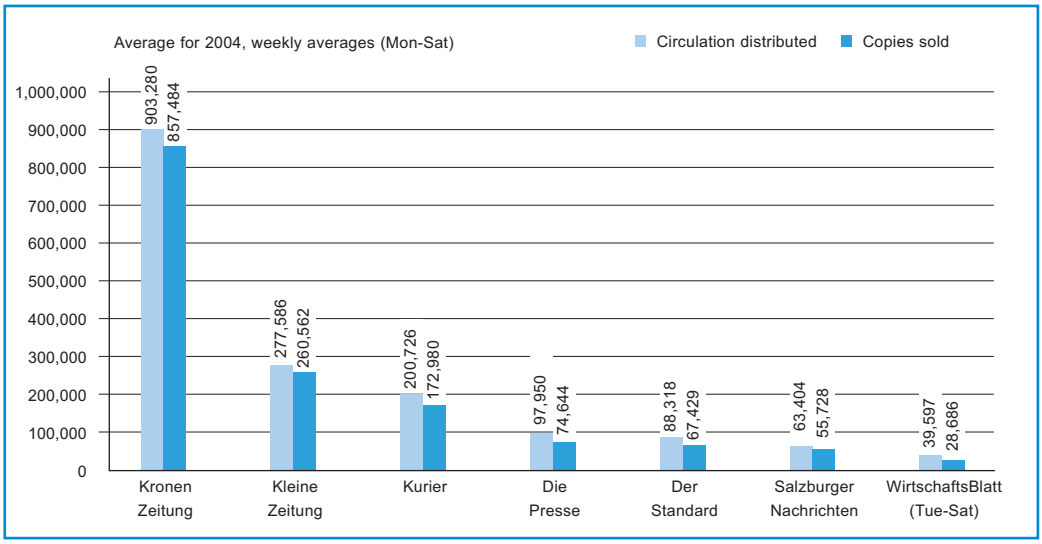
Figure 38: Reach of leading daily newspapers in 2004



Source: Media-Analyse 2004

As regards the number of copies sold, Austria's two market leaders were able to widen their lead in 2004. The *Kronen Zeitung* increased its daily circulation (averaged over Monday to Saturday) from 848,946 to 857,484 copies, while the *Kleine Zeitung* went from 258,270 to 260,562 copies per day.

Figure 39: Circulation figures for selected daily newspapers in 2004



Source: ÖAK

As regards the number of readers per copy in the 14+ age group, the *Neue Vorarlberger Tageszeitung* led the market with 4.6 readers per copy, followed by *Der Standard* with 4.1 and *Kurier* with 3.5 per copy.

Table 12: Circulation and reach of Austrian daily newspapers

Daily newspapers	Weekly average	Circulation distributed	Copies sold	Reach in %	Readers ('000)	Readers per copy
Der Standard	Mon-Sat	88,318	67,429	5.4	366	4.1
Die Presse	Mon-Sat	97,950	74,644	4.4	299	3.1
Kurier	Mon-Sat	200,726	172,980	10.3	700	3.5
Kronen Zeitung	Mon-Sat	903,280	857,484	43.7	2,967	3.3
WirtschaftsBlatt	Tue-Sat	39,597	28,686	1.0	65	1.6
Kleine Zeitung (combined)	Mon-Sat	277,586	260,562	12.2	831	3.0
Kleine Zeitung (Graz)	Mon-Sat	183,464	171,592	8.2	555	3.0
Kleine Zeitung (Klagenfurt)	Mon-Sat	94,122	88,970	4.1	276	2.9
KTZ – Neue Kärntner Tageszeitung	*)	*)	*)	1.3	88	*)
Neues Volksblatt	*)	*)	*)	1.0	66	*)
OÖN – OÖ Nachrichten	Mon-Sat	120,221	103,442	5.5	371	3.1
SN – Salzburger Nachrichten	Mon-Sat	84,707	69,683	3.9	268	3.2
TT – Tiroler Tageszeitung	*)	*)	*)	5.0	343	*)
Neue Vbg. Tageszeitung	Tue-Sat	10,809	6,747	0.7	50	4.6
VN – Vorarlberger Nachrichten	Mon-Sat	68,369	65,487	3.0	207	3.0

Source: Austrian Circulation Survey (ÖAK) 2004 and Media-Analyse 2004, 14+ age group

*) Not indicated in ÖAK 2004

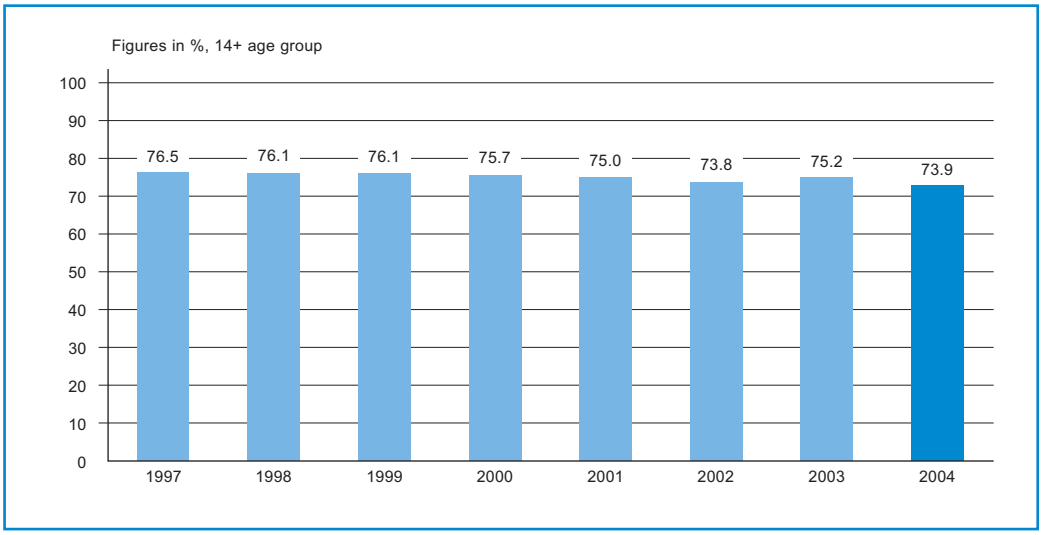
Like the Mediaprint group's dominant position in the daily newspaper segment, the NEWS publishing group holds a similar position in the magazine sector. In 2001, the two major magazine groups in Austria, the NEWS publishing group (*News, Format, tv media, e-media*) and ZVB, a *Kurier* subsidiary (*trend, profil, Autorevue* and others), were merged.

As in the previous years, the Austrian Media Analysis indicates that *Die Ganze Woche* still led the weekly magazine sector in terms of reach in 2004 (16.7%), followed by *News* with 15.8% and *tv-media* with 11.5%. Among monthly magazines, *Gusto* (9.4%), *Geo* (9.2%) and *ORF Nachlese* (7.3%) led the market in 2004.

73.9% of Austrians read daily newspapers.

Finally, a look at the overall reach of Austrian daily newspapers shows that these figures have declined slightly (sometimes in waves) in recent years. After an increase in 2003, the overall daily reach of Austrian daily newspapers dropped back to a level of 73.9% in 2004 (-1.3 percentage points).

Figure 40: Development of Austrian daily newspapers' daily reach



Source: Media-Analyse

5.2 The Austrian telecommunications markets

This section describes the development of the telecommunications markets over the year 2004. First, a general overview is provided, after which the markets are discussed in greater detail. Due to the gap between the last market analysis procedure (most recent data: 09/2003) and the upcoming analyses, it was necessary to rely on data collected pursuant to the Communications Survey Ordinance (KEV) for the year 2004. As not all data from this survey was available at the time of writing, it was also necessary to use estimates or alternative sources in some areas.

5.2.1 General market development

In both 2003 and 2004, the Austrian telecommunications market saw increases in total volume, rapid growth rates in revenues from mobile and data communications, and declining rates and charges in the fixed-link and mobile network segments. In the fixed-link segment, another significant development was the general decrease in traffic volumes.

Net retail revenues on the Austrian telecommunications market increased by approximately 7.1% (from EUR 4.13 billion to EUR 4.43 billion) in 2003, followed by a rise of about 6.3% (from EUR 4.43 billion to EUR 4.7 billion) in 2004. These revenues can be attributed to the individual segments as follows:

Table 13: Overall development of retail telecommunications revenues, 2002 to 2004

	EUR (millions) 2002	EUR (millions) 2003	EUR (millions) 2004	Change 2002-2003 %	Change 2003-2004 %	Percentage of total sales in 2002	Percentage of total sales in 2003	Percentage of total sales in 2004
Fixed-link voice telephony	1,683	1,627	1,564	-3.3	-3.9	40.7	36.8	33.2
Mobile communications	2,140	2,404*	2,688	12.3	11.8	51.8	54.3	57.1
Broadband	186	279	361	50.0	29.4	4.5	6.3	7.7
Leased lines	124	117	92	-5.6	-21.4	3.0	2.6	2.0
Total	**4,133**	**4,427**	**4,705**	**7.1**	**6.3**	**100.0**	**100.0**	**100.0**

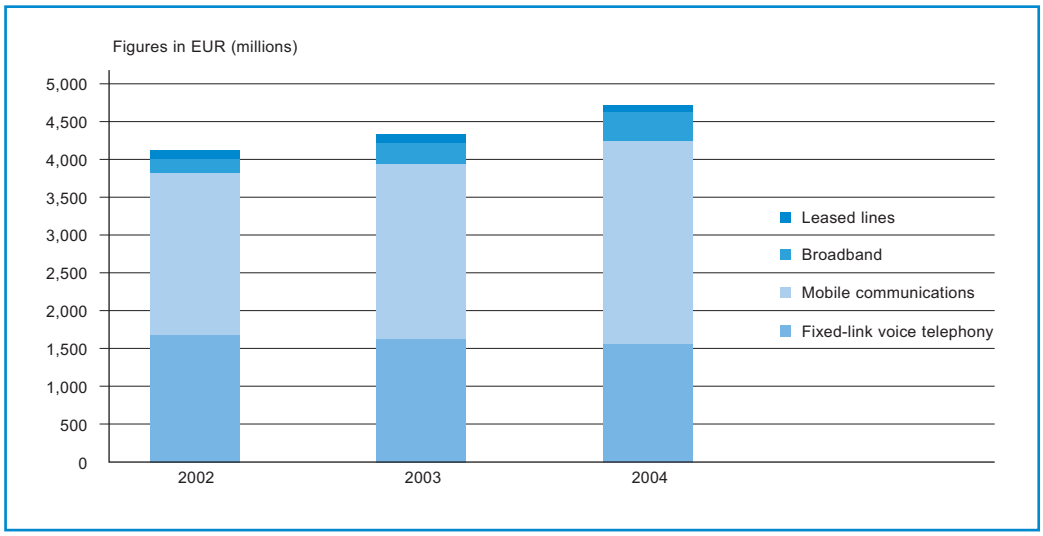
Source: RTR survey

*) Revised value for mobile communications in 2003

Further increase in retail revenues

As mentioned above, it was necessary to use supplementary estimates for 2003 and 2004, while more precise data on the mobile communications segment has become available for the year 2003. More than half of the market's revenues can be attributed to mobile communications, and this share increased from 54.3% (2003) to 57.1% (2004). With a growth rate of 11.8%, this segment also made the largest absolute contribution to overall growth in the telecommunications industry.

Figure 41: Breakdown of retail telecommunications revenues, 2002 to 2004



Source: RTR

Due to increasing broadband penetration in Austria, revenues from these services rose from EUR 279 million in 2003 to EUR 361 million in 2004, an increase of approximately 29.4%.

Mobile communications have no longer been subject to the "mobile premium" for some years now; in fact, prices have fallen so sharply that this segment has become a formidable competitor to the fixed-link network. However, the resulting decline in fixed-link revenues was not offset by the increases in broadband business.

The table below provides an overview of the essential factors influencing the market's development as well as references to the sections which contain more detailed information. In line with this general overview, the development of individual markets in Austria is described in greater detail below.

Table 14: Trends in retail markets

Service	Revenues	Rates	Remarks	Section
Fixed-link voice telephony	Slightly decreasing	Decreasing/ stagnating	Partial substitution with mobile telephony; growing significance of VoiP	5.2.2.1
Mobile communications	Increasing	Decreasing	Increasing share of data services	5.2.2.2
Broadband	Increasing	Decreasing	Declining significance of narrowband dial-in Internet access	5.2.2.3
Leased lines	Decreasing	Decreasing	Most revenues earned on the wholesale market, not on the retail market	5.2.2.4

5.2.2 New legal framework and specific market developments

The new legal framework for electronic communications markets, which was largely introduced in five EU directives[9] and became binding at the European level in 2002, was implemented in the Austrian Telecommunications Act 2003 (TKG 2003) and the accompanying ordinances. The TKG 2003 went into effect in August 2003, meaning that Austria was able to implement the EU legislation ahead of the deadline for national implementation. The revision and ultimately the new version of this regulatory framework was prompted by the formal obligation to review the appropriateness of the ONP framework in effect up to that point. As developments in recent years have shown more and more clearly, the former legal framework was suitable for the opening of markets but subsequently led to an insufficiently differentiated set of instruments to address the increasing complexity of services, technical advances and the reality of the markets.

Accordingly, the initial political discussion of this topic was very open and addressed the general question of the need for sector-specific competition regulation itself, that is, whether the regulations to date could be replaced by general competition law in Austria. The latter option was not (yet) considered appropriate given the current state of competition in Austria, although at the same time substantial preparations were made for the process of merging sector-specific regulation with general competition law.

[9] In addition to the Framework Directive, the Authorisation Directive, Access Directive and Universal Service Directive are immediately relevant to electronic communications markets, as is the Directive on Privacy and Electronic Communications.

New legal framework, new analysis methods

These preparations specifically included an obligation for regulatory authorities to conduct comprehensive market analyses at regular intervals. Especially in their (potentially) broad analytical perspective, these periodic market evaluations differ substantially from their design under the old legal framework, in which competition analysis was effectively confined to surveying structural characteristics such as market share. Another significant change introduced by the new regulatory framework pertains to market delineation issues. The Relevant Markets Recommendation published by the European Commission is used as a basis in this context. In contrast to the old legal framework, the methodology underlying market delineation in the new approach is based on economic principles. The purpose of the European Commission's recommendation was to define the same materially relevant product and service markets in all EU member states wherever possible, and thus to meet one of the basic prerequisites for the uniform regulation of communications in the EU. Moreover, the national regulatory authorities are also allowed to define additional or different product and service markets in order to account for specific circumstances on the communications markets in each country (cf. Telecommunications Markets Ordinance 2003 (TKMVO 2003)). Under the old legal framework, market delineation was based on the markets prescribed in the directives.

Fundamental changes in market delineation

As regards experience in (inter)national implementation, we can say that although Austria was among the "early birds" in the implementation of the new legal framework and thus had to cope with a higher level of uncertainty in the early stages of the process, the market analysis procedures under the new legal framework have been carried out by the Austrian regulatory authority relatively quickly and efficiently. Furthermore, thanks to very early and extensive preparations, this has been done without support from external consulting services. This rapid action on the part of the Austrian regulatory authority is not an end in itself, rather it is intended to help create legal certainty and suitable regulation quickly and efficiently. RTR also published papers on substantial procedural and material aspects of the market analysis procedure in its own series of publications (Volume 5/2004).

The sections that follow give an overview of market developments and selected indicators, but in no way should they be considered exhaustive. Instead, the descriptions illustrate the complexity of market relationships and provide key figures of general interest.

In terms of structure, this overview is based on the relevant markets defined under the TKMVO 2003. In some cases, the markets are merged to form various market clusters. The cluster approach underlying RTR's market analyses can be explained by practical considerations and especially by the existing (horizontal and vertical) interdependence of individual markets. This interdependence can only be presented adequately in a comprehensive overview.[10] However, this discussion is not exclusively confined to the relevant markets defined under TKVMO 2003. As mentioned above, special attention was also paid to the potential interests of the reader in defining the focal points of this market overview.

[10] In addition, the cluster approach is also based on the need for "reverse comparability" with the old legal framework regarding ONP.

5.2.2.1 Fixed-link voice telephony

5.2.2.1.1 Introduction

In order to ensure fair and functional competition, the regulatory authority is responsible for maintaining low barriers to market entry for new telecommunications service providers and for creating (and subsequently maintaining) the conditions necessary for fair competition. After approximately seven years of market liberalization and numerous market entries, some segments are now undergoing consolidation processes, thus conforming with prevalent arguments regarding market phases. One especially noteworthy development in this area was the recent merger of Austria's two largest alternative network operators, Tele2 and UTA.

Depending on the type and scope of network infrastructure used, various business models can be identified on the market:

- As the former monopolist, Telekom Austria plays an especially important role because it is the only telecommunications enterprise with nationwide infrastructure and because it holds the largest market share by far in the fixed-link voice telephony market. As Telekom Austria's market power would allow the company to prevent alternative providers from gaining access to its customers and thus severely restrict competition, Telekom Austria was identified as a company with significant market power under both the old and new legal frameworks.[11] As such, Telekom Austria is subject to special regulations regarding its prices as well as its general terms and conditions of business. The company is also obligated to grant other competitors non-discriminatory access to certain parts of its network. The local access networks, for example, are still characterized by a sub-additive cost structure, meaning that one infrastructure provider can actually handle the overall demand for subscriber lines more cost-effectively than two or more providers. At least from the perspective of static efficiency, replicating the local infrastructure would be economically inefficient in this case. As long as alternative access technologies such as electricity supply networks and wireless local loop (WLL) networks still lack the sophistication required to become marketable, and as long as cable television networks can only serve as a substitute in areas of high population density, the natural monopoly in local networks will largely be sustained. Naturally, the mobile communications sector as a whole can also be regarded as a substitute for the fixed network. However, sufficient substitution effects did not materialize during the observation period. This issue will be monitored and investigated further in future market analysis procedures.

Monopolist structures on the local access market

[11] For information on the individual decisions, please refer to Sections 4.2.3.2 and 4.2.3.3.

- Several of Austria's alternative telecommunications providers have their own carrier networks and/or regionally confined access networks. In order to reach subscribers in other networks, however, they are forced to rely on the interconnection services of Telekom Austria (and in some cases other operators). As separate infrastructure ensures a greater degree of independence from the SMP operator's wholesale services and makes it possible to provide a wider range of services with greater product flexibility compared to carrier network operators alone, communications network operators certainly have incentives to develop new networks and to expand existing ones.

Potentially competitive structures in the carrier segment

- On the fixed-link market, carrier selection has proven to be a very effective instrument for promoting competition in recent years. Carrier network operators accept incoming calls from the originating network and route them to the terminating network. Origination and termination can also take place in the same network. As the existing infrastructure is used, it is not necessary for operators to have separate originating and terminating access networks which reach all the way to the customer. Instead, the operator's carrier network is usually interconnected with the incumbent operator's telecommunications network and selected by the subscriber using a four-digit carrier selection code. The operator collects the charges directly from the subscriber and is required to compensate the other operator(s) for the origination, transit and termination services used. In carrier network selection, it is necessary to distinguish between call-by-call (CbC) and carrier pre-selection (CPS). Call-by-call means that the caller selects a specific carrier network operator for each call by dialing a specific network operator code. If the subscriber does not do so, the call is handled and billed by Telekom Austria. In carrier pre-selection, all of a subscriber's traffic (with the exception of calls to value-added services and public service numbers) is routed via the selected carrier network using a pre-set carrier network code. This allows the subscriber to use a specific carrier network regularly without having to dial a specific network operator code for each call. In addition to alternative operators with their own network infrastructure or their own access network(s), CPS and CbC-based access is essential, especially for resellers which do not have their own infrastructure. Among the resellers, value creation activities are confined to the retail level.

Table 15 provides an overview of the business models described above as they are found on the Austrian market. For the sake of clarity, combined forms of these business models are not included.

Table 15: Business models in fixed-link voice telephony on the Austrian market

Incumbent / former monopolist	Telekom Austria as the only nationwide, fully vertically integrated company		
(Alternative) communications network or service provider (types)	**Purchased services (esp. from the incumbent operator)**	**Self-provided services**	**Investment needs (relative)**
Access network operator	▪ Interconnection ▪ Leased lines (possibly) ▪ Unbundling (possibly)	▪ Operation of access and core network (e.g., local loops, transmission and switching facilities) ▪ Service design ▪ Pricing ▪ Sales/billing	High
Carrier network operator	▪ Interconnection ▪ Leased lines (possibly)	▪ Operation of core network (e.g., transmission and switching facilities) ▪ (Service design) ▪ Pricing ▪ Sales/billing	Medium
Reseller (access network)	▪ Resale of access services	▪ Service design ▪ Pricing ▪ Sales/billing	Medium
Reseller (carrier network)	▪ Connection minutes	▪ Pricing ▪ Sales/billing	Low
Reseller (tel. services) (e.g., calling cards, telephone shops, dial-in telephone service)	▪ Connection minutes	▪ Pricing ▪ Sales/billing	Low
Combined forms	Combinations of the alternative business models above		

Since the beginning of market liberalization in Austria, the fixed-link market has been opened mainly by means of carrier network operators. This can be attributed to the relative ease of market entry (due to lower investment expenses) and the resulting large number of license applications. This stimulated competition due to the emergence of new providers has put pressure on Telekom Austria to lower prices and led to a reduction of rates and charges throughout the entire industry, thus bringing about significant savings in telecommunications costs for the consumer (see Section 5.2.2.1.2.1). On the whole, the overall trend indicates that Austria's large providers are increasingly becoming (or have already become) full-service providers. Voice, data and Internet services are complemented by server hosting, application service provision or mobile services for the customer. Only those providers which can offer a full range of products and services from a single source ("one-stop shopping") have solid long-term chances of survival on the market, and the consolidation processes we have witnessed in recent years confirm this trend. In contrast, smaller providers have to establish themselves in niche markets, where it is generally only possible to generate small market volumes.

Whereas fixed-link markets used to be regarded as a whole, the retail and wholesale markets are described separately below (though not entirely independently of one another) in line with the market delineation applied in the TKMVO 2003 and the Relevant Markets Recommendation published by the European Commission. In particular, the following retail markets are delineated:

- Access to the public telephone network at a fixed location for residential customers
- Access to the public telephone network at a fixed location for non-residential customers
- Publicly available local and/or national telephone services provided at a fixed location for residential customers
- Publicly available international telephone services provided at a fixed location for residential customers
- Publicly available local and/or national telephone services provided at a fixed location for non-residential customers
- Publicly available international telephone services provided at a fixed location for non-residential customers.

Three relevant markets were defined at the wholesale level:

- Call origination on the public telephone network provided at a fixed location
- Call termination on individual public telephone networks provided at a fixed location
- Transit services in the fixed public telephone network.

As mentioned in the introduction, the individual relevant markets are not discussed point by point but in relation to specific focus areas.

5.2.2.1.2 Retail market

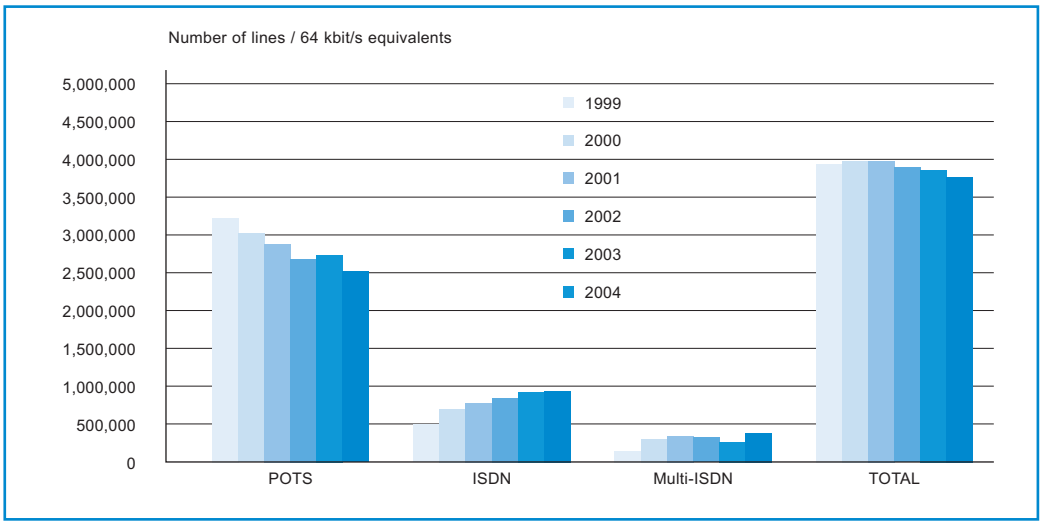
Moderate declines in revenues and volumes

In the past, the rapid growth in subscribers on the mobile communications market caused a moderate yet steady decrease in total revenues from fixed-link voice telephony. Measured in 64 kbit/s equivalents, however, this decline was significantly less pronounced in the period under review (1999 to 2004). Upon closer investigation, it becomes clear that the changes differ substantially depending on the line access technology in question. The decline in analog POTS (plain old telephone service) lines was partly offset by the sharp increase in ISDN lines and relatively steady growth in multi-ISDN lines, each measured in 64 kbit/s equivalents (cf. Figure 42). At the retail level, therefore, mobile telephony is being used as a substitute for the fixed-link network mainly among residential users with analog lines (as expected).

Although revenues on the overall fixed-link retail market still followed an upward trend in 1998 (+3.6%), they have declined steadily over the remaining period (1999 to 2004), losing as much as 4% each year (see Figure 43). In this context, the development identified with regard to line types is even more visible. This decline is reflected in both revenues and traffic volumes in the access segment as well as the carrier segment, thus it has affected the fixed-link sector in general.

As various estimates were necessary for the year 2004, the data is not interpreted further in this context.

Figure 42: Development of line types (in 64 kbit/s equivalents): December 31, 1999 to December 31, 2002, and as of September 30, 2003 and December 31, 2004



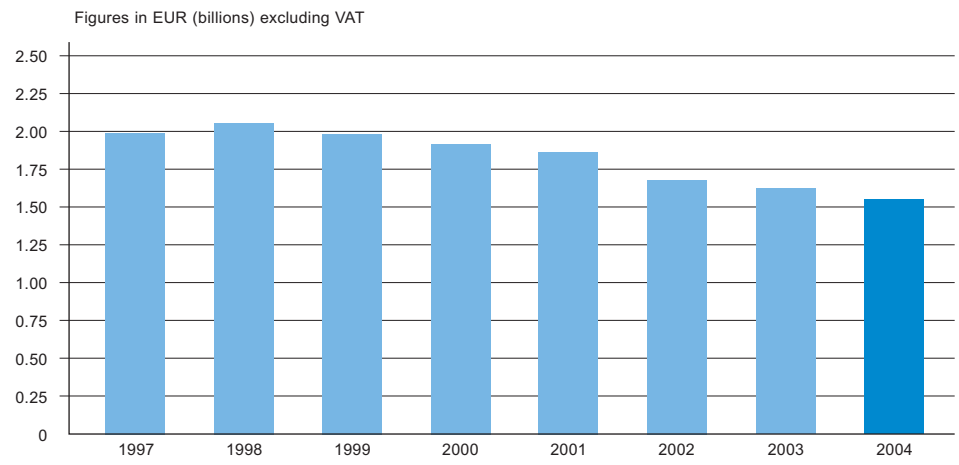
Source: RTR

Info Box 1: Calculation of revenues on the fixed-link retail market

Revenues from the following service categories were included in the calculations for the fixed-link retail market:

- Connection charges for calls to Austrian regional zones
- Connection charges for calls to Austrian long-distance zones
- Connection charges for calls to Austrian mobile networks
- Connection charges for international calls
- Connection charges from public telephones
- Connection charges for directory assistance services
- Connection charges for service numbers
- Connection charges for online services
- Revenues from the sale of calling cards and minutes to resellers
- Monthly base fees
- Charges for special coverage services
- Connection setup charges.

Figure 43: Development of revenues on the fixed-link voice telephony market, 1997 to 2002 and estimates for 2003 and 2004



Source: RTR (2003 und 2004 estimated)

The market entry of new providers and their gains in market share are also reflected in the decreasing concentration on the fixed-link voice telephony market. High concentration on a market refers to situations where almost the entire parameter value (e.g., revenues, number of subscribers, traffic volumes) is concentrated among a few operators or distributed unevenly among the individual operators at a given point in time.

Info Box 2: The Hirschman-Herfindahl Index (HHI)

One of the most common measures of concentration is the Hirschman-Herfindahl Index (HHI), which is calculated as the sum of squares of the specific parameter values (in this case market share percentages). The value of this index is between 0 and 10,000. A value close to zero indicates low concentration and appears in cases where the market has a large number of participants of approximately equal size. The highest value of the index (10,000) indicates that there is a monopolist provider and thus full concentration of the parameter value.

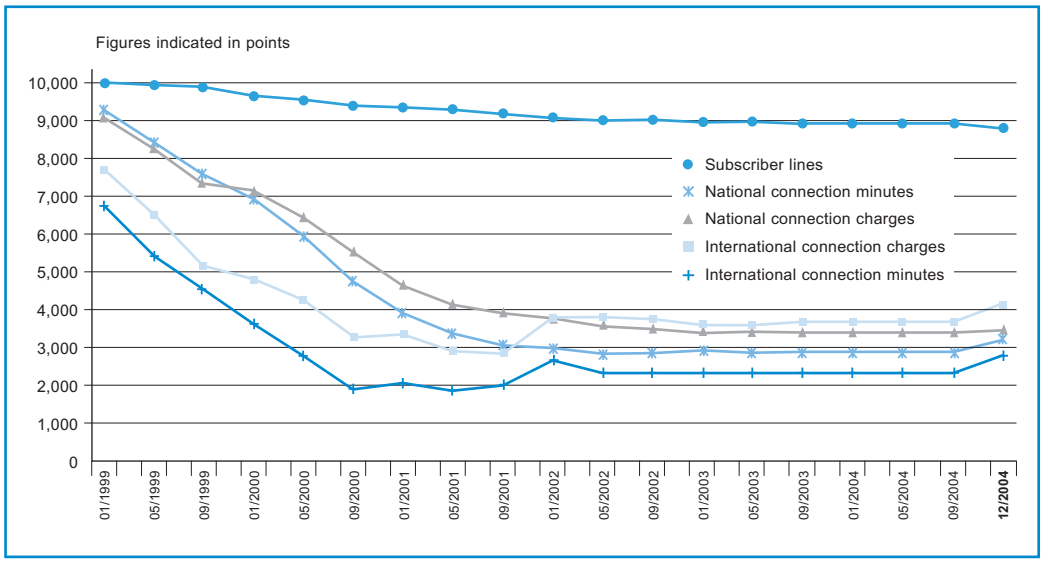
Stabilization of market structure

The HHI shown in Figure 44 indicates decreasing concentration rates in the individual parameters (rates and charges, call minutes and subscribers) to varying degrees over time. The high concentration in terms of subscribers is not surprising, as the vast majority of subscriber lines are handled by Telekom Austria and only a few alternative network operators have their own access network to connect subscribers directly. This shows that the Austrian market is still characterized by a monopolistic structure. The substantially lower concentration rates in charges as well as traffic minutes are primarily due to the carrier network operators. These operators' customers are not counted as subscribers to their networks, but they move large volumes of traffic through the networks nonetheless. The concentration rate for revenues decreases more or less in proportion to the volume of traffic services provided by other operators. However, the access network operator still earns revenues from monthly base fees and connection setup charges. The fact that the concentration rate for revenues is consistently higher than that of traffic minutes also points to the existing price differential, which (still) favors the incumbent. The larger difference in international calls suggests more significant price differences within this category.[12]

Moreover, structural convergence and narrowing concentration intervals can be identified in the market for carrier services. The last (irregular) observation point after constant recording from 10/2003 to 11/2004 was in December 2004 (highlighted in Figure 44) and indicates a certain reversal in the trend inasmuch as it shows a slight increase in the concentration of carrier services. This can be attributed to the weighting contained in the concentration measure in connection with Telekom Austria's slight gain in market share in 2004 (cf. Figure 45).

[12] The jumps seen in this segment in early 2002 can be explained by structural changes in the data model and in market conditions. In the past, a number of companies were taken over or exited the market, and the corresponding volumes – especially in the field of international voice telephony – were not queried retroactively in the last operator survey. This reduction among alternative network operators serves to explain the increase in market concentration.

Figure 44: HHI for destinations and subscriber lines



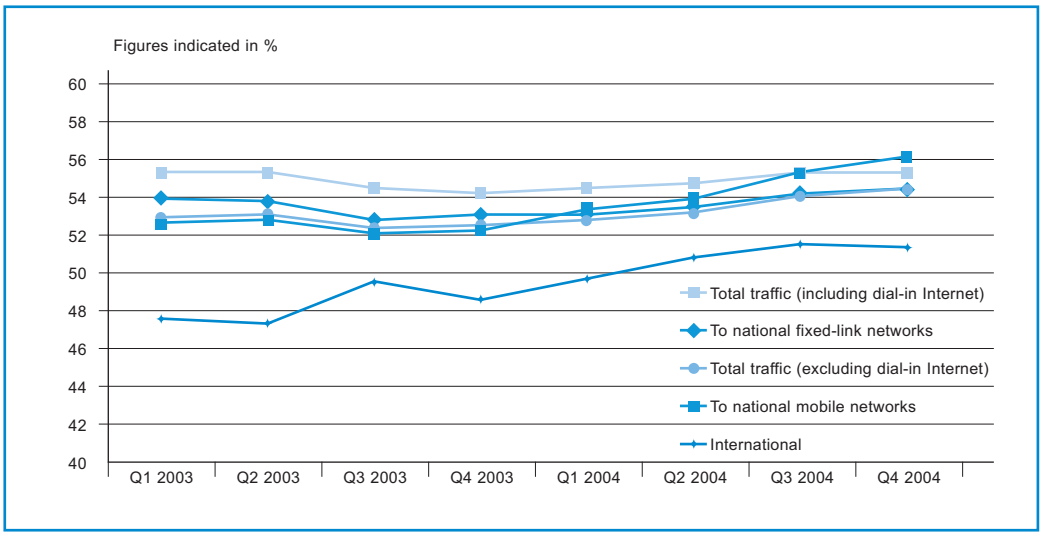
Source: RTR

Incumbent operator sees slight gains

The extent to which alternative network operators (all categories in Table 15) have enjoyed success in the individual segments of the fixed-link telephony market in the last two years is also reflected indirectly in the market share values for Telekom Austria (in terms of traffic minutes; see Figure 45). The alternative network operators were able to take roughly 50% of the market in the national and international voice telephony segments, with somewhat higher gains in international telephony. On the other hand, if Internet dial-up minutes are included, Telekom Austria's market share (in minutes) actually increased due to its relatively strong position in this segment. However, the impact of narrowband dial-up Internet access is gradually subsiding due to increasing broadband penetration. In addition, the unlimited flat-rate product "Aon Complete" offered in the past, which generated high dial-up traffic volumes, has now been taken off the market.

Based on the results and forecasts of this market analysis, a consolidation of market share on the part of Telekom Austria can at least be observed. In this context, it is also necessary to mention that market shares measured in terms of revenues are generally higher than those measured in terms of minutes (cf. Figure 44 and Section 5.2.2.1.2.1).

Figure 45: Market shares of Telekom Austria by fixed-link segment (in traffic minutes)

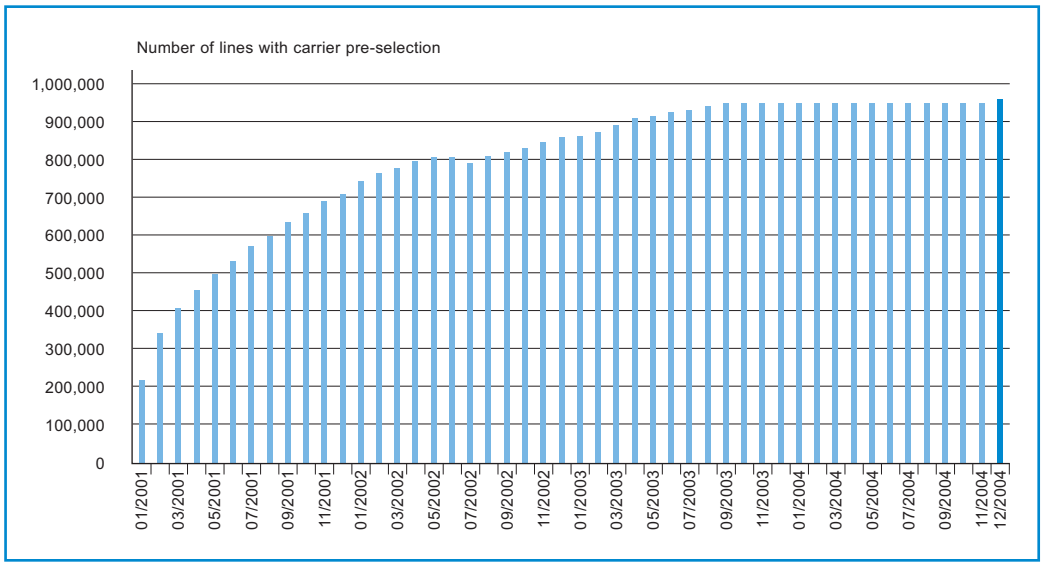


Source: Telekom Austria Group (2004), "Financial and Operational Key Figures"

Carrier (pre-) selection is still an essential factor, although growth has slowed down.

The alternative network operators' gains in market share, which are also reflected in Figure 44 and Figure 45, are closely linked to the development of the market for call-by-call (CbC) and carrier pre-selection (CPS) services. As Figure 46 clearly shows, CPS enjoyed widespread acceptance. By the end of Q4 2004, more than 960,000 subscribers in Austria had decided to have all of their calls handled by an alternative network operator. CbC figures have only been available since January 2002. Approximately 600,000 customers (not indicated) use a combination of CbC and CPS. It is therefore not possible to calculate a total, as CPS and CbC are not mutually exclusive but can be used as complements to one another. In any case, the figures show that these special access requirements were among the most important liberalization instruments in the fixed-link market and still represent an essential form of regulation at the wholesale level. This is because they enabled competition quickly and allowed alternative network operators which did not (or still do not) have their own local access infrastructure. Allowing these operators to use Telekom Austria's existing infrastructure enabled them to provide their services throughout Austria within a very short time without requiring them to go through the difficult process of building their own (nationwide) networks.

Figure 46: Number of CPS customers (01/2001 to 09/2003 and as of 12/2004; constant recording from 10/2003 to 11/2004)



Source: RTR

5.2.2.1.2.1 Rates

Price competition as a result of competitive conditions

Since the start of market liberalization in early 1998, the fixed-link markets for telephone services discussed in this context have seen substantial price reductions. Fierce price competition in recent years has led to a convergence of rates among the providers. For example, Telekom Austria – which is still the largest provider by a wide margin – has been forced to reduce its rates repeatedly. On the other hand, the absolute extent of price reductions has declined in the last few years, although a certain degree of latitude can still be observed in international telephone services. However, recent competition also appears to have driven an increasing number of alternative network operators to their lower pricing limits, as their margins depend largely on prevailing wholesale costs.

The discussion of prices below refers mainly to the residential user segments. As the precise assignment of pricing models used on the market is possible only at the "edges" of the rate structure offered, the comparisons below are based on the respective standard rate packages used by a majority of telephony customers. Although it is both feasible and useful to elucidate price developments in the "transparent" residential user segment, this is only possible to a limited extent in the business customer segment, which is rather opaque with regard to pricing. In business customer markets, however, we can assume that customers have frequently obtained (and still obtain) substantial rate discounts due to their high traffic volumes.

Info Box 3: Price differentiation

The instrument of price differentiation is used extensively on the fixed-link voice telephony markets, mainly due to the complementary nature of the access and service segments. Telekom Austria's existing rate structure bundles access and carrier services in the form of two-part charges, which in turn represents a specific form of price differentiation. In second-degree price differentiation, rates are designed as "optional" in that consumers can select the rate models offered according to their individual preferences (self-selection), which also reveals information on their demand behavior. Therefore, the underlying principle is to base prices on the consumers' willingness to pay. In contrast to non-differentiated prices, this generally makes it possible to increase the quantities sold and to open up new markets. For example, it is possible to serve groups of customers who would generate less (or no) demand if prices were not differentiated. In this respect (and in light of handling the problem of peak loads efficiently), the complex price differentiation models which have developed over time can be regarded as positive developments from the perspective of welfare economics.

First of all, a representative sample of the connection charges[13] to retail customers for the most important national fixed-link calls are presented and discussed. In this context, calls within the national fixed-link network are broken down into "local fixed-link network calls" and "long-distance fixed-link network calls (over 50 km)" (or "domestic"), and each of these categories is further subdivided into peak and off-peak times.[14]

Figure 47 and Figure 48 show the connection charges for the call distances mentioned above on the basis of the "minimum rate" and (since the abolishment of the minimum rate in Procedure G07/03) Telekom Austria's subsequent rate plan "Tik Tak Privat." The approach of investigating these rate options can be explained on the basis of two plausibility considerations: First, it would be rational for customers of the carrier network operator in competition with the incumbent to choose the rate plan with the lowest monthly base fee. Second, these rate options target the mass segment of typical residential users. In this context, Telekom Austria's rates are compared with those of the largest alternative network operators on this market, Tele2 and UTA (which have now merged).

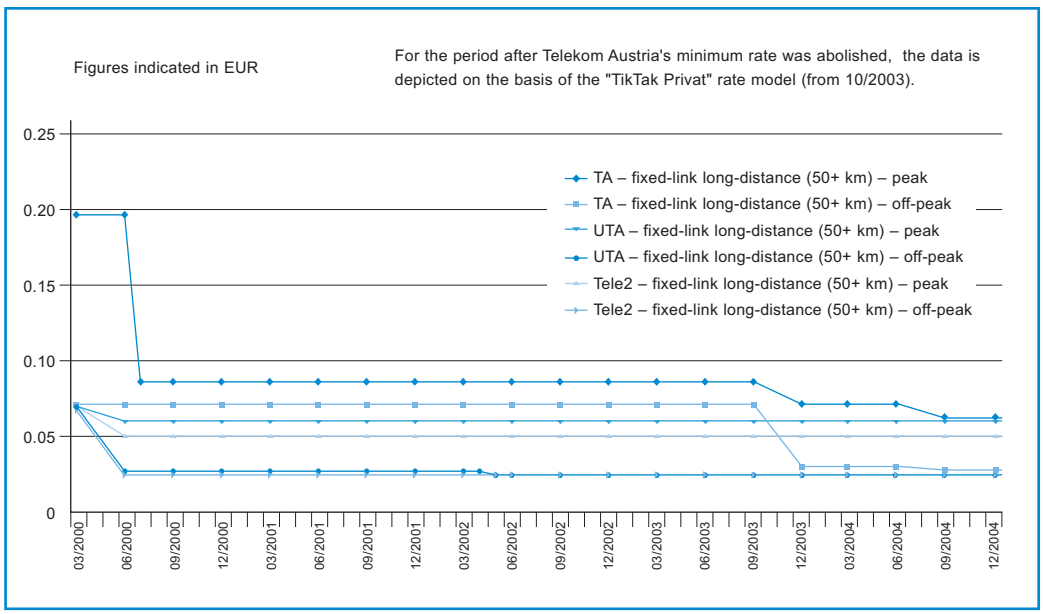
[13] All charges reported can be found in Section 5.2.2.1.2.1. Rates are indicated as gross amounts (including VAT).

[14] Although this segmentation is depicted for all operators for the sake of comparability, it is not necessarily used to the same extent by all providers operating on the market.

Aside from the substantial price reductions generally observed in the year 2000, the most dramatic reductions already took effect in the initial years of liberalization (1998 to 2000, not indicated). As shown in Figure 47 and Figure 48, between 2001 and 2003 there were almost no further price changes in the "minimum rate" in the respective comparisons of calls to national fixed-link networks (up to 09/2003). In essence, this also applies to charges for calls to national mobile networks (not shown here). Likewise, the charts also show the direct and indirect price reductions in connection charges due to the abolishment of the minimum rate and the definition of "Tik Tak Privat" as the rate plan on which all figures are based for the latter part of the period under review (10/2003 to 12/2004). Additional price reductions were only introduced in mid-2004, this time initiated by the incumbent operator Telekom Austria. In general, Telekom Austria's redesign of rate structures and its launch of optional rates led to (further) decreases in connection charges.

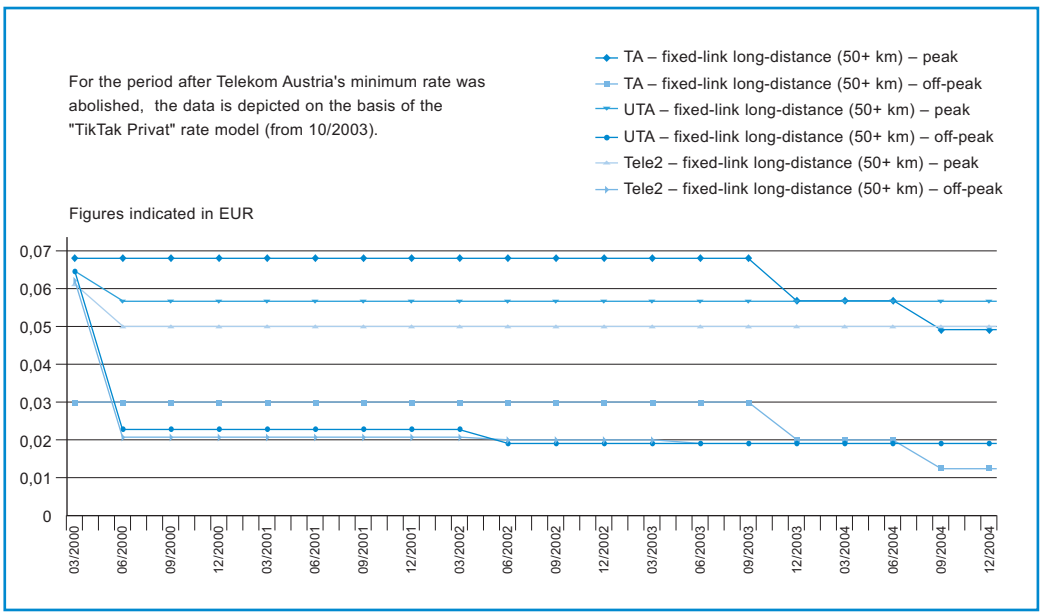
Increasing importance of rate options

Figure 47: Comparison of connection charges for national fixed-link network calls



Source: RTR

Figure 48: Comparison of connection charges for local fixed-link network calls



Source: RTR

In order to depict the prices of international fixed-link voice telephony services, a static presentation was used in order to account for the variety of international destinations and zones. Rates were selected for comparison purposes according to traffic minutes terminated abroad. Although this does not immediately reflect the relevant weighting on the retail markets, it still provides a solid approximation because the international destinations identified and ranked by volume in Table 16 also correspond to the essential rate groups in various comparisons provided on the Internet[15] and in the relevant international studies (OECD, EU Implementation Report, etc.).

[15] References can be found at http://www.rtr.at/web.nsf/deutsch/Telekommunikation_Konsumentenservice_Tarife (in German)

Table 16: Comparison of fixed-link rates for major international call destinations (Q4 2004 to Q1 2005)

Decline in price differences for international calls

	Telekom Austria ("TikTak Privat")	Tele2 ("Classic")	UTA ("Green Apple")	Priority Telecom ("Standard")
	Peak/off-peak connection charges in EUR			
Germany	0.189/0.099	0.099/0.099	0.138/0.138	0.17/0.17
Switzerland	0.189/0.099	0.099/0.099	0.138/0.138	0.17/0.17
Italy	0.189/0.099	0.099/0.099	0.138/0.138	0.17/0.17
Turkey	0.36/0.324	0.349/0.349	0.349/0.349	0.31/0.31
Hungary	0.189/0.099	0.099/0.099	0.218/0.218	0.19/0.19
USA	0.189/0.099	0.099/0.099	0.138/0.138	0.17/0.17
Poland	0.3096/0.229	0.254/0.254	0.349/0.349	0.31/0.31
UK	0.189/0.099	0.099/0.099	0.138/0.138	0.17/0.17

Source: RTR

Table 16 shows that Telekom Austria's rates are (now) hardly higher than those of the large alternative providers in the residential user segment.[16] Accordingly, this points to a more competitive environment compared to the corresponding figures in the 2003 Communications Report and in light of the results and estimates from the market analysis procedures.[17]Compared to the 2003 report, the average rates of all operators have also decreased in general.[18]

5.2.2.1.2.2 International comparison of rates

In this section, an international comparison is used as a benchmark for the Austrian market for fixed-link voice telephony. Particularly significant indicators in this area include rates and rate developments as well as structural characteristics, especially market share figures.

One problem inherent to international comparisons is the heterogeneous nature of pricing models, accounting structures, market structures, etc. Therefore, the figures indicated below must be interpreted with some degree of caution. Due to the numerous problems and inaccuracies which inevitably arise in such an international comparison, it is not advisable to place too much emphasis on the precise ranks.

The data set used for this comparison was the 10th Implementation Report published by the European Commission (Annex III).

[16] Based on comparisons with "Tik Tak Privat"; Table 16 again refers to the residential user segment. Alternative operators were selected according to their relative importance on the overall market.

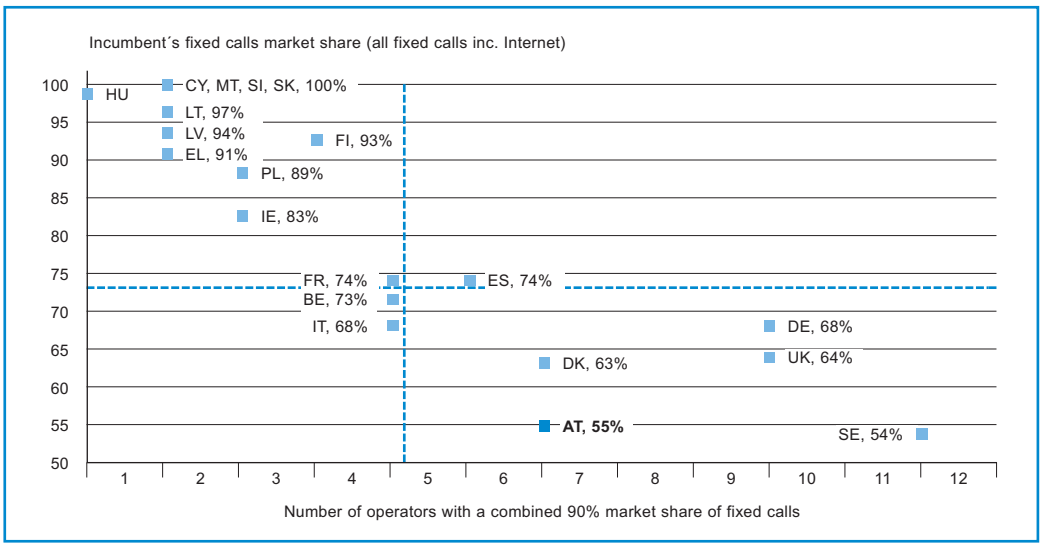
[17] Compare also the description of Procedure M5/03 in Section 4.2.3.3.3.5.

[18] Here it is necessary to add that especially among resellers there are several specialized providers which effectively act as discounters and undercut prices on international markets by a wide margin. Due to the existence of such special offers, we can conclude that the price competition confirmed here is even more intense.

Market structure

Two important indicators of market structure are the number of market participants and their respective market shares. Both of these indicators are shown in Figure 49. As regards incumbent market shares for aggregate connection services (i.e., not differentiated by call distance or residential/business customers) as well as market concentration in terms of the number of operators which have a combined market share of over 90%, Austria is at the lower end of the European scale. Considered on its own, this indicates a competitive market structure in fixed-link call services.

Figure 49: Market shares of incumbent operators (07/2004) and number of providers with a combined market share of over 90%



Austrian market structure is competitive.

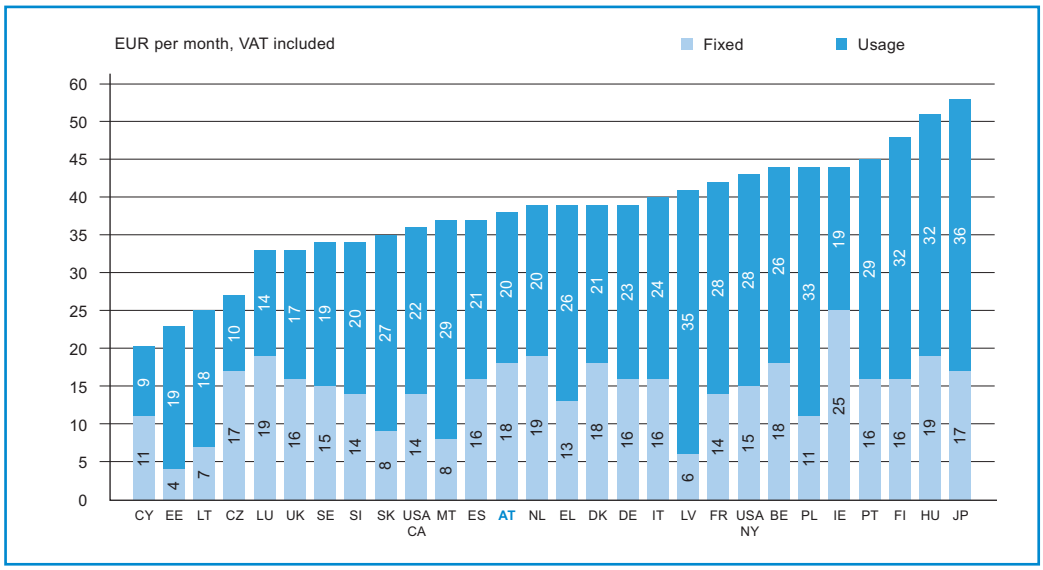
Source: 10th Implementation Report of the European Commission

Rates

This comparison only uses the standard rates of each incumbent operator. As the rates offered by alternative operators are not included at all, this creates distortions which become even greater in cases where the incumbent's market share is lower and that of its – often far less expensive – competitors is higher. Such rate comparisons are subject to an additional limitation due to the widely varied and sometimes different forms of price differentiation among incumbent operators.

Residential customers

Figure 50: Residential customers: Average monthly expenditure, 08/2004



Source: 10th Implementation Report of the European Commission

Austrian residential rates lie in the middle range by European comparison.

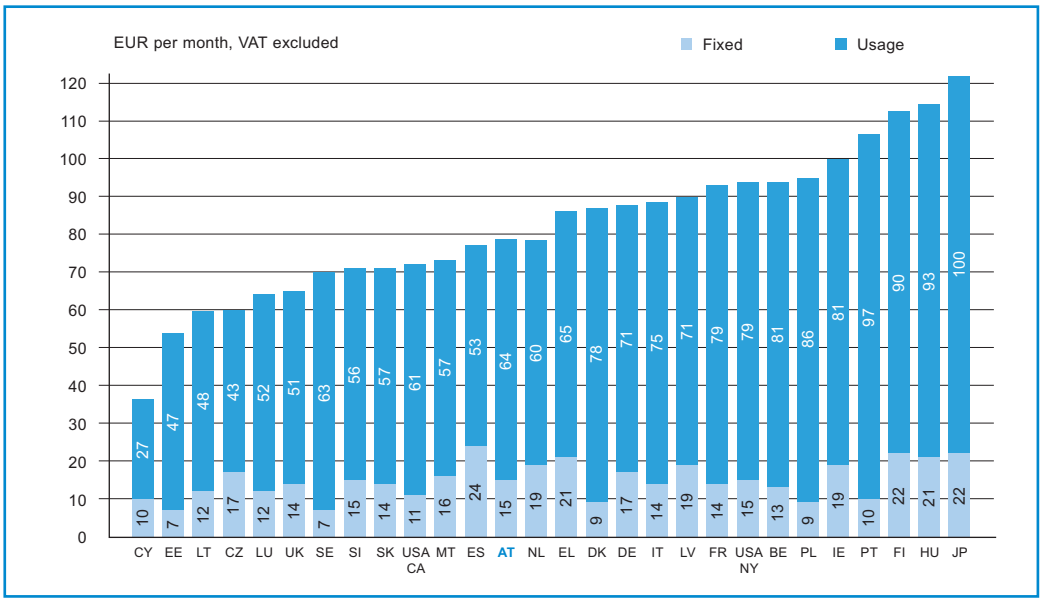
With regard to the monthly base fee, Telekom Austria's "Tik Tak Privat" rate package used in the comparison is just above the EU average.[19] However, this relatively high monthly base fee is offset by low connection rates, which is why Telekom Austria is located lower in the middle range of operators based on a basket of services (Figure 50). The basket shown includes the monthly base fee, the connection setup charge, national calls over various distances, international calls as well as calls to mobile networks. Demand behavior and weighting factors are designed to reflect a "standard European residential user."

Business customers

Figure 51 shows the incumbents' monthly base fees and connection charges for business customers for August 2004. As in the case of residential customers, Telekom Austria is again in the lower middle range among European operators (measured using a price basket). In order to depict a representative "European business customer," the basket includes not only the monthly base fee and the connection setup charge but also national calls over different distances, international calls as well as calls to mobile networks.

[19] The EU average figures shown here are weighted according to the distribution of population among EU member states.

Figure 51: Business customers: Average monthly expenditure, 08/2004



Source: 10th Implementation Report of the European Commission

Austrian business rates and charges are in the middle range by European comparison.

5.2.2.1.3 Wholesale markets

On the wholesale markets, operators use the services of other operators in order to provide their services on the retail market. In terms of size and development, these markets are closely related to the retail markets, as the demand for wholesale services results from the demand for retail services. For this reason, mutual effects between the retail and wholesale markets have to be taken into account in the analysis.

5.2.2.1.3.1 Call origination on the fixed-link network

Origination services, which obviously generate origination revenues, are provided in the form of

- Origination to carrier network operators
- Origination to numbers subject to target network charges.

Origination to carrier network operators is only offered by Telekom Austria.

As Telekom Austria was the only network operator to be identified as an SMP operator on the access market for call origination, the company was obligated to provide origination services to carrier network operators in the observation period. Telekom Austria remained the only operator providing such services because none of the alternative subscriber network operators offered origination services to carrier networks without a regulatory obligation.

Origination to service numbers accounts for only a small share of overall origination revenues.

Origination to service numbers is provided by all access network operators when their customers call numbers subject to target network charges. These are growing as expected due to the increasing number of value-added numbers and providers, but the share of this service in the overall origination market has remained minimal (see Table 18). As Telekom Austria still has the largest number of subscriber lines, it also takes in the highest revenues from origination to service numbers.

Table 17 shows the origination fees charged by Telekom Austria. Those of the alternative network operators are not subject to regulation.

Table 17: Telekom Austria's origination charges as of December 31, 2004

Origination	Peak	Off-peak
Telekom Austria: to carrier network op.	0.82	0.48
Telekom Austria: to service numbers	1.28	0.71
ANB: to service numbers	Not regulated	Not regulated

Figures in EUR cents (excluding VAT)

Most origination services provided internally

The bulk of origination services (see Table 18) are provided on the wholesale market not for third parties but within the company itself, as each operator which provides retail services for its connected subscribers also implicitly provides origination services. Therefore, these services are sold on the retail market, but no explicit charges are incurred on the wholesale market. This type of origination is characterized as an internal (i.e., self-provided) service on the wholesale market which the operator makes available to itself. As these services are sold on the retail market, their development also mirrors that of the retail market.

Table 18: Share of origination products in traffic minutes, Q1 2003 to Q3 2003

Carrier network operator	Service number	Self-provided service
32%	2%	66%

Telekom Austria's share of the origination market is approximately 94%.

Telekom Austria's share of the origination market amounts to approximately 94% (Q1 to Q3 2003). As the largest alternative provider on the origination market, Telekabel/Priority holds a market share of approximately 2%.

5.2.2.1.3.2 Call termination on the fixed-link network

Telekom Austria responsible for the largest number of termination minutes

Termination in the Telekom Austria network continues to be the most important service in this market, as the largest number of subscribers are directly connected to this network. Due to its number of connected subscribers, Priority (Telekabel), which operates in certain regions of Austria, has the largest number of termination minutes among alternative operators.

Regulation more stringent for Telekom Austria's termination market than for the alternative network operators

With regard to regulation, Section 4.2.3.2.2.2 explains that Telekom Austria was subjected to different regulatory instruments from those imposed on alternative network operators due to differing competition problems. However, all network operators are subject to regulation in defining their termination charges. While Telekom Austria is required to charge cost-based prices using the FL-LRAIC standard, benchmarks were defined for the prices of alternative network operators. Table 19 gives an overview of the regulated termination charges.

Table 19: Termination charges of Telekom Austria/ANOs as of December 31, 2004

Termination	Peak	Off-peak
Telekom Austria	0.82	0.48
ANOs	1.28	0.71

Figures in EUR cents (excluding VAT)

5.2.2.1.3.3 Fixed-link transit services

Transit via joining links is part of the transit market due to its possible substitution function.

The transit market comprises all network operators which are interconnected with another network operator and pass traffic on to other operators. Therefore, access network operators, transit network operators, as well as carrier network operators provide services on this market. Whereas access network operators provide transit services predominantly in the form of bundled products in connection with origination and termination, transit network operators ensure that networks can be reached even if they are not directly interconnected. Carrier network operators as well as all other companies which are directly interconnected offer transit services as part of direct interconnection in the form of traffic via joining links. When traffic flows via a joining link, a transit service is provided from one network to another, which replaces a previously external transit service. As traffic via joining links can substitute for possible transit services, it can be assigned to this market.

As mentioned in Section 4.2.3.2.2.3, the European Commission did not agree with this market definition; the Commission does not regard traffic via joining links as a substitute for transit services, therefore it does not assign this service to the transit market.

Previous regulation still applies to the transit market.

As the European Commission exercised its veto right with regard to this market, Telekom Austria will remain subject to the previous regulatory measures for the time being. For this reason, Telekom Austria's regulated transit charges still apply to unbundled transit and to bundled products (see Table 20 to Table 22).

Table 20: Telekom Austria's unbundled transit charges as of December 31, 2004

Unbundled transit	Peak	Off-peak
Regional	0.28	0.14
National	0.60	0.31

Figures in EUR cents (excluding VAT)

Table 21: Telekom Austria's bundled origination product charges as of December 31, 2004

Origination	Peak	Off-peak
Single tandem	1.28	0.71
Double tandem	2.90	1.10

Figures in EUR cents (excluding VAT)

Table 22: Telekom Austria's bundled termination product charges as of December 31, 2004

Termination	Peak	Off-peak
Single tandem	1.28	0.71
Double tandem	2.25	0.87

Figures in EUR cents (excluding VAT)

5.2.2.2 Mobile communications market

5.2.2.2.1 Provider structure

5.2.2.2.1.1 Mobile network operators

Due to the shortage of frequencies in Austria, the mobile communications market has far fewer participants than the fixed-link market. New companies can only enter the market if they are granted frequency usage rights, which can also be transferred under legislation passed in the summer of 2003.
Therefore, Austria currently has five economically independent mobile network operators. Each operator's frequency allocations and time of market entry are shown in Table 23.

Table 23: Mobile network operators, technologies and frequency spectrum

Mobile network operator	Market entry	GSM frequencies	UMTS frequencies
Mobilkom	1994	2x32 MHz	2x15 + 10 MHz
T-Mobile	10/1996	2x20.8 MHz	2x15 + 10 MHz
One	10/1998	2x32.2 MHz	2x10 MHz
tele.ring	04/2000	2x16.8 MHz	2x10 MHz
H3G	05/2003	–	2x10 + 5 MHz

As of March 2005. Source: RTR.

5.2.2.2.1.2 Service providers

Five mobile network operators and three service providers

In addition to the five mobile network operators, three service providers have also begun operating on the Austrian market. First, Tele2 entered the Austrian retail mobile market in the spring of 2003 as an enhanced service provider (or airtime reseller). Tele2 was unable to enter the market as a mobile virtual network operator (MVNO) under the old regulatory framework due to a TKK decision. In September 2004, Tele2 changed its business model to that of an MVNO. Since the summer of 2004, the company eTel has been operating as a reseller on the Austrian mobile communications market. In total, customers in Austria thus have access to the mobile communications services of seven companies.

Info Box 4: Service providers in mobile communications

In addition to vertically integrated mobile network providers, the following business models of service providers which do not have their own radio communications network are currently relevant in Austrian mobile communications:

- Airtime resellers and enhanced service providers (ESP):

  The primary function of airtime resellers is the separate marketing of mobile communications services in their own name and for their own account. However, they are not in any way involved in the production processes underlying these services. From a value creation perspective, these providers mainly perform activities at the retail level (customer service, billing and acquisition). Resellers do not operate their own telecommunications infrastructure (e.g. switches), nor do they administer SIM cards, have access to network intelligence, or interconnect with communications network operators. Instead, they purchase the required wholesale services (airtime) from a mobile network operator. More advanced resellers are referred to as ESPs. In contrast to airtime resellers, ESPs also provide additional (network-independent) value-added services in addition to operating as mobile communications operators. However, ESPs do not issue their own SIM cards, nor do they operate telecommunications infrastructure. For example, eTel offers mobile communications services as an airtime reseller in Austria.

- Mobile virtual network operator:

  Mobile virtual network operators (MVNOs) are communications network operators[20] which do not operate a radio communications network (or have the corresponding frequency usage rights), but they do operate essential network elements in the core network (HLR, MSC etc.), possess the corresponding addressing elements (e.g., a mobile network code), and administer SIM cards. Therefore, MVNOs operate as providers at the wholesale level as well.[21] As an MVNO does not operate its own radio communications network, it must rely on the wholesale services of a mobile network operator. This service is referred to as MVNO access, which is actually a form of roaming agreement. In Austria, Tele2 uses this type of business model.

- Indirect access providers

  The third category of service providers which is relevant in this context is indirect access providers, which are not found on the Austrian mobile communications market.

[20] See the decisions of the Telekom-Control Commission in Procedures Z 18/01 and Z 25/01 on January 28, 2002, as well as Z 6/02.

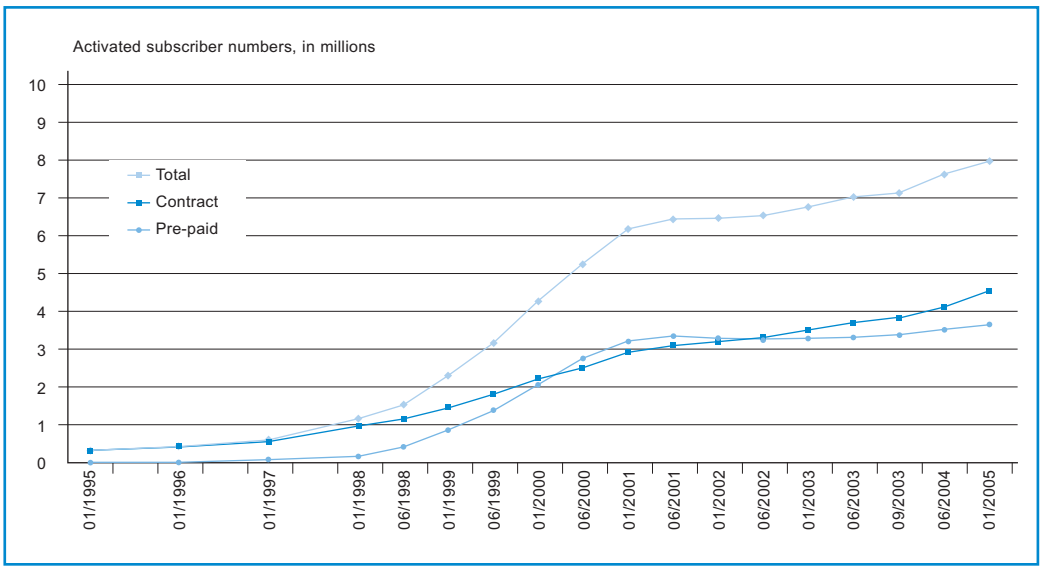
[21] In practice, however, MVNOs may have varying degrees of functional control over network elements.

5.2.2.2.2 Market data

5.2.2.2.2.1 Market development

As of January 2005, Austria had a total of almost 8 million activated mobile subscriber numbers. This represents a penetration rate (measured in activated subscriber numbers) of almost 100%.[22] The figure below shows the development of market penetration over time. At least until the end of 2002, the graph follows an S-shaped curve, which is typical in telecommunications services: After a phase characterized by a low adoption rate following the introduction of GSM in the early 1990s, a phase of very rapid market growth began around 1998. Between 2000 and 2002, the adoption rate slowed down, eventually stagnating completely in 2002. Since late 2002, the market has seen renewed (albeit slower) growth, especially in the contract customer segment. The share of prepaid customers is currently 47%, and the trend is slightly declining.

Figure 52: Development of activated subscriber numbers



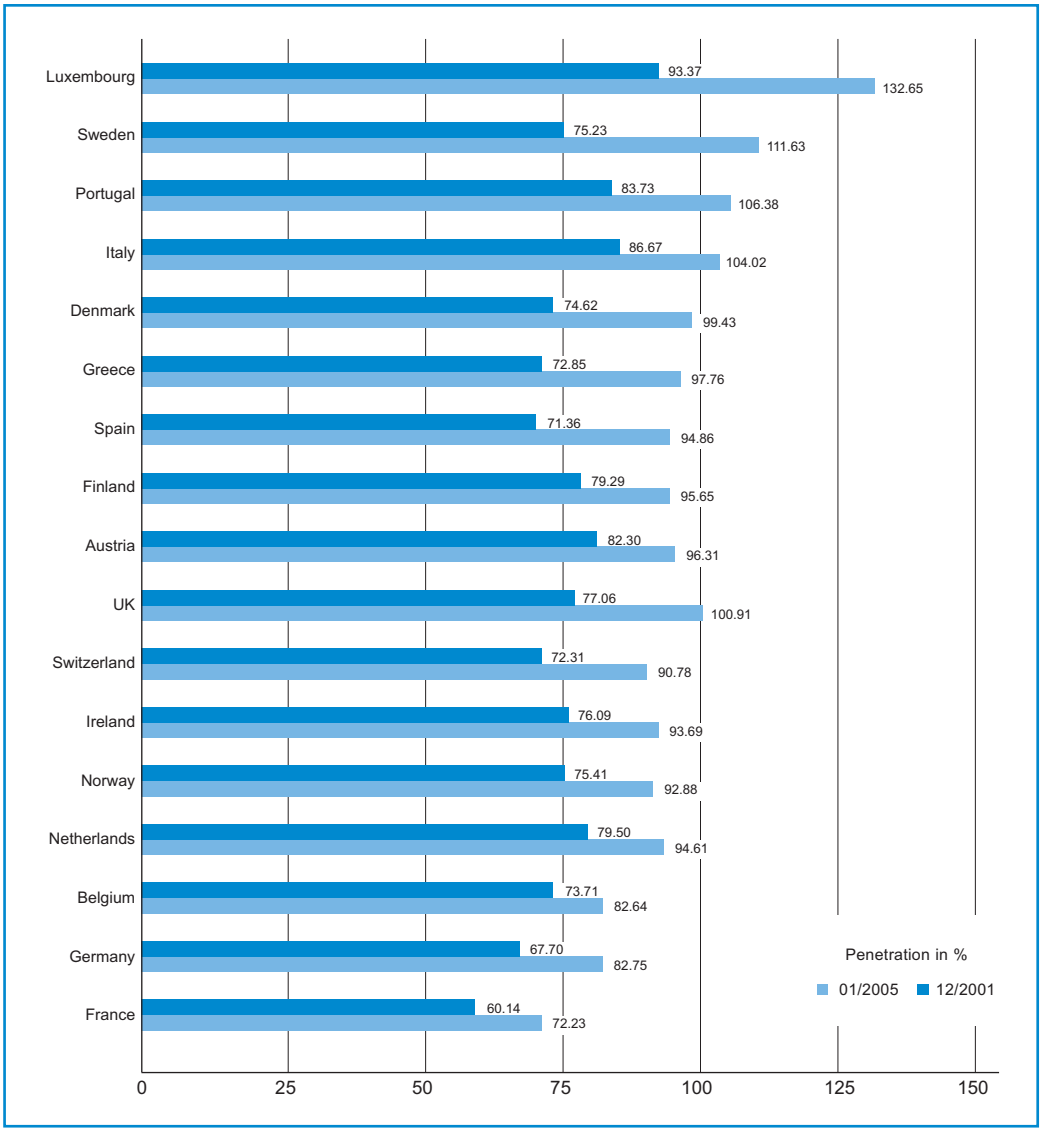
Source: ITU, RTR estimate

The figure below shows a comparison of penetration rates in selected European countries (Source: Mobile Communications), with Austria coming close to the Western European average.

[22] Due to differing calculation methods among operators, substantial differences may arise in international comparisons.

Figure 53: Comparison of penetration rates in Europe (selected countries)

Austria's current mobile penetration rate is almost 100%.

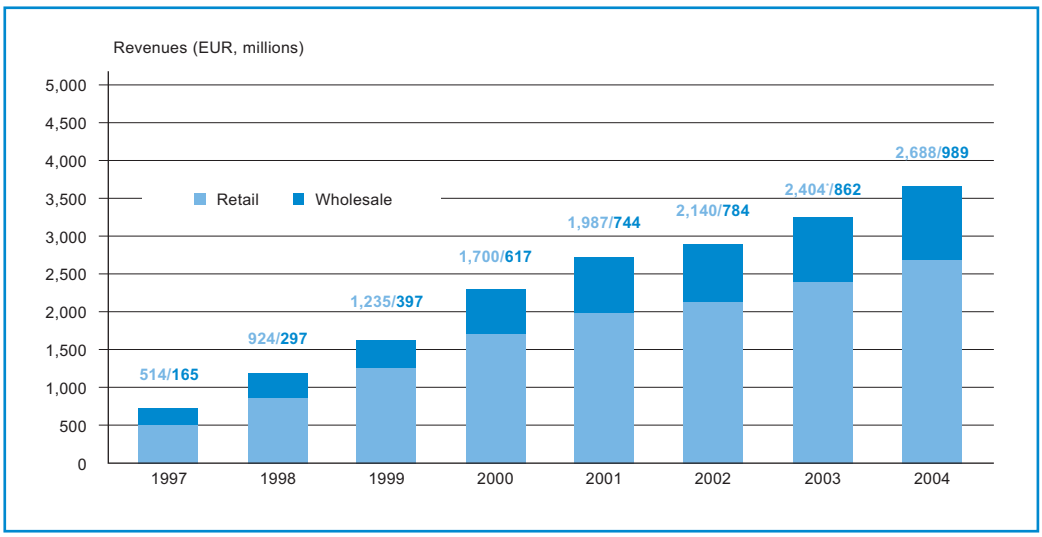


Source: Mobile Communications

The development of revenues is closely related to developments in subscriber numbers (cf. Figure 54): Total revenues from mobile services increased from approximately EUR 700 million in 1997 to over EUR 3.7 billion in 2004. With the exception of 2002, growth rates have been over 10%, in some cases even considerably higher. In the last two years, revenues have increased by approximately 12% p.a. The share of retail revenues in the overall figure for mobile communications is about 73%. The retail mobile communications market (in the narrow sense) is not defined as a relevant market under the TKMVO 2003. However, the relevant wholesale

market for access and origination in public mobile telephone networks under the TKMVO 2003 also contains retail customer services in the form of self-provided services (i.e., wholesale services a provider makes available to itself). The Telekom-Control Commission carried out a competition analysis under Articles 35 and 37 TKG 2003 and determined that effective competition prevails and that no company has significant market power on this market (cf. Section 4.2.3.6.2.1). Due to its high significance, most of the descriptions below refer to the retail market.

Figure 54: Development of revenues in mobile communications



Source: RTR (some values estimated)

*) Revised value for mobile communications in 2003

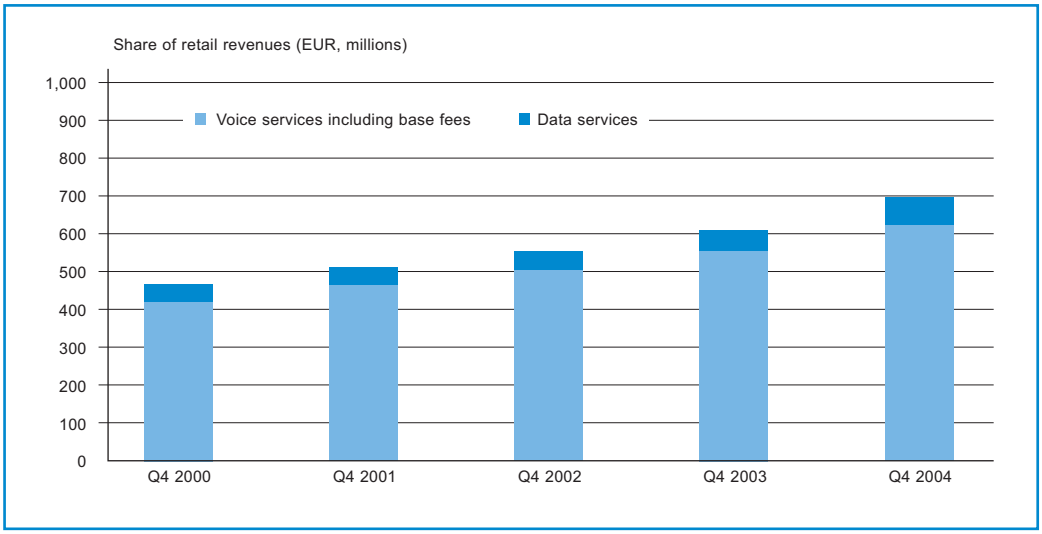
At present, the share of purely wholesale revenues (without self-provided services) is approximately 27%. Between 65% and 70% of these revenues, which total almost EUR 1 billion, are earned by operators through the sale of mobile termination services for mobile voice telephony. Under the TKMVO 2003, the termination services of each mobile network operator constitute a separate relevant market ("Wholesale market for termination on individual mobile networks"). The competition analysis showed that each operator has significant market power on its own individual termination market. As a result, the TKK imposed suitable obligations on the operators concerned in order to address the specific competition problems identified in the analysis.

The third relevant mobile communications market under the TKMVO 2003 is the national wholesale market for international roaming on public mobile networks. Between 25% and 30% of wholesale revenues in this market are generated by the sale of wholesale international roaming services to foreign mobile network operators whose subscribers use roaming services in Austria. The competition analysis for this market is still pending. In order to account for its international significance, preparations at the international level (led by ERG/IRG) are currently underway.

Mobile voice services are still considered the "killer application."

One question which arises frequently in connection with the introduction of third-generation (UMTS) mobile communications systems is that of the significance of mobile data services. Figure 55 shows the shares of revenues from data services compared to overall revenues on the retail market. The chart clearly shows that the share of revenues generated by (pure) data services in relation to overall retail revenues has been climbing continuously, but the bulk of revenues are still earned from voice services. As in the past, mobile voice services are the "killer application."

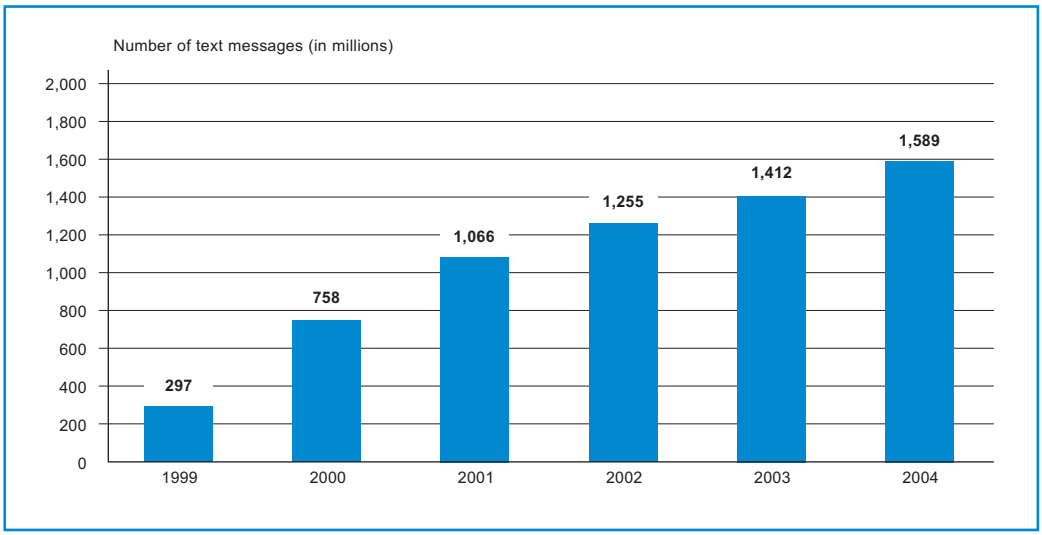
Figure 55: Shares of voice and data services in retail revenues



Source: RTR

One data service which has developed rapidly over the last five years is text messaging (SMS). Since 1999, the annual number of text messages originating from Austrian mobile network operators has more than quintupled. In the last two years, growth rates have been approximately 12% (see Figure 56).

Figure 56: Number of text messages on the retail market (technical measurement)

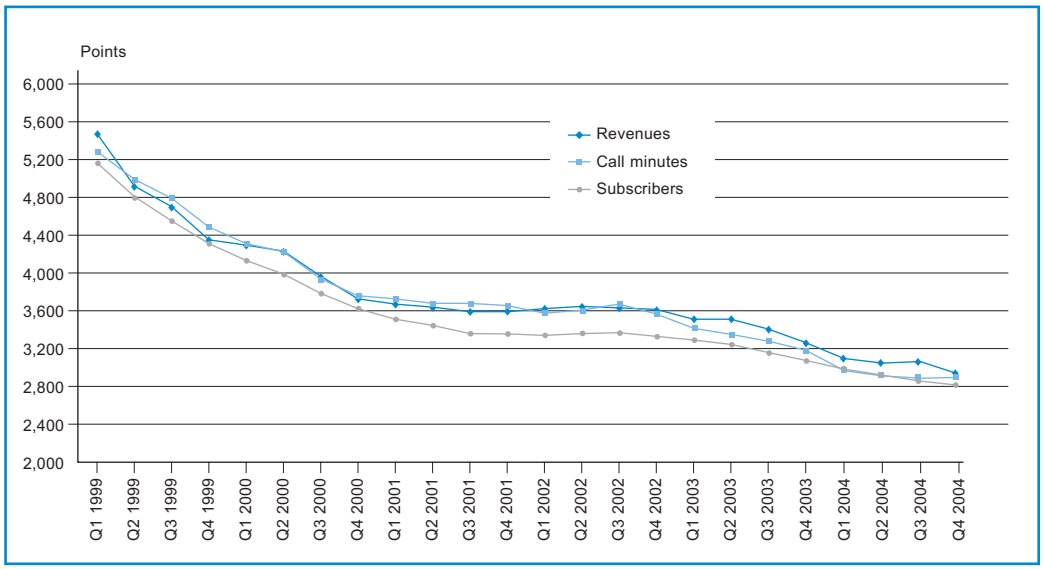


Source: RTR. Values for 2003 and 2004 are estimates.

5.2.2.2.2.2 Concentration and market shares

In 2004, market concentration continued to decrease: The Hirschmann-Herfindahl Index (HHI) fell below 3,000 points (cf. figure below) for all three characteristics of the market (subscribers, revenues, traffic minutes). The individual HH indices also showed signs of convergence. In the past, differences in the concentration indices suggested that the larger operators had a disproportionately high number of business customers.

Figure 57: HHI for the retail mobile communications market

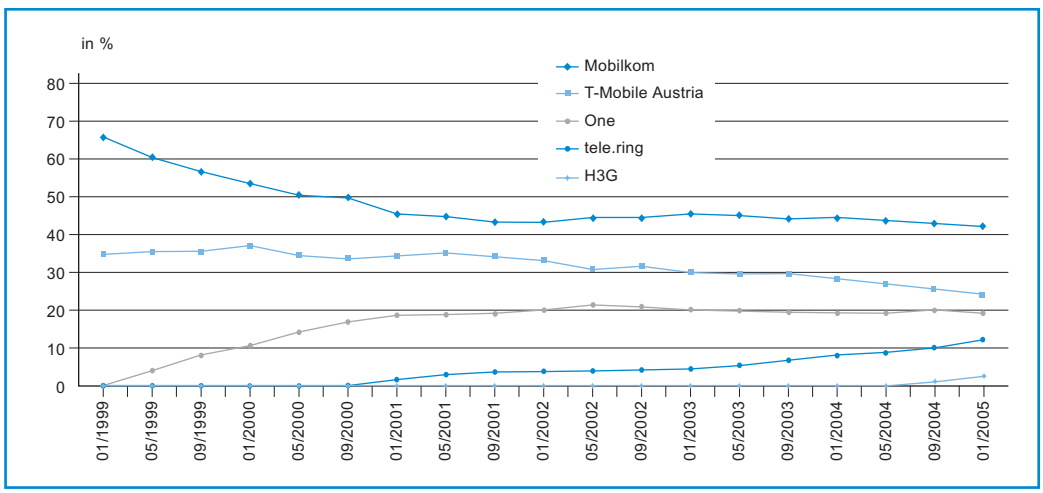


Source: RTR

Small operators gain market share

The figure below shows the market shares of mobile network operators in terms of subscribers (not including service providers). In terms of subscribers, Mobilkom Austria had a market share of 40.8%, T-Mobile 25.4%, One 19.8% and tele.ring 11.6% at the end of 2004. At present, H3G's market share is approximately 2.4%. In 2004, tele.ring and H3G were able to increase their market shares by 3 and 2 percentage points, respectively, while Mobilkom Austria and T-Mobile suffered slight losses in market share (see figure below).

Figure 58: Development of market shares (basis: number of subscribers)



Source: Mobile Communications

5.2.2.3 Broadband

5.2.2.3.1 Introduction

An alternative network operator or Internet service provider (ISP) might implement broadband access to retail customers using self-operated access technologies such as fiber optics (fiber to the home, or FTTH), power lines (via power line networks; PLC), radio networks (W-LAN) and cable television networks (CATV), or by using Telekom Austria's unbundled (copper wire) access network and purchasing bitstreaming as a wholesale service.

Bitstreaming is generally associated with xDSL (ADSL, SDSL, etc.). The provision of technical systems for xDSL access and generally the routing of traffic to a network interconnection point (at which the bitstream is transferred to the alternative operator) are handled by the wholesale provider. One example is Telekom Austria's wholesale xDSL offer (the "ISPA offer"). The term "open access" is used for a comparable product in cable television networks.

Unbundling refers to an arrangement in which alternative network operators and other unbundling partners such as ISPs or leased line operators are not required to set up their own infrastructure to connect end-users directly but use Telekom Austria's copper-wire access network (local loops) instead. The local loop is the physical/electrical connection from the end-user to the switching facilities of the telecommunications network operator. This line, usually a copper wire pair, connects the network termination point at the subscriber's premises to the network operator's main distribution frame (MDF).

Most unbundled local loops are used for broadband access (xDSL); voice telephony connections using unbundled local loops are playing an increasingly secondary role. The relationship between unbundling and bitstreaming is described below.

5.2.2.3.1.1 Description of the vertical integration of unbundling and bitstreaming

Unbundling and bitstreaming are wholesale services offered at different levels of the value chain.

In order to effect unbundling, the respective subscriber's local loop is (electrically) connected to the unbundling partner's network in a separate room (i.e., a collocation room) at the MDF.[23] For this purpose, the unbundling partner needs to make considerable investments in the adaptation of the collocation room, backhaul[24] as well as separate switching equipment. These investments can only pay off if a sufficiently large number (critical mass) of subscribers wish to be unbundled by the unbundling partner at the location of the respective MDF (i.e., the local loop area).

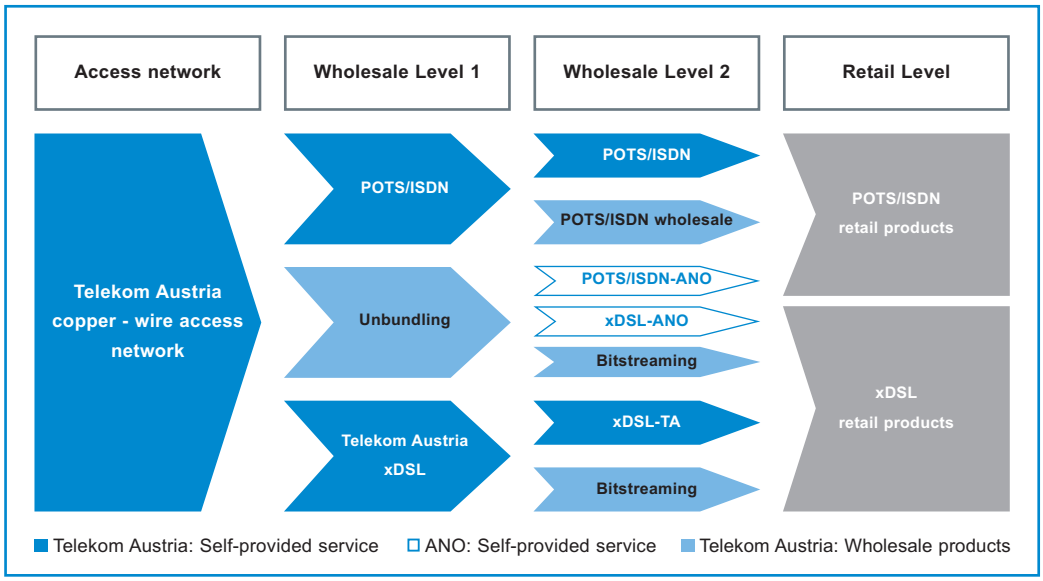
[23] The MDF is located either at a remote concentrator or switching exchange of Telekom Austria.

[24] This can also be implemented using leased lines.

It is thus also possible to use the alternative wholesale product of bitstreaming (broadband xDSL access) at the next level of the value chain. The investments to be made by the alternative operator or ISP for bitstreaming are basically confined to constructing its own network infrastructure[25] to connect to at least one of nine ATM access points (POP) at which the data traffic is transferred from Telekom Austria to the respective wholesale bitstreaming customer. Depending on the connection realized, national or regional charges of varying amounts will be incurred.

Finally, broadband xDSL access (e.g. Internet access) is offered at the retail level. The figure below illustrates the stages of the value chain described above.[26]

Figure 59: Levels of the value chain in the access network



At Wholesale Level 1, Telekom Austria either uses the copper wire pairs in its access network to provide its own end-user products, or the local loop is leased to an unbundling partner. At Wholesale Level 2, Telekom Austria uses its broadband transmission systems (xDSL) and the underlying network to offer products to its own end-users, or to offer these services as wholesale products to its competitors.

An ISP which uses Telekom Austria's wholesale products at Wholesale Level 1 (unbundling) engages in a higher level of autonomous value creation than a party which purchases these services at Wholesale Level 2 or the Retail Level. For this reason, unbundling intensifies competition on all downstream levels.

[25] This can also be implemented via leased lines.

[26] Leased lines, cable television networks and other access technologies were omitted here for the sake of clarity, and especially because a description of these technologies would not have provided any additional insight.

5.2.2.3.1.2 Broadband Internet

At the retail level, three main types of Internet access are currently implemented:

- Dial-in access (dial-in modem via PSTN/ISDN)
- Broadband access by means of digital subscriber line technologies (xDSL via own or unbundled local loops) or cable modem (cable television networks/HFC)
- Leased lines.

These forms of Internet access differ in terms of bandwidth, prices, pricing categories (e.g. depending on data transmission volume) and quality.

The typical characteristics of broadband Internet access which set it apart from narrowband Internet access are as follows:

- Broadband access provides for a downstream capacity which is higher than 144 kbit/s (corresponds to 2x ISDN B channel + D channel)
- Broadband enables "always on" service.

With regard to data rates, there is no (internationally) accepted standard definition for broadband access. Voice telephony can clearly be classified as a narrowband service. A conventional voice channel has a data rate of 64 kbit/s, while an ISDN line has 144 kbit/s (2x ISDN B channel + D channel). The regulatory authority has defined this data rate as the upper limit for narrowband services. Therefore, transmission rates beyond that are considered broadband.

5.2.2.3.1.3 Transmission technology

Digital subscriber line (DSL)

DSL is a technical means of implementing high bit-rate services on a conventional telephone line. One of the best-known forms of this technology is available on the market under the name of ADSL (asymmetric digital subscriber line). The term "asymmetric" points to the difference in transmission rates in the downlink (to the subscriber, high bit-rate) and in the uplink (to the switching exchange, low bit-rate).

ADSL services may easily be realized together with an existing POTS or ISDN connection, since voice telephony (POTS, ISDN-BA) and the ADSL data service use disjunct frequency bands (i.e., ADSL works in the higher frequency band). The respective signals are split by means of frequency filters (also known as splitters) at the customer's end and at the local switching exchange. At the user's end, each subscriber has an ADSL modem, while at the switching exchange's end the modems are implemented technically in the DSLAM (Digital Subscriber Line Access Multiplexer), which compiles data packets from individual subscriber lines for further trans-

mission (or, conversely, distributes the packets to the subscribers). In order to transport the data packets from the DSLAM at the MDF in the local exchange to the service provider (typically an ISP), a separate data network is used (e.g., based on ATM).

In addition to asymmetric transmission methods, there are also symmetric technologies (e.g. SDSL) in which the entire frequency spectrum on the subscriber line is used for high bit-rate data transmission.

Leased lines

Although broadband access (also to the Internet) can be implemented using leased lines (depending on the capacity), the characteristics of these lines differ from those of DSL services and Internet access via cable modem. In contrast to DSL services, leased lines provide dedicated capacity for exclusive use by the customer, thus ensuring consistent transmission quality as a result. In the case of DSL services, this dedicated capacity is only available in the local loop. On the backbone (e.g. ATM), however, the simultaneous use of transmission capacity (shared capacity) may create transmission bottlenecks (depending on the overbooking factors used). Broadband Internet access via leased lines is in higher demand among large companies.

Cable modem (CATV / HFC network)

Broadband access via cable modem takes an approach similar to that of DSL (shared capacity as opposed to dedicated capacity with leased lines). In this context, the infrastructure (or bandwidth) is not dedicated exclusively to each customer, even in the final section of the line to the customer (in contrast to DSL). Advertising, pricing, and responses in the case of product changes/expansions as well as bandwidths indicate that xDSL and cable modem are equivalent in both technical and economic terms at the retail level.

Other access technologies for broadband Internet access

In Austria, other access technologies were not as widespread as xDSL and CATV in 2004:

- PLC (power lines): This technology has basically not progressed beyond the experimental stage. Pilot operations were partly discontinued after several years. In this technology, problems arose in connection with frequency interference, for example in the frequency band used by amateur radio operators.

- W-LAN: At the moment, W-LAN is spreading rapidly in Austria. It is used for quasi-mobile ("nomadic")[27] broadband access at hot spots (airports, train stations, cafés) and as an alternative to line-based broadband Internet access in rural areas where this service is not available (fixed wireless access). Although W-LAN is spreading fast, the absolute number of end-users is still relatively low.

- In the fall of 2004, RTR allocated 3.5 GHz frequencies for WLL access to the operators Telekom Austria, Telekabel, WiMAX Telecom and Teleport. Within this band, it is possible to offer fast Internet access as well as other multimedia services and telephony using various technologies (especially WiMAX), and the potential data rates are competitive with ADSL and SDSL.

  The allocation of 450 MHz frequencies is scheduled for late 2005. Due to the low frequency of this band, it can be used to realize especially long-range services. For this reason, these frequencies are of special interest in rural areas and could be used for low-cost broadband connections, for example. The maximum data rate is lower than that of WLL, but it is still possible to achieve data rates of more than 1 Mbit/s in this range.

- 3G: Since early 2004, all mobile operators in Austria have been operating UMTS networks in compliance with their license requirements. At present, this technology can not (yet) serve as a substitute for line-based Internet access. From a technical standpoint, the transmission rates reached can not compete with a conventional ADSL line; moreover, the mobile aspect is the main focus of such services.

Other access technologies, such as satellite, FTTH (fiber to the home), etc., still play a secondary role in Austria.

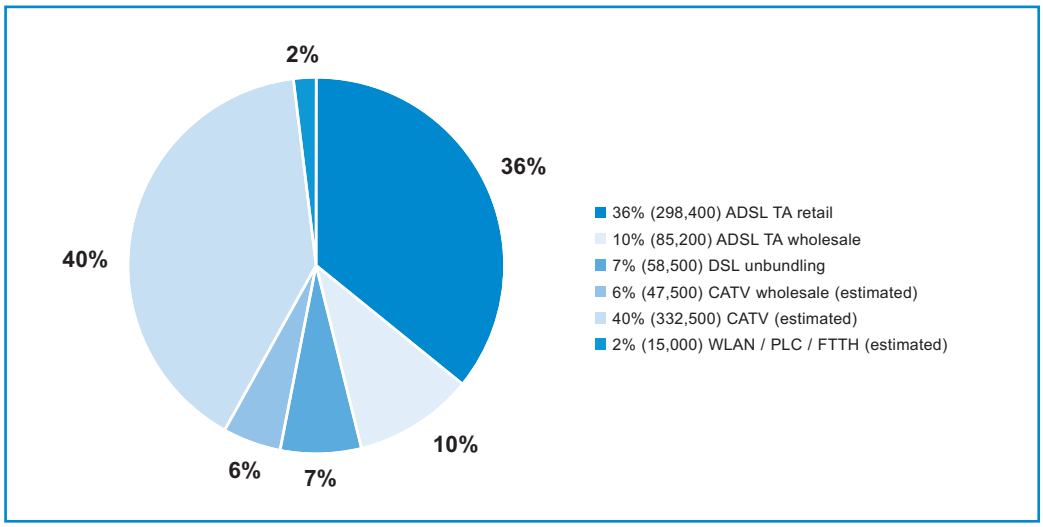
5.2.2.3.2 Retail market for broadband Internet

The first company to provide broadband Internet access on the retail market in Austria was Telekabel (now UPC), which launched its "teleweb" product on the market in 1996. "teleweb" provided Internet access via the cable television network (HFC) and was renamed "chello" in June 1999. Three years later (November 1999), Telekom Austria followed with ADSL. Since then, the prices of these two competing products have shown similar developments. Broadband Internet access via cable television and telephone networks is not available everywhere in Austria. Since the launch of ADSL technology, however, the broadband coverage area has been expanded continuously.

According to information provided by Telekom Austria, ADSL coverage was possible for approximately 86% of Austrian households in 2004.

[27] (i.e., not meeting all mobility requirements such as full coverage, handover, etc.)

Figure 60: Types of broadband access

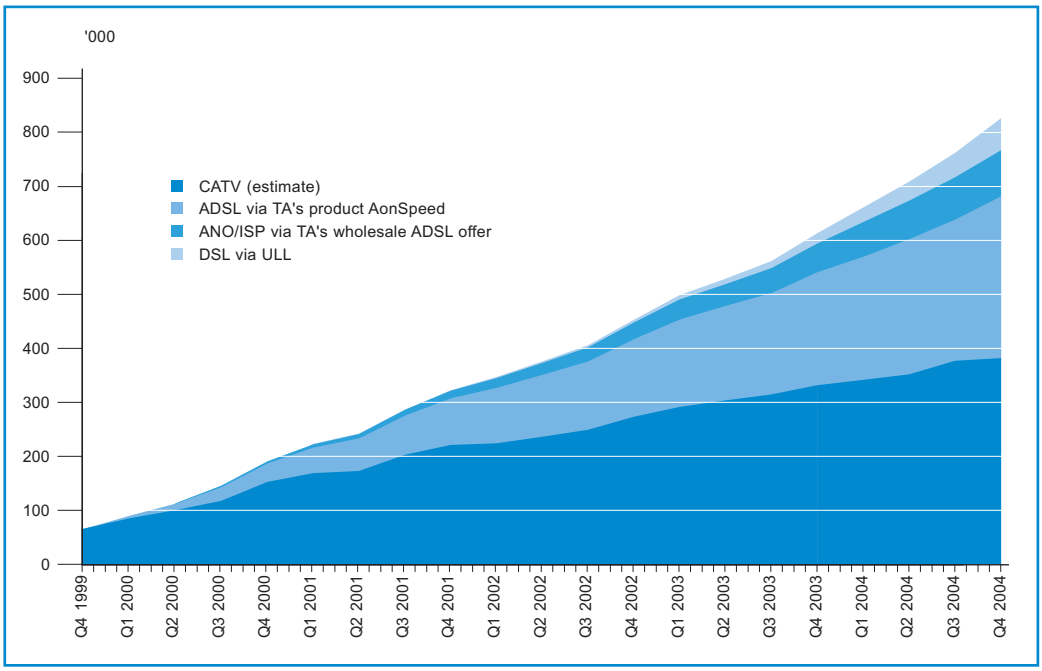


Source: RTR estimates (approx. 25% of households, end of 2004)

As shown in the chart, cable television operators had a share of approximately 55% in the retail market at the end of 2003. Some 60% of this market share can be attributed to UPC Telekabel and its product "chello," which therefore covers more than 25% of the overall retail broadband market. While Telekom Austria has attained a market share of 36% in coverage areas throughout Austria, Telekabel is mainly concentrated in Vienna, Graz and Klagenfurt. In Vienna, Telekabel holds well over two thirds of the broadband market.

The figure below shows the development of broadband access over time.

Figure 61: Development of broadband connections in Austria



More than half of all broadband Internet access is provided via DSL.

Source: RTR

5.2.2.3.3 Wholesale market for bitstreaming

In November 1999, Telekom Austria launched an ADSL-based Internet service for its own customers. After the regulatory authority intervened and the Association of Austrian Internet Service Providers (ISPA) and Telekom Austria held negotiations, an agreement regarding a standard wholesale offer (the "ISPA offer") was reached in March 2000. Telekom Austria was to offer the prices in the ISPA offer to all ISPs on a non-discriminatory basis, and in particular without according any preference to its own Internet service.

In addition to Telekom Austria's standard wholesale offer, the ISPs also offer bitstreaming products via unbundled lines, and numerous wholesale products are offered by cable television operators which are either not vertically integrated as regards broadband and therefore do not provide ISP services (including Internet access) themselves, or which enable customers to obtain services from other ISPs in addition to offering their own broadband services.

The wholesale xDSL-based product referred to as "bitstreaming" is largely provided by Telekom Austria (more than 90%). To a small extent, unbundling partners also offer bitstreaming services to other ISPs via unbundled local loops.

5.2.2.3.4 Wholesale unbundling market

The wholesale market for unbundling is highly dependent on TKK orders.

5.2.2.3.4.1 Unbundling orders

Full unbundling

In the spring and summer of 2000, the TKK issued unbundling orders which essentially extended the applicability of the unbundling orders of July 1999 (for alternative operators of fixed network voice telephony services) to include ISPs and leased line operators on the same terms.

Once the unbundling orders had expired for voice telephony operators, ISPs and leased line operators, the TKK adopted standardized follow-up regulations by issuing new unbundling orders which were valid indefinitely (not applicable to charges) on March 12, 2001. The monthly rental fee for access to an entire local loop was reduced to EUR 11.60 (from January 1, 2001: EUR 10.90) based on the local loop costs calculated using the analytical bottom-up cost accounting model developed in cooperation with the Scientific Institute for Communication Services (WIK).

These provisions created substantial incentives to offer cost-effective innovative broadband services, mainly in the Internet segment.

Partial unbundling

The TKK unbundling orders issued in the spring of 2001 also introduced partial unbundling (also known as sub-loop unbundling) at the relevant switching points (in-house distribution points, remote concentrators) at correspondingly lower charges: Since the connection setup charge paid by the subscriber should cover these costs, a fee of EUR 0.00 was defined for access to the distribution frames in buildings. Thus far, the option of partial unbundling has not been used. However, it could become more attractive due to the current exploration of VDSL deployment possibilities on unbundled lines.

Shared use of the unbundled copper wire pair

In connection with the standard unbundling offer which SMP companies are required to present, provisions on the shared use of unbundled local loops (also referred to as "frequency unbundling") were also stipulated. The monthly rental fee for shared use was set at 50% of the monthly charge for full unbundling, and the connection setup charge was set at twice the amount of the fee applicable to full unbundling due to the additional costs involved in returning the voice telephony spectrum to Telekom Austria.

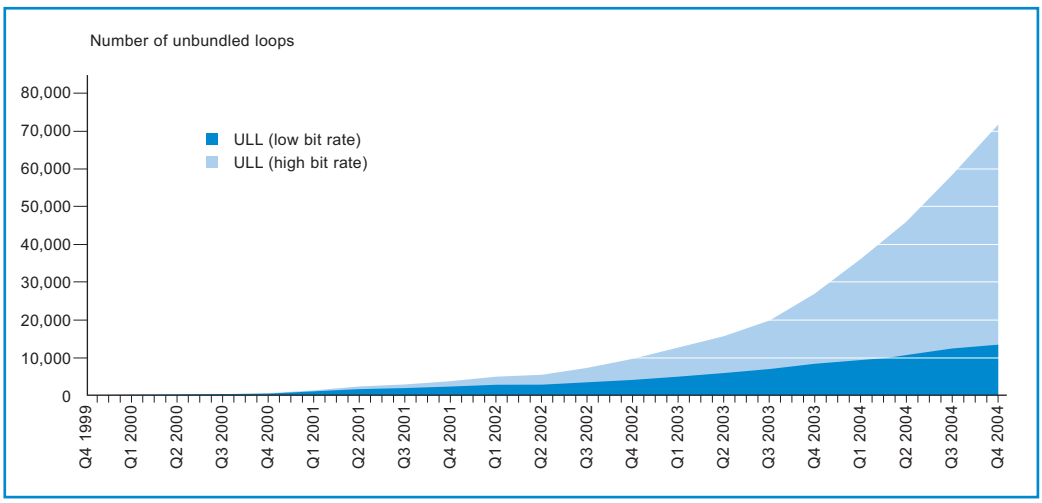
Unbundling and X.25 access

In January 2003, the TKK decided to extend the validity of the charges which had been applicable until September 30, 2002 (EUR 10.90 for the full local loop and EUR 8.43 for the partial loop) until September 30, 2004. A request for provisions regarding the unbundling of local loops with automatic teller machine functions (X.25 terminals) was rejected, as these provisions were neither related to unbundling nor the concept of network access.

5.2.2.3.4.2 Market data

The figure below shows the development of unbundled local loops between late 1999 and early 2004.

Figure 62: Development of ULLs (unbundled local loops) in Austria



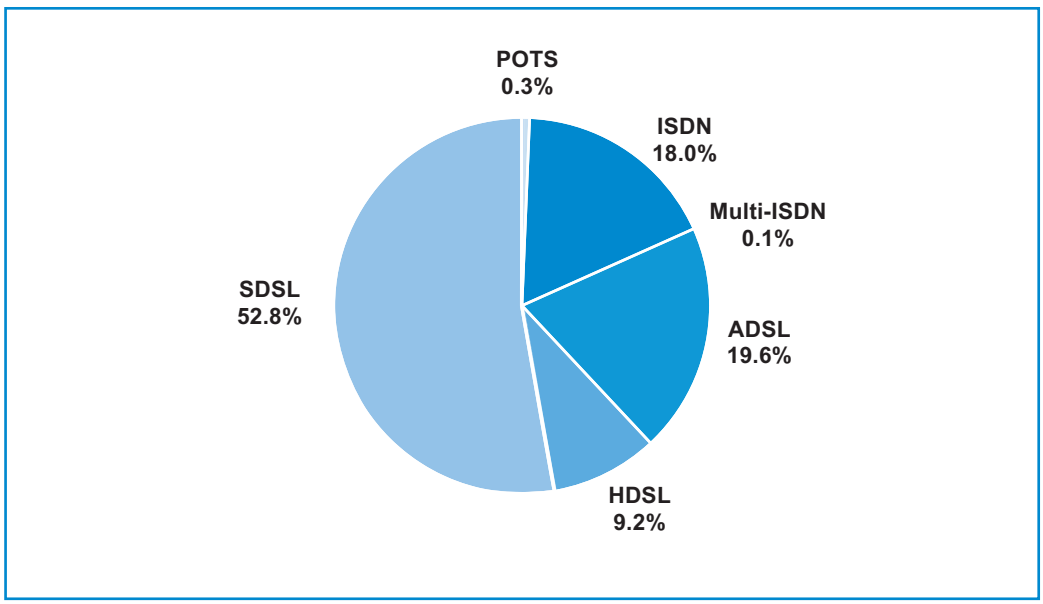
Source: ECTA Broadband Scorecard

The annual growth rate came to approximately 170% at the end of 2004, meaning that the number is growing rapidly (albeit at a relatively low level). A mere 2.5% of all Telekom Austria lines had been unbundled by the end of 2004. As shown in Figure 62, the proportion of ULLs (unbundled local loops) used for broadband is increasing steadily and stood at about 80% at the end of 2004. Demand for shared use and partial unbundling is very low.

At 186 of some 1,400 main distribution frames (MDFs), there were 382 collocations maintained by 23 unbundling partners as of late 2004.

Approximately 18% of the unbundled local loops are used for ISDN, mainly in order to connect business customers. In broadband access services, the symmetric technologies SDSL (53%) and HDSL (9%) have the largest share, while ADSL's share is currently 20%. Figure 63 illustrates the dominance of symmetric transmission technologies in unbundled local loops. The use of HDSL and SDSL to realize individual large-scale customer solutions provides a clear indication of the high potential of unbundling, specifically with a view to promoting competition at other levels of the value chain. As mentioned earlier, the percentage of narrowband applications (ISDN, POTS) has decreased steadily over the last two years.

Figure 63: Use of ULLs in Austria (Q4 2004)

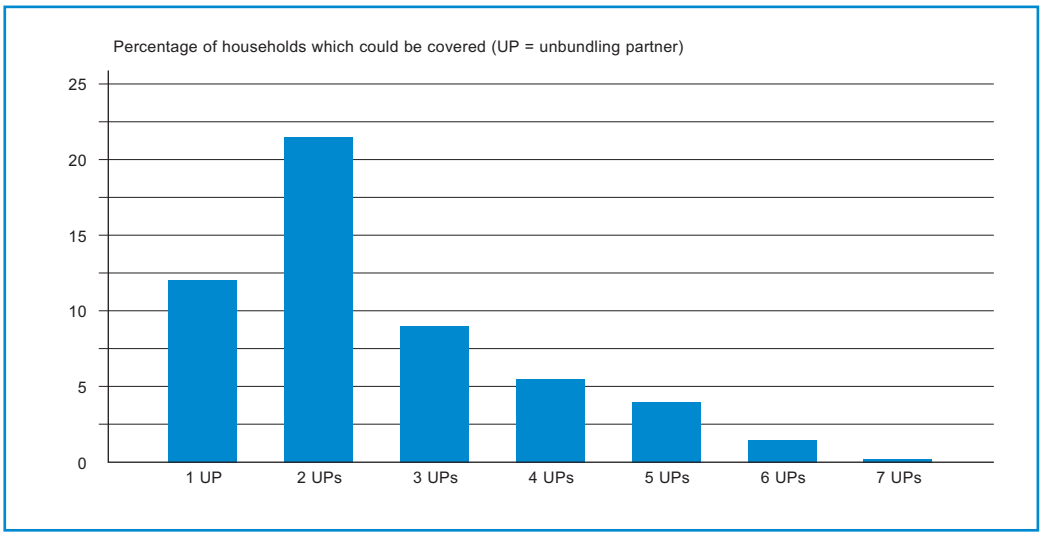


Source: RTR

The coverage situation can generally be derived from the number of collocations in operation as well as the areas which these collocations could cover with ULLs. If at least one unbundling partner has a collocation at a Telekom Austria MDF, then the households in that MDF's local loop area are considered to be unbundling candidates. RTR carried out statistical calculations to determine the potential ULL coverage level with due attention to the coverage areas of all Telekom Austria MDFs as well as the population density in each area. However, the real maximum number of households which can be unbundled by an unbundling partner in an MDF's local loop area depends on various underlying conditions, such as the collocation resources available at the MDF and the capacity of the unbundling partner's infrastructure (e.g., backbone capacity).

Figure 64 below illustrates the potential coverage of households by showing the number of unbundling partners which operate a collocation at an MDF (as potential competitors in addition to Telekom Austria and cable network operators).

Figure 64: Potential coverage of households with ULLs (as of December 31, 2004)



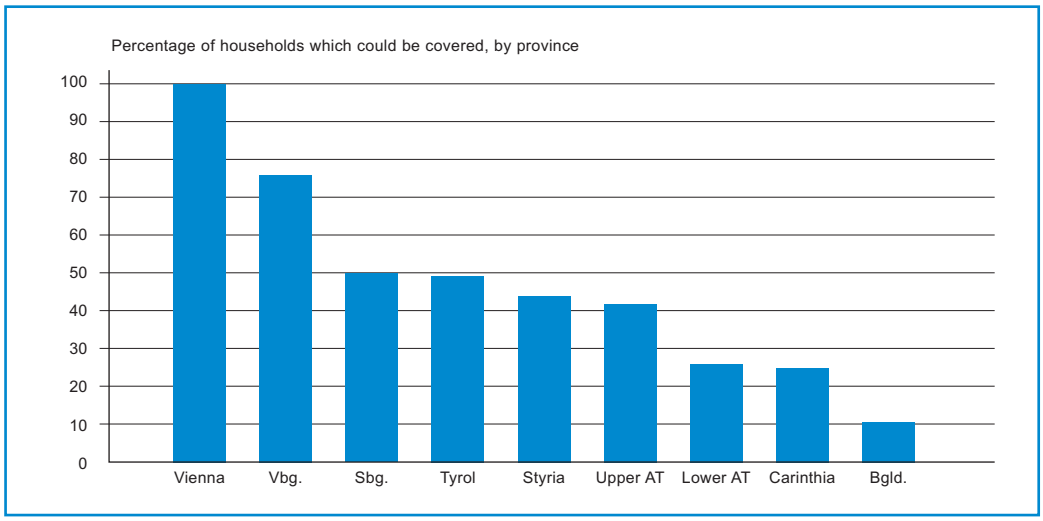
Source: RTR

Figure 64 indicates that approximately 54% of Austrian households could be unbundled at the present time. 12% of those households are covered by only one unbundling partner, 22% would have a choice between two partners, and 0.1% of the households could potentially choose among seven unbundling partners. In practical terms, this means that more than half of Austrian households are in the local loop area of a Telekom Austria MDF which has been penetrated by at least one unbundling partner.

These figures make it clear that this market has enormous potential, although only about 72,000 of the 1.5 million households have been unbundled.

The potential coverage of households with ULLs throughout Austria is approximately 54%. This corresponds to about 48% of the population, but only 10% of Austria's geographical area. If we break the coverage values down by province, severe regional differences appear: Almost all of the households in Vienna could choose between an unbundling partner, Telekom Austria or UPC Telekabel (both of which have their own access networks). This accounts for 25% of all households in Austria. The province of Vorarlberg also has a very high potential coverage level (over 75%). Salzburg, Upper Austria, Styria and the Tyrol are all in the middle range with values between 40% and 50%. At the bottom of the list is the province of Burgenland, where currently only 11% of households could potentially be covered with ULLs (see Figure 65).

Figure 65: Potential ULL households by province (as of December 31, 2004)



Source: RTR

5.2.2.3.5 Market analyses

The delineation process for Market No. 12 (Wholesale broadband access) in the European Commission's Relevant Markets Recommendation was carried out in April 2005. RTR is currently carrying out the corresponding market analysis procedure. On the market for unbundled access, Telekom Austria was identified as a company with significant market power (in effect a monopolist).[28]

5.2.2.4 Leased lines

5.2.2.4.1 Introduction

Leased lines as fundamental building blocks in communications

Leased lines are considered fundamental building blocks in communications and can be used for various purposes: On the one hand, network operators and service providers use them as transport infrastructure for the provision of their retail services. These operators can thus set up or expand their networks with leased lines in areas where they do not have their own infrastructure. On the other hand, business customers use leased lines to connect (worldwide) company locations for voice, audio and data communications. These lines are exclusively available to the companies at the specified bandwidth 24 hours a day, 365 days a year. Based on the

[28] See also Section 4.2.3.4.

status of the user of the leased line, it is possible to differentiate between retail and wholesale markets. If the holder of a general approval requires a leased line in order to provide communications services (e.g., to connect mobile base stations to the network or to connect subscribers to its own network node), the provision of the leased line can be regarded as a wholesale service. The provision of leased line services for other customers (e.g., a commercial company with branch offices) can be assigned to the retail level.

According to the TKMVO 2003, which divides telecommunications products into retail and wholesale markets, the following three relevant markets for leased lines exist:

Three relevant leased line markets

At the retail level, the relevant market comprises the minimum set of leased lines with certain types of lines up to and including 2 Mbit/s. At the wholesale level, there is one relevant market for the trunk segments of leased lines and another for the terminating segments of leased lines. The two wholesale markets include leased lines of all bandwidths. Retail leased lines with bandwidths higher than 2 Mbit/s were not considered a relevant market, thus they were not subjected to further regulation. Connections with user-side X.25, ATM, IP and frame-relay interfaces at the network termination points are not part of these markets.

The sections that follow provide an overview of the leased lines market in Austria as well as an international comparison.

5.2.2.4.2 Market data

Under the new legal framework, the provision of leased line services is no longer subject to a licensing requirement; it is sufficient to obtain a general approval for the provision of leased line services. No communications-specific licensing is required for the rental or sale of unswitched fiber optic lines (dark fiber).

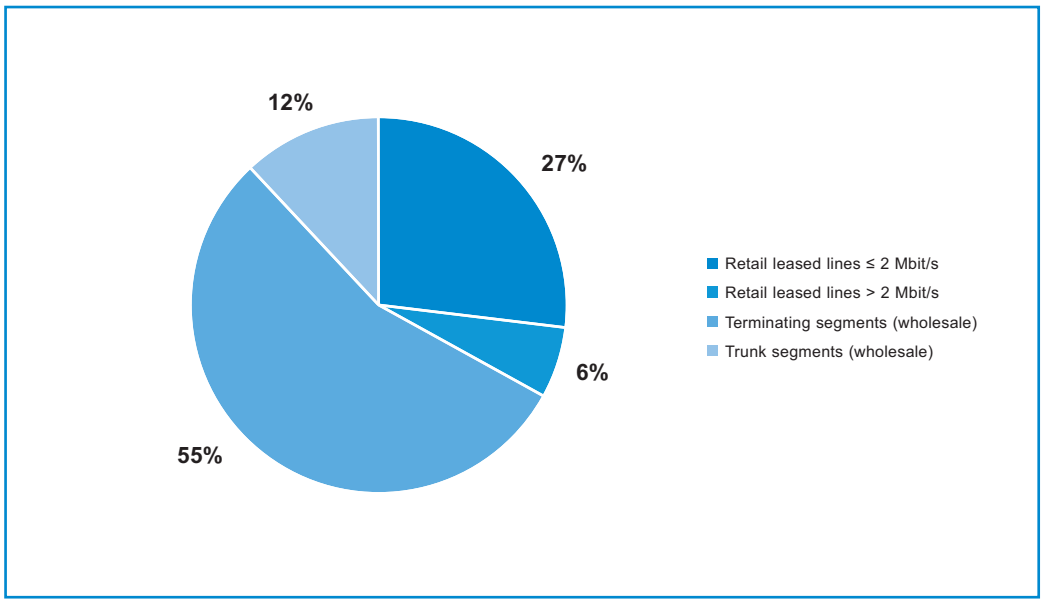
Not all companies which have obtained a general approval for leased line services are active on the market. During the reporting period, approximately 40 providers were operating in Austria. Most of these companies only operate at the regional level; they are generally network providers or infrastructure providers from other industrial sectors (e.g., the energy sector) which see telecommunications as a secondary business segment and can use their existing lines. At the national level, leased lines are offered by voice telephony operators and international groups which also route their global networks through Austria. Some providers have specialized in retail leased lines, unswitched fiber optic lines, or international leased lines. However, only a few operators can offer nationwide coverage.

In addition to Telekom Austria and UTA, the largest providers of leased lines in Austria are Memorex, NÖKOM and Wienstrom.

High demand at the wholesale level

As in the previous years, most revenues are generated on the wholesale markets (especially in terminating segments), while a far smaller share of revenues can be attributed to the retail market. This means that the demand for leased lines largely depends on the development of communications infrastructure, especially at the local level. This is also illustrated by the chart below, which shows the distribution of Q4 2004 revenues among the three relevant markets and retail leased lines with bandwidths higher than 2 Mbit/s based on an extrapolation of the available data.

Figure 66: Distribution of revenues among markets in Q4 2004 (in %, extrapolated)



Source: RTR estimate

Various levels of competition on each relevant market

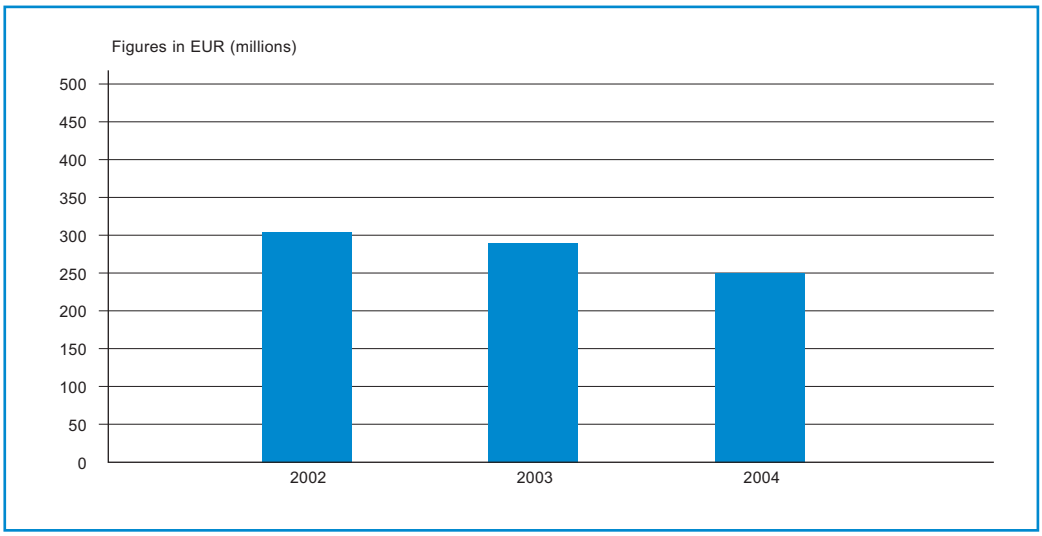
Competition varies widely on the relevant markets. The market analyses completed in 2004 (cf. Section 4.2.3.5) showed that effective competition prevails and multiple companies with their own infrastructure operate on the market for trunk segments of leased lines. The market for terminating segments and the retail market are not as competitive yet; Telekom Austria was identified as a significant market power operator. Nonetheless, a number of alternative providers have already entered the market for terminating segments, generally using their own existing infrastructure.

Sharp decrease in revenues

A comparison of revenues in the reporting period with those of previous years shows that the market saw moderate growth in 2002, followed by a slight decline in revenues in 2003. At the same time, the demand for capacity rose in both years, a fact which can be attributed to the spike in demand for international leased lines. In 2004, revenues declined even more sharply, mainly as a result of fierce price competition. No comprehensive data is available on leased capacities in 2004.

The chart below shows the development of aggregate revenues (wholesale and retail) from national leased lines between 2002 and 2004. The data for 2003 and 2004 includes estimates based on the available data. Unswitched fiber optic lines, copper wire pairs and international leased lines are not included.

Figure 67: Development of revenues from national wholesale and retail leased lines, 2002 to 2004



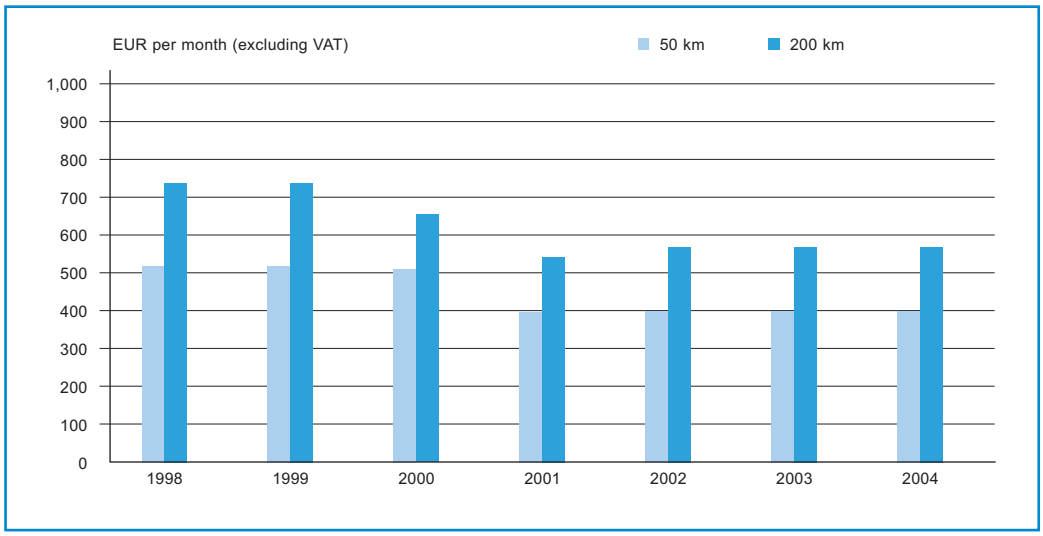
Source: RTR (2003 and 2004 estimated)

5.2.2.4.3 Rates

The price of a leased line depends primarily on the bandwidth required, the distance involved, the geographical position of the termination points and the technical characteristics of the line. Additional components such as special service levels or supplementary services can also have an impact on the price. Especially in the case of large customers or wholesale leased lines, project prices are often agreed upon. In these transactions, the customer leases an entire line system on the corresponding terms. Leased line operators generally use individual rate schedules which are very difficult to compare, thus making it rather difficult to make general statements in this regard. In addition to the one-time connection setup charge, a monthly base fee as well as bandwidth and distance-based charges are often collected, although flat rates are also used. As mentioned earlier, prices have fallen in recent years due to the increasing number of providers and the resulting unused capacity.

The rates of Telekom Austria – as an SMP operator on the retail market and the wholesale market for terminating segments – have to be based on the costs of service provision. In the field of digital transmission lines in towns, Telekom Austria's rate structure for retail leased lines over distances of 50 km and 200 km has developed as follows:

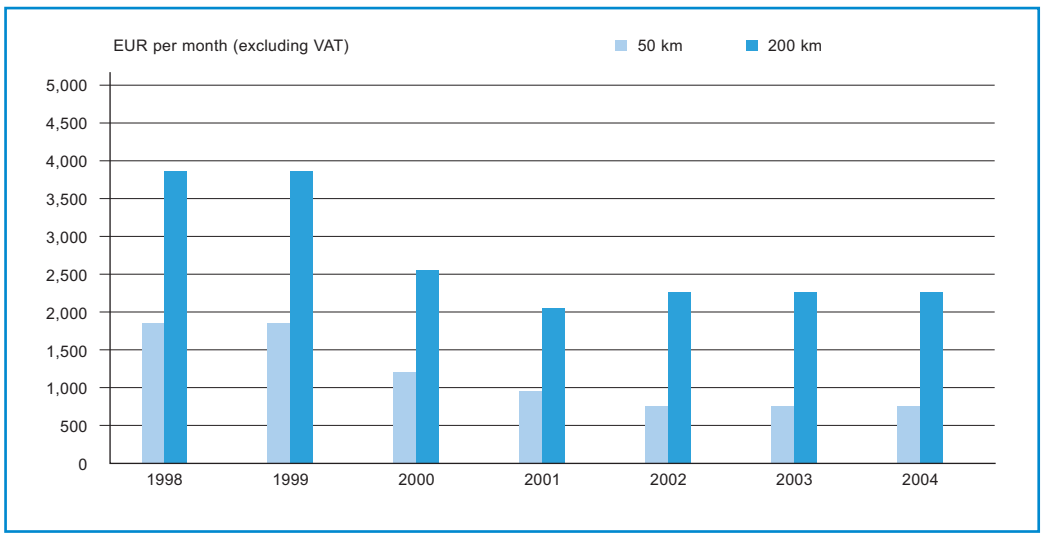
Figure 68: Development of Telekom Austria's rates, 64 kbit/s



Source: Teligen, Report on Telecoms Price Developments from 1998 to 2003 (produced for DG INFSO), Sept. 2003; 2004: Internal calculations.

Figure 69: Development of Telekom Austria's rates, 2 Mbit/s

Downward price trend



Source: Teligen, Report on Telecoms Price Developments from 1998 to 2003 (produced for DG INFSO), Sept. 2003; 2004: Internal calculations.

The bandwidths selected for the comparison represent the leased lines which are most in demand on the retail market. The charts clearly show that prices have declined for all distances and bandwidths, while Telekom Austria's rates have remained stable in recent years.

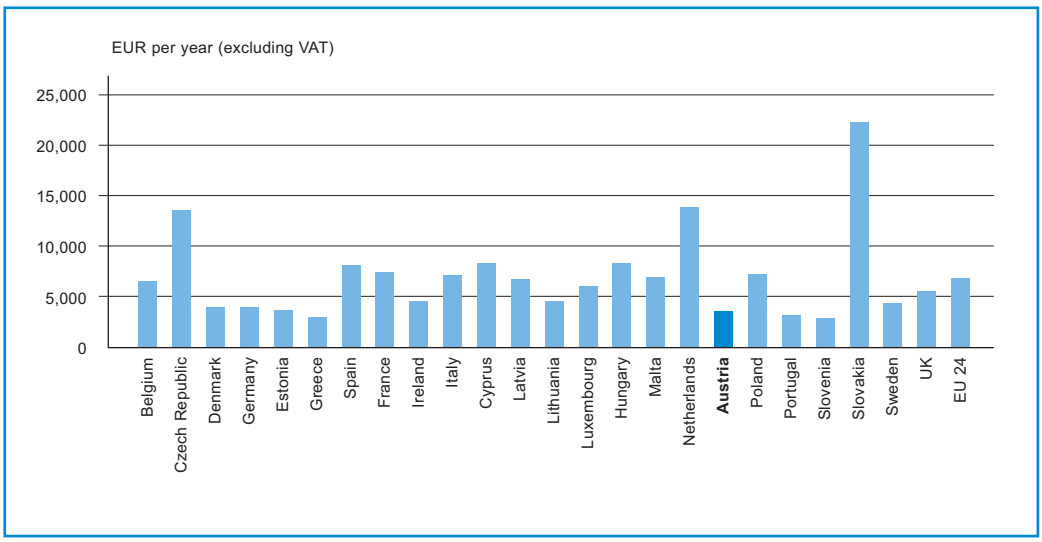
5.2.2.4.4 International

5.2.2.4.4.1 Comparison of rates

International comparisons of leased line prices are published regularly in the European Commission's Implementation Reports. For the first time, these reports also include the ten new EU member states with a comparison of the rates charged by incumbents (in Austria's case: Telekom Austria) as of August 1, 2004. As is the case at the national level, the pricing models of the various incumbent operators demonstrate differences which may lead to certain inaccuracies. However, a pre-defined calculation model ensures the highest possible level of consistency. The current publication includes a comparison of rental fees for national 2 Mbit/s retail leased lines per year not including the connection setup charge.

From this data, it becomes clear that the prices of Telekom Austria are well below the EU average for both short (2 km) and longer (200 km) distances.

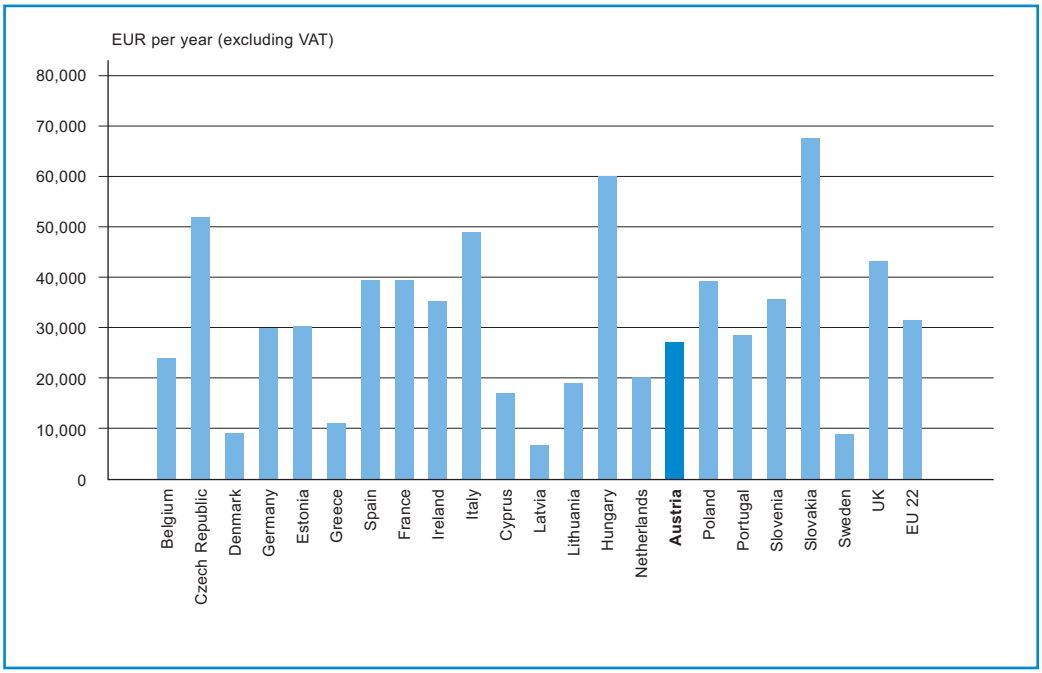
Figure 70: International comparison of leased line prices (2 Mbit/s, 2 km), 2004



Austrian leased line prices are lower than the EU average.

Source: 10th Implementation Report, Annex 3 (EU 24 = minus Finland)

Figure 71: International comparison of leased line prices (2 Mbit/s, 200 km), 2004



Source: 10th Implementation Report, Annex 3, average based on internal calculations (EU 22 = minus Finland, Luxembourg and Malta)

Telekom Austria's rates for 34 Mbit/s and 155 Mbit/s leased lines are also lower than the European average. The charge for longer 64 kbit/s retail lines is slightly above the EU average, but demand for this product in Austria is very low.

5.2.2.4.4.2 Market analyses

Austria, Finland and the UK have completed all market analyses.

In implementing the new legal framework, the other EU member states are also required to carry out market analyses for the relevant markets. In December 2003, the UK was the first member state to report results regarding its national leased line markets; a final decision was taken in June 2004 after consideration of the input received in the consultation procedure. Sweden reported results on its retail market in May, and Finland reported its results for all leased line markets in July. The remaining markets in Sweden have not yet gone through the consultation process. An analysis of the international retail market was reported by Ireland in December.

Austria, Finland and the UK were thus the first member states to complete their market analyses for all relevant leased line markets in 2004.

5.2.2.5 The markets for electronic signatures

Among the services in the field of electronic signatures, those of the certification service providers are discussed first in this section. Seven providers of certification services operated on the Austrian market in 2004:

- Arge Daten - Österreichische Gesellschaft für Datenschutz
- A-Trust Gesellschaft für Sicherheitssysteme im elektronischen Datenverkehr GmbH
- Generali IT-Solutions GmbH
- Institut für Angewandte Informationsverarbeitung und Kommunikationstechnologie (IAIK)
- Mobilkom Austria AG & Co KG
- Web und Co – Webdesign, Multimedia und Consulting GmbH & Co KG (until September 30, 2004)
- XiCrypt Internetsicherheitslösungen GmbH (starting on November 18, 2004).

These seven providers offered a total of 26 certification services in the course of the year. At the end of 2004, 22 of those services were still in operation. These certification services cover the entire range of certificate applications. In general, the services can be grouped as follows:

- Qualified certificates for secure electronic signatures: These certificates are issued only after an identity check by means of an official photo ID and only for keys stored on a secure signature creation unit. Secure electronic signatures are legally equivalent to a personal handwritten signature. Therefore, these certificates are mainly used for legal transactions. Secure electronic signatures have been offered in Austria since early 2002. In 2004, A-Trust was the only company to provide such certificates.

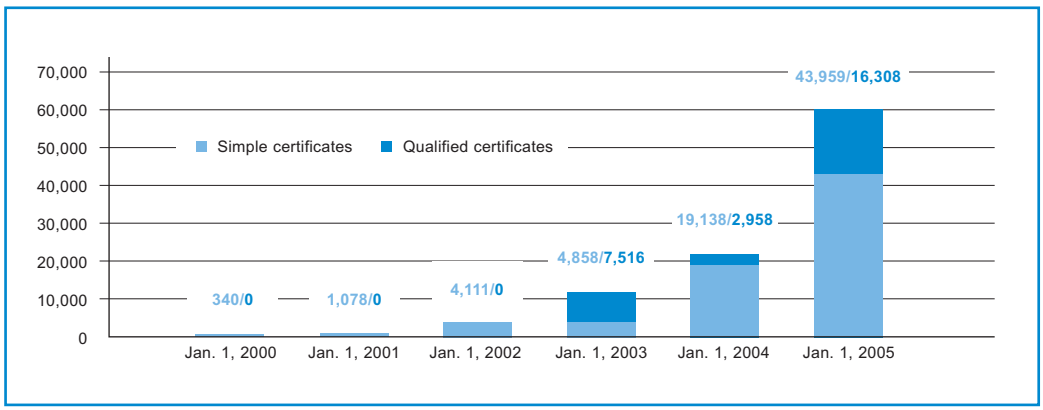
- Simple certificates for keys stored on chip cards, with an identity check by means of an official photo ID: These certificates are used for authentication, for signatures (e.g. in e-mails) and for encryption purposes. They can also be used for "advanced" electronic signatures, with which it is possible to sign electronic invoices, for example. A-Trust was the only provider to offer these certificates in 2004 as well.

- Simple certificates for keys stored in a secure hardware module at the provider's end: Under certain circumstances, these certificates can be used to create administrative signatures. In 2004, Mobilkom was the only company to provide such certificates.

- Other simple certificates involving identity checks by means of an official photo ID are offered by Arge Daten, A-Trust, Generali and IAIK. Under certain circumstances, these certificates can also be used to create advanced electronic signatures.

- The last group includes certificates which are not necessarily subject to identity checks by means of an official photo ID.

Figure 72: Number of certificates issued by Austrian providers



Source: RTR

Since the Signatures Act (SigG) went into effect on January 1, 2000, the number of certificates issued in Austria has tripled each year. As of November 1, 2003, some 16,300 qualified certificates and 44,000 non-qualified certificates had been issued in Austria, meaning that roughly 60,000 people had made use of electronic signatures.

In addition to the certification service providers supervised by the TKK, there are also companies which offer products which support secure electronic signatures: smart cards, smart card readers and secure viewers.

The Austrian confirmation authority A-SIT had tested and certified a total of nine smart card types by the end of 2004. Practical applications mainly involved Philips and Infineon smart card processors using Giesecke & Devrient's STARCOS operating system, Siemens' CardOS, or Austria Card's ACOS. In the case of smart card readers, a wide variety of products have been put to practical use. A-SIT issued certifications for the products of Kobil, Reiner and Siemens (whose Sign@tor reader was developed in Austria). Thus far, only Austrian-developed secure viewers (i.e., programs which ensure the security of the signature creation process and especially display the document to be signed in an unalterable form on screen), have been used in Austria: MBS-Sign and hot:Sign (BDC EDV Consulting GmbH) as well as trustview (IT Solution GmbH). The SecSigner product developed by SecCommerce Informationssysteme GmbH of Hamburg. Germany, is mainly used in online banking.

6. The company

6.1 Staff development

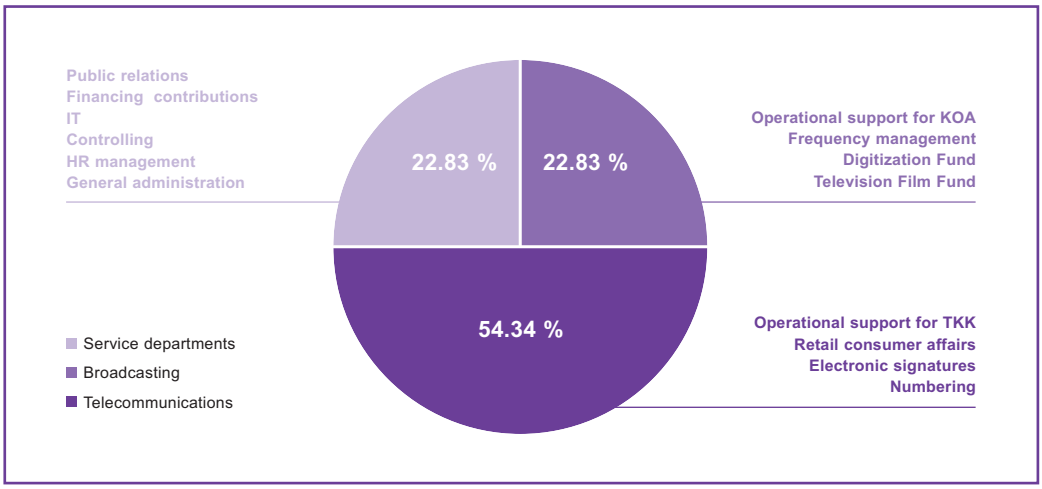
In order for RTR to be able to perform its tasks under the Austrian Communications Act (KOG) and Telecommunications Act (TKG), an average of 93 full-time jobs were planned for the business year 2004 (average staff size in 2003: 84 full-time employees).

Due to RTR's additional duties arising from the amendment to the KOG (BGBl. I No. 71/2003, Articles 9a to 9h), a total of seven full-time positions were created and filled for new areas of activity.

The number of full-time employees for the conventional regulatory fields of broadcasting and telecommunications, which are financed by their respective sectors, was adapted according to the relevant requirements. Changing demands due to Articles 36 and 37 TKG and Art. 2 Par. 1 No. 4 KOG – as well as another doubling of disputes submitted to the department in charge of end-consumer affairs – required another three positions to be created.

Despite growth in the size of the organization and the increasing complexity of tasks, the number of staff in the service departments has remained constant since 2003 due to the consistent utilization of potential productivity gains.

Figure 73: Distribution of FTEs by function as of December 31, 2004



6.2 RTR GmbH 2004 financial statements

The external auditors Deloitte & Touche issued an unqualified audit certificate for RTR's annual accounts for the 2004 business year (January 1, 2004 to December 31, 2004).

RTR's income statement and balance sheet from the 2004 annual accounts are presented below.

The bulk of RTR's revenues in 2004 came from financing contributions required under Art. 10 KOG (EUR 9.48 million). The cumulative annual loss of EUR 1.92 million largely resulted from expenditures incurred in RTR's execution of its duties under the Signatures Act. The operating result arising from regulatory duties under the KOG is balanced, while the result arising from supervisory duties under the Signatures Act was covered by the capital increase of EUR 2.11 million undertaken during the reporting period.

Table 24: Income statement for 2004

		2004		2003	
		EUR		EUR '000	
1.	Net sales		9,481,409.74		8,567
2.	Other operating income				
	a) Income from the reversal of provisions	11,774.02		83	
	b) Miscellaneous	107,270.02	119,044.04	145	228
3.	Personnel expenses				
	a) Salaries	-5,053,063.25		-4,528	
	b) Severance payment expenses	-104,911.06		-93	
	c) Cost of statutory social insurance contributions as well as remuneration-dependent charges and mandatory contributions	-1,064,899.01		-914	
	d) Voluntary benefit expenses	-93,962.93	-6,316,836.25	-104	-5,639
4.	Depreciation of intangible fixed assets and tangible assets		-445,440.82		-516
5.	Other operating expenses		-3,328,171.69		-3,126
6.	**Sub-total of Items 1 to 5, operating result**		**-489,994.98**		**-486**
7.	Income from other securities held as investment assets		91,919.00		80
8.	Miscellaneous interest and similar income		23,922.41		31
9.	Expenses from financial assets		0.00		-19
10.	Interest and similar expenses		-2,063.21		0
11.	**Sub-total of Items 7 to 10, financial result**		**113,778.20**		**92**
12.	**Result from ordinary activities = Net annual loss**		**-376,216.78**		**-394**
13.	Reversal of untaxed reserves		5,038.04		29
14.	Loss carried forward		-1,551,635.37		-1,187
15.	**Accumulated profit/loss**		**-1,922,814.11**		**-1,552**

Sector-specific expenses for the Broadcasting and Telecommunications Divisions

RTR's annual accounts do not contain a breakdown of resource allocations by sector. For this reason, Table 12 below gives a breakdown of major items in RTR's income statement for the Telecommunications (TC) and Broadcasting (BC) Divisions in order to ensure the transparency of sector-specific expenses. In the business year 2004, income and expenses were distributed as follows:

Table 25: RTR expenses by division

EUR '000	TC	BC	Total
Net sales	6,218	3,263	9,481
Other operating revenues	102	17	119
Personnel expenses	-4,486	-1,831	-6,317
Depreciation	-274	-171	-445
Other operating expenses	-2,038	-1,290	-3,328
Operating result	**-478**	**-12**	**-490**
Financial result	104	10	114
Result from ordinary activities	**-374**	**-2**	**-376**
Reversal of reserves	5	0	5
Profit/loss carried forward	-1,615	63	-1,552
Accumulated profit/loss	**-1,985**	**61**	**-1,923**

Table 26: Balance sheet as of December 31, 2004

Assets

		12/31/04	12/31/03
		EUR	EUR '000
A.	**Fixed assets**		
I.	Intangible assets		
	1. Industrial property rights and similar rights	164,605.56	129
		164,605.56	129
II.	Property, plant and equipment		
	1. Fixtures in rented buildings	219,498.56	387
	2. Other fixed assets, furniture, fixtures and fittings	168,791.78	237
		388,290.34	624
III.	Financial assets		
	1. Securities held as investment assets	2,830,703.63	2,831
		2,830,703.63	2,831
		3,383,599.53	3,584
B.	**Current assets**		
I.	Accounts receivable		
	1. Trade accounts receivable	929,442.29	2,740
	2. Other receivables*)	6,881,115.22	2
		7,810,557.51	2,742
II.	Cash on hand and at bank	1,365,882.80	1,561
		9,176,440.31	4,303
C.	**Prepaid expenses, deferred charges**	24,014.97	404
D.	**Trustee accounts / funds**	7,905,016.58	0
		20,489,071.39	8,291

Liabilities

		12/31/04	12/31/03
		EUR	EUR '000
A.	**Equity**		
I.	Capital stock	5,741,153.90	5,741
II.	Net loss for the year, including EUR 1,551,635.37 carried forward	-1,922,814.11	-1,552
		3,818,339.79	4,189
B.	**Untaxed reserves**		
I.	Other untaxed reserves, Inv. tax allowance under Art. 10 EStG	0.00	5
		0.00	5
C.	**Provisions**		
	1. Provisions for severance payments	347,300.00	278
	2. Other provisions*)	6,072,192.10	1,025
		6,419,492.10	1,303
D.	**Accounts payable**		
	1. Trade accounts payable	248,417.99	159
	2. Other accounts payable, including: Taxes: EUR 565,517.59 Social security obligations: EUR 109,082.75	2,412,418.65	2,635
		2,660,836.64	2,794
E.	**Trustee obligations / funds**	7,590,402.86	0
		20,489,071.39	8,291

*) Extraordinary development due to the Administrative Court ruling on Art. 10 KOG.

6.3 Notes on the structure of RTR financing

Financing for RTR's fulfillment of its duties (Art. 5 KOG Par. 3) is defined in Art. 10 KOG and is covered by operators/providers which are required to report revenues under Art. 15 TKG 2003 as well as broadcasting providers established in Austria (i.e., organizations subject to the financing contribution requirement). These organizations have to make annual financial contributions to cover the expenses of the regulatory authority in each sector.

When the Signatures Act (SigG, BGBl I No. 1999/190) went into effect, the TKK was designated as the supervisory authority under Art. 13 SigG. Under Art. 13 Par. 7 and Art. 15 Par. 5 SigG, the activities of the supervisory authority and RTR under the Signatures Act are to be separated from RTR's activities under other federal laws (TKG, KOG etc.) in all organizational and financial aspects.

However, for activities pursuant to the Signatures Act, Art. 13 (4) SigG stipulates that the supervisory authority must require the providers of certification services to pay fees to cover the costs of its activities and consultations. This fee is determined by means of an ordinance.
In the period from January 1 to December 31, 2004, RTR incurred costs totaling EUR 396,177.95 in fulfilling its duties under the Signatures Act. On the other side, revenues amounted to EUR 24,721.22. The excess expenses were covered by the funds raised through RTR's capital increase.

In an amendment to the Communications Act (KOG), the Austrian Digitization Fund and the Austrian Television Film Fund were set up at the beginning of 2004; both are to be administered under the managing director of the Broadcasting Division. The funds are each endowed with EUR 7.5 million annually using state revenues from fees under Art. 3 Par. 1 of the Broadcasting Fees Act (RGG). These amounts are transferred in two equal installments as of January 30 and June 30 each year.

The legal bases for the funds can be found in Articles 9a to 9e KOG (Digitization Fund) and Articles 9f to 9g in conjunction with Articles 9c to 9e KOG (Television Film Fund). These legal provisions describe the purposes of grants and the means by which the funds are raised, as well as defining specific uses for the funds and requiring the definition of guidelines for grant awards.

RTR is required to submit an annual report on the use of these resources to the Federal Chancellor by March 30th each year; the Federal Chancellor is then required to present this report to the Austrian National Council.

In addition to general preparatory work (pilot operation for digital television, DVB-T) in 2003, the regulatory authority drew up the guidelines for grant awards from the funds as well as the application documents. RTR was reimbursed the total costs of EUR 338,536.62 (EUR 271,732.49 for the Digitization Fund and EUR 66,804.13 for the Television Film Fund) from the funds themselves in 2004.

The accounts for the funds developed as follows:

Table 27: Austrian Television Film Fund

Income	**EUR**	**EUR**
Increase from credits in 2004	7,500,000.00	
Interest	89,304.04	7,589,304.04
Allocation of funds		
Grant payments in 2004	-2,414,181.00	
Administrative expenses in 2003	-66,804.13	
Administrative expenses in 2004	-336,172.09	-2,817,157.22
Balance of debits and credits in 2004 = Balance in trustee account as of December 31, 2004		**4,772,146.82**
Unpaid administration expenses from 2004 to be paid out in 2005		-48,850.99
Balance of trustee obligations as of December 31, 2004		**4,723,295.83**
Grants approved but not yet paid out		-4,800,336.00

Approved grants and administrative expenses exceed the total available funds of EUR 7,589,304.04 – consisting of funds transferred by the Federal Chancellery as well as the interest income earned in 2004 – by a narrow margin (approximately 1%). However, this does not pose a (liquidity) problem for the fund, as experience has shown (in the case of grants approved on certain conditions) that some applicants fail to meet these conditions, meaning that not all approved grants will have to be paid out.

Table 28: Austrian Digitization Fund

Income	**EUR**	**EUR**
Increase from credits in 2004	7,500,000.00	
Interest	65,468.75	7,565,468.75
Allocation of funds		
Grant payments in 2004	-2,818,155.81	
RTR grants paid out in 2004	-896,370.32	
Administrative expenses in 2003	-271,732.49	
Administrative expenses in 2004	-446,340.37	-4,432,598.99
Balance of debits and credits in 2004 = Balance in trustee account as of December 31, 2004		**3,132,869.76**
2004 RTR grants to be paid out in 2005		-265,762.73
Balance of trustee obligations as of December 31, 2004		**2,867,107.03**
Grants approved but not yet paid out		-1,468,349.27
Funds available in 2005		1,398,757.76

6.4 RTR Supervisory Board

In 2004, RTR's Supervisory Board consisted of the following members:

- Wilfried Stadler (CEO, Investkredit AG)
  Chairman of the Supervisory Board
- Franz Semmernegg (Managing Director, Kapsch AG)
  Deputy Chairman of the Supervisory Board
- Matthias Traimer (Head of Department V/4, Constitutional Service at the Federal Chancellery), Member of the Supervisory Board
- Ina Sabitzer (Telecommunications Advisor in the Cabinet of the Austrian Federal Minister of Transport, Innovation and Technology), Member of the Supervisory Board

Staff representatives in the Supervisory Board:

- Dieter Staudacher (Chairman of the Works Council, RTR)
- Brigitte Hohenecker (Member of the Works Council, RTR)

6.5 Threshold ordinance

Threshold ordinances reduce the effort and expense involved in collecting financing contributions.

Under Art. 10 Par. 5 KOG, KommAustria and TKK can issue ordinances defining revenue thresholds for the broadcasting industry and the telecommunications industry, respectively, for reasons of administrative efficiency, especially when the effort involved in collecting financing contributions is disproportionate to the amounts to be paid. If this revenue threshold is not reached by an organization which would otherwise be subject to the financing contribution requirement, the revenues of that organization are not included in calculations of total sector-specific revenues. Those organizations are therefore not required to pay financing contributions. Before such ordinances are issued, the organizations obliged to pay financing contributions are to be given the opportunity to submit comments.

After a public consultation regarding the draft ordinance, the TKK issued the "Threshold Ordinance for Telecommunications 2004" (SVO-TK 2004) on March 1, 2004. On the basis of data collected, this ordinance defined the revenue threshold for the telecommunications industry at EUR 230,000.00 for 2004. Similarly, KommAustria issued the "Threshold Ordinance for Broadcasting 2004" (SVO-RF 2004) on March 9, 2004. On the basis of the data collected, this ordinance defined the revenue threshold for the broadcasting industry at EUR 45,000.00 for 2004.


7. Appendix

7.1 Tables, info boxes and figures

Tables

Info boxes

Figures

7.2 Abbreviations

3G	3rd Generation

A

ADSL	Asymmetric Digital Subscriber Line
AK-TK	Technical Coordination Working Group for Telecommunications
ANO	Alternative network operator
ATM	Asynchronous Transfer Mode
AVG	General Administrative Procedures Act (*Allgemeines Verwaltungsverfahrensgesetz*)

B

BGBl.	Federal Legal Gazette (*Bundesgesetzblatt*)
BKA	Federal Chancellery (*Bundeskanzleramt*)
BKS	Federal Communications Senate (*Bundeskommunikationssenat*)
BMVIT	Federal Ministry of Transport, Innovation and Technology (*Bundesministerium für Verkehr, Innovation und Technologie*)
B-VG	Federal Constitutional Act (*Bundes-Verfassungsgesetz*)

C

CATV	Cable TV
CbC	Call-by-call
CBP	Countervailing buyer power
CEPT	European Conference of Postal and Telecommunications Administrations (*Conférence Européenne des Administrations des Postes et des Télécommunications*)
CPS	Carrier pre-selection
CoCom	Communications Committee

D

DICE	Digital Innovation through Cooperation in Europe
DRM	Digital Radio Mondiale
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
DVB-C	Digital Video Broadcasting via Cable
DVB-S	Digital Video Broadcasting via Satellite
DVB-T	Digital Video Broadcasting-Terrestrial

E

EC	European Commission
ECC	European Communication Council
ECG	E-Commerce Act (*E-Commerce-Gesetz*)
ECP	European Common Proposal
EEN-V	Itemized Billing Ordinance (*Einzelentgeltnachweis-Verordnung*)
ENUM	Electronic Numbering Mapping
EPG	Electronic Program Guide
ERG	European Regulators Group
ESP	Enhanced service provider

ETSI	European Telecommunication Standardisation Institute
EVO	Fees Ordinance
EVO 2003	Fees Ordinance 2003

F

FBZV	Frequency Range Allocation Ordinance
FESA	Forum of European Supervisory Authorities for Electronic Signatures
FFFF	Austrian Television Film Fund (*Fernsehfilmförderungsfonds*)
FL-LRAIC	Forward Looking-Long Run Average Incremental Costs
FMWG	Frequency Management Working Group
FNV	Frequency Utilization Ordinance (*Frequenznutzungsverordnung*)
FTE	Full-Time Equivalent
FTTH	Fiber to the Home

G

GHz	Gigahertz
GSM	Global System for Mobile Communication

H

HDSL	High-Data-Rate Digital Subscriber Line
HFC	Hybrid Fiber Coax
HFCC	High Frequency Co-ordination Conference
HH	Household(s)
HHI	Hirschman-Herfindahl-Index
HTTP	Hypertext Transfer Protocol

I

IC	Interconnection
IETF	Internet Engineering Task Force
IRG	Independent Regulators Group
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
ISPA	Internet Service Providers Austria
ITU	International Telecommunication Union

K

KEM-V	Communications Parameters, Fees and Value-Added Service Ordinance (*Kommunikationsparameter-, Entgelt- und Mehrwertdiensteverordnung*)
KEV	Communications Survey Ordinance
KOA	KommAustria
KOG	KommAustria Act (*KommAustria-Gesetz*)
KommAustria	Austrian Communications Authority
KSchG	Consumer Protection Act (*Konsumentenschutzgesetz*)

L

LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
LRAIC	Long-Run Average Incremental Cost

M

Mbit/s	Megabits per second
MDF	Main distribution frame
MHP	Multimedia Home Platform
MMS	Multimedia Messaging Service
MNO	Mobile Network Operator
MVNO	Mobile Virtual Network Operator
MW	Medium wave

N

NÜV	Number Porting Ordinance
NVO	Numbering Ordinance

O

ÖAK	Austrian Circulation Survey (*Österreichische Auflagenkontrolle*)
OECD	Organization for Economic Cooperation and Development
ONP	Open Network Provision
ORF	Austrian Broadcasting Corporation (*Österreichischer Rundfunk*)
ORF-G	ORF Act (*ORF-Gesetz*)

P

PAC	Payphone Access Charge
PIB	Principles of Implementation and Best Practice
PLC	Power Line Communication
POTS	Plain Old Telephone Service
PresseFG 2004	Press Subsidies Act 2004 (*Presseförderungsgesetz 2004*)
PrR-G	Private Radio Act (*Privatradiogesetz*)
PrTV-G	Private Television Act (*Privatfernsehgesetz*)
PSTN	Public Switched Telephone Network
PTT	Postal, Telegraph and Telephone Administration
PubFG	Journalism Subsidies Act 1984 (*Publizistikförderungsgesetz 1984*)

R

RFMVO 2004	Broadcasting Market Definition Ordinance 2004 (*Rundfunkmarktdefinitionsverordnung 2004*)
RPG	Regulatory and Procedural Group
RR	Radio Regulations
RRC	Regional Radio Conference
RTR	Austrian Regulatory Authority for Broadcasting and Telecommunications (Rundfunk und Telekom Regulierungs-GmbH)
R-VO	Reference Rate Ordinance (*Richtsatzverordnung*)

S

SDSL	Symmetric Digital Subscriber Line
SigG	Signatures Act
SigV	Signatures Ordinance
SIP	Session Initiation Protocol
SKP-V	Special Communications Parameters Ordinance
SMP	Significant market power
SMS	Short Message Service

SSL	Secure Socket Layer
SVO-RF 2004	Broadcasting Threshold Value Ordinance 2004 (*Schwellenwert-Verordnung Rundfunk 2004*)
SVO-TK 2004	Telecommunications Threshold Value Ordinance 2004 (*Schwellenwert-Verordnung Telekommunikation 2004*)
SW	Short wave

T

T-DAB	Terrestrial-Digital Audio Broadcasting
TKG (1997)	Telecommunications Act 1997 (*Telekommunikationsgesetz 1997*)
TKG 2003	Telecommunications Act 2003 (*Telekommunikationsgesetz 2003*)
TKGV	Telecommunications Fees Ordinance (*Telekommunikationsgebührenverordnung*)
TKK	Telekom-Control Commission (*Telekom-Control-Kommission*)
TKMVO 2003	Telecommunications Markets Ordinance 2003 (*Telekommunikationsmärkte-Verordnung 2003*)
TWG	Telecommunications Route Act (*Telekommunikationswegegesetz*)

U

UDV	Universal Service Ordinance (*Universaldienstverordnung*)
ULL	Unbundled Local Loop
UMTS	Universal Mobile Telecommunication System
URI	Universal Resource Identifier
URL	Uniform Resource Locator
VAT	Value-added tax
ÜVO	Monitoring Ordinance (*Überwachungsverordnung*)

V

VDSL	Very High Data Rate Digital Subscriber Line
VfGH	Austrian Constitutional Court (*Verfassungsgerichtshof*)
VHF	Very High Frequency
VoIP	Voice over Internet Protocol
VPN	Virtual Private Network
VwGH	Austrian Administrative Court (*Verwaltungsgerichtshof*)

W

WAG	Securities Supervision Act (*Wertpapieraufsichtsgesetz*)
WIK	Scientific Institute for Communications Services (*Wissenschaftliches Institut für Kommunikationsdienste*)
WLAN	Wireless Local Area Network
WLL	Wireless Local Loop
WWW	World Wide Web

X

xDSL	x Digital Subscriber Line

Z

ZuKG	Access Control Act (*Zugangskontrollgesetz*)
ZVO	Interconnection Ordinance (*Zusammenschaltungsverordnung*)

7.3 Relevant legal sources

7.3.1 EU directives

Access Directive	(RL 2002/19/EC) Directive of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (OJ L108 of 24 April 2002, p. 7).
Authorisation Directive	(RL 2002/20/EC) Directive of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (OJ L108 of 24 April 2002, p. 21).
Directive on Privacy and Electronic Communications	Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (OJ L201, 31 July 2002, p. 37).
Framework Directive	(RL 2002/21/EC) Directive of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (OJ L108 of 24 April 2002, p. 33).
Interconnection Directive	(RL 97/33/EC as amended by RL 98/61/EC) Directive of the European Parliament and of the Council of 30 June 1997 on interconnection in telecommunications with regard to ensuring universal service and interoperability through application of the principles of open network provision (ONP) (OJ L199 of 26 July 1997, p. 32, as amended by Directive 98/61/EC of the European Parliament and of the Council of 24 September 1998 amending Directive 97/33/EC with regard to number portability and carrier pre-selection (OJ L268 of 03 October 1998, p. 37)). The Directive was replaced by Art. 26 of the Framework Directive, 2002/21/EC.
Signatures Directive	(RL 1999/93/EC) Directive of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures (OJ L13 of 19 January 2000, p. 12).
Television Directive	(RL 89/552/EEC) Council Directive on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the pursuit of television broadcasting activities (OJ L331 of 16 November 1989, p. 1, as amended by Directive 97/36/EC, OJ L202 of 30 July 1997, p. 60).

Universal Service Directive	(RL 2002/22/EC) Directive of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services (OJ L108 of 24 April 2002, p. 51).
Voice Telephony Directive	(RL 98/10/EC) Directive of the European Parliament and of the Council of 26 February 1998 on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment (OJ L101 of 1 April 1998, p. 24). The Directive was replaced by Art. 26 of the Framework Directive, 2002/21/EC.

7.3.2 Austrian legislation

7.3.2.1 Federal acts

Access Control Act (ZuKG)	(*Zugangskontrollgesetz*) Federal act on the protection of services subject to access control, BGBl. No. 60/2000 as amended by BGBl. I No. 32/2001.
Austrian Communications Act (KommAustria Act, KOG)	(*KommAustria-Gesetz*) Federal Act on the creation of the Austrian Communications Authority (KommAustria) and the Federal Communications Senate, BGBl I No. 32/2001 as amended by BGBl. I No. 97/2004.
Broadcasting Fees Act (RRG) (*Rundfunkgebührengesetz*)	Federal Act on the collection of broadcasting fees, BGBl. No. 159/1991 as amended by BGBl. I No. 71/2003.
Cartel Act 1988 (KartG 1988) (*Kartellgesetz*)	Federal Act of October 19, 1988 on cartels and other restrictions on competition, BGBl. No. 600/1988 as amended by BGBl. I No. 112/2003.
Competition Act (*Wettbewerbsgesetz*)	Federal Act on the establishment of a Federal Competition Authority, BGBl. No. 753/1996 as amended by BGBl. I No. 62/2002 Article I.
Consumer Protection Act (KSchG)	(*Konsumentenschutzgesetz*) Federal Act of March 8, 1979, enacting provisions for the protection of consumers, BGBl. 1979/140 as amended by BGBl. 91/2003.
E-Commerce Act (ECG) (*E-Commerce-Gesetz*)	Federal Act on the regulation of specific legal aspects of electronic commerce, amending the Signatures Act and the Civil Procedure Code, BGBl. I No. 152/2001
Federal Constitutional Act (B-VG)	(*Bundes-Verfassungsgesetz*) Federal Constitutional Act, BGBl. No. 1/1930 as amended by BGBl. I No. 153/2004.

General Administrative Procedures Act (AVG)	(*Allgemeines Verwaltungsverfahrensgesetz*) General Administrative Procedures Act, BGBl. No. 51/1991 as amended by BGBl. I No. 10/2004.
Journalism Subsidies Act 1984 (PubFG)	(*Publizistikförderungsgesetz*) Federal Act on subsidies for political educational work and journalism, BGBl. No. 369/1984 as amended by BGBl. I No. 136/2003.
ORF Act (ORF-G)	(*ORF-Gesetz*) Federal Act on the Austrian Broadcasting Corporation, BGBl. No. 379/1984 as amended by BGBl. I No. 97/2004.
Press Subsidies Act 2004 (PresseFG 2004)	(*Presseförderungsgesetz*) Federal Act enacting a federal law on subsidies for the press and amending the KommAustria Act, the Journalism Subsidies Act and the Federal Finance Act 2004, BGBl. I No. 136/2003.
Private Radio Act (PrR-G)	(*Privatradiogesetz*) Federal Act enacting provisions on private radio broadcasting, BGBl. I No. 20/2001 as amended by BGBl. I No. 97/2004.
Private Television Act (PrTV-G)	(*Privatfernsehgesetz*) Federal Act enacting provisions on private television, BGBl. I No. 84/2001 as amended by BGBl. I No. 97/2004.
Securities Supervision Act (WAG)	(*Wertpapieraufsichtsgesetz*) Federal act on the supervision of securities-related services, BGBl. No. 80/2003.
Signatures Act (SigG)	(*Signaturgesetz*) Federal Act on electronic signatures, BGBl. No. 190/1999 as amended by BGBl. I No. 152/2001.
Telecommunications Act 1997 (TKG 1997)	(*Telekommunikationsgesetz 1997*) Federal act enacting a law on telecommunications and amending the Telegraph Routes Act, the Telephone Rates Act and the Cable and Satellite Broadcasting Act, as well as adding supplementary provisions to the Broadcasting Act and the Broadcasting Ordinance, BGBl. I No. 100/1997 as amended by BGBl. I No. 16/2003.
Telecommunications Act 2003 (TKG 2003)	(*Telekommunikationsgesetz 2003*) Federal act enacting a federal law on telecommunications and amending the federal law on traffic and work inspection as well as the KommAustria Act, BGBl. I No. 70/2003 as amended by BGBl. I No. 178/2004.

7.3.2.2 Ordinances

Broadcasting Market Definition Ordinance 2004 (RFMVO 2004)	(*Rundfunkmarktdefinitionsverordnung 2004*) 2nd Ordinance of the Austrian Communications Authority (KommAustria) on the relevant national markets for broadcasting transmission services for the provision of broadcasting content for end-users, subject to sector-specific regulation under the Telecommunications Act 2003 (TKG 2003, BGBl. I No. 70/2003).
Broadcasting Threshold Value Ordinance 2004 (SVO-RF 2004)	(*Schwellenwert-Verordnung Rundfunk 2004*) 4th Ordinance of the Austrian Communications Authority (KommAustria) defining a threshold value below which the revenues of a party subject to the financing contribution are not included in calculation of overall sector-specific revenues.
Communications Parameters, Fees and Value-Added Service Ordinance (KEM-V)	6th (*Kommunikationsparameter-, Entgelt- und Mehrwertdiensteverordnung*) RTR Ordinance defining regulations regarding communications parameters, fees and value-added services.
Communications Survey Ordinance (KEV)	(*Kommunikations-Erhebungs-Verordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology ordering statistical surveys in the field of communications, BGBl. II No. 365/2004.
Framework Guidelines Ordinance	(*Rahmenrichtlinienverordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology defining framework guidelines for the issuance of general terms and conditions for the sharing of infrastructure and for the provision of reserved telecommunications services, BGBl. No. 756/1994.
Frequency Allocation Ordinance	(*Frequenzwidmungsverordnung*) Ordinance of the Austrian Federal Minister of Science, Transport and Arts allocating frequencies and frequency bands for harmonized European radio systems, BGBl. II No. 313/1996.
Frequency Range Allocation Ordinance (FBZV)	(*Frequenzbereichszuweisungsverordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology on the allocation of frequency ranges, BGBl. II No. 456/2003.
Frequency Utilization Ordinance (FNV)	(*Frequenznutzungsverordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology on the use of frequencies, BGBl. II No. 457/2003 as amended by BGBl. II No. 134/2004.

Interconnection Ordinance (ZVO)	(*Zusammenschaltungsverordnung*) Ordinance of the Austrian Federal Minister of Science and Transport specifying requirements with regard to interconnection, BGBl. II No. 14/1998.
Itemized Billing Ordinance (EEN-V)	(*Einzelentgeltnachweis-Verordnung*) 4th RTR Ordinance specifying the level of detail and the form of provision for itemized billing.
KommAustria Reference Rate Ordinance (R-VO)	(*Richtsatzverordnung* (R-VO) *der KommAustria*) 3rd Ordinance of the Austrian Communications Authority (KommAustria) defining a uniform nationwide reference rate for one-off compensation for the use of lines or systems secured by rights, also for the installation, operation, expansion or replacement of communication lines by their owners.
Monitoring Ordinance (ÜVO)	(*Überwachungsverordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology on the monitoring of telecommunications traffic, BGBl. II No. 418/2001 as amended by BGBl. II No. 559/2003.
Number Porting Ordinance (NÜV)	(*Nummernübertragungsverordnung*) Ordinance of the Austrian Federal Minister of Transport, Innovation and Technology on number porting in mobile communications networks, BGBl. II No. 513/2003.
RTR Reference Rate Ordinance (R-VO)	(*Richtsatzverordnung* (R-VO) *der RTR-GmbH*) 5th RTR Ordinance defining a uniform nationwide reference rate for one-off compensation for the use of lines or systems secured by rights, also for the installation, operation, expansion or replacement of communication lines by their owners.
Signatures Ordinance (SigV)	(*Signaturverordnung*) Ordinance of the Austrian Federal Chancellor on electronic signatures, BGBl II No. 30/2000
Special Communications Parameters Ordinance (SKP-V)	(*Spezielle Kommunikationsparameter-Verordnung*) 2nd RTR Ordinance defining a partial plan for communications parameters.
Telecommunications Fees Ordinance (TKGV)	(*Telekommunikationsgebührenverordnung*) Ordinance of the Austrian Federal Minister of Science and Transport on fees in the field of telecommunications, BGBl. II No. 29/1998 as amended by BGBl. II No. 388/2001.
Telecommunications Markets Ordinance 2003 (TKMVO 2003)	(*Telekommunikationsmärkte-Verordnung*) 1st RTR Ordinance defining the relevant national markets subject to sector-specific *ex ante* regulation in the telecommunications sector.

Telecommunications Threshold Value Ordinance 2004 (SVO-TK 2004)	(*Schwellenwert-Verordnung Telekommunikation 2004*) 1st Ordinance of the Telekom-Control Commission (TKK) defining a threshold value below which the revenues of a party subject to the financing contribution requirement are not included in calculation of overall sector-specific revenues.
Telecoms Pricing Ordinance	(*Telekom-Tarifgestaltungsverordnung*) Ordinance of the Austrian Federal Minister of Science, Transport and Arts defining a pricing system for specific telecommunications services, BGBl. II No. 650/1996.
Universal Service Ordinance (UDV)	(*Universaldienstverordnung*) Ordinance of the Austrian Federal Minister of Science and Transport defining quality criteria for universal service, BGBl. II No. 192/1999 as amended by BGBl. II No. 173/2000. BGBl. II Nr. 14/1998.

7.3.3 International law

Television Convention	European Convention on Transfrontier Television, including Appendix (BGBl. III No. 164/1998), Protocol Amending the European Convention on Transfrontier Television (BGBl. III No. 64/2002).
Constitution and Convention of the International Telecommunication Union	Constitution of the International Telecommunication Union and Convention of the International Telecommunication Union, Geneva 1992; Optional Protocol on the Compulsory Settlement of Disputes relating to the ITU Constitution, to the ITU Convention and the Administrative Regulations, Geneva 1992; Instrument amending the Constitution and Convention of the International Telecommunication Union, Kyoto 1994 (BGBl. III No. 17/1998). Instruments amending the Constitution and Convention of the International Telecommunication Union, Geneva 1992, as amended by the Plenipotentiary Conference, Kyoto 1994, including Annex; Amendments adopted by the Plenipotentiary Conference (Minneapolis 1998) including Annexes, Declarations and Reservations (BGBl. III No. 48/2003)
Radio Regulations (RR)	Radio Regulations, part of the agreements under Art. 4 Par. 3 of the Constitution of the International Telecommunication Union.
Stockholm 1961 Agreement	Regional Agreement on the European Broadcasting Area, Stockholm 1961.
Geneva 1975 Agreement	Final Act of the Regional Administrative LF/MF Broadcasting Conference, Geneva 1975.

Geneva 1984 Agreement	Final Act of the Regional Administrative Radio Conference for the Planning of VHF Sound Broadcasting, Geneva 1984.
Wiesbaden 1995 Agreement (Bonn 1996, Maastricht 2002)	Special Arrangement of the European Conference of Postal and Telecommunications Administrations (CEPT) relating to the use of the bands 47-68 MHz, 87.5-108 MHz, 174-230 MHz, 230-240 MHz and 1452-1492 MHz for the introduction of Terrestrial Digital Audio Broadcasting (T-DAB), Wiesbaden 1995, as revised by the CEPT T-DAB planning meeting, Bonn 1996, Maastricht 2002.
Chester 1997 Agreement	Multilateral Coordination Agreement relating to Technical Criteria, Coordination Principles and Procedures for the Introduction of Terrestrial Digital Video Broadcasting (DVB-T), Chester 1997.
Maastricht 2002 Agreement	Special Arrangement of the European Conference of Postal and Telecommunications Administrations (CEPT) relating to the use of the band 1452-1479.5 MHz for Terrestrial Digital Audio Broadcasting (T-DAB).
WTO Agreement	Agreement Establishing the World Trade Organization (WTO), including the Final Act, Annexes, Ministerial Decisions and Declarations, as well as Austria's Schedules of Concessions on agricultural and non-agricultural goods and Austria's Schedules of Commitments for services (BGBl. Nr. 1/1995).

7.4 Abbreviated company names

3G Mobile	3G Mobile Telecommunications GmbH
Arge Daten	Arge Daten – Österreichische Gesellschaft für Datenschutz
A-SIT	A-SIT Zentrum für sichere Informationstechnologie - Austria
atms	atms Telefon- und Marketing Services GmbH
A-Trust	A-Trust Gesellschaft für Sicherheitssysteme
Atv Aichfeld	Atv Aichfeld Film- und Videoproduktion GmbH
ATVplus	ATV Privatfernseh-GmbH
Colt	Colt Telecom Austria GmbH
Citykom	Citykom Austria Telekommunikation GmbH
Datakom	Datakom Austria GmbH
enum.at	enum.at GmbH
eTel	eTel Austria GmbH
FESSEL-GfK	FESSEL-GfK Institut für Marktforschung Ges.m.b.H.
Generali	Generali IT-Solutions GmbH
H3G	Hutchison 3G Austria GmbH
Interline	Interline Telekommunikations GmbH
IAIK	Institut für Angewandte Informationsverarbeitung und Kommunikationstechnologie
IPA	Internet Privatstiftung Austria
LIWEST	LIWEST Kabelmedien GmbH
MCI	MCI WorldCom Telecommunication Services Austria Gesellschaft m.b.H.
Mobilkom	mobilkom austria AG & Co KG
One	One GmbH
ORF	Österreichischer Rundfunk
ORS	Österreichische Rundfunksender GmbH & Co KG
RTR-GmbH	Rundfunk und Telekom Regulierungs-GmbH
Schrack Mediacom	Schrack Mediacom GmbH
SFG	Styrian Business Promotion Agency (Steirische Wirtschaftsförderungsges. m.b.H.)
Siemens	Siemens AG Österreich
TA	Telekom Austria AG
tele.ring	tele.ring Telekom Service GmbH
Tele2	Tele2 Telecommunication Services GmbH
Telekabel Wien	Telekabel Wien GmbH
Telekabel Wireless	Telekabel Wireless GmbH
Telekom Austria	Telekom Austria AG
Teleport	Teleport Consulting und Systemmanagement GmbH
T-Mobile Austria	T-Mobile Austria GmbH
UTA	UTA Telekom AG
Web und Co	Web und Co – Webdesign, Multimedia und Consulting GmbH & Co KG
WIGeoGIS	WIGeoGIS GmbH
WiMAX Telecom	WiMAX Telecom GmbH
XiCrypt	XiCrypt Internetsicherheitslösungen GmbH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The text in this report was prepared with due attention to gender neutrality. Any and all deviations from this policy are exclusively for the sake of improving the text's readability.

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