

**REPUBLIC OF MOLDOVA  
NATIONAL REGULATORY AGENCY FOR TELECOMMUNICATIONS AND  
INFORMATICS**

**A N N U A L   R E P O R T  
2 0 0 6**

National Regulatory Agency for Telecommunications and informatics (NRATI)

**REPORT**  
**On activity of National Regulatory Agency for**  
**Telecommunications and Informatics and Development of**  
**Telecommunications and Informatics Market in 2 0 0 6**

Chisinau 2007

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## FOREWORD

We have all reason to assert that after the first two years of complete liberalization of telecommunications and informatics market, the year 2006 has become part of Moldova's communications history as the year when the tendency of communications market to increase significantly strengthened. Suffice it to say that in the timeframe under report the number of license holders in the sector surpassed 1200, while the number of operating companies reached 880. Network and service providers recorded a 4,5-billion-lei turnover, which is by 23,52% higher than in 2005, its share in the GDP reaching 10,2%.

Besides these figures, on most market segments the competition between service providers intensified, which in the end turned out to be a gain for final users. They confidently started exercising their right to choose those services that can meet the most exigent demands, from multiple offers launched on the market. After mobile telephony recorded 1 million users in 2005, fixed telephony registered the same number of users in 2006. The total number of connections to the Internet, compared to 2005, grew more than twice, showing 460 thousand, while their penetration per 100 inhabitants reached 13,6%. It pleases to say that this increase was mainly caused by the extension of Internet access services to rural areas of the country, which means that more categories of population can benefit from access to the global net.

However, the results of 2006 show that the degree of competition differs from segment to segment. Mobile telephony and Internet access sectors undergo rapid development and tough competition, while the situation of the fixed and IP-telephony is different, being affected by the anti-competitive behavior of the incumbent JSC MOLDTELECOM. Because of the existing shortcomings in the legal framework, JSC MOLDTELECOM, *de facto* holding more than 95% of the fixed telephony market, was not designated as operator with significant market power. NRATI, in its turn was not able to impose specific obligations regarding preventing and eliminating abuse in relation to other operators. The delay in the tariff-rebalancing process for basic public telecommunications services provided by JSC MOLDTELECOM was another negative impact on this market segment. The Agency did its utmost to unblock the process, but, regretfully, the attempts failed.

In order to change the situation for the better, to prevent and eliminate abuse by dominant operators, we are in acute need of a new Law on Electronic Communications that will enforce NRATI right to define relevant markets, to designate operators with significant market power and impose specific obligations to remove anti-competitive practices.

We strongly believe that when the Parliament adopts in 2007 the final reading of mentioned Law, harmonized with EU regulatory framework, NRATI's role of a judge on the communications market will be enforced, thus extending the regulator's possibilities to protect fair competition on the market.

We are certain that with the new law being in force, the Agency will succeed in settling all the above-mentioned problems and become an authority capable to ensure market efficiency, to create favorable conditions both for the activity of the existing operators and for the entry of new network and service providers.

Readers are kindly invited to further acquaint themselves with the report for 2006, in hope that the facts and figures it contains speak about the situation in the sector and about NRATI's activity in this timeframe. We hope that the report will help the interested individuals know more about both the evolution of the market in 2006, challenges and future projects of the Agency.

Stanislav GORDEA, Deputy Director NRATI

## **I. OVERVIEW OF ACTIVITIES PERFORMED BY NRATI IN 2006**

### **1.1 Economic Regulations**

The economic regulation of the market is one of the basic mechanisms, by means of which NRATI establishes equal and non-discriminatory rules on the telecommunications and informatics service market. The implementation of such regulations is of special importance in ensuring a competitive environment, whereas their final goal is the provision of a wide range of high-quality services at reasonable prices for users.

For the purpose of enhancing competition on the communications market, in 2006 NRATI continued its activity in terms of market economic regulation, by developing the draft Regulations regarding Separate Accounting within the Internal Accounting System and the draft Regulation on Relevant Market Analysis and Designation of Operators with Significant Market Power and by advancing proposals meant to improve the conditions of interconnection and access for new market entrants.

In the reporting timeframe, NRATI collected and processed statistical data provided by telecommunications and informatics service providers and operators, using those as background in analyzing the prospects of market evolution and development. By means of this analysis NRATI evaluated the results of the regulatory mechanisms applied. Statistical data concerning fixed, mobile and data transport sectors were collected on quarterly basis, which fact allowed NRATI specialists to study the market more thoroughly and to evaluate the dynamics of its indicators.

Such issues as the migration of users of JSC MOLDTELECOM - the biggest fixed telephony service provider, depending on the type of subscriptions used, the local, long-distance and international traffic, the evolution of all revenue types, as well as the process of network digitalization and fixed penetration rate have also been analyzed.

#### **1.1.1. Adjustment of Tariffs Applied by Dominant Operators**

In 2006, NRATI examined the draft document of tariff adjustment for the tariffs, applied by State Company Radio Communications for television services, television program separation, radio broadcasting services, transportation and separation of radio broadcasting services provided by PNIA (Public National Institution of Audiovisual) Teleradio-Moldova (TV network I), for television services, transportation and separation of television programs via TV network III and for cable radio services.

As a result of analysis of the above-mentioned draft documents proposed by State Company Radio Communications, in particular of the expenses incurred as a result of equipment wear and tear, depreciation of costs of low-power re-transmitters, NRATI concluded that the draft documents are economically well-grounded, cost-oriented and pursue the Methodology of Cost and Tariff Calculation for services provided by State Company Radio Communications, which was approved by Government Decree no. 707 dated 14.07.2000. The proposed tariffs were discussed during joint public sessions that also summoned representatives of beneficiaries of services provided by State Company Radio Communications. The discussions ended in an agreement to proceed to a gradual increase of tariffs, in order to diminish the negative effects on the economic and financial activity of corresponding companies.

In taking the decision to modify the tariffs for the afore-mentioned services, NRATI also took into account the need that the modified tariffs must ensure good conditions for broadcasting of television and radio programs, recovery of operational costs, as well as those incurred from efficient operation of technological equipment, of expenses related to environment protection, as well as a reasonable rate of return, necessary for the company to continue operation. The

previous tariffs failed to cover the expenses incurred by SC Radio Communications, they having been approved in 2000, while the tariff for cable radio broadcasting services – in 1997. NRATI also considered the fact that in 2000-2005, the tariffs for electric power increased by 56%, the prices for materials, fuels and spares – by about 85%, the I-category salary grew by 8,4 and moreover, and new expenses occurred, related to the implementation of the new obligatory medical insurance system. The recommendations of the Commission for Examination of Expenses Incurred by SC Radio Communications, created in 2004 by the Government, were also considered. The Commission confirmed poor economic and financial situation of the company and recommended, in its conclusions, gradual adjustment of tariffs to real service provision costs.

According to NRATI Administrative Board Decision, published in the Official Gazette of March 31, 2006, the new tariff for cable radio broadcasting service, per subscriber, is 2,8 lei monthly without VAT in relation to the old 1- leu tariff. The tariff for audiovisual program broadcasting services via TV network III grew from 807,9 to 1613,8 lei for one broadcasting hour. The tariffs for television programs broadcasting services via TV network I and radio programs via radio broadcasting network I, whose beneficiary is PNIA (Public National Institution of Audiovisual) Teleradio-Moldova, are 2138,4 lei and 784,48 lei per broadcasting hour. The tariff increase took place in two stages: the first started on July 1 2006 and the second on January 1 2007.

The establishment of access deficit tariff is an important element of market economic regulation. The amount of this tariff, paid by IP-telephony service providers that use IP protocol for international call origination, was the same as in 2005 - 0,39 lei per minute. The amount was set through NRATI Administrative Board Decision no. 05 of 09.02.2005. Though JSC MOLDTELECOM requested the increase of this tariff to 0,74 lei per minute, NRATI did not accept this proposal for the reason that the data presented by the company were not economically grounded. The present access deficit tariff was not reduced, as it had been expected in 2005, for the reason that in 2006 the next, III<sup>rd</sup> tariff re-balancing stage (for basic public telecommunication services provided by JSC MOLDTELECOM) was not implemented.

According to NRATI estimations the access deficit tariff will be re-calculated and reduced during the III<sup>rd</sup> stage of tariff re-balancing mentioned above. Upon finalizing the re-balancing process the access deficit will be eliminated from market economic regulation.

By paying the access deficit tariff, the IP-telephony service operators, connected to the network of JSC MOLDTELECOM, subsidize the deficit of revenue, necessary to cover the costs of the company's local infrastructure maintenance. This deficit is caused by the under-cost tariffs applied for fixed local telephony. The access deficit tariff has been applied since 2001, being initially 2,48 lei, without VAT, per one minute of international telephone calls via IP-telephony. Subsequently, the Agency reduced it considerably: in 2001 it was reduced to 1,34 lei, in 2002 – to 0,98 lei, in 2004 – to 0,50 lei and in 2005 – to 0,39 lei.

In 2006, NRATI took some actions with the view of finalizing tariff re-balancing for basic public telecommunications services provided by JSC MOLDTELECOM, the aim of which is to put an end to the cross-subsidization of services by this operator. For this purpose, the Agency thoroughly analyzed stage II of tariff re-balancing, including the evolution of local traffic per type of subscribers, the revenues obtained from subscriptions and from traffic per type of subscribers, the evolution of both long-distance and international traffic and revenue per type of subscribers.

The analysis proved that as a result of implementation of stage II of tariff re-balancing, JSC MOLDTELECOM succeeded in strengthening its financial and economic situation. The company reduced its dependence on the revenues generated by international traffic and cross-subsidization of services. Based on this analysis and pursuant to the provisions of art. 9 (1), sub-section d) of the Telecommunications Law, NRATI developed the draft tariff adjustment for the next tariff re-balancing stage and presented the document to the Government for consultation in June 2006.

NRATI approved the tariff re-balancing plan for the basic public telecommunications services provided by JSC MOLDTELECOM in December 2002, as a result of consultations with the Government. The first two stages of the plan started on February 1, 2003 and February 1, 2004.

### **1.1.2. Regulation of Network and Service Interconnection**

Acknowledging the major importance of the regime of interconnection between providers of networks and services for market development of the and for the benefit of final users, as well as the need to promote competition in the telecommunications sector, in 2006 NRATI started developing regulations meant to ensure the implementation of economic models of cost-orientated tariffs. These regulations, planned to be finalized in 2007, aim at ensuring equal conditions for pricing the interconnection services. The necessity of such regulations imposed itself in 2005-2006, when NRATI lacked the legal framework necessary for the approving the tariffs for interconnection services provided by JSC MOLDTELECOM.

Under these circumstances, NRATI recommended that the incumbent should not modify the interconnection tariffs, so as not to admit market distortions. However, JSC MOLDTELECOM ignored the recommendations and made modifications in the reference interconnection offer (RIO) for 2007, yet, having regard to the general rule. Moreover, RIO does not contain all the technical and commercial conditions that JSC MOLDTELECOM offer to network and services operators from Moldova. Because of these facts NRATI did not approve the RIO under the provisions of the Regulation on Interconnection. At the same time, NRATI warned JSC MOLDTELECOM about the fact that the modification of specific RIO interconnection tariffs will lead to market distortions, for the reason that they are part of the final tariff for the provision of telecommunications services to users.

However, in the RIO for 2007 (<http://www.moldtelecom.md>) JSC MOLDTELECOM kept unchanged the interconnection termination tariff for national long-distance calls - 0,0319 USD per minute. As for local calls – it was 50% of the tariff for local telephone services included in the „Standard” package, in accordance with the categories of call-originating subscribers and time zones. The tariff for the transit of national local calls/signals via JSC MOLDTELECOM network - 0,005 USD per minute – also remained unchanged.

It must be mentioned that in 2006 NRATI started the modification of the rules governing the calculation of charges for the traffic between JSC MOLDTELECOM and alternative local fixed telephone operators, carried within the interconnection relations at local level. Thus, pursuant to the NRATI Administrative Board Decision no.1 of January 27, 2006, both parties involved in interconnection relations, shall apply termination rates equal to 50% of the “Standard” package tariff offered by JSC MOLDTELECOM, in accordance with the categories of call-originating subscribers and time zones. Previously, the method Sender Keeps All was used for local interconnection, which means that every party involved charged its own subscribers and keeps all returns obtained from this traffic.

NRATI took the above-mentioned decision for the purpose of laying the foundation for implementation of an interconnection regime based on settlements for traffic. NRATI finds this a good beginning, for the reason that every operator has the possibility to analyze the carried traffic and the returns, which fact will make him increasingly responsible for pricing the services provided to the final users.

The Regulation on Interconnection, adopted in 2002 provides that the dominant operators are obliged to develop a RIO and NRATI approves it subsequently. In 2006 like in 2005, this procedure was not applied because JSC MOLDTELECOM, *de facto* holding 95% of the fixed telephony market, was not designated as having significant market power, since no appropriate legal framework existed to justify it. For this reason, NRATI was not able to impose JSC MOLDTELECOM obligations specific for operators with significant market power, regarding the technical and commercial conditions included in his RIO for 2007.

### **1.1.3. Priorities for 2007**

NRATI's main objectives for 2007 in terms of economic regulation envisage finalization of the regulatory framework that would support competition and development of electronic communications, encouragement of investments in infrastructure, improvement of service quality, and implementation of optimal mechanisms for operators' market activity.

The following issues make the list of priorities for 2007:

- Define and analyze the relevant markets, determine significant market power;
- Impose specific obligations on providers with significant power on relevant markets, which would eliminate the existing obstacles for a fair competition;
- Define the principles, and, where appropriate, implement the LRIC cost-calculation model with the view of cost orientation of interconnection tariffs;
- Implement regulations on separate cost accounting;
- Adjust the interconnection regime to the new clauses of the Electronic Communications Law;
- Implement the next tariff re-balancing stage for public basic telecommunications services provided by JSC MOLDTELECOM, this objective bearing major importance for the development of a competitive market.

The other objectives are also essential for the future of this sector, because they pursue the goal to eliminate the monopolistic practices, still persisting on certain market segments and the structural distortions of the market that place a barrier to competition and market entry. We can assert that the fulfillment of the above-mentioned objectives will make the electronic communications an efficient sector, open for consumers, an industry able to offer a wide range of high-quality services, at affordable prices.

## **1.2 Technical Regulations**

In the reporting timeframe, NRATI's activity in terms of technical regulations was focused mainly on improvement of the existing normative framework and development of new regulations meant to contribute to efficient operation of the telecommunications and informatics service market.

So, in the first quarter of 2006, NRATI developed the draft Modifications to the Regulation on Fixed Telephony Service Provision. The document was subject to public consultations held in several sessions and having fixed telephony operators as participants. The modifications were aimed at granting additional rights to users on the one hand and set clear obligations both for users and for the operators providing such services on the other. NRATI Administrative Board approved the afore-mentioned modifications in May 2006.

As a result, the modified Regulations simplify the manner and conditions of telephone lines connections and provides for equal rights of the two categories of subscribers – natural and legal persons. Thus, legal persons may, where necessary, be issued Certificates of Former Subscribers by the operator, effective within the given operator's network and offering the right to be subsequently re-connected to this network, having to pay a lower fee for connection works. Pursuant to the new provisions, the operator is bound to connect or move main telephone lines in 14 days, and where additional construction works are necessary – in a timeframe not longer than a month from the moment the connection fee has been paid. Where network extension is planned, the operator levies 70% of the connection fee from the applicant in advance, for construction works, pursuant to the tariffs in force. After the network is put into operation, the user pays the rest of the connection fee and the operator ensures connection in no longer than 14 days from the moment the integral fee has been paid. Where the applicant fails to pay the second installment of the connection fee and renounces the telephone line, the operator is obliged to return the initially paid amount.

The modifications also contain new provisions governing the payments for services already provided. Pursuant to the latter, if the subscriber fails to pay for telephone services before the deadline set in the bill, the operator suspends service provision starting with the 5<sup>th</sup> calendar day from the deadline. If the subscriber pays the bill within one month, the operator resumes service provision free of charge. Where the subscriber fails to pay within one month from the date the service was suspended, the operator may terminate the contract one-sidedly. All these steps

may be taken only with prior written notification of the user through the bill or written notice. The provisions mentioned above also refer to ISDN and radio access (WLL) CDMA-based telephony services.

In the timeframe under consideration, NRATI experts developed the Terms of Reference and the individual license conditions for cell mobile telephony service provision, CDMA 2000, in 450 MHz, as well as the Terms of Reference and conditions for the third individual license for GSM cell mobile telephony service provision, in 900/1800 MHz frequency band. NRATI verified and stored the interconnection agreements concluded between JSC MOLDTELECOM and local fixed telephony operators (5), between IP-telephony and data transport service providers (20), between JSC MOLDTELECOM and international operators (2), between JSC MOLDTELECOM and value-added service operators (8), as well as the indirect interconnection agreements on cell mobile telephone service provision (8).

In 2006 NRATI experts started developing the concept on number portability implementation in the Republic of Moldova, a project launched in the first quarter of 2007. In order to implement the project, NRATI created a working group, comprising representatives of the Agency, Ministry of Information Development, fixed and mobile telephony operators. NRATI intends to implement the project gradually, depending on market demand. The implementation of number portability in the Republic of Moldova is meant to enhance competition on the telephony market, every operator having to make additional efforts to keep his subscribers and to offer more attractive services.

### **1.2.1 License Issuance**

In the timeframe under report, the number of license applicants for all types of activities in telecommunications and informatics increased steadily. As a result of applications processing, in 2006 NRATI issued 292 general and three individual licenses - one for cell mobile telephony service provision, CDMA 2000, in 450 MHz, another for GSM cell mobile telephony service provision, in 900/1800 MHz frequency band and the other for fixed long-distance and international telephony service provision.

The 292 general licenses give their holders the right to provide telecommunications and informatics services, namely:

- 195- informatics service provision,
- 47- telecommunications service provision;
- 50 –construction and/or maintenance, operation and creation of air/TV radio and television stations.

In 2006, NRATI processed 449 applications for license issuance, updating, modification and withdrawal. The lead-time lasted on average 8 business days. The Agency updated 30 licenses, withdraw, at license holders' request, 8 licenses and qualified 4 licenses as void, for the reason that the applicants failed to pay the license fee and to take out their licenses, as stipulated by law.

In 2006, the applicants' preferences in terms of services for which they request a license did not undergo essential changes. As in the previous years, licenses for informatics service provision were in highest demand, in particular for design and implementation of software programs, informatics services in public places, data transport (Internet) and IP-telephony services.

The 96 license holders for informatics service provision in public places are authorized to provide such services in 135 premises, including 83 premises situated in cities and district centers and the rest – in villages.

The same tendency of increase persisted on the market of radio and television program re-transmission. Out of the 32 entities NRATI issued licenses for construction, maintenance, operation and creation of cable television stations, 29 deployed such networks in 35 towns/district centers and villages, 2 – in Chisinau municipality and 1 – in Balti municipality. 10 license holders created air television stations in 8 villages and towns/district centers, 2 stations in Chisinau municipality and two – in Balti municipality. 8 license holders created air radio stations, of which 6 in Chisinau municipality and 2 - in Balti municipality, as well as 10 stations

in towns/district centers and villages. Below there is more detailed information about the licenses issued by NRATI in the timeframe 2005-2006.

### Licenses issued in 2005 –2006

**Table no. 1**

<b>N0.</b>	<b>Type of activity, service</b>	<b>Licenses issued in 2005</b>	<b>Licenses issued in 2006</b>	<b>Licenses valid on 31. 12.2006</b>
	<b>Total:</b>	<b>335</b>	<b>295</b>	<b>1204</b>
<b>1</b>	<b>Individual licenses</b>	<b>-</b>	<b>3</b>	<b>5</b>
1.1	Cell mobile telephony service provision, CDMA 2000 standard, 450 MHz frequency band	-	1	1
1.2	Cell mobile telephony service provision, GSM standard, 900/1800 MHz frequency band	-	1	3
1.3	Public fixed international and long-distance telephony service provision.	-	1	1
<b>2</b>	<b>General Licenses</b>	<b>256</b>	<b>242</b>	<b>994</b>
<b>2.1</b>	<b>Telecommunications Services</b>	<b>30</b>	<b>47</b>	<b>173</b>
2.2	Public fixed local telephony service provision	10	20	51
2.3	Value-added services	13	25	62
2.4	Services of projecting, construction, and assembly of telecommunications equipment and networks	20	25	109
2.5	Technical service (maintenance) of telecommunications equipment and networks	20	25	87
2.6	Re-sale of public telephony services	7	12	39
<b>2.1.1</b>	<b>Informatics Services</b>	<b>226</b>	<b>195</b>	<b>821</b>
2.1.2	Services of data transport via terrestrial networks and/or via VSAT	76	73	244
2.1.3	Services of installation, construction, and assembly of data transport networks	82	80	246
2.1.4	Services of drafting of public data-transport networks projects	79	76	224
2.1.5	Services of IP- telephony	65	74	224
2.1.6	Services of technical servicing (maintenance) of public data transport networks	77	71	218
2.1.7	Services of design, maintenance and implementation of programs, equipment and informatics systems	110	98	339
2.1.8	Services of informatics services in public places	131	96	474
2.1.9	Services of design, elaboration and implementation of informatics systems of state interest, and services to ensure their functionality	80	71	208
2.1.10	Services of creation of informatics resources services of state interest, and their use (creation of databases, their operation and information service	80	70	205

	provision).			
2.1.11	Resale of data transport services via terrestrial or VSAT networks	68	63	186
3	<b>Technical Licenses</b>	<b>79</b>	<b>50</b>	<b>205</b>
3.1	Construction, maintenance, operation, and creation of air television stations	7	10	37
3.2	Construction, maintenance, operation, and creation of cable television stations	58	32	149
3.3	Construction, maintenance, operation, and creation of air radio stations	13	8	18
3.4	Construction, maintenance, operation, and creation of cable radio stations	1	-	1

**Remark:** *The information above also comprises data about companies providing more than one service, which are the subject of a license for one type of activity or having several licenses for different types of activities that include more than one service.*

NRATI, pursuant to the legislation in force, issues licenses per type of activity in telecommunications and informatics and technical licenses, authorizing construction, maintenance, operation and creation of air/cable television/radio stations and networks. Licenses are granted by direct delegation or by tender and are not transmittable. License fees are paid into state budget.

### **1.2.2 Individual License Issuance**

Of the three individual licenses issued by NRATI in 2006, one – for cell mobile telephony service provision, CDMA 2000, in 450 MHz – was granted on June 29, 2006, by direct delegation, to JSC MOLDTELECOM. NRATI Licensing Commission took the decision based on the application from the company and based on Government Decree no. 658 of July 14, 2006 regarding the use of 450 MHz frequency band for cell mobile telephony services in CDMA standard and establishing the license fee.

The Commission conditioned license issuance on implementation by JSC "MOLDTELECOM of separate cost accounting within the internal accounting system and separate accounting balance for mobile telephony services. The license holder is required to make the description of the accounting system publicly available and to subject it annually to an independent financial check-up by an audit company, selected by NRATI, as well as to submit to the audit report regarding compliance with separate accounting obligation and separate balance the Agency for examination.

The Commission imposed such conditions on JSC MOLDTELECOM in order to eliminate the practice of cross-subsidization of services, i.e. the costs incurred for mobile telephony service provision are covered by revenues generated from fixed telephony or vice versa, a practice that can distort competition on mobile market.

According to Government Decree no. 658 of July 14 2006, JSC MOLDTELECOM paid into the state budget 4 million US \$ license fee in national currency equivalent. The License holder is to pay the rest of 4 million US \$ in equal installments during the next two years. Upon receiving the license, JSC MOLDTELECOM received license conditions that, in the opinion NRATI experts, are tougher than the ones issued for the first two mobile operators. The license conditions issued to JSC MOLDTELECOM can be accessed on NRATI WEB page.

During the same session, the Licensing Commission decided upon renewal of the individual license for fixed long-distance and international telephony service provision held by JSC MOLDTELECOM, based on their application requesting renewal in connection with the license expiry. Pursuant to Government Decree no. 598 of 31.05.2004 regarding the issuance fee for an individual license for fixed long-distance and/or international telephony service provision JSC MOLDTELECOM paid the national currency equivalent of 2 million US \$.

The third individual license for GSM cell mobile telephony service provision, in 900/1800MHz frequency band, was disputed in a tender organized by NRATI, in the timeframe

November 15 – December 25, 2006, in compliance with the Government Decree no. 1198 of 17.10.2006 regarding development of GSM cell mobile telephony services.

The tender was held in two stages – pre-selection of bidders and evaluation of bids according to the evaluation grid. During the first stage, six applicants purchased the Terms of Reference, but three companies submitted their bids for the tender: Consortium UNITON - PRIM LLC, Joint Venture EVENTIS MOBILE LLC, both from Chisinau, and JSC Vimpel - Communications (BI-LINE) from Moscow, Russian Federation. The proposals were opened in a public joint meeting of the Tender Commission and its Working Group, in the presence of representatives of the Bidders and mass media.

The Tender Commission, having examined the bids and their compliance with the minimum conditions set in the Terms of Reference, decided upon admitting two of the bidders to the second stage: Joint Venture EVENTIS MOBILE LLC and JSC Vimpel - Communications. The Commission rejected the bid of Consortium UNITON - PRIM LLC for the reason that the company failed to meet the minimum bidding conditions.

Based on the final report of the Working Group that evaluated the bids pursuant to the Terms of Reference and evaluation grid, the Tender Commission designated Joint Venture EVENTIS MOBILE LLC as Winner. The result of the Tender was made public in an open session on December 26, 2006. The evaluation of technical, value, financial and managerial qualities of the bids according to the evaluation grid resulted in 362 points for Joint Venture EVENTIS MOBILE LLC and 345 – for JSC Vimpel – Communications.

NRATI granted the third cell mobile license GSM 900/1800, to Joint Venture EVENTIS MOBILE in January 2007, after the company paid into the state budget the sum of 4 million USA \$ in national currency - 50 % of the license fee, established by Government Decree no. 1198, 17.10.2006 on GSM cell mobile telephony service development. The rest of the sum is to be paid by JV EVENTIS MOBILE to the account of the Ministry of Finance in the following two years, in equal installments.

The license conditions make it bound on the license holder to ensure by the end of the first operation year (2007) radio signal coverage of Chisinau and Balti municipalities, other big towns, of important motorways and 40 % of the population. By the end of the third operation year (2009), the new operator is to reach radio signal coverage of the entire territory of the country and 90% of the population of the Republic of Moldova. The same document provides that both the Call Blocking Rate in peak hours and the Call Drop Rate will not exceed 2%, while the duration of network failure will not be higher than 2 minutes a year.

### **1.2.3 Management of National Numbering Plan (NNP)**

In the reporting timeframe, NRATI activity related to NNP management was aimed at promoting competition, protecting final users' rights and diversifying the range of telecommunications services that use numbering resources. In 2006, like in the previous years, numbering resources were managed following the principles of transparency, proportionality, non-discrimination, correctness and efficient use.

Throughout the year, NRATI processed 85 applications regarding assignment, reservation and withdrawal of numbering resources, the absolute majority of requests being fulfilled. Numbers for fixed telephony networks, in particular for services of CDMA-based fixed telephony via radio access to the local loop (WLL), Premium-rate services and short numbers of "14XX" number block used for auto transportation services were at greatest demand.

NRATI assigned 11000 numbers in Chisinau municipality and 1000 numbers in Balti municipality to newly entered local fixed telephony operators. GSM mobile operators requested fewer numbering resources in 2006 compared to 2005, while JSC MOLDTELECOM, having the license for CDMA cell mobile telephony service provision, in 450 MHz band, was assigned the first 100 000-number block. NRATI received the same number of applications for Free-phone service as in 2005.

Below is a comparative description of numbering resources assigned by NRATI in 2005-2006.

**Numbering Resources assigned by NRATI in 2005- 2006**  
**Table no.2**

No	Telecommunications networks and services	Block of numbers	Numbers and codes assigned in 2005	Numbers and codes assigned in 2006	Total number of assigned resources
1	Access codes to telecommunications operators	1010 - 1099	-	-	1
2	Access codes to operators' information services	118X(X)	2	1	4
3	Access codes to IP-telephony services	1600 - 1640	6	4	19
4	Access codes to long-distance/international services	1680 - 1699	-	-	2
5	Access codes to data transport operators	1900 - 1949	4	2	17
6	Technological codes for network testing	1800 - 1899	-	3	29
7	Short numbers for services of auto transportation and other public services	1400 - 1499	7	15	47
8	Short numbers for non-telecommunication services	1500 - 1539	2	2	5
9	Fixed telephony networks				
	JSC MOLDTELECOM	2X(X)XXX XX	164 160	1 856	1 112 782
10	Fixed telephony networks WLL CDMA	2X(X)XXX XX	85 200	42 600	136 800
	New telecommunications market entrants	--	19 000	12 000	42 000
11	GSM mobile telephony networks				
	JSC Voxtel	69X xxxxx	300 000	100 000	1 100 000
	JSC Moldcell	79X xxxxx	290 000	-	1 000 000
	CDMA mobile telephony networks				
	JSC Moldtelecom	671 xxxxx	-	100 000	100 000
12	Freephone service	800 xxxxx	12	12	43
13	Numbers for Internet access services	821xxxxx	2	-	22
14	Premium rate service	900 xxxxx	53	61	131

Where x = 0, 1...9

The list of priorities set by NRATI for 2007 in terms of numbering resources management contains issues like the assignment of NNP numbering resources to new electronic communications services in compliance with the recommendations of the European Commission for Post and Communications (CEPT), implementation and regulation of number portability in fixed and mobile telephone networks, as well as studies of the best practices of CEPT countries regarding the implementation of the Emergency number "112".

### 1.3 Monitoring and Control

In the timeframe under consideration NRATI continued its monitoring and control activity targeted at enforcing the powers and fulfilling the objectives and tasks assigned to NRATI by law.

The monitoring activity was ensured by means of analyzing information and evidence about deviations from the legislation and normative acts in force, allowed by some of the service

providers. In the absolute majority of cases, NRATI did not intervene in the economic activity of the companies, whereas in cases of attested deviations from norms, NRATI proceeded to control of their activity.

In 2006, control activities were mainly focused on verifying license holders' compliance with the legislation, normative acts and regulations in force, with license conditions, ensuring service quality and manner of meeting the needs of users. The staff of the Monitoring and Control Division, mandated by NRATI administration, carried out this activity.

The table below shows data regarding the Monitoring and Control Division activity in 2004 – 2006.

### Control activity in 2004 - 2006

**Table no. 3**

Type of activity	2004	2005	2006
<b>CONTROL ACTIONS</b>			
<b>Total number of control actions:</b>	<b>272</b>	<b>290</b>	<b>303</b>
a) Planned:	<b>239</b>	<b>249</b>	<b>250</b>
<i>operators of public fixed telephony networks and/or providers of local fixed telephony services</i>	71	83	50
<i>- operators of GSM networks and providers of GSM cell mobile telephone services</i>	1	0	0
<i>- operators of public data transport networks and/or providers of informatics services</i>	102	97	101
<i>- operators of cable television networks</i>	42	47	73
<i>- operators of air radio broadcasting and/or television stations/networks</i>	23	22	26
b) Unplanned:	<b>6</b>	<b>2</b>	<b>8</b>
<i>operators of public fixed telephony networks and/or providers of local fixed telephony services</i>	4	0	5
<i>Providers of value- added services via public fixed telephony networks</i>	0	1	0
<i>- operators of GSM networks and providers of GSM cell mobile telephone services</i>	0	0	0
<i>- operators of public data transport networks and/or providers of informatics services</i>	2	0	0
<i>- operators of cable television networks</i>	0	1	3
<i>- operators of air radio broadcasting and/or television stations/networks</i>	0	0	0
c) control focused on verification of technical and organizational conditions for launching services:	<b>27</b>	<b>39</b>	<b>45</b>
<i>- local fixed telephony services</i>	2	3	7
<i>- value- added services via public fixed telephony networks</i>	4	3	9
<i>-data transport services (Internet access)</i>	13	20	15
<i>- IP-telephony services</i>	8	13	14

### REPORTS ON ADMINISTRATIVE CONTRAVENTIONS

Reports:	<b>5</b>	<b>37</b>	<b>15</b>
a) operators of public fixed telephony networks and/or providers of local fixed telephony services	<b>2</b>	<b>8</b>	<b>0</b>
<i>- activity without a license</i>	0	0	0
<i>- breach of license conditions</i>	2	8	0
b) operators of public data transport networks and/or providers of informatics services	<b>1</b>	<b>16</b>	<b>11</b>
<i>- activity without a license</i>	0	0	0
<i>- breach of license conditions</i>	1	16	11
c) operators of cable television networks	<b>0</b>	<b>6</b>	<b>3</b>
<i>- activity without a license</i>	0	6	2

	- <i>breach of license conditions</i>	0	0	1
d)	operators of radio broadcasting and/or television stations/networks	2	7	1
	- <i>activity without a license</i>	0	5	1
	- <i>breach of license conditions</i>	2	2	0

Compared to 2005, in 2006 the number of control actions over network and service providers grew but slightly – by 13 and totaled 303. Out of the total number of such actions, 250 were planned, 8 - unplanned and 45 – focused on verifying the technical and organizational readiness to launch public telecommunications and informatics services.

In 2006 the number of planned control actions almost did not increase, compared to 2005, while the service ante-launching control actions grew by 6 and unplanned control actions – four times. The tendency of stagnation in the total number of control actions is explained by the rules set for exercising such actions. According to the rules, a network or service operator is subject to planned control only once a year or twice a year where the control did not detect breaches of legislation and license conditions, especially as regards service quality and customer relations.

As a result of control activity in 2006, NRATI specialists drew up 15 reports ascertaining administrative contraventions by networks operators and service providers, which is less than in 2005 by 22 reports. Of their total number, 12 attested serious breaches of license conditions and 3 – exceeding the deadline for license renewal and ongoing activity after the license expiry date.

#### **1.4 Dispute Resolution**

In the timeframe under report NRATI examined disputes between telecommunications and informatics market participants, strictly in compliance with the Law on Telecommunications and the Regulation on Dispute Resolution between operators and between operators and users. The subject of the majority of disputes between operators was interconnection between public fixed and mobile telephony networks, lease and collocation of network and infrastructure facilities.

In many cases the disputes appeared between operators and JSC MOLDTELECOM because the latter rejected, for ungrounded reasons, their requests for interconnection and collocation or imposed unfavorable commercial conditions for such services. As a result of public hearings held with NRATI and recommendations from NRATI administration, a considerable part of the disputes were wholly or partially settled. Thus, at the request of companies Telemidia Group, Globnet and Moldpac, NRATI interfered in order to stop the cancellation of collocation contracts by JSC MOLDTELECOM and required that the operator comply with section 9.3 of the Regulation on Interconnection, which provides that Operators that established interconnection relations are prohibited to limit or cancel mutual access to numbering resources and their users' access to other operators users and services. The same procedure was followed regarding the notification from company Voix Group, requesting NRATI to intervene, as JSC MOLDTELECOM had refused to conclude an interconnection agreement for traffic termination, channel leasing and offering space for collocation, crossing and deployment of cables.

In 2006, NRATI received three notifications regarding dishonest and anti-competitive advertising, broadcast by certain operators, namely company Sun Communication accused company Starnet. NRATI verified the advertisements broadcast by Starnet and acknowledged their dishonest character, finally requiring the operator to withdraw the advertisements. Company Starnet complied with the requirement, subsequently informing NRATI about the withdrawal.

The analysis of disputes made by NRATI shows that one of the main reasons for disputes between service providers lies in the anti-competitive behavior of powerful operators, as they attempt to impose discriminatory and unfavorable conditions on alternative operators. NRATI considers that the situation will be solved after the Parliament adopts the Draft Law on Electronic Communications, which will legalize NRATI's right to determine relevant markets, designate operators with significant market power and impose compliance with the principles of fair competition.

In 2006, NRATI also examined 66 disputes between service providers and users. The subject of most of the disputes was inadequate service quality, on over-charged bills, unfavorable conditions for users, included in service provision contracts. Most of these disputes were amiably settled, the rest being settled by administrative orders issued by NRATI.

### **1.5 Users Protection**

During 2006 NRATI took actions with the view of protecting the users of telecommunications and informatics services, in strict observance of the Law on Consumer Protection.

NRATI worked in collaboration with the User Protection Coordinating Council and proposed issues for preventing and fighting practices affecting users' rights. For this purpose, NRATI created a mixed working group consisting of representatives from NRATI, public associations for users' rights, fixed, mobile, Internet access and cable TV operators. The working group decided upon summoning their sessions when complaints are received from users or when infringements upon users rights are detected, in order to analyze their reasons, to eliminate them and all the shortcomings in this respect.

One of the most important decisions on user protection was modification of the procedure of information (enquiry) service provision by JSC MOLDTELECOM, starting on September 1<sup>st</sup>, 2006, about the telephone numbers of its subscribers. The Decision of JSC MOLDTELECOM on information provision against a fee, via number 1189, was taken proceeding from NRATI Administrative Board Decision no.20 of December 30, 2005 (Official Gazette no.5-8 (1786-1789), which approved the modifications to the Regulation on Fixed Telephony Service Provision. The Administrative Board applied the modification at the request of JSC MOLDTELECOM administration, after discussions in public hearings, with all the fixed telephony operators from Moldova.

NRATI Decision provides for enquiry service free of charge by JSC MOLDTELECOM on condition that the user presents complete information about the subscriber or the name of the local and central public administration authorities, medical institutions and pharmacies. Otherwise, the information is provided for a fee. NRATI administrative Board decided upon this issue pursuant to the provisions of article 21 of the Law on Telecommunications, which provides for a fee for provision of telecommunications services.

After a series of complaints and notifications from consumers displeased with the new procedure of enquiry service provision by JSC MOLDTELECOM, NRATI required that the operator extend the list of enterprises and public institutions subject to the Regulation on Fixed Telephony Service Provision, namely the provision about enquiry service free of charge, based on incomplete data.

JSC MOLDTELECOM fulfilled the requirement and additionally enlisted the following entities: railway and bus stations, airports and fluvial ports, emergency services and dispatcher services of public utility companies, pre-school, pre-higher and higher education establishments, culture institutions (theatres, cinematographs, libraries, museums, concert halls, radio and television stations, archives), consumer protection associations, National Social Insurance House, National Medical Insurance Company and their affiliates in municipalities, towns and villages of the country, As a result JSC MOLDTELECOM, has been providing free of charge, since November 1<sup>st</sup>, 2006, enquiry services about the afore-mentioned legal persons, the requestors providing incomplete data (name of the institution). The information about the telephone numbers of other subscribers are provided free of charge via 1188 service only provided that the requestor supplies complete data about the subscriber: for legal persons – name and address and for physical persons – name, surname and address. Otherwise the information is provided via 1189 and charged 0,48 lei (including VAT) per call.

Control actions over cable TV service operators' activity in Balti municipality (Companies Electrons-service and TV NET) revealed violations of the Law on Consumer Protection. NRATI required that the companies modify service provision contracts, especially the section „Consumer Protection” and offered legal assistance for that. Currently, the contracts contain, as required by the Law on Consumer Protection, specific and exact provisions regarding the services provided, the charges applied, repair time, service quality and notification of users

about modifications in contractual conditions. The same requirements were set up for other cable TV operators from Chisinau and other localities of the country, subject to control actions to verify compliance with license conditions, laws, normative acts and regulations in the field of telecommunications and informatics,

### **1.6 Petitions and Complaints**

In the reporting timeframe, NRATI received 462 petitions that were processed in strict compliance with the legislation in force. Most of them contained requests for access to information and consultations on legal and technological matters (346). Other 116 petitions were complaints from legal and physical persons, including 31 – re-addressed to NRATI from the Parliament, Government, Ministry of Information Development and other central public administration authorities. Of the 116 notifications, 50 requested NRATI to intervene in the disputes between operators and 66 claimed infringements upon users' rights.

In most of the cases, the complainants claimed being overcharged for the services provided, clandestine connections and poor functioning of telecommunications systems. Big part of the petitions claim poor service quality, erroneous bills data, certain unfavorable clauses operators included in the service provision contracts and lawfulness of certain services.

As a result, the requirements of the majority of petitions were completely or partially met, explanations and consultations were given to a part of them and alternative solutions were proposed to 12 petitions. 26 petitions were considered unfounded and one was sent to another competent authority. Where NRATI found the violations founded, it sent warnings to the operators concerned and required non-admission of such practices.

It should be mentioned that in 2006 only two petitions were filed to NRATI from data transport and Internet access users affected by electronic cheating by means of automatic calls to international numbers. The small number of this kind of petitions is explained by the fact that NRATI had required that operators should take actions to prevent and counteract undesirable calls. For example, JSC MOLDTELECOM placed on its Web page [www.moldtelecom.md](http://www.moldtelecom.md) a compartment (Attention, Unsolicited Connections) containing detailed information on how to avoid such connections. The operator advised his subscribers to install an additional service – “password” – for long-distance and international calls, which helps avoid undesirable calls.

However, in this timeframe NRATI received a number of petitions expressing the disagreement of their authors with the connection or re-connection of their telephone line to the wireless fixed telephone network (WLL CDMA 2000 based radio-access) of JSC MOLDTELECOM. After examining these petitions, NRATI required that the operator take action in order to inform its subscribers about the peculiarities of WLL CDMA-based radio access and carry out polls to determine the type of access to the fixed telephone network preferred by subscribers: wire or radio access. NRATI also required that JSC MOLDTELECOM connect or re-connect subscribers to the fixed telephone network according to their preferences.

In the timeframe under report, NRATI also examined 360 verbal petitions, most of which presented during public hearings scheduled by NRATI Administrative Board. NRATI Administrative Board and Directors of NRATI Divisions dealt with them, as a rule, in the presence of the petitioner and, where the petitioner resides outside Chisinau, the persons responsible are contacted in his presence. The verbal petitions that are impossible to solve in the petitioner's presence, are recorded and examined as established by the Law on Petitions and the petitioners are subsequently informed in writing or orally about the result.

It should be mentioned that NRATI succeeded in implementing a program of electronic records of petitions. For this purpose the Agency developed and approved a plan of actions on petition examination and organization of hearings for citizens.

### **1.7 Relations with Public and Mass Media**

In 2006 NRATI continued promoting the principles of transparency and openness for dialogue and collaboration with all the participants to the telecommunications and informatics service market, including the users and representatives of mass media. Suffice it to say that all the decisions, concepts and strategies, litigations between operators and users, at first stage, are discussed in public hearings, held in the premises of NRATI, in the presence of the interested

parties and result in corresponding decisions. Such drafts, before they are debated, are first placed on NRATI Web page, so that the interested parties can take note and form their own opinion about them.

NRATI also applied other well-established forms of communication with the public, such as receptions of citizens and consultations to both new operators and users. In order to better meet their requirements, NRATI put in place a new project – “Hot Line” for users of communications services, which was launched at the beginning of 2007. The „Hot line” 080080080 can be called from all localities of the Republic of Moldova, on business days, from 8.00 a.m. to 5.00 p.m. free of charge. It offers the interested users information regarding their rights, the service providers’ obligations, as well as receives complaints from those claiming their rights have been violated by service providers. The “Hot Line” is a means of providing the users with consultations in the problems they face and solutions to eventual challenges and disputes between users and service providers.

In 2006 the communication activity of NRATI was also focused on another priority – to inform the public about NRATI’s activities of public interest, such as its decisions and evolutions of the market. In this timeframe the Agency continued supplying quarterly information about the development tendencies of fixed, mobile and INTERNET access market.

Like in the previous years, in 2006 the public was informed by means of its Press Service and its Web page. The Press Service issued press releases on matters of public interest and made them public in central mass media and on the NRATI Web page.

The Web page, available in three languages, also displayed all drafts elaborated by NRATI, decisions on granting licenses, numbering resource assignment, excerpts from the proceeding of Licensing Commission meetings, license conditions issued to mobile operators, lists of interconnection agreements between JSC MOLDELECOM and local fixed telephone operators.

In its relationship with mass media, in 2006 NRATI did it utmost to permanently inform the media representatives about events and activities of public interest held within NRATI and about the current development of the market. NRATI specialists in charge offered response to all requests from the press – written and electronic – with reference to interviews or supply of information of public interest. Press representatives were invited to participate in a number of events of public interest, including the public sessions of the Tender Commission for granting the third individual license for GSM 900/1800 cell mobile telephone service provision in November-December 2006.

One of the priorities NRATI set for 2007 is ongoing activity in terms of communication with the public, especially with service users. By means of the “Hot Line” and Web page, the Agency will continue informing the users as regards their rights, as well as about the obligations of service providers in relation to their customers. By the end of the year, NRATI intends to take several more steps in promoting and protecting users’ rights. So, NRATI is planning to upgrade its Web page, adding a new section - “Service Users’ Page”, which will become an interactive communication channel between consumers and the Agency. NRATI also decided to involve representatives of consumer protection associations in the process of drafting and discussing regulatory acts and modifications to the existing regulations affecting the users. NRATI expects that the new communication formulas will give the users the possibility to find answers to their queries and get the information they are interested in.

## **1.8 International Relations**

In 2006, NRATI’s international relations developed in the light of the Action Plan “Republic of Moldova – European Union” (PA RM-UE) and the obligations the country assumed by signing this document. The Agency also maintained its cooperation with the regulators of the neighboring countries and participated in the activities of European and international bodies in communications sector. The priorities NRATI set in this respect provided for studying and adapting the best practices of implementation of the European regulatory framework in electronic communications to the realities of the Republic of Moldova, promoting national interests in international sectoral bodies.

In the timeframe under report, NRATI actively dealt with the problem of revising the national regulatory framework in electronic communications that is to be adopted in 2007. The issue was discussed at a number of seminars and meetings devoted to the implementation of PA RM-UE, as well as at the meeting of Republic of Moldova – EU Cooperation Sub-Committee no. 4 „Energy, Environment, Transport, Telecommunications, Science and Technology, Education”, held in May 2006 in Bruxelles. It was mentioned during the reunion that Moldova has made “modest progress in implementing the PA RM-UE plan, namely concerning telecommunications and that it is necessary to take more specific steps in the nearest future, the number-one priority being the approval of the Law on Electronic Communications in compliance with EU Directives.

In 2006 NRATI made reports regarding the implementation of PA RM-UE, which were subsequently presented to the Government, Ministry of Foreign Affairs and European Integration (MAEIE) and European Commission. The Agency also draw up projects for assistance, necessary to in order to harmonize the national legislative and regulatory frameworks in electronic communications with EU standards and to implement it. The projects were discussed at a series of meetings with representatives of MAEIE, World Bank, EBRD, Embassy of Great Britain, etc. NRATI hopes that in 2007 the discussions will bring in the assistance for the above-mentioned activity.

Cooperation with European and international sectoral bodies was one of NRATI’s basic activities on international level in the mentioned period of time. NRATI representatives were delegated to ITU seminars and conferences, participated in the organization of reunions under the ITU auspices, filed in statistical data and indicators regarding the evolution of the telecommunications and informatics sector, etc. They also took part in conferences, seminars and meetings of CEPT, FRATEL, South-East-European Stability Pact, etc.

Within the Pact, the Republic of Moldova approved the eSEE Agenda+ for the development of Information Society in South-East Europe and bSEE Action Plan „Promoting Broadband in South –East Europe”, actions consistent with the obligations assumed by Moldova in PA RM-UE as regards the implementation of a regulatory framework according to EU standards.

In June 2006, NRATI and the Ministry of Information Development hosted a three-day regional European seminar under the auspices of the ITU: „Liberalization of Telecommunications Market: Challenges and Opportunities for South-Eastern Europe, CIS and Baltic States”. The seminar summoned representatives of regulators and administrations of 14 states from the region, ITU experts, World Bank and Regional Communications Community representatives. The debated problems covered the role and functions of sectoral central public authorities, regulators and operators in a liberalized market; challenges related to the regulator’s independence and efficiency; as well as issues of regulating the interoperability of networks and services, in particular Internet telephone services (Voice over IP).

The seminar was the first comprehensive event held in Chisinau under the auspices of the ITU, meant to contribute to strengthening the capacity of solving current regulatory and political problems in the sector creating dynamic and competitive ICT markets and developing information society.

In this timeframe NRATI continued pursuing an active policy in terms of expertise exchange with similar entities from neighboring countries. In this respect, the year 2006 was significant in establishing relationships with the regulators from Bulgaria, Lithuania, Romania and Germany. The emphasis was placed on adapting EU regulatory practices to the national electronic communications market, on exchange of expertise and information.

In November 2006, in Chisinau, NRATI and the Regulatory Commission from Bulgaria signed a cooperation agreement as regards exchange of information and experience in regulating electronic communications. The agreement provides for exchange of documents and information regarding development and enforcement of policies and strategies of sector development, of legislative and normative acts of sector regulation, as well as information on the evolution of electronic communications in both countries.

NRATI is currently planning to sign such agreements with the regulators from Romania, Portugal and Lithuania.

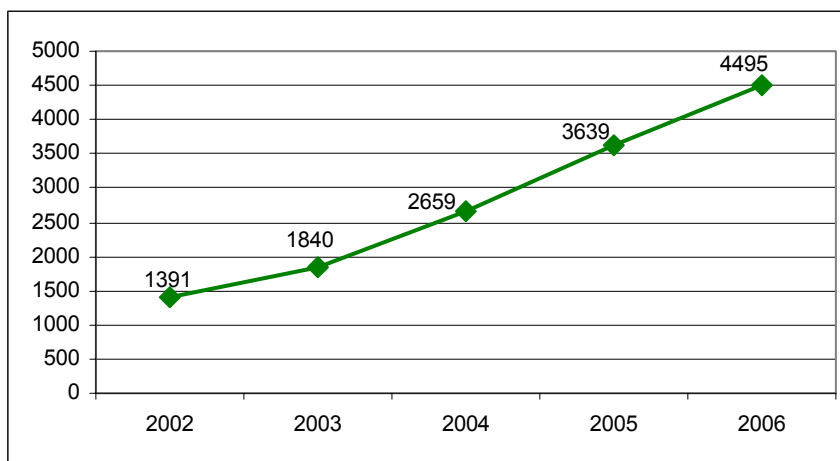
## II. EVOLUTION OF TELECOMMUNICATIONS AND INFORMATICS MARKET

### 2.1 General Overview

After the first two years of complete market liberalization, the telecommunications and informatics market was in 2006 one of the most dynamic sectors of the domestic economy.

In the reporting timeframe tendencies of growth shaped out on all market segments. According to the data service providers submitted to NRATI, in 2006 the consolidated turnover grew by 23,52% in relation to 2005 and totaled 4,5 billion lei. The share of information technologies and communications (ICT) in the GDP, according to preliminary data made public by the National Statistical Bureau, was 10,20%.

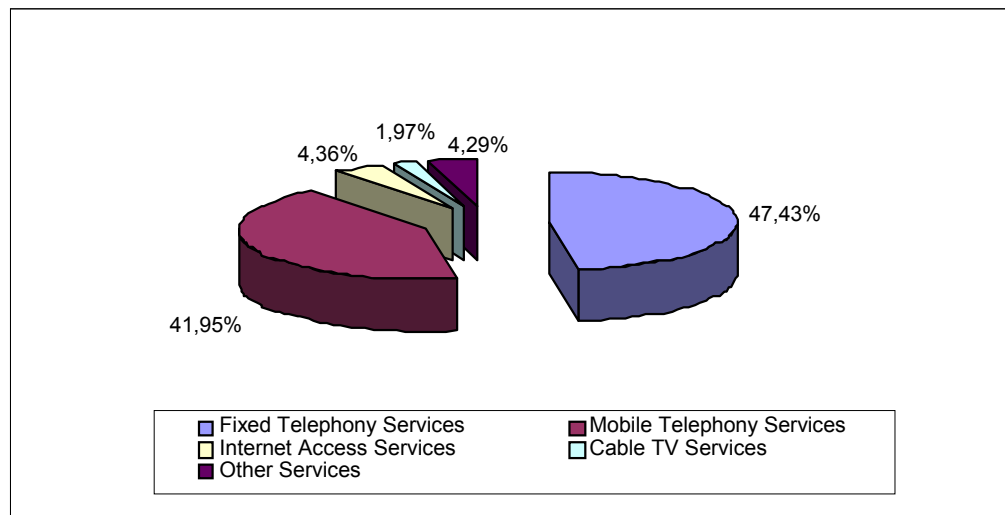
The experts of NRATI consider that the industry evolved due to a bigger number of service providers and users, a larger choice of offers and a higher service quality, implementation of new technologies, in particular broadband Internet access. In 2006, the number of operating companies in the IST sector reached 880, which is 0,7% of the total number of economic entities of the country. The majority of these are ICT companies, 61 of which are joint ventures and foreign capital companies.



**Fig. 2. 1 Volume of Telecommunications and Informatics Service Market, million lei**

**Source:** NRATI, according to the statistical data reported by license holders.

In timeframe under report, the market is structured, in terms of turnover, as follows: fixed telephony with the biggest market share - 47,43%, mobile telephony - 41,95 %, INTERNET access services - 4,36 %, Cable and air TV services - 1,97%, other services – 4,29%. In comparison with 2005, the fixed telephony market share reduced by 4,13%, whereas the shares of mobile telephony and INTERNET access grew by 4,51% and 0,77% accordingly.



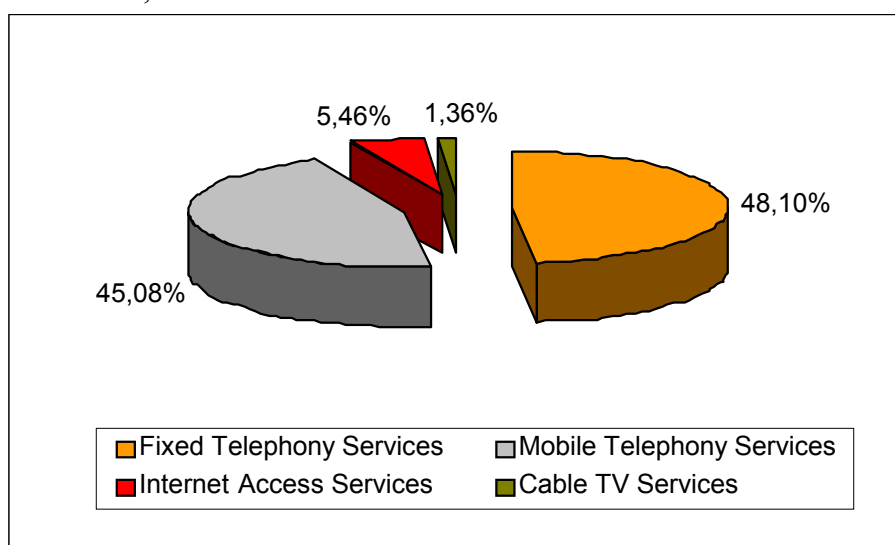
**Fig. 2.2 Structure of Telecommunications and Informatics Market by Turnover**

*Source:* NRATI, according to the statistical data reported by license holders

## 2.2 Investments in Market Sectors

The increase in the turnover was supported in 2006 by the growing volume of investments in market sectors – 1 billion 505,6 million lei, exceeding by 284,3 million lei or by 23,28% the investments made in 2005. The biggest amount - 983,3 million lei – was invested by JSC MOLDTELECOM in fixed and mobile telephony, as well as in data transport. The investments made by alternative local fixed operators grew 7,6 times, amounting to 18 million lei.

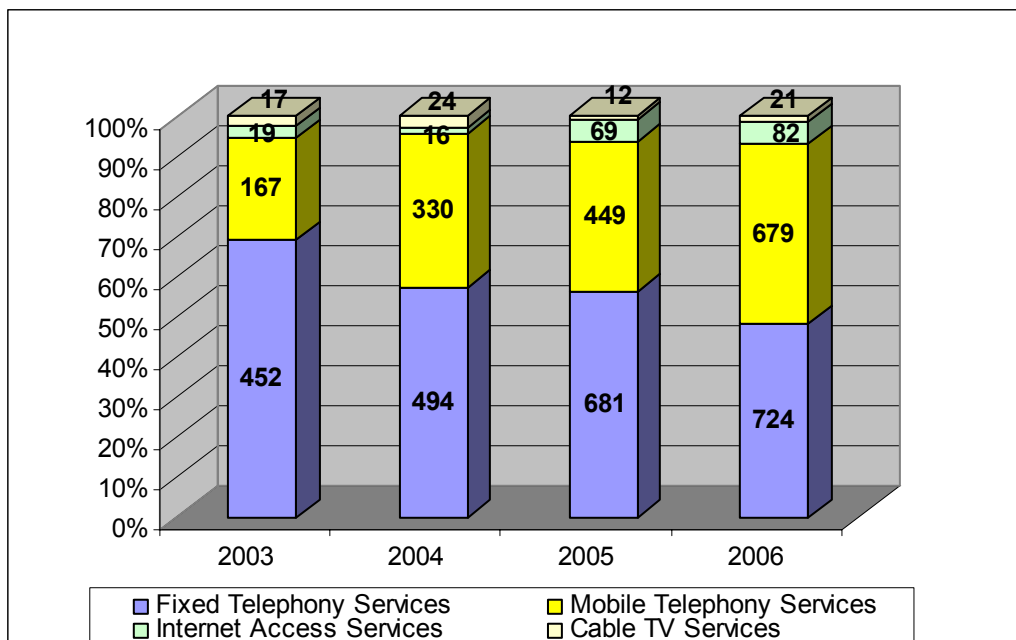
The most important investments were directed to fixed telephony – 724,16 million lei or 48,10% of the total of investments; 678,7 million lei or 45,08% of the total was invested in mobile telephony, 82,17 million lei or 5,46% - in Internet access and data transport sectors and 20,6 million lei or 1,36% – in cable/air TV and radio sectors.



**Fig. 2.3 Structure of Investments in ICT Sectors in 2006**

*Source:* NRATI, according to the statistical data reported by license holders

The highest rate of investment was registered in cable/air TV and radio sector. Their volume grew by 79,13% in 2006, as compared to 2005. The investments in mobile telephony grew by 51,06%, in data transport and Internet access sector – by 19,3%, in fixed telephony – by 6,38%.



**Fig. 2.4 Evolution of Investments in ICT Sectors in 2003-2006, million lei**  
**Source:** NRATI, according to the statistical data reported by license holders

According to the estimations of NRATI, in 2007 the investments in the ICT sector will be ascending and will exceed the level of 2006. NRATI experts consider that the expected increase will be determined mainly by the investments made by the three mobile operators Orange – Moldova (VOXTEL), MOLDCELL and MOLDTELECOM, (the latter providing mobile services under the brand “Unité”), in the development of infrastructure and new technologies, as well as by Joint Venture EVENTIS MOBILE in the deployment of its GSM-900/1800 mobile network. The Agency also expects higher investments made by data transport and Internet access operators, as well as by the new operators providing alternative local fixed services.

For 2007 NRATI expects a relatively steady development in all ICT sectors and a considerable increase of mobile and INTERNET access shares on the market. The Agency consider that in 2007, for the first time in the history of communications in the Republic of Moldova, the mobile turnover will exceed the fixed turnover.

## 2.3 Fixed Telephony Sector

### 2.3.1 General Overview

In 2006, 9 license holders authorized to provide public local fixed telephony services operated on the market. The incumbent JSC MOLDTELECOM, who also is authorized to provide international and long-distance telephone services, continued to be the main player of the fixed market.

In 2006, JSC MOLDTELECOM’s market share, according to the turnover, was 97,45 %. The remaining part of the market was shared by alternative operators, among which the most important are: State Company Calea ferata a Moldovei (Moldova Railway), companies RISCOM, ARAX-IMPEX, SICRES, Telecom Tehnologies, STARNET, Telemidia Group, etc.

## Structure of Fixed Telephony Market depending on Turnover

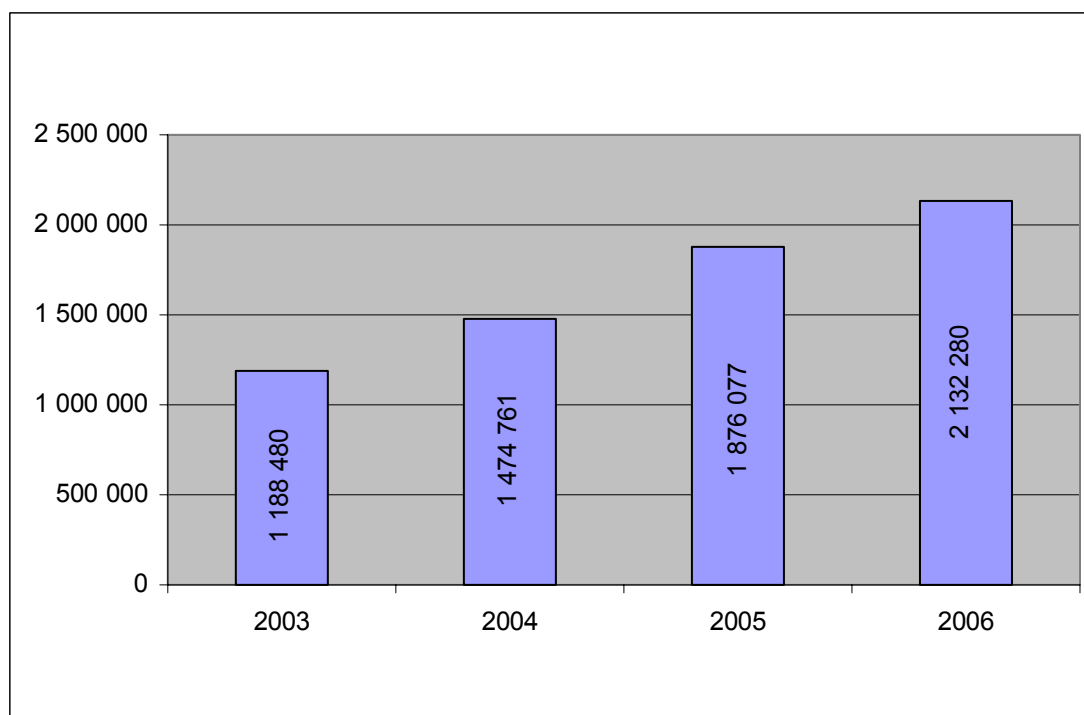
**Table no. 4**

Fixed Telephony Service Providers	Timeframe	
	2005	2006
JSC Moldtelecom	99,582%	97,449%
State Company Calea Ferata din Moldova (Moldova Railway)	0,051%	0,022%
LLC Arax-Impex	0,345%	0,721 %
JSC Riscom	0,018%	0,044%
LLC Sicres	0,004%	0,074%
LLC Telecom Technologies		0,896%
LLC Starnet		0,001%
JSC Telemedia Group		0,793%
Total	100%	100,00%

### 2.3.2 Revenues

In 2006, the total of turnover in the fixed telephony sector grew in comparison with turnover of 2005 by 13,65%, reaching 2,132 billion lei. The turnover of alternative operators grew by 6,9 times, reaching 54,4 million lei, while their market share extended from 0,42% to 2,55%. The sales of the incumbent JSC MOLDTELECOM grew by 11,2% and reached 2 billion 77,9 million lei, while its market share, according to turnover reduced from 99,58%, in 2005, to 97,45%, in 2006.

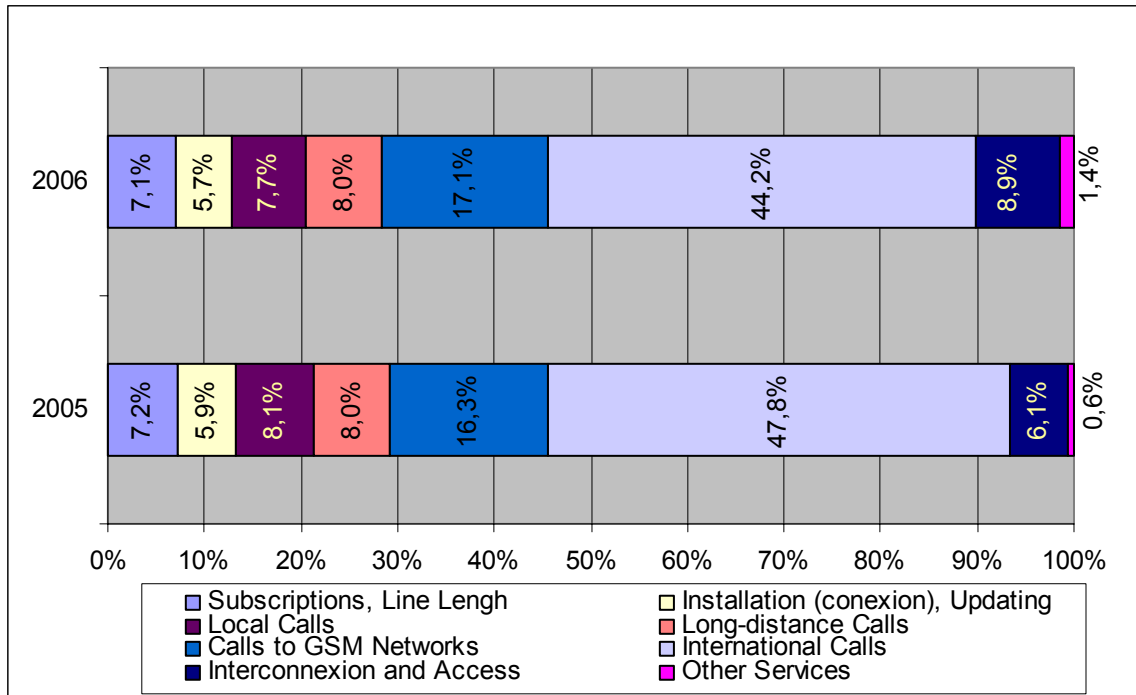
NRATI experts consider that the indicators registered by alternative local fixed operators are a natural result of the flexible policies they pursue in terms of modern technologies and larger choice of provided services.



**Fig. 2.5 Evolution of Fixed Telephony Market according to Turnover, thousand lei**

**Source:** NRATI, according to the statistical data reported by license holders

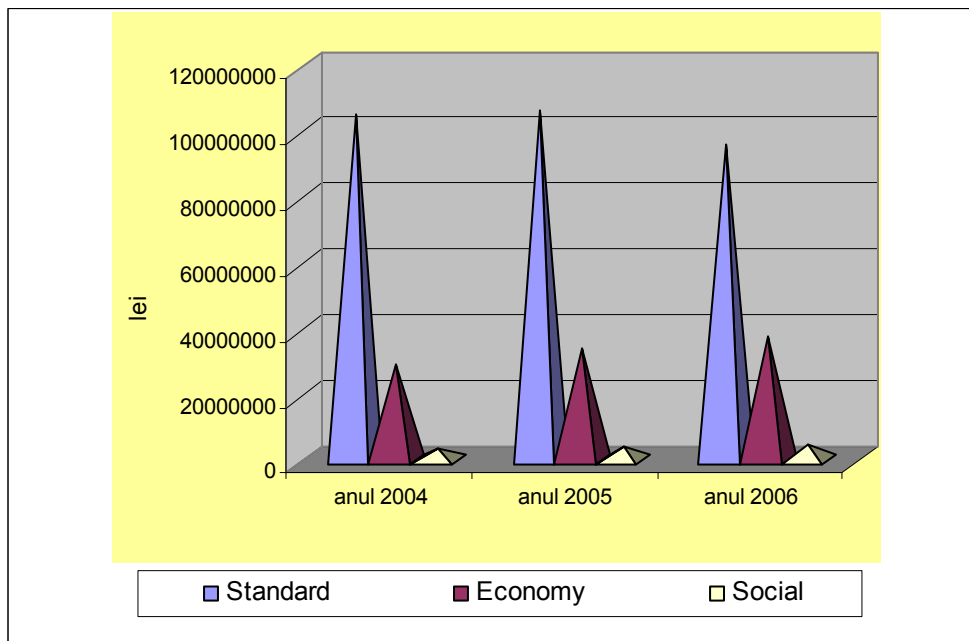
The revenues obtained from international calls represent the biggest share in the turnover structure - 44,2%, followed by the revenues generated by GSM network calls, - 17,1% and those generated by interconnection and access services – 8,9%.



**Fig. 2.6 Structure and Evolution of Revenues per Services**

**Source:** NRATI, according to the statistical data reported by license holders

The revenues obtained by JSC MOLDTELECOM from selling the three types of subscriptions – „Standard”, „Economy” and „Social” – increased from 133,674 million lei, in 2005, to 148,845 million in 2006. This evolution was caused, mainly, by connecting new subscribers to the network. As a result, the share of revenues generated by “Standard” sales, at the end of 2006, showed 69,27%, 4,34 % less than in 2005.

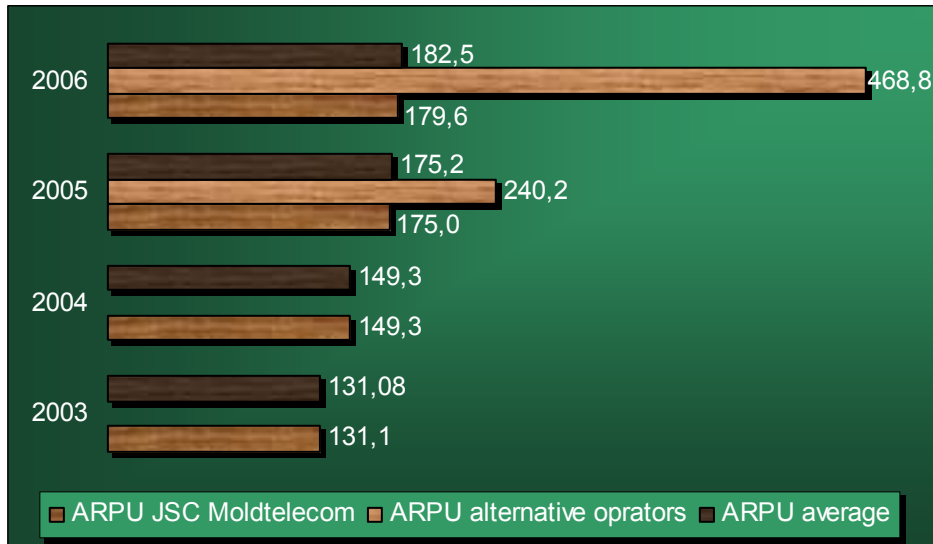


**Fig. 2.7 Evolution of Revenues from Subscriptions**

**Source:** NRATI, according to the statistical data reported by license holders

In 2006, the average revenue per user (ARPU) grew by 7,3 lei or 4,17 % in relation to the same indicators of 2005 and reached 182,5 lei, due to a higher demand of fixed telephony services and a bigger number of final users.

In this timeframe the ARPU registered by alternative fixed telephony operators grew 1,95 times amounting to 468,8 lei, whereas the ARPU registered by JSC MOLDTELECOM came up to 179,6 lei or by 2,6% higher than in 2005.



**Fig. 2.8 Evolution of Average Revenue per User (ARPU), lei**

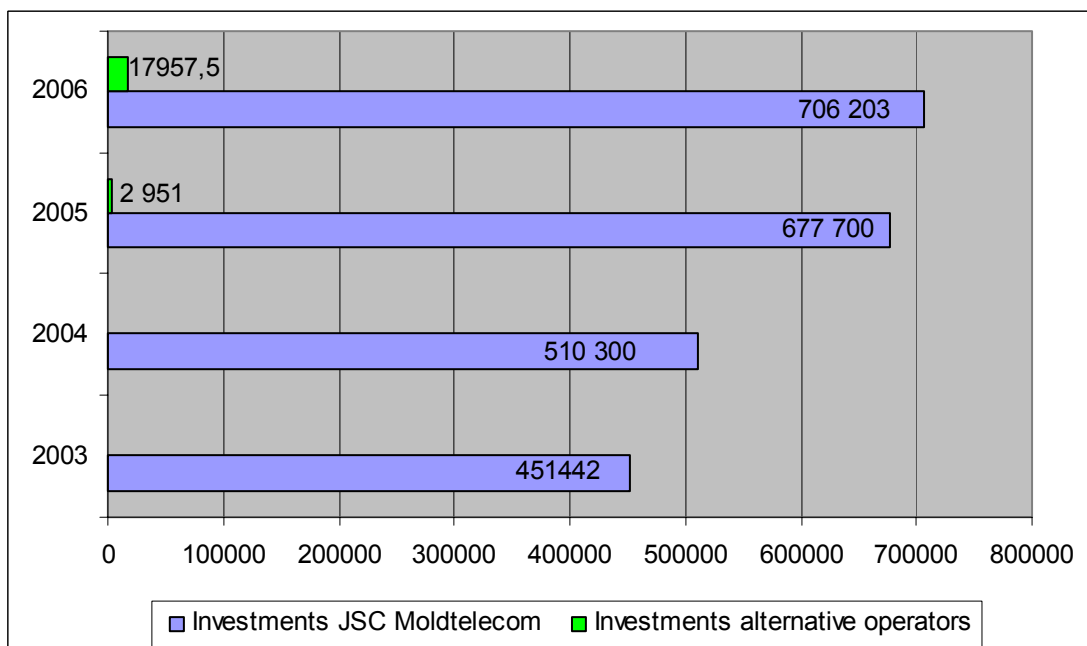
**Source:** NRATI, according to the statistical data reported by license holders.

### 2.3.3 Investments

The analysis of investments made in 2006 in the fixed telephony sector shows that the average investment was 711,31 lei. It also shows that about 33,96% of the operators' revenues obtained in 2006 was invested back in this sector.

The total sum of investments made by fixed telephony service providers grew, compared to 2006, by 6,38 % (43,51 million lei) amounting to 724,16 million lei. It is difficult to estimate the exact sum of investments made in the fixed telephony for the reason that the same equipment is used for the provision of other services, such as Internet access, leased lines, etc.

The tendencies of fixed telephony sector development show that, even though JSC MOLDTELECOM has always been the biggest market player, in 2006 the alternative operators strengthened their position and are ready to compete with the incumbent. In terms of the volume of investments made in the sector, JSC MOLDTELECOM' share in 2006 was 97,5%, while the alternative operators share was 2,5%. In 2005, the incumbent's investments in the sector amounted to 99,56% of the total of investments in the sector, the rest was invested by the alternative operators that had just entered the market.



**Fig. 2.9 Evolution of Investments Made by Fixed Telephony Service Operators, thousand lei;** **Source:** NRATI, according to the statistical data reported by license holders.

### 2.3.4 Subscribers

In 2006 the number of fixed subscribers increased by 88,67 thousand or by 9,54%, exceeding 1 million 18 thousand. JSC MOLDTELECOM connected 80,2 thousand new subscribers to its network, while the alternative operators - 8,4 thousand. This increase is mainly a result of a substantial number of subscribers connected to the fixed telephony network via radio access to the local loop (WLL) based on CDMA 2000 technology (450 MHz) by JSC MOLDTELECOM. Their number increased more than twice: from 21,6 thousand in 2005, to 56,120 thousand in 2006.

JSC MOLDTELECOM continued to hold the leading position on this market segment, with 98,636% of the total of subscribers. The rest of 1,36% was shared among the alternative local fixed telephony operators.

#### Structure of Fixed Telephony Market according to Number of Subscribers

Table no. 5

Fixed Telephony Service Provider	Timeframe	
	2005	2006
JSC Moldtelecom	99,414%	98,636%
State Company Calea Ferata din Moldova (Moldova Railway)	0,570%	0,434%
LLC Arax-Impex	0,005%	0,277%
JSC Riscom	0,009%	0,241%
LLC Sicres	0,002%	0,301%
LLC Telcom Technologies		0,017%
LLC Starnet		0,015%
JSC Telemedia Group		0,081%
Total	100%	100%

Source: NRATI, according to the statistical data reported by license holders

As a result of the increase in the number of subscribers, the fixed penetration rate per 100 inhabitants grew from 27,4%, in 2005, to 29,7%, in 2006. Thus, the objective of 25% fixed penetration rate, as established in the Program for Nation-wide Telephone Installation for 2005-2010, approved by Government Decree no. 1234, of 10.11.2004, was surpassed by 4,7%.

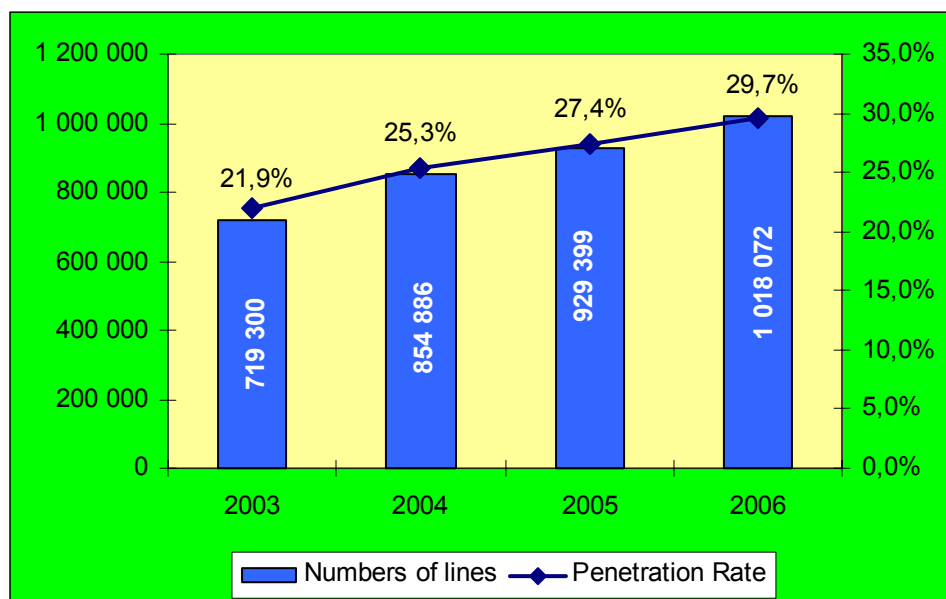
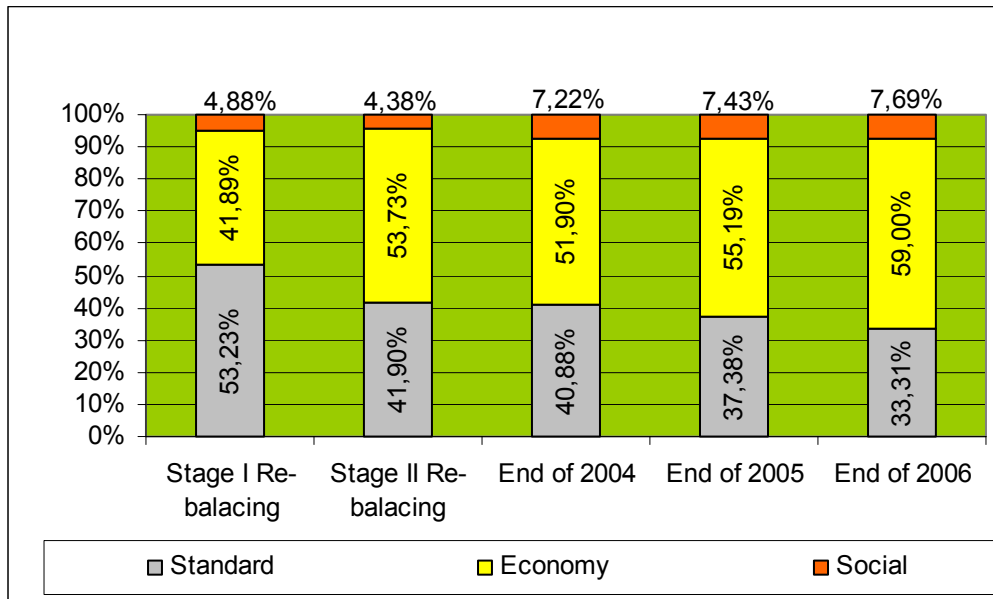


Fig. 2.10 Evolution of Number of Fixed Subscribers and Penetration Rate

Source: NRATI, according to the statistical data reported by license holders.

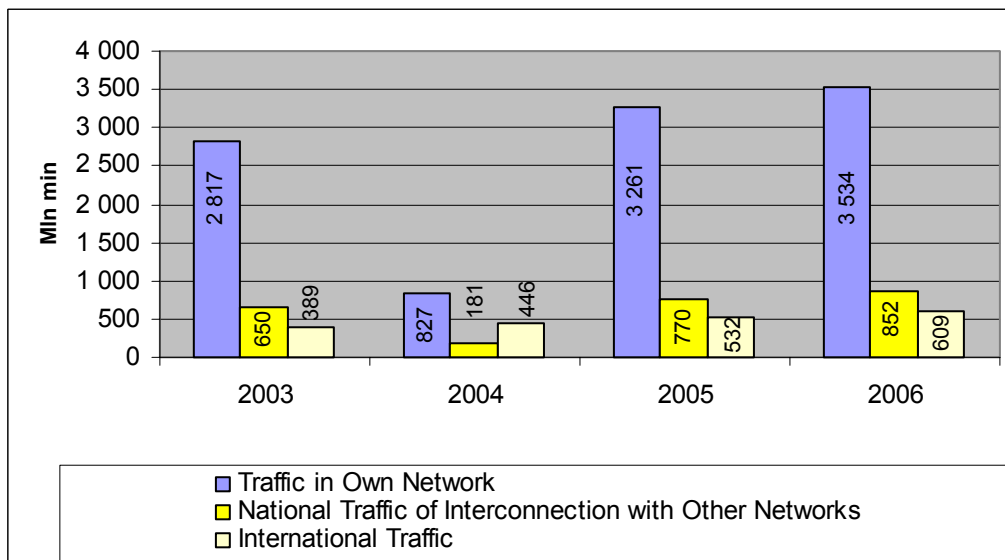
In the reporting timeframe the structure the incumbent's subscribers, in terms of the service package used, did not undergo essential changes. The subscribers of "Economy" package top the list with 59%, followed by "Standard" package subscribers - 33,31% and "Social" subscribers - 7,69%.



**Fig. 2.11 Evolution of Number of Subscribers according to Service Package**  
**Source:** NRATI, according to the statistical data reported by license holders.

### 2.3.5 Traffic

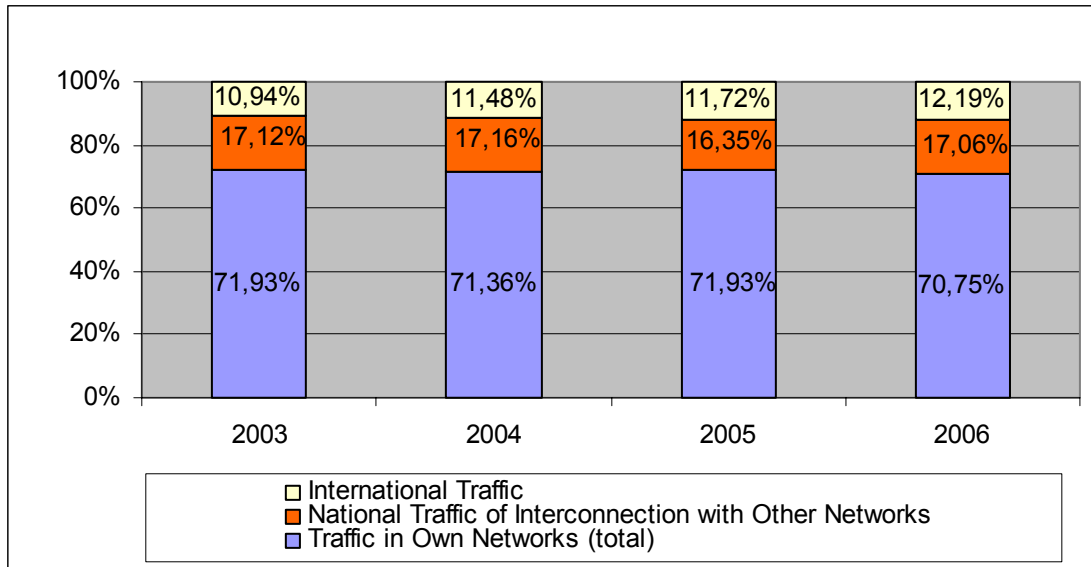
In 2006, the total traffic in the fixed networks grew by 9,44%, compared to 2005 and reached 4,994 billion minutes, owing to the 8,34%<sup>1</sup> increase of the local traffic.



**Fig. 2.12 Evolution and Structure of Traffic in Fixed Telephony Sector**  
**Source:** NRATI, according to the statistical data reported by license holders

During the reporting timeframe, the structure fixed traffic did not change essentially, with telephone calls within the operators' own fixed networks predominating. The share of this traffic in the total traffic was 70,75%, as against 71,47%, at the end of 2005.

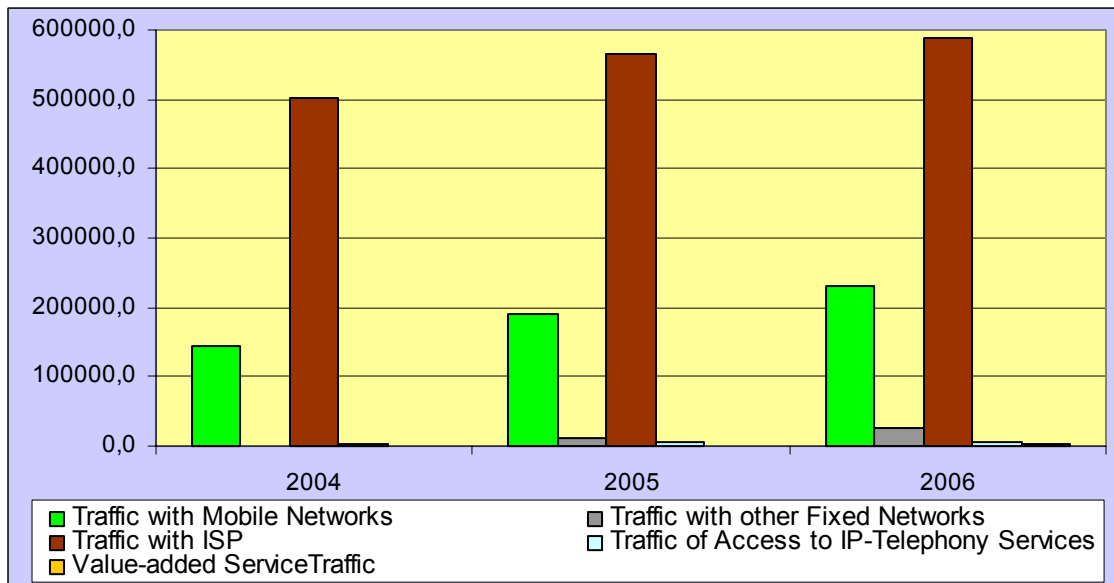
<sup>1</sup> The total traffic includes the total own network traffic, national interconnection traffic and international traffic



**Fig. 2.13 Structure of Traffic in Fixed Telephony Sector**

**Source:** NRATI, according to the statistical data reported by license holders

The national interconnection increased slightly, mainly due to higher volume of traffic accomplished by Internet access service providers. In 2006, the value of this traffic grew, in comparison with 2005, by 3,85%, which fact proves that the number of Dial-up Internet access users is continuously increasing. We also find that more and more users request and receive this service via the fixed network they are subscribed to. So, the Dial-up access to the own Internet of the access provider grew in 2006 by 36,83%.



**Fig. 2.14 Evolution and Structure of National Interconnection Traffic, thousand min**

**Source:** NRATI, according to the statistical data reported by license holders

In 2007 NRATI expects the development of fixed telephony to slow down, compared to the last three years, and its market share to decrease slightly, due to a more dynamic development of mobile telephony and Internet access sectors. NRATI specialists explain the expected slowdown by the fact that the market is approaching the saturation, which is expected to start when the number of fixed subscribers amounts to 1,3 -1,4 million.

### 2.3.6 International IP-Telephony Services

In 2006, 23 companies were authorized by NRATI to provide international IP-telephony services (Voice over IP), 13 of which providing international IP-telephony services by pre-paid cards and 9 – in call centers.

### Companies providing services by means of pre-paid cards

**Table no. 6**

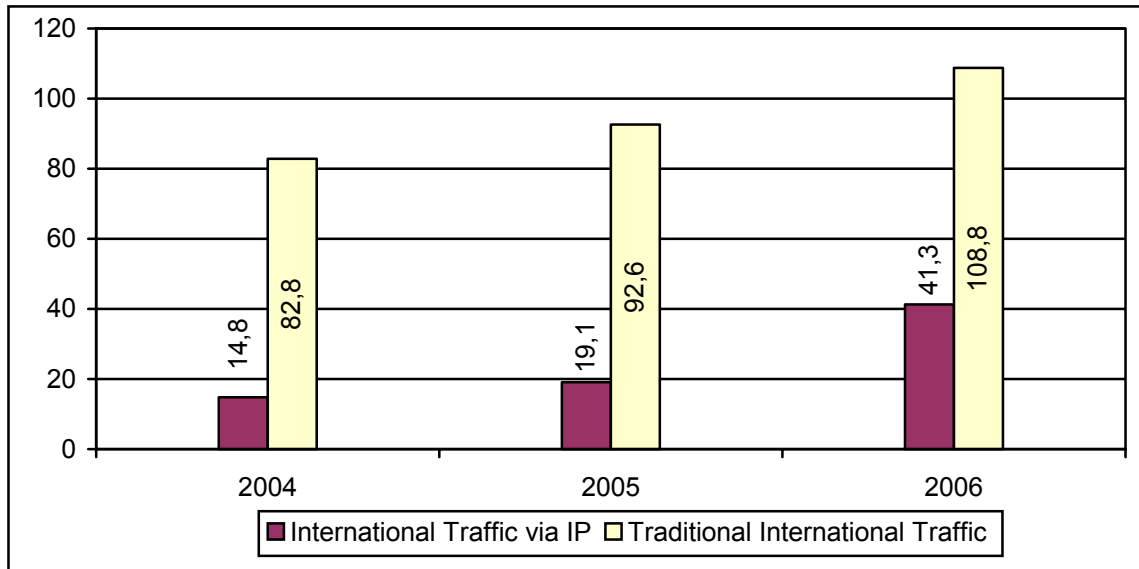
<b>No.</b>	<b>Name of operators</b>
1	Arax Impex
2	Cartel System
3	Globtelcom
4	Isabel
5	Meganet
6	Moldtelecom
7	Piacom
8	Sicres Plus
9	Telcom Technologies
10	Telemedia Group
11	Transneogrup
12	Superonline
13	Moldcell
14	Voxtel
15	Voix Group

### Companies providing services in call centers

**Table no. 7**

<b>No.</b>	<b>Name of operators</b>
1	Vistel-Com
2	Arond-Com
3	Stefanel
4	I.Q-Impex
5	Giarymoli
6	Marcelo-Grup
7	Prucaz-Com
8	Vocalux Service
9	Transneogrup

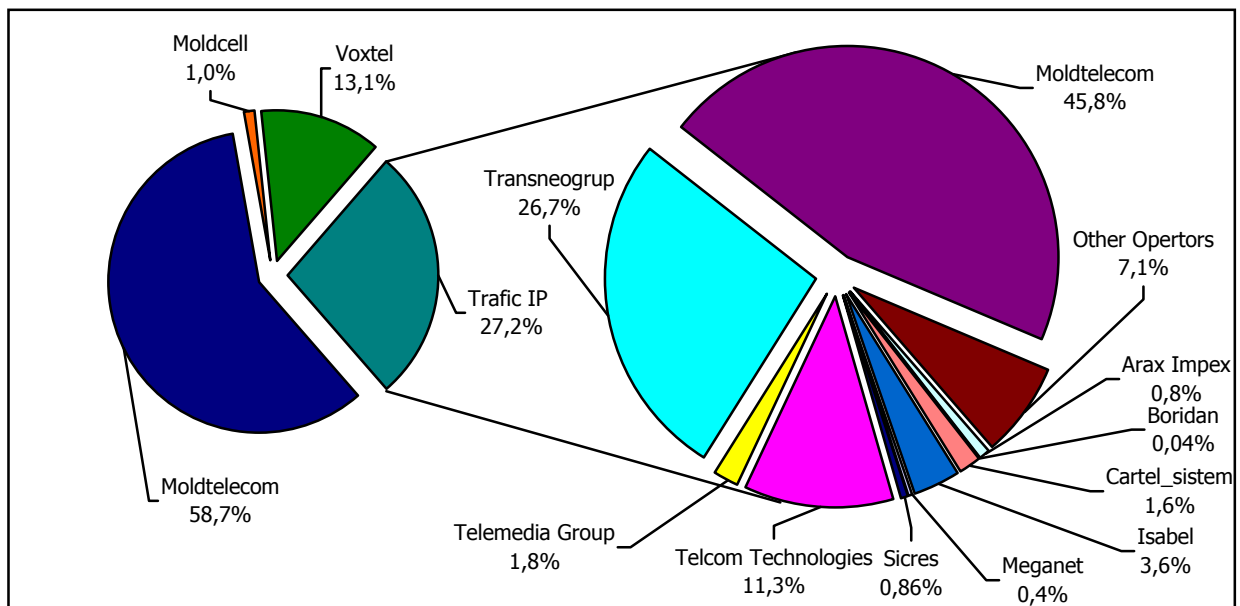
In the reporting timeframe, the total volume of international voice traffic via the public fixed and GSM grew by 35% compared to 2005 reaching 150 million minutes, whereas the international IP traffic grew by 116,2% and totaled 41,3 million minutes. The traditional international voice traffic registered the slightest growth - by 17,4 %: from 92,6 million minutes, in 2005, to 108,8 million minutes, in 2006.



**Fig. 2.15 Evolution of VoIP International traffic, million min**

**Source:** NRATI, according to the statistical data reported by license holders.

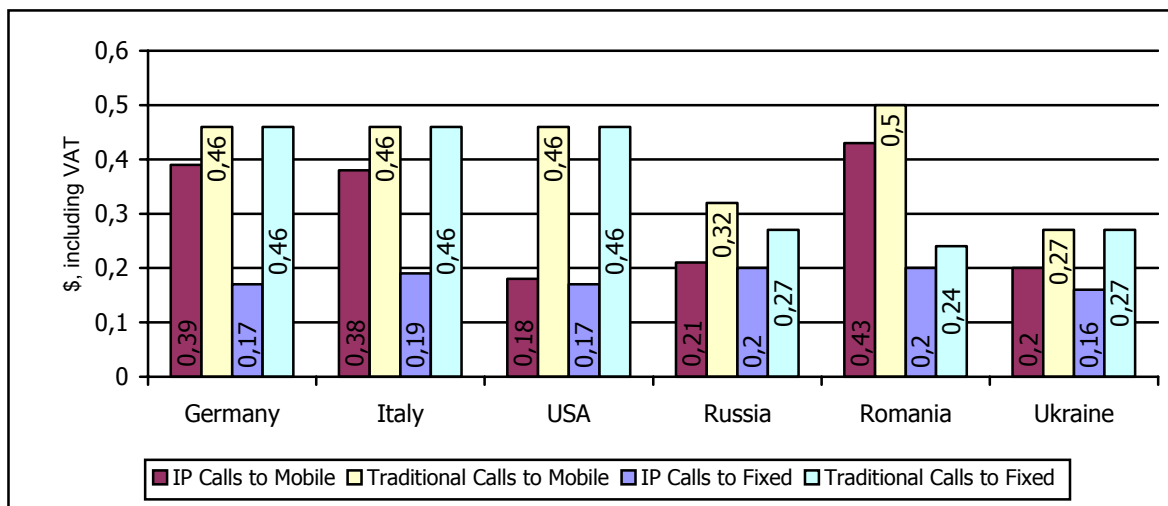
In 2006, the share of international VoIP traffic in the total international traffic volume grew by 10,12%, amounting to 27,2%. The international VoIP traffic generated by alternative operators grew by 147,5% and exceeded 22,37 million minutes. So, the market share of the 23 alternative international IP service operators, calculated depending upon the number of registered minutes, reached 54,2% at the end of 2006, whereas the share of JSC MOLDTELECOM was 45,8%.



**Fig. 2.16 Structure of International VoIP Traffic, in 2006**

**Source:** NRATI, according to the statistical data reported by license holders.

NRATI experts consider the rapid growth of VoIP traffic a result of the promotion of services more attractive and more affordable for final users. The tariffs for these services, depending on the destination country and type of network to which the call is directed, are, on average, by 30% for fixed and twice for mobile, lower than the tariffs for traditional international telephone calls. For example, one minute of VoIP call to the fixed networks of Italy or Germany is 0,17 – 0,19 USA \$, whereas one minute traditional international call is 0,46 USA \$.



**Fig. 2.17 Tariffs for IP Calls Depending on Destination and Networks, in USA \$**  
**Source: NRATI**

The tendencies that shaped out in this sector prove that in 2006 the migration of traditional international voice traffic to VoIP international traffic continued - a phenomenon, caused mainly by tariffs lower than the ones for traditional telephone calls.

According to NRATI estimations, in 2007 the international VoIP market is going to develop more rapidly than the traditional fixed and mobile markets. NRATI experts expect VoIP sector to develop 30% annually and hold 35% a share of the total of international telephony market. This tendency is caused by the fact that alternative operators providing international IP services do not wish to use MOLDELECOM's infrastructure, to avoid the access deficit charge (0,39 lei per minute), reflected in the final tariffs for services to users and which does not allow the alternative operators to compete with the incumbent.

## 2.4 Mobile Telephony Sector

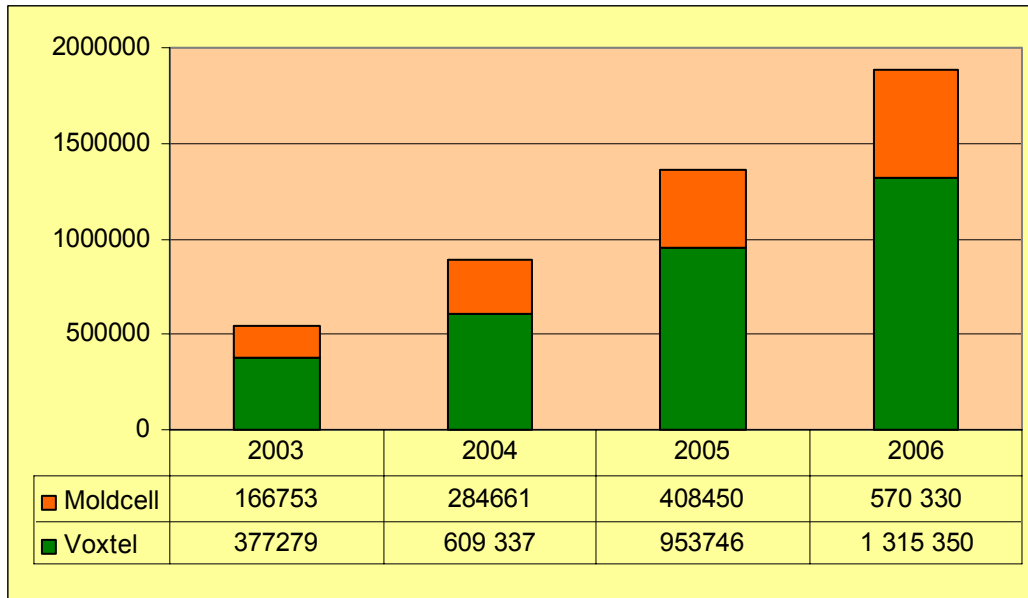
### 2.4.1 General Overview

At the end of 2006 the following four operators were authorized to provide mobile telephony services in the Republic of Moldova: JSC VOXTEL, JSC MOLDCCELL, JSC MOLDELECOM, that was granted an individual license for cell mobile telephony service provision, CDMA 2000 standard, in 450 MHz frequency band on June 29, 2006, and LLC Eventis Mobile that on December 26, 2006 won the tender for the third GSM cell mobile telephony license.

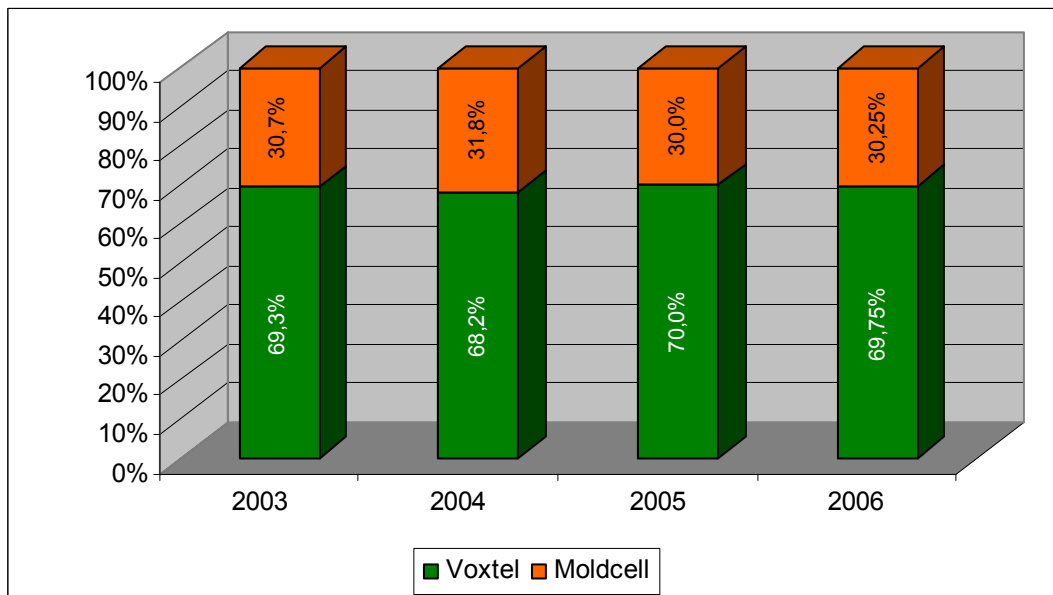
In the timeframe under report, the two GSM cell mobile telephony operators continued their activity: JSC VOXTEL and JSC MOLDCCELL. VOXTEL launched in October 1998 the first GSM network in Moldova, and MOLDCCELL started service provision in April 2000.

### 2.4.2 Revenues

In 2006, the two operators' turnover grew, in comparison with 2005, by 38,43% or by 523,5 million lei and amounted to 1 billion 885,7 million lei. The increase of the consolidated revenue generated by mobile telephony services, as against 2005, was caused by a higher turnovers of JSC VOXTEL - 37,91% (+361,6 million lei) and JSC MOLDCCELL - 39,63% (+161,9 million lei).

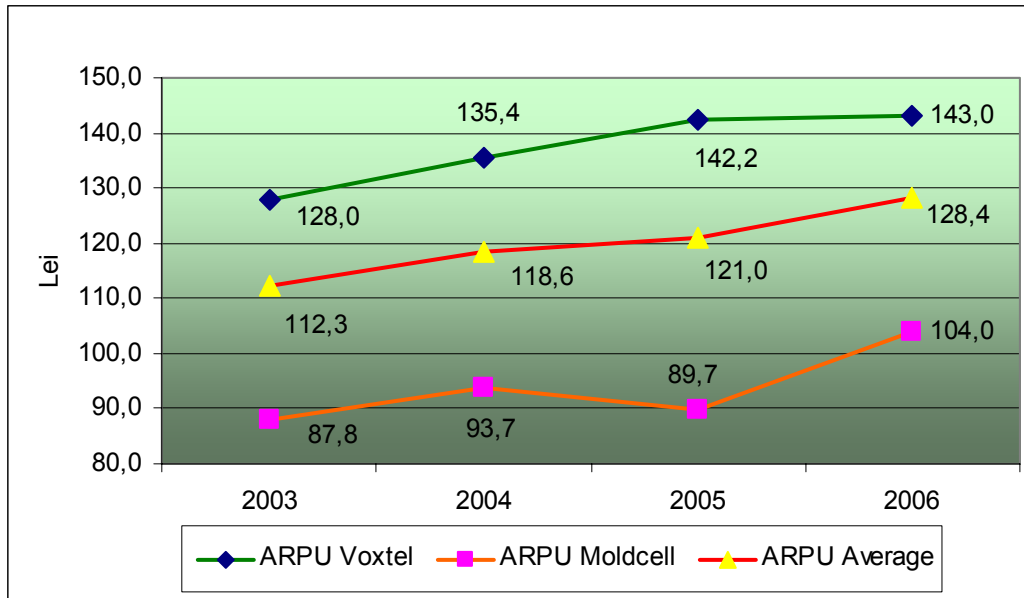


**Fig. 2.18 Structure of Mobile Telephony Market according to Turnover, thousand lei**  
**Source:** NRATI, according to the statistical data reported by license holders.



**Fig. 2.19 Structure of Mobile Telephony Market according to Turnover**  
**Source:** NRATI, according to the statistical data reported by license holders.

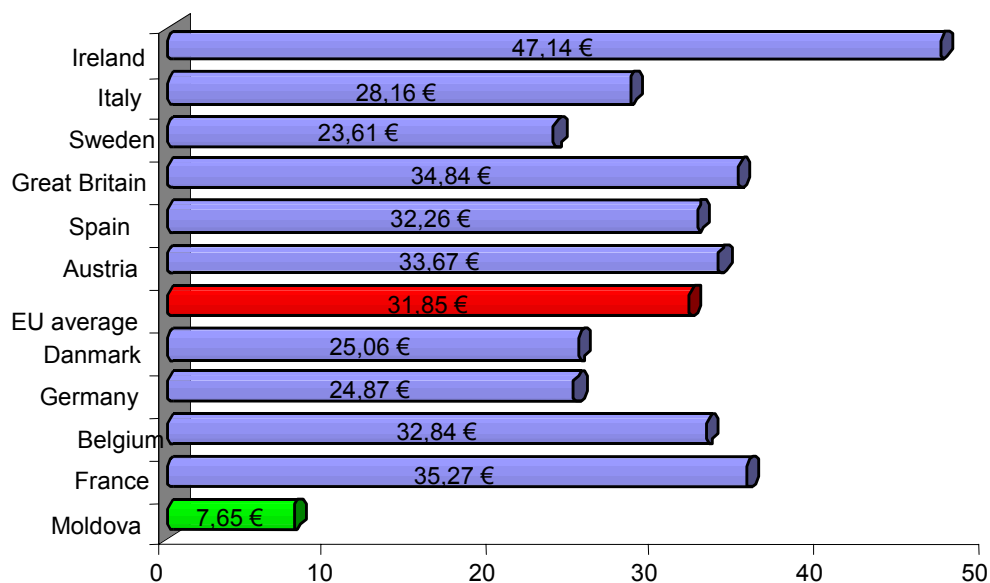
In 2006 the Average Revenue per User (ARPU) registered by both mobile operators was 128,4 lei or 9,8 USD, i.e. by 7,4 lei or by 6,13% higher than in 2005. JSC VOXTEL obtained 143,0 lei ARPU, 11,34% higher than the calculated average, while JSC MOLDCELL - 104,0 lei or by 19,0% lower than the average. Nevertheless, JSC VOXTEL obtained 0,51% growth of ARPU, and JSC MOLDCELL - 15,94% growth, as against 2005.



**Fig. 2.20 Evolution of Average Revenue per User (ARPU)**

**Source:** NRATI, according to the statistical data reported by license holders.

The analysis of ARPU in some European countries, as well as its average shows that the Republic of Moldova has a high potential in this area that is unexplored for the time being. The figures in the following diagram prove this assertion.



**Fig. 2.21 ARPU in Several European Countries, III Quarter of 2006, in euro<sup>1</sup>**

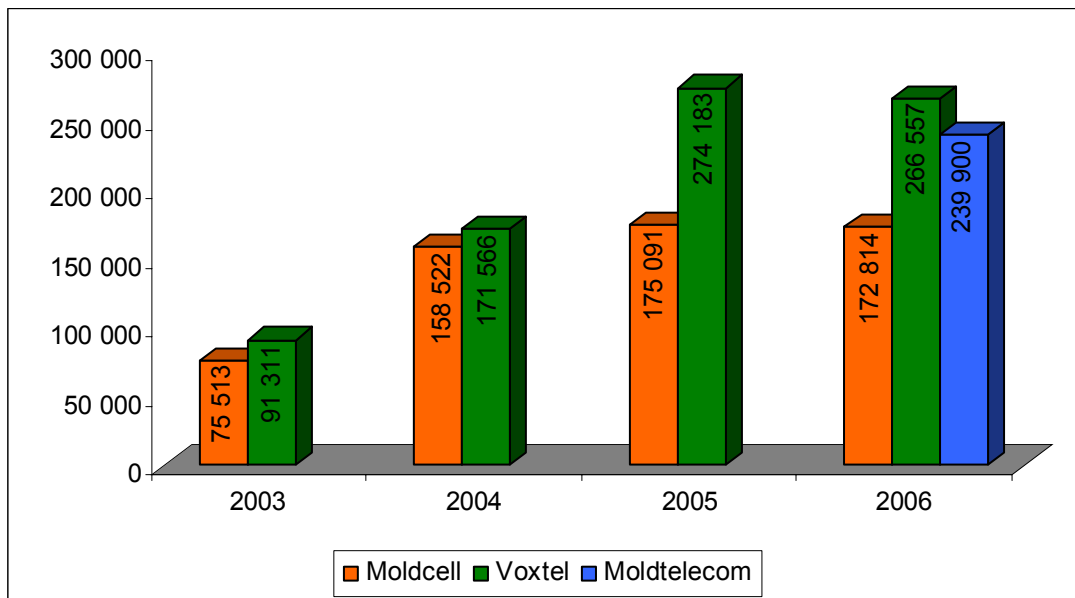
**Source:** Regulatory Commission for Telecommunications, Radio Communications and Post of Ireland

### 2.4.3 Investments

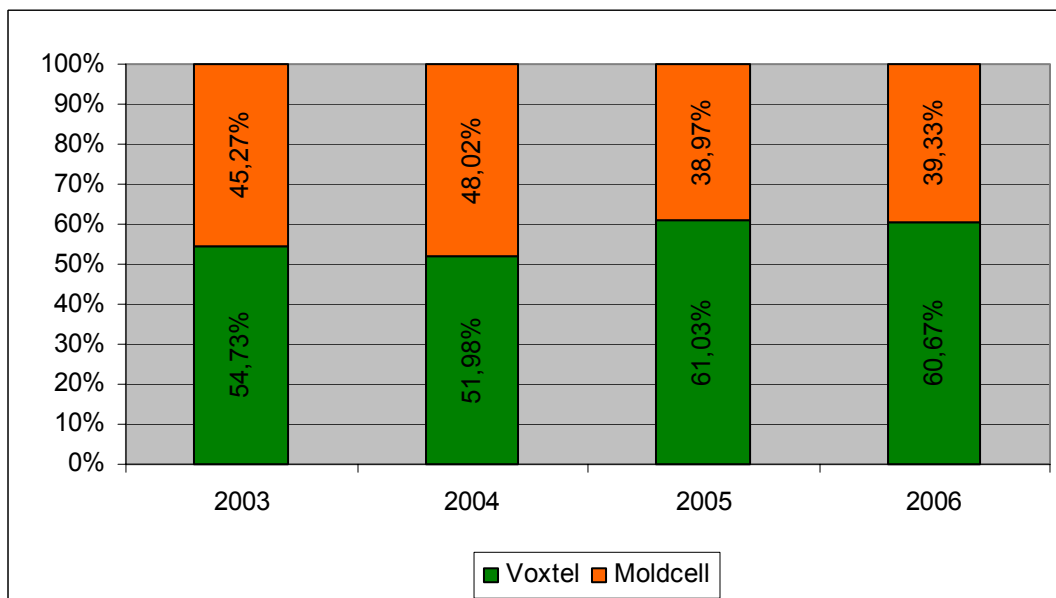
In 2006, 678,7 million lei was invested in the mobile telephony sector. As against 2005, the volume of investments grew by 51,06%, mainly due to the investments made by JSC MOLDTELECOM in launching the CDMA 2000 mobile service - 239,9 million lei. The other part of the investments - 439,4 million lei – was made by the first two GSM operators.

269,7 million lei of the total of investments was allocated to network equipment, of which 68,86% was invested by JSC VOXTEL, and 31,14% - by JSC MOLDCELL. 60,67% of the total GSM operators' investments was made by JSC VOXTEL, and 39,33% - by JSC MOLDCELL.

<sup>1</sup> The official average euro exchange rate in 2006 was 16,4918 lei per 1 €.



**Fig. 2.22 Evolution of Investments in Mobile Telephony Sector, thousand lei**  
**Source:** NRATI, according to the statistical data reported by license holders.



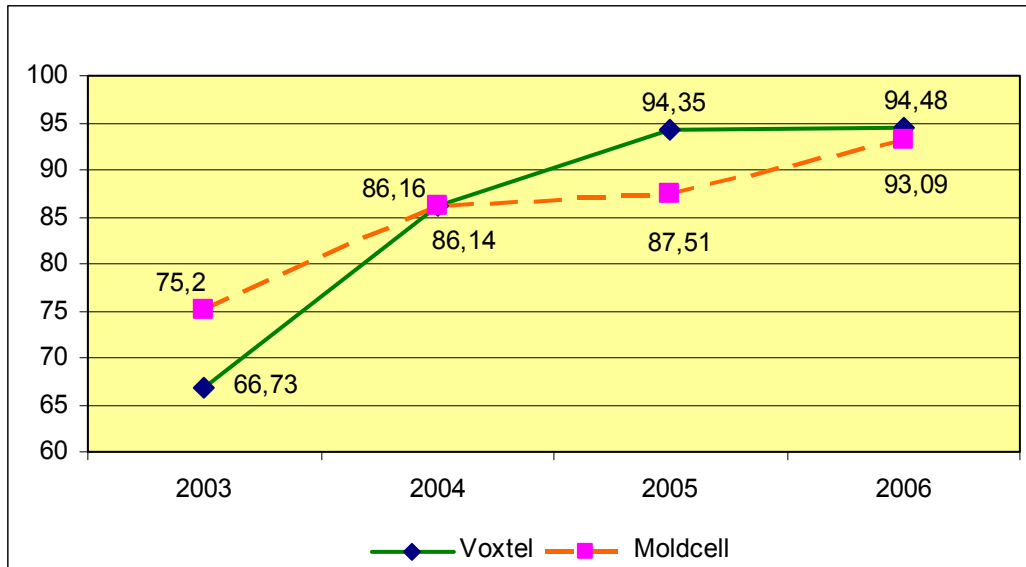
**Fig. 2.23 Market Structure according to Volume of GSM Operators' Investments**  
**Source:** NRATI, according to the statistical data reported by license holders

It can be noted from the reports submitted by the two cell mobile operators that they, for two years now, have succeeded in maintaining the same rate of investment in their networks, which fact certifies the beginning of market saturation in terms of investments.

However, according to NRATI estimations, in 2007, the investments in the development of mobile networks could increase faster than in 2006. NRATI experts consider that in 2006, with only two mobile operators on the market the investments amounted to 439,4 million lei, in 2007, with two more operators on the market, the volume of investments could exceed 800 million lei.

#### 2.4.4 Coverage

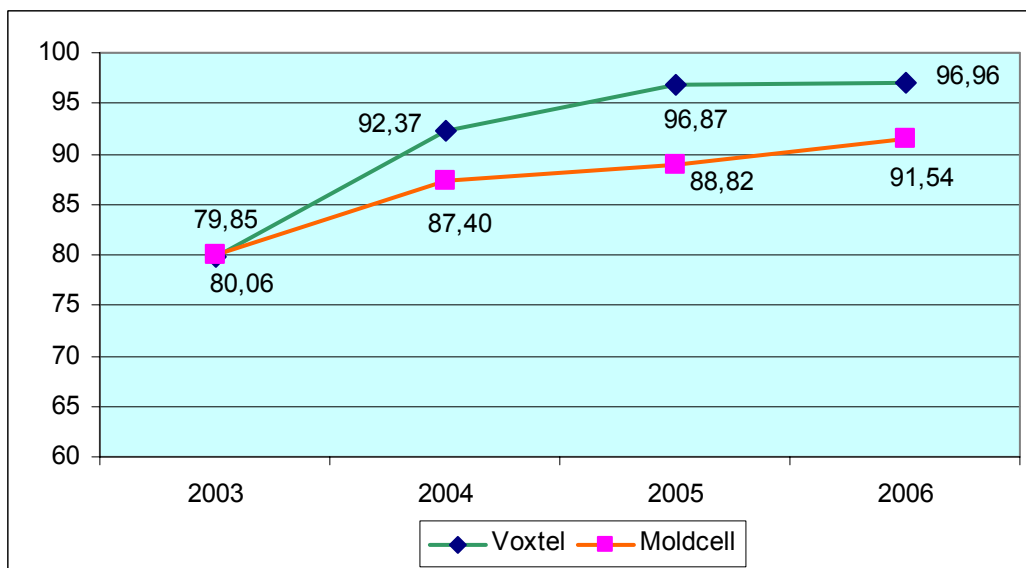
A big part of the funds invested by the two operators in 2006 was directed to the extension of the coverage area and improvement of signal on covered areas. Owing to this fact, in 2006 JSC VOXTEL managed to increase the territorial coverage by 0,13% and population coverage by 0,09, and JSC MOLDCELL – by 5,58% and 2,72% accordingly.



**Fig. 2.24 Evolution of the Degree of Territory Coverage, %**

**Source:** NRATI, according to the statistical data reported by license holders

At the end of 2006 JSC VOXTEL network covered 94,48% of the territory, that is 96,96% of the population and JSC MOLDCELL - 93,09% of the territory and 91,54% of the population.



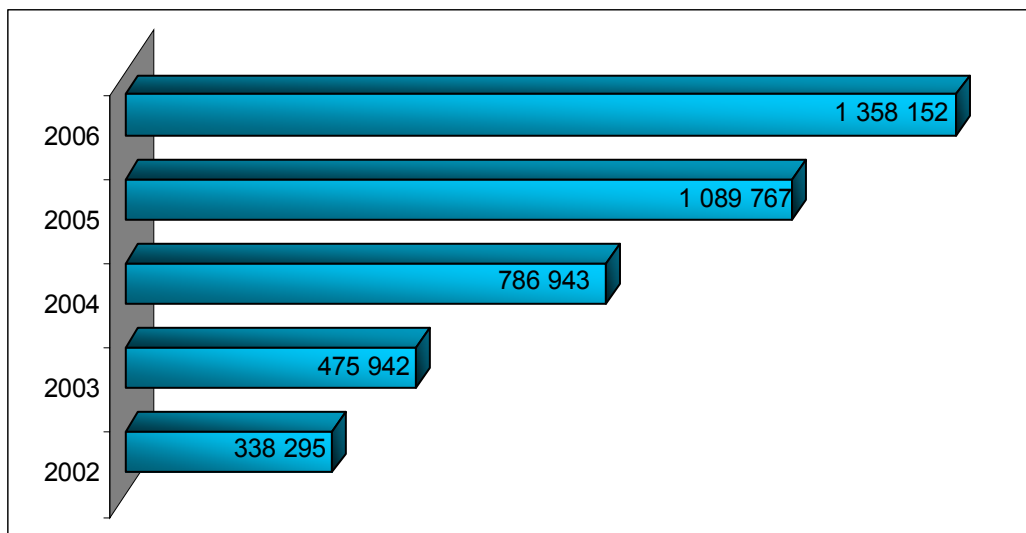
**Fig. 2.25 Evolution of the Degree of Population Coverage, %**

**Source:** NRATI, according to the statistical data reported by license holders.

The Call Drop Rate in the networks of both operators was 0,88-0,90% of interrupted calls – an acceptable indicator in relation to the 2% maximal admitted level. The Call Blocking Rate was maintained 0,08-0,52%.

#### 2.4.5 Users

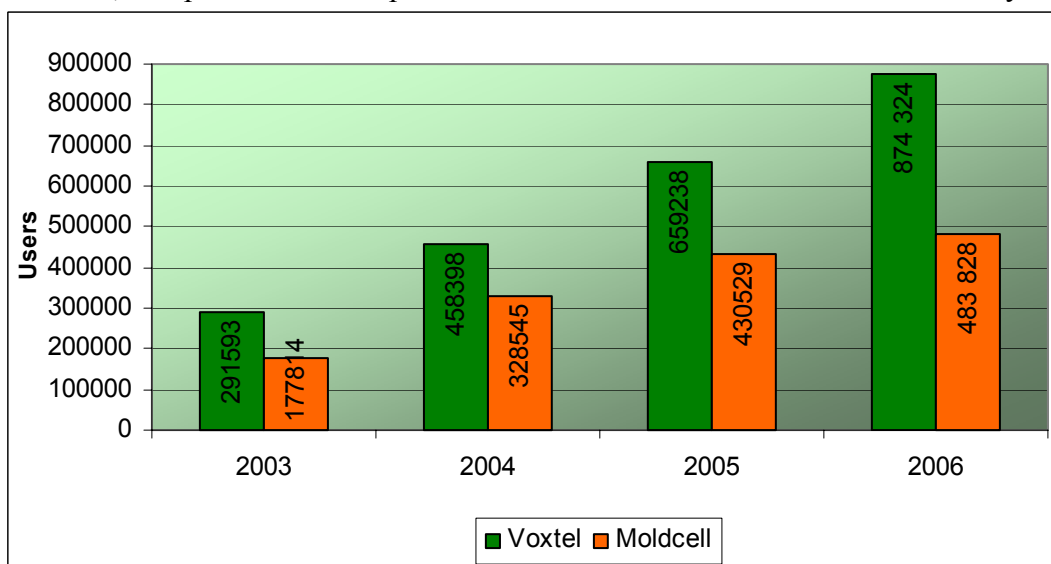
Analyzing the quarterly evolution of the number of newly connected users of the two mobile operators, we find the seasonal phenomenon: at the end of the year the number of users grows faster than at the end of the first half-year, mainly due to the seasonal effect that influences the evolution of sales in the second half year. Thus, in the timeframe under report, the number of mobile users grew, as against 2005, by 24,6% (+268,4 thousand): from 1million 089,7 thousand to 1million 358,1 thousand.



**Fig. 2.26 Evolution of Number of Mobile Users**

**Source:** NRATI, according to the statistical data reported by license holders

In 2006 JSC VOXTEL, connected a bigger number of new subscribers to its network - 215,0 thousand, compared to its competitor – JSC MOLDCELL – that connected only 53,3 thousand.

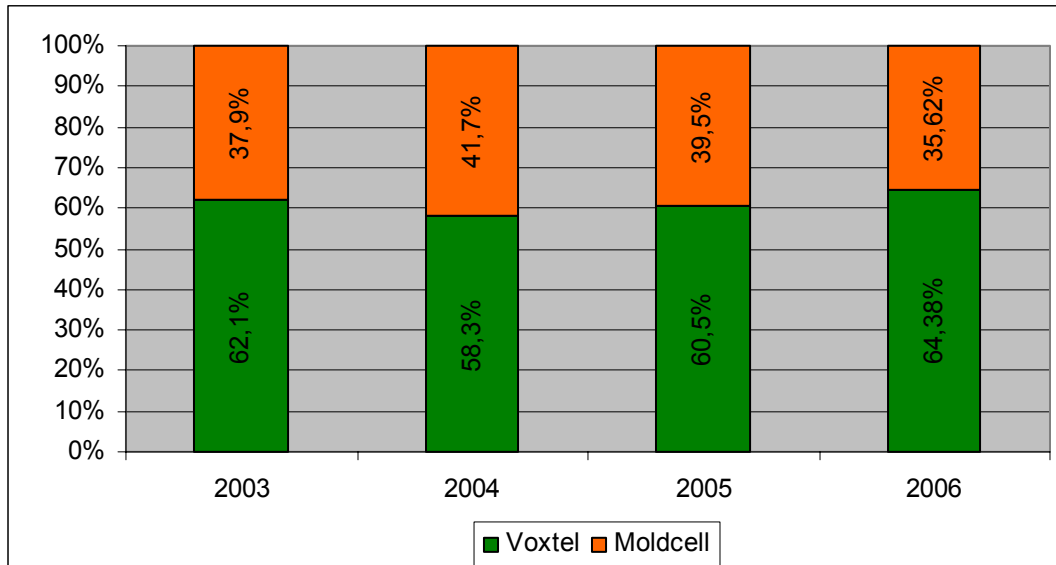


**Fig. 2.27 Evolution of the Number of Mobile Users per Operator**

**Source:** NRATI, according to the statistical data reported by license holders

Like in the case of turnover, the structure of mobile market shows that JSC VOXTEL is strengthening its market position. So, in 2006 VOXTEL obtained 3,88% increase in the number of users, compared with 2005.

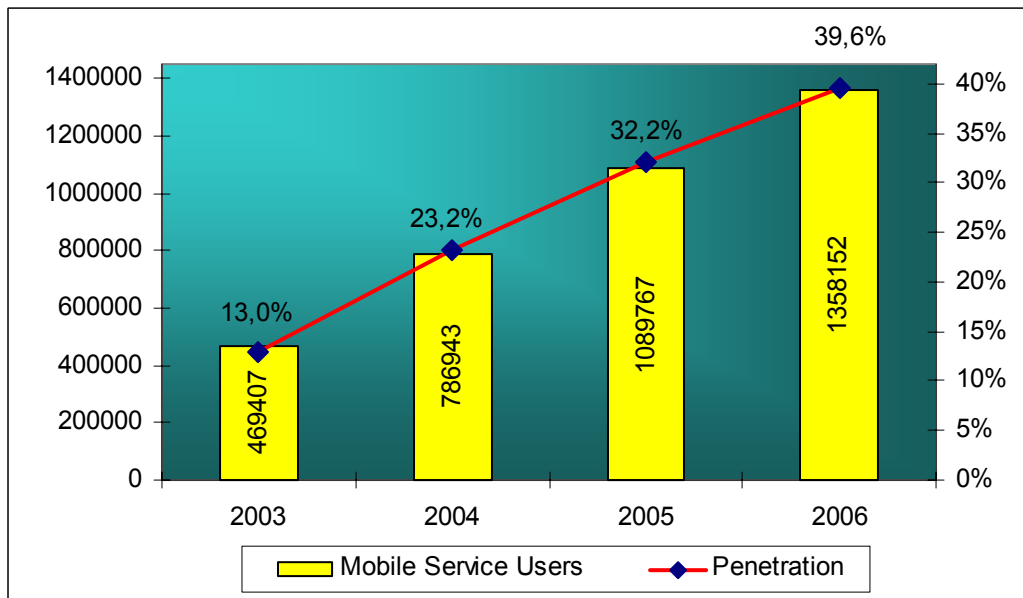
As a result, by the end of 2006, the mobile service market was divided into 64,38% for VOXTEL and 35,62% for MOLDCELL. It should be mentioned that has been two years since JSC MOLDCELL has yielded its position in terms of number of subscribers.



**Fig. 2.28 Structure of Mobile Market according to Number of Users**

**Source:** NRATI, according to the statistical data reported by license holders.

The mobile penetration per 100 residents grew by 7,38%: from 32,18%, in 2005, to 39,56%, in 2006.

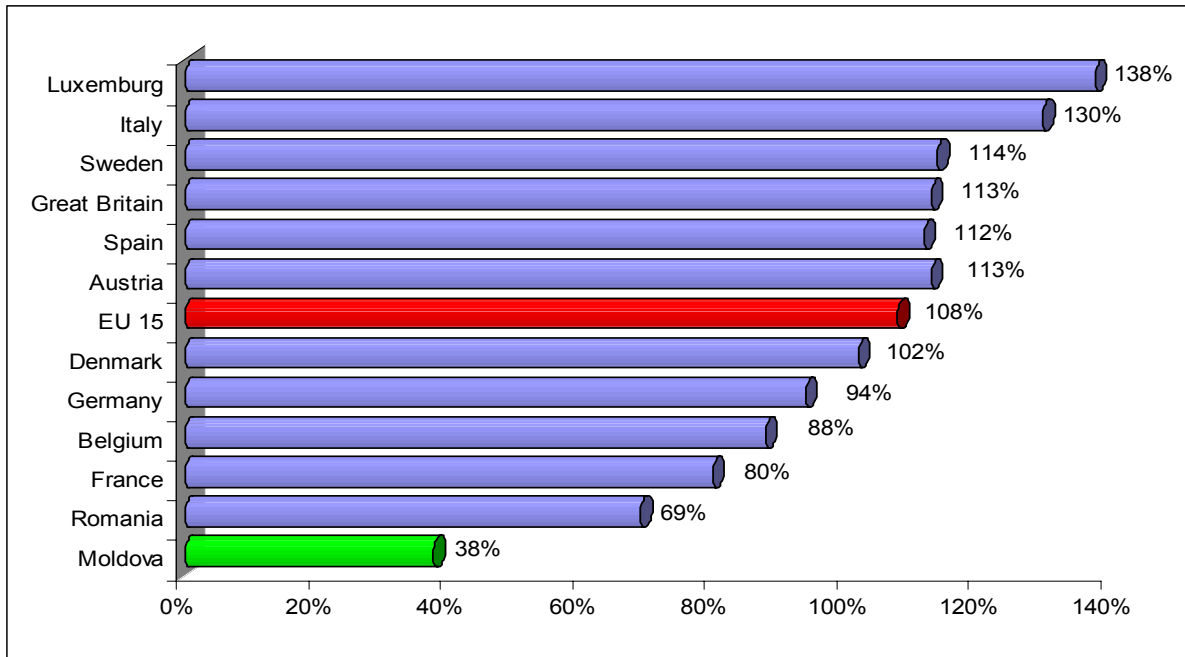


**Fig. 2.29 Evolution of Number of Users and Penetration Rate**

**Source:** NRATI, according to the statistical data reported by license holders

According to the data reported by the two mobile operators, in 2006, post-paid services were more widely used than in 2005 – by 1,9% and amounted to 226,8 thousand users.

For comparison, the diagram below shows the penetration rates in several European countries.

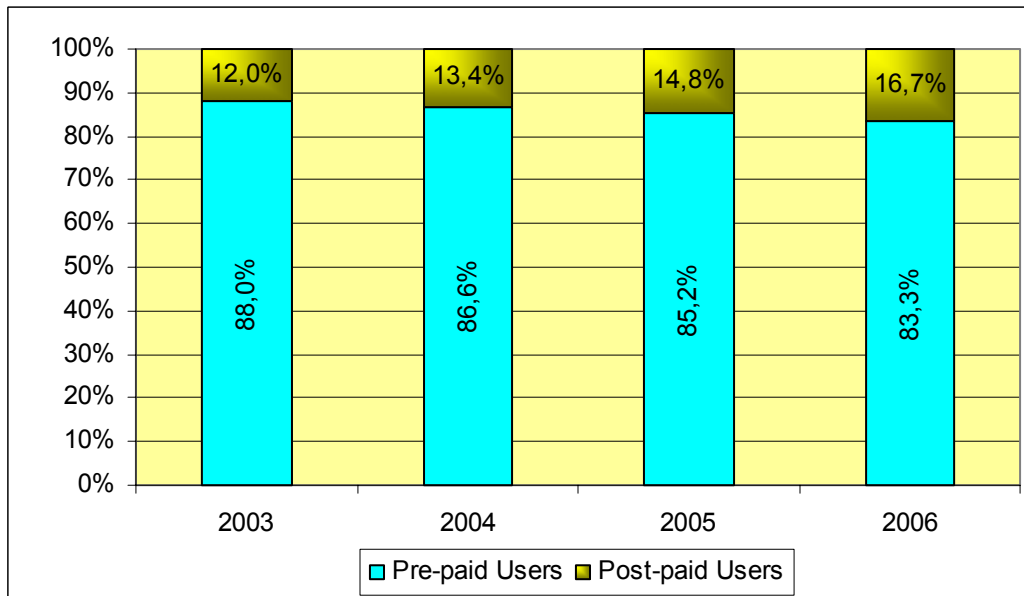


**Fig. 2.30 Mobile Penetration Rates in Several European Countries, in September 2006**

**Source:** Regulatory Commission for Telecommunications, Radio Communications and Post of Ireland

In 2006, the users of pre-paid cards TEMPO (VOXTEL) and ALOCARD (MOLDCEL) continued to prevail in the structure of mobile users, with 83,3% of the total number of mobile users and 16,7% - contract subscribers.

Although the majority of users prefer non-contract packages, however the number of users requesting contract subscriptions is growing, though slowly. In the opinion of NRATI experts, the number of contract subscribers would grow faster, if subscribers' personal data were more secure and if law-makers cancelled the 2-US \$ monthly charge for a contract concluded with the mobile telephony service provider.



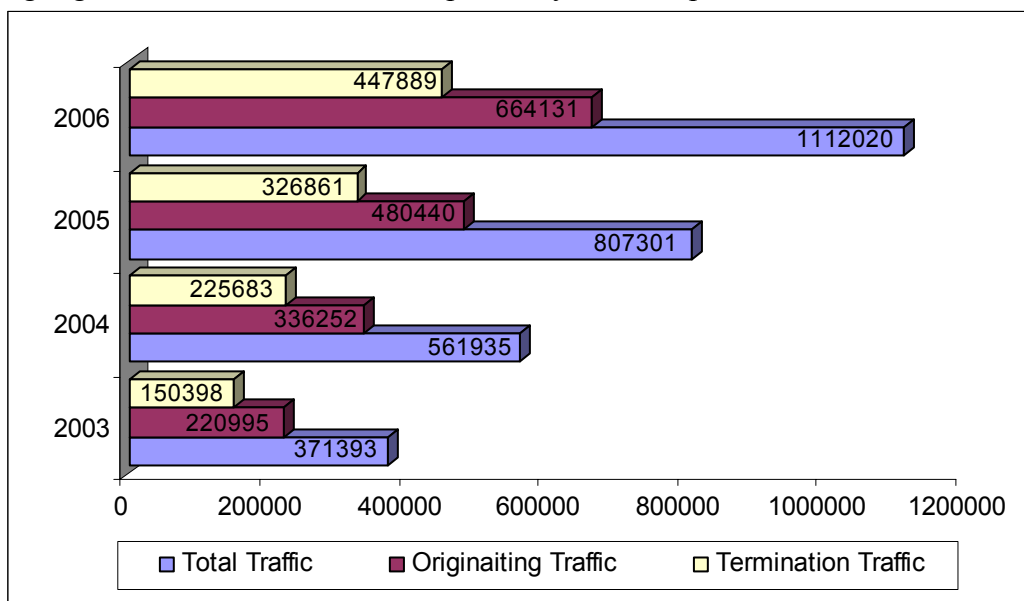
**Fig. 2.31 Structure of Mobile Market Depending on Users Category**

**Source:** NRATI, according to the statistical data reported by license holders .

#### 2.4.6 Traffic

The total voice traffic registered in 2006 in public mobile networks, including the roaming traffic, grew by 37,75% as against 2005 and showed 1 billion 112,02 million minutes. Excluding the roaming traffic, the total of voice traffic was 1 billion 101,97 million minutes, ascending as

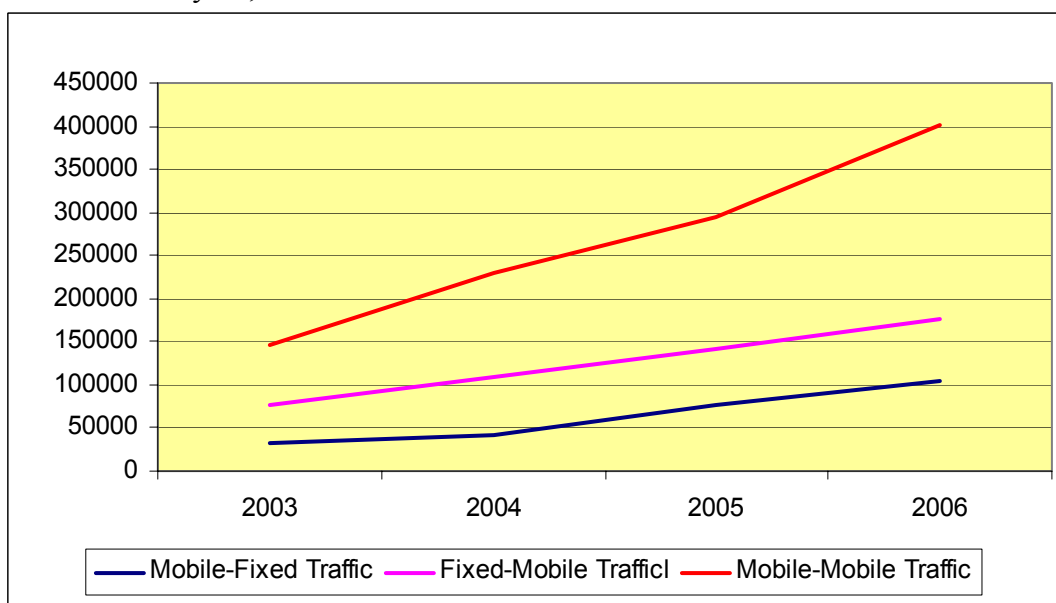
compared with 2005, by 37,77%. A tendency of traffic increase on all traffic segments is highlighted in the statistical data reported by mobile operators.



**Fig. 2.32 Evolution and Structure of Traffic in Mobile Networks, thousand min**

**Source:** NRATI, according to the statistical data reported by license holders

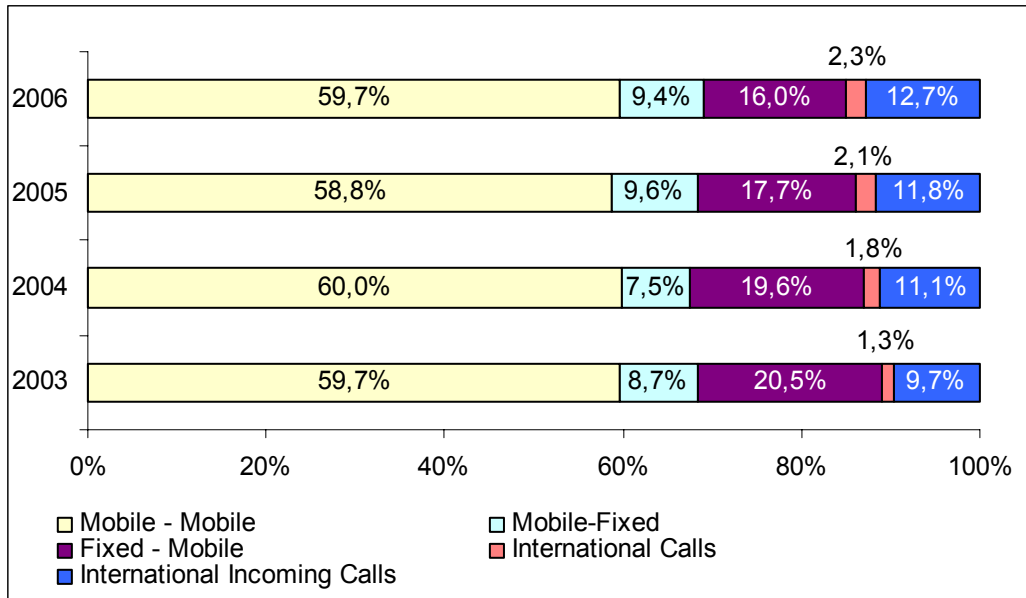
Analyzing the structure of the traffic realized in mobile networks, we find that the users prefer to call mobile-to-mobile within the same network. The volume of originating traffic increased by 36,48%. The traffic to other public mobile networks increased by 45,13%, whereas the mobile-fixed traffic - by 35,13%.



**Fig. 2.33 Evolution of Traffic from/to Fixed and Mobile Networks, thousand min**

**Source:** NRATI, according to the statistical data reported by license holders

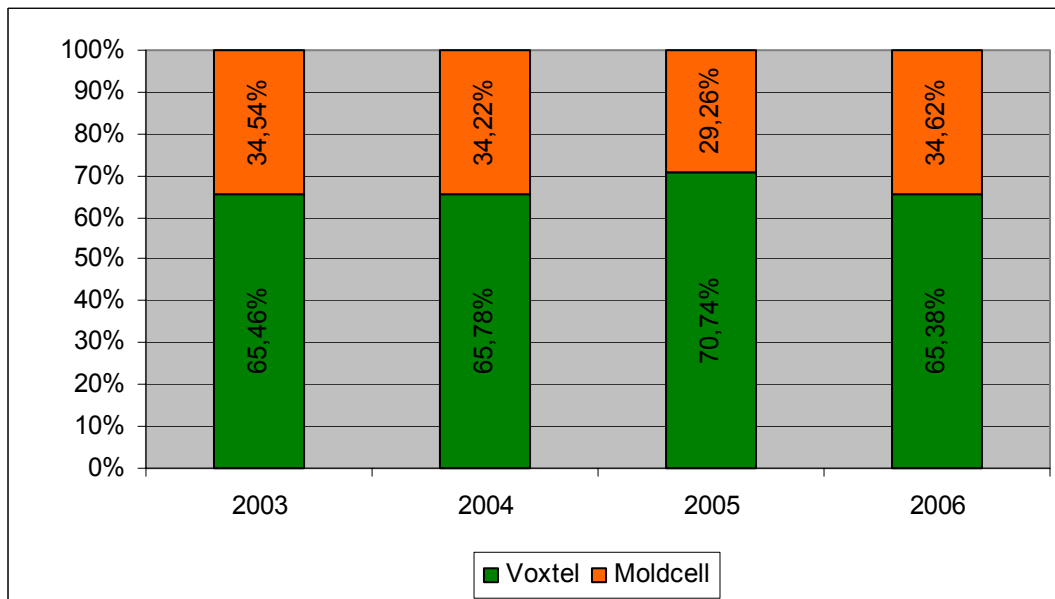
In 2006, the share of international termination traffic was 12,57% of the total mobile traffic, which is 0,91% higher than in 2005. At the same time, the share of mobile-fixed traffic decreased by 0,2%, while mobile-fixed traffic - by 1,7%.



**Fig. 2.34 Structure of Traffic in GSM Mobile Networks, in 2006**

**Source:** NRATI, according to the statistical data reported by license holders

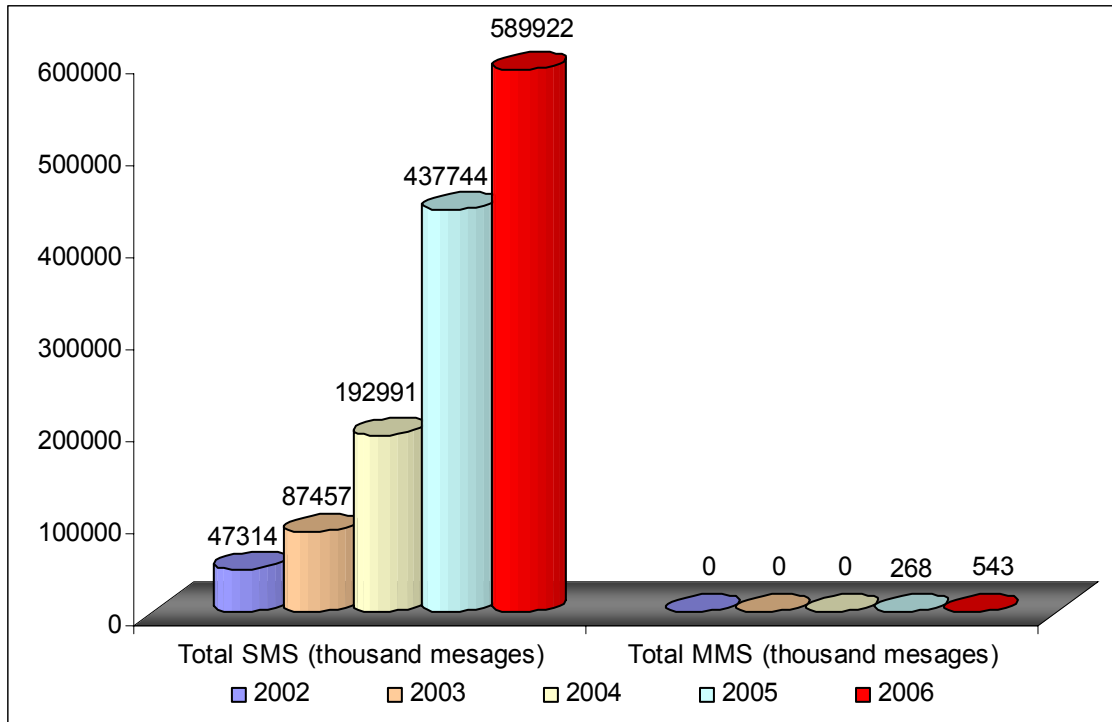
The analysis of the statistical data regarding voice traffic in GSM mobile networks shows that the market shares of mobile operators were almost unchangeable. The share of JSC MOLDCELL in terms of originating traffic grew by 6%: from 29,0%, in 2005, to 35,0%, in 2006. Its competitor strengthened its position and registered 65% share of the originating traffic market.



**Fig. 2.35 Evolution of Operators' Market Shares according to Originating Traffic.**

**Source:** NRATI, according to the statistical data reported by license holders

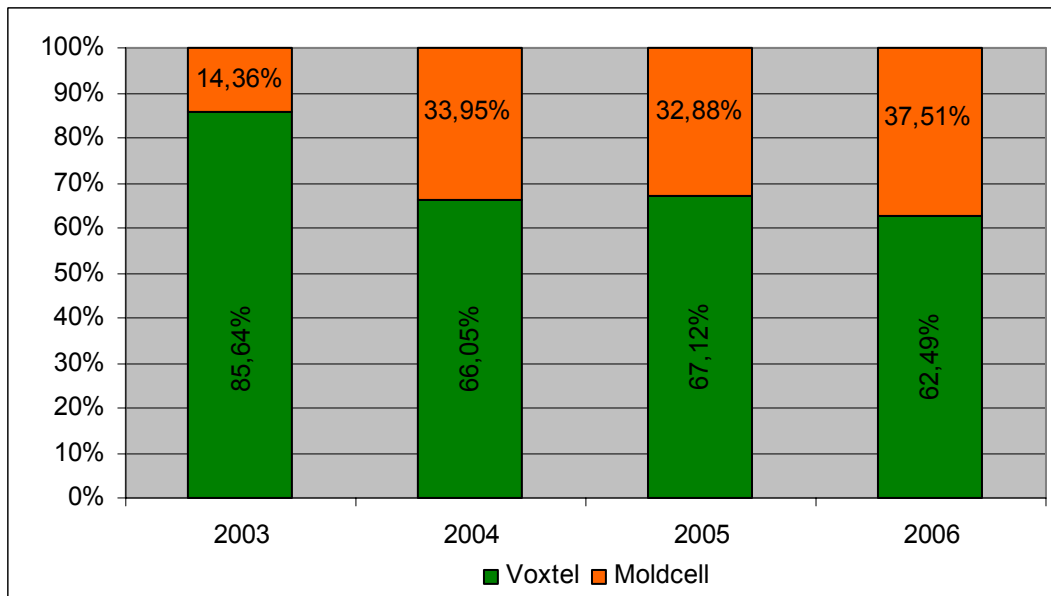
The reported data show that in 2006, the number of short messages (SMS) grew, by 34,77% as against 2005. It is notable that multimedia message traffic increased in this timeframe by 102,5%.



**Fig. 2.36 Evolution of Voice Traffic, SMS and MMS in Mobile Networks**

**Source:** NRATI, according to the statistical data reported by license holders

Of the total of 589,9 million messages (SMS) terminated in own networks, 62,5% belonged to JSC VOXTEL and 37,5% - to JSC MOLDCCELL. Company MOLDCCELL increased the SMS traffic by 53,75%, and VOXTEL – by 25,46%, compared with 2005.

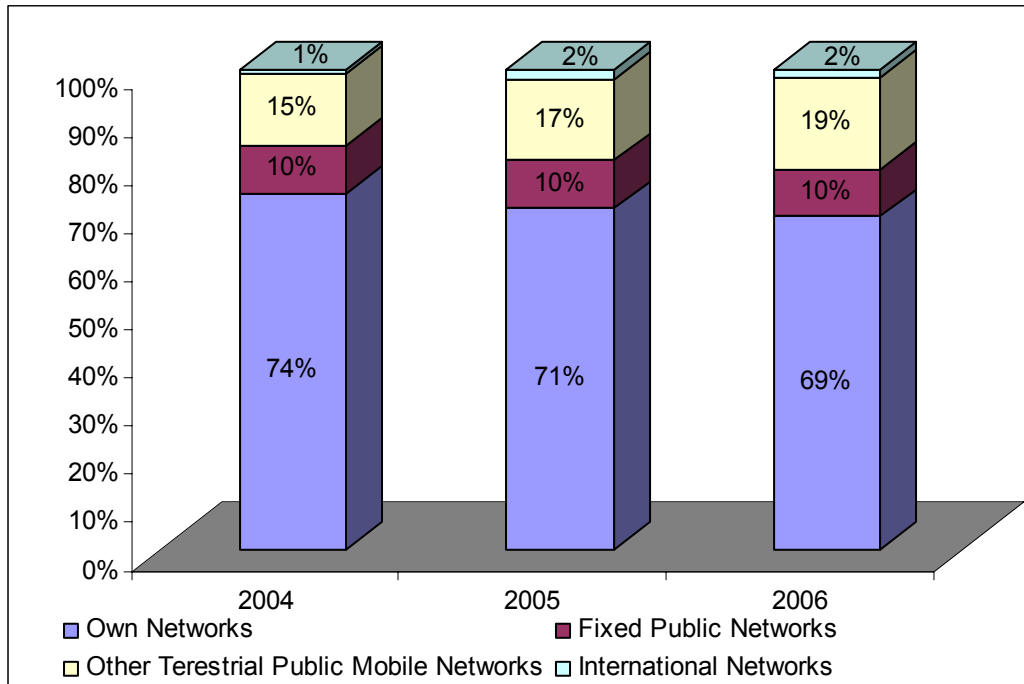


**Fig. 2.37 Operators' Shares on SMS Traffic Market**

**Source:** NRATI, according to the statistical data reported by license holders

In 2006, 1billion 22,9 million calls was the total voice traffic (except roaming) originated in mobile networks, which is by 23,28% higher as against 2005. JSC MOLDCCELL registered 43,11% increase of such calls, while JSC VOXTEL – 17,7%.

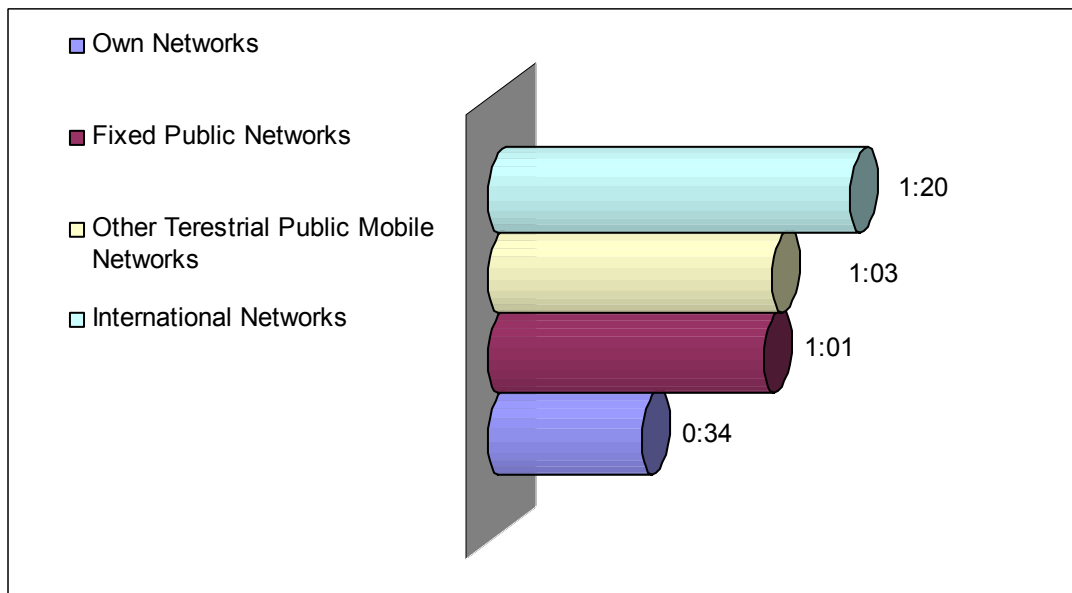
As for the structure of voice traffic originated in public mobile networks, depending on destination, the traffic to own networks was 69%, - by 20% lower than in 2005. The international voice traffic had a 1,83% share, having increased slightly by 0,22%. As for the traffic to other public mobile networks, it increased by 2%.



**Fig. 2.38 Structure of Voice Traffic Originated in Mobile Networks, Depending on Destination**

Source: NRATI, according to the statistical data reported by license holders

In 2006, the average duration of calls effected by users, depending upon the mobile operators' offers, varied from 34 seconds and 1minute 20 seconds.



**Fig. 2.39 Average Duration of a Call Originated in the Providers' Own Networks, Depending upon Destination**

Source: NRATI, according to the statistical data reported by license holders

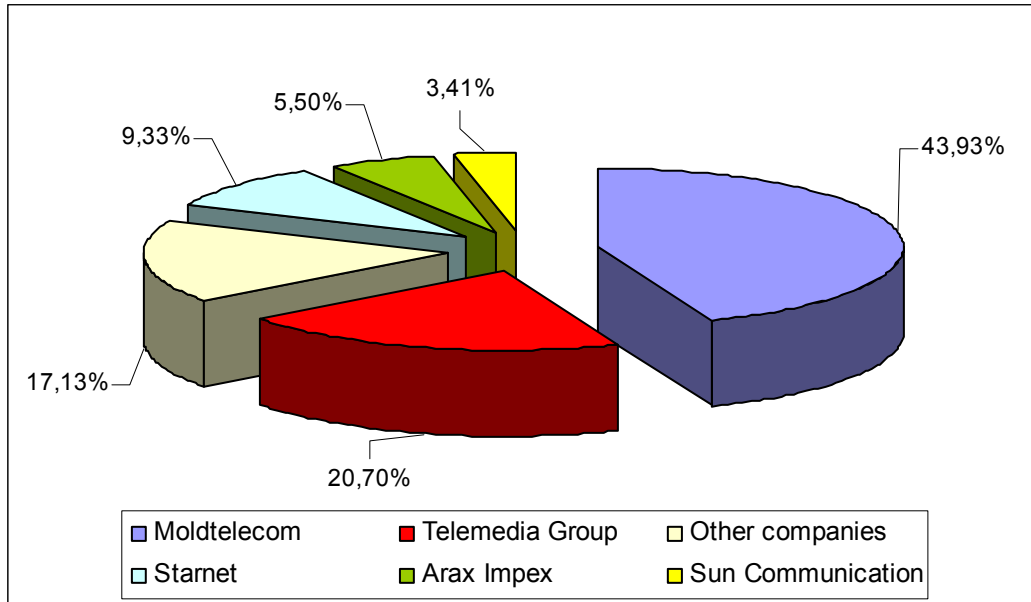
The number of calls originated in own networks and terminated in international networks increased, mainly owing to the advantageous offers the providers make, striving to improve this aspect. As for the tariffs applied by the two operators in 2006, their average for a minute-call was 1,40-1,83 lei or 0,10-0,14 \$ USA.

## 2.5 Data Transport and Internet Access Sector

### 2.5.1 General Overview

In the reporting timeframe, 41 service providers operated on this market. The turnover of this market increased, compared with 2005, by 50,4% and amounted to 196,22 million lei, of which 88,43% made the revenues obtained from data transport and Internet access service provision.

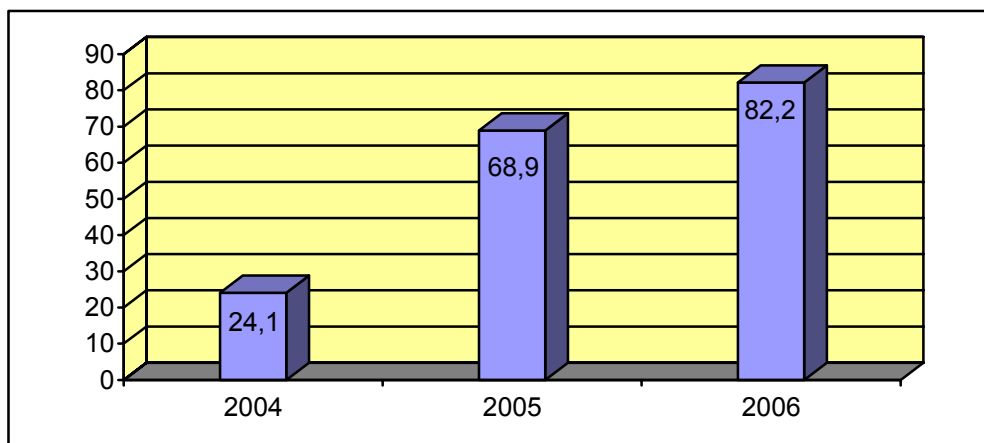
In terms of turnover, as of December 31, 2006 the leader on this market, was JSC MOLDTELECOM with 43,93%, followed by Telemedia Group - 20,69%, and STARNET - 9,33%.



**Fig. 2.40 Market Structure Depending on Turnover**

**Source:** NRATI, according to the statistical data reported by license holders

In the reporting timeframe, the investments in this sector increased in comparison with 2005, by 19,3% and totaled 82,17 million lei, 96,26% of which were directed to network equipment – proof that national informatics service providers give priority to the extension of their own networks, in order to reduce their dependence on the incumbent.



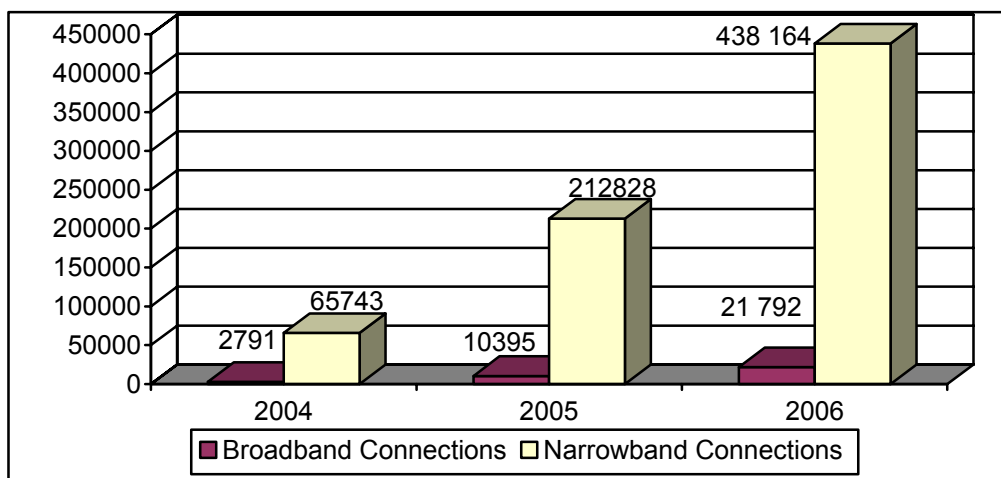
**Fig. 2.41 Investments in Data Transport and Internet Access Service Provision, million lei**

**Source:** NRATI, according to the statistical data reported by license holders

### 2.5.2 Users

In 2006, the total number of Internet access connections, including mobile access based on GPRS/EDGE technologies, increased by 106,1% compared to the corresponding timeframe of 2005 and exceeded 459,9 thousand.

In the reporting timeframe both the number of narrowband (dial-up) and broadband Internet access connections (128 Kbps or higher) increased. The number of subscribers accessing the Internet via dial-up grew 105,9% and totaled 438,1 thousand, including mobile access based on GPRS/EDGE technologies. The number of broadband Internet connections also increased by over 109%, which fact proves that users prefer high speed Internet services.



**Fig. 2.42 Evolution of Number of Connections Depending on Bandwidth Used**

**Source:** NRATI, according to the statistical data reported by license holders

As a result of the growing number of Internet access connections, the penetration rate per 100 residents of Moldova grew from 6,6%, in 2005, to 13,55%, in 2006. According to the statistical data submitted by Internet access providers, narrowband Internet access connections, like in the previous years, have the highest penetration rate.

#### **Evolution of Internet Access Connections Penetration Rate**

**Table no. 8**

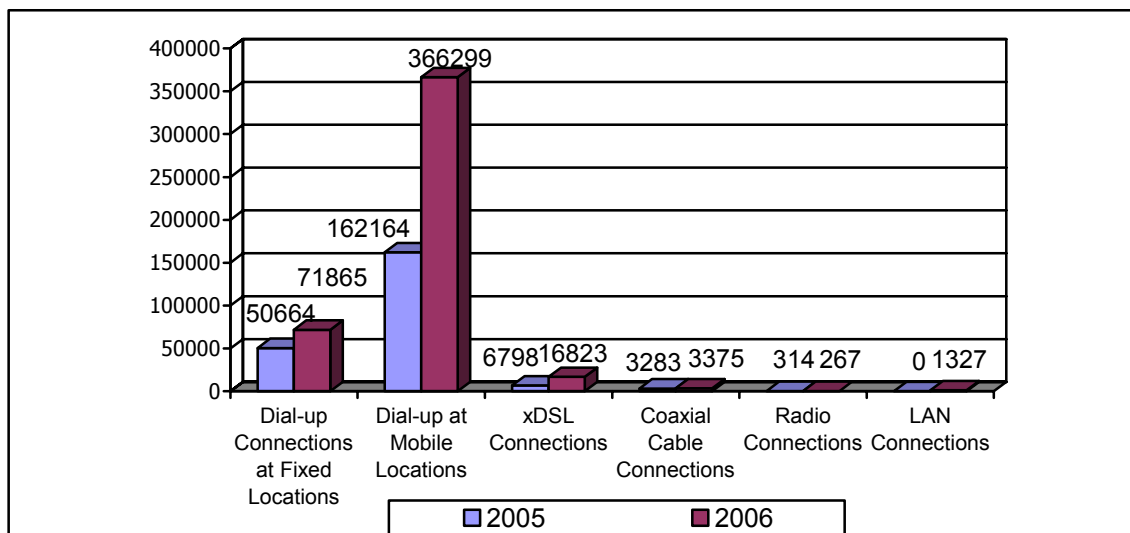
<b>Indicators</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Narrowband penetration rate	1,94%	6,29%	12,90%
Broadband penetration rate	0,08%	0,31%	0,64%
Total penetration rate	2,02%	6,6%	13,55%

**Source:** NRATI, according to the statistical data reported by license holders.

### **2.5.3 Internet Access Connections Depending on Technology Used**

The data service providers submitted show that the shares of narrowband and broadband connections in 2006 were 95,3% and 4,7% of the total.

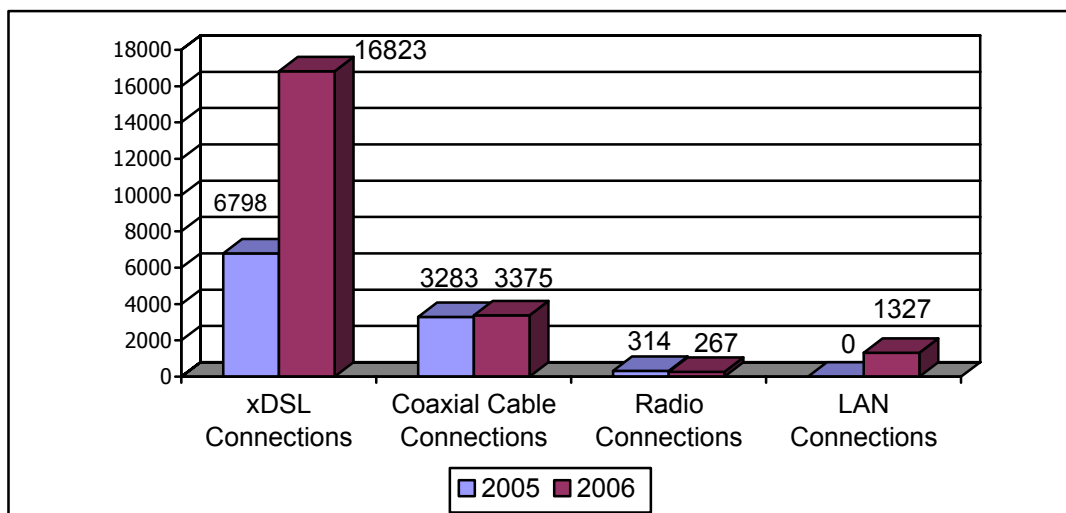
The number of broadband connections in 2006 increased by 105,9% and totaled 438,2 thousand. The number of subscribers that accessed the Internet via Dial-Up increased in 2006 by 41,8%, from 50,7 thousand to 71,9 thousand, mainly due to the extension of Dial-Up Internet access in rural areas and due to more affordable tariffs.



**Fig. 2.43 Evolution of Number of Connections, depending on the Technology Used**

**Source:** NRATI, according to the statistical data reported by license holders

In the timeframe 2005-2006, the number of broadband Internet connections grew more than twice resulting in 21,7 thousand. The absolute majority of high-speed Internet users prefer ADSL technology (Asymmetric Digital Subscriber Line) that ensures fast access to the Internet via telephone lines with the possibility of making simultaneous phone calls. The number of users using this method increased, within one year, by 165% and totaled 16,8 thousand.

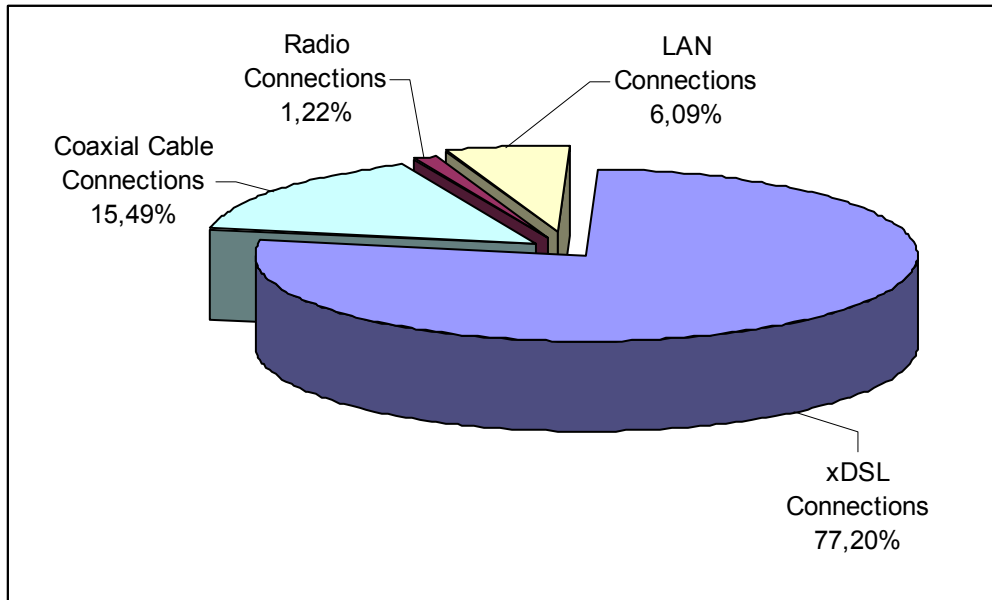


**Fig. 2.44 Evolution of Number of Dedicated Access Internet Connections**

**Source:** NRATI, according to the statistical data reported by license holders

Of the total of broadband Internet access connections, the biggest share of 77,2% refers to xDSL connections, followed by cable connections with 15,49% share, local area networks (Ethernet) connections – 6,09% and radio connections with the lowest share of 1,22%.

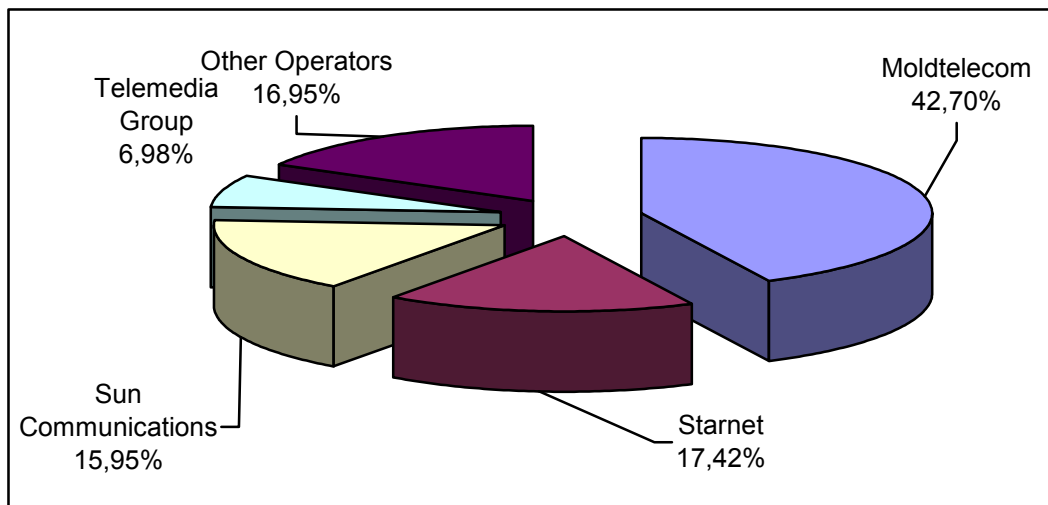
The local area networks (Ethernet) developed due to a growing demand for high-speed Internet at affordable prices: the average price of a monthly subscription to Internet access via ADSL was in 2006 250-300 lei (data rate 256 Kbps), whereas the price of local area networks (Ethernet) was 80 - 160 lei.



**Fig. 2.45 Shares of Broadband Connections Depending on Technology Used**

**Source:** NRATI, according to the statistical data reported by license holders

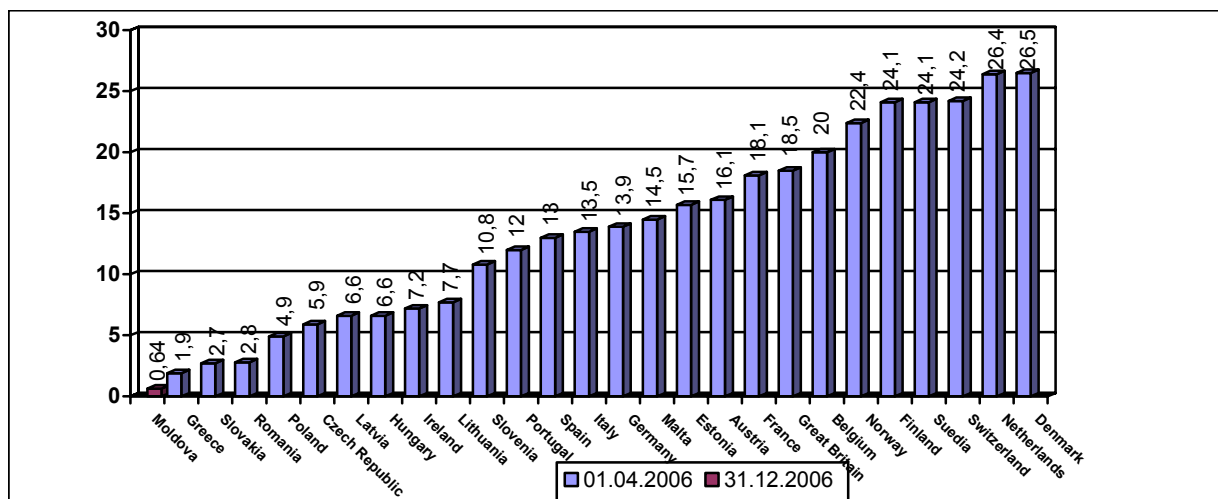
According to statistical data, in 2006, JSC MOLDTELECOM was leading the broadband connections market with 42,7% share, followed by STARNET - 17,42%, Sun Communications - 15,95%, Telemedia Group –6,98% and the rest of providers sharing 16,95% of the broadband connections market.



**Fig. 2.46 Structure of Broadband Connections Market, Depending on Provider**

**Source:** NRATI, according to the statistical data reported by license holders

In comparison with European countries, the penetration rate of broadband connections in the Republic of Moldova is very low. In Denmark, for instance, it is 26,5%, while in Moldova –only 0,64%. It is evident that this type of Internet connections is not yet widely used, which leaves high potential for development.



**Fig. 2.47 Broadband Penetration Rates in the Republic of Moldova and in EU countries, %**  
**Source:** Point Topics „World Broadband Statistics”

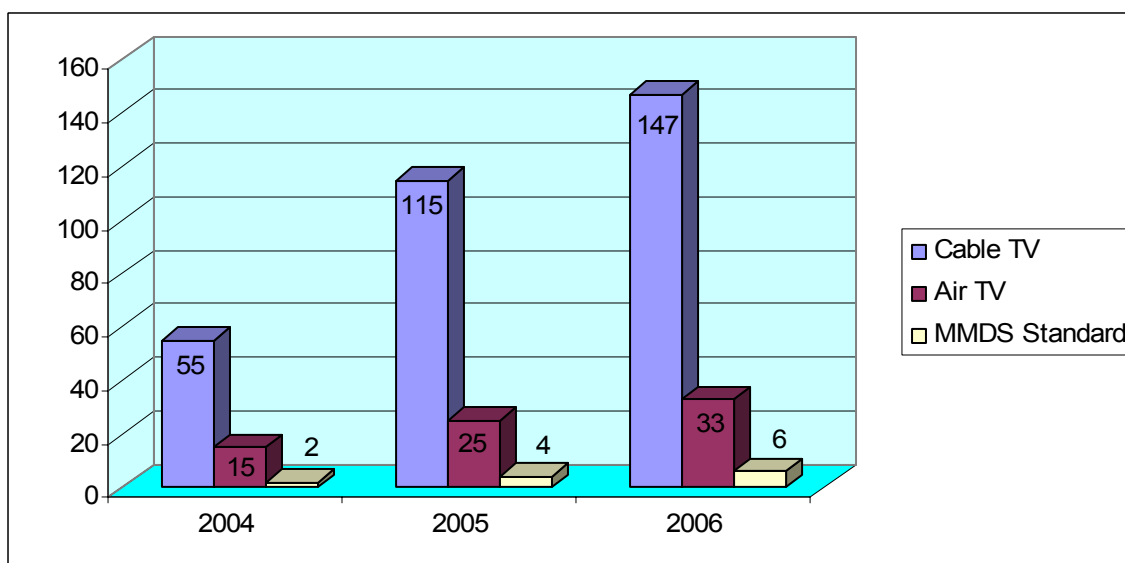
Proceeding from the thesis above, NRATI expects the Internet access market to undergo increased competition and grow faster in 2007 than the other communications sectors and the high-speed Internet top the list of users' preferences.

NRATI experts explain their prognosis by the fact that the Internet access market has undergone most dynamic evolutions recently, while the demand for such services is constantly growing. Proof to this fact is the growing value of this market: in 2004 by 5,5%, in 2005- by 35,2% and in 2006 – by 50,4%. They consider that in 2007, the number of broadband Internet connections will increase even faster, due to a higher demand for broadband Internet than the supply. The number of xDSL connections, in particular by means of local area networks, is expected to increase, as this segment was developing very fast in 2006.

## 2.6. Cable/Air TV Service Sector

### 2.6.1. General Overview

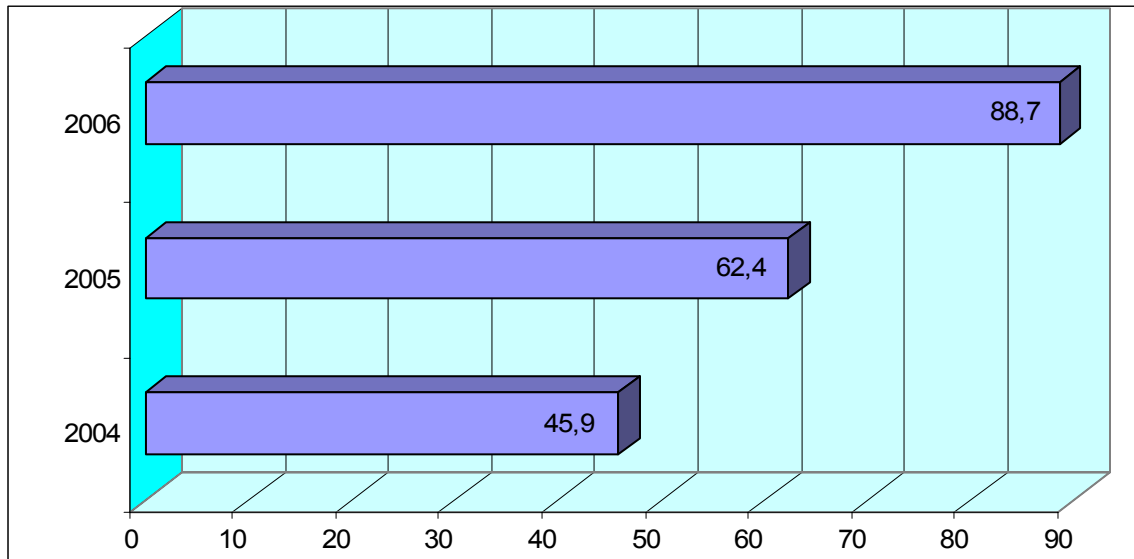
On December 31, 2006, of the 186 technical license holders, authorized to provide services of construction, maintenance, operation and creation of cable/air TV stations, 166 were in operation: 134 providing cable and 27 – air TV services, and 5 – MMDS services. Of the total number of operators on this market, 111 provided retransmission of TV programs in urban areas and 55 – in rural ones.



**Fig. 2.48 Evolution of Number of Cable/Air TV Service Providers**

**Source:** NRATI, according to the statistical data reported by license holders

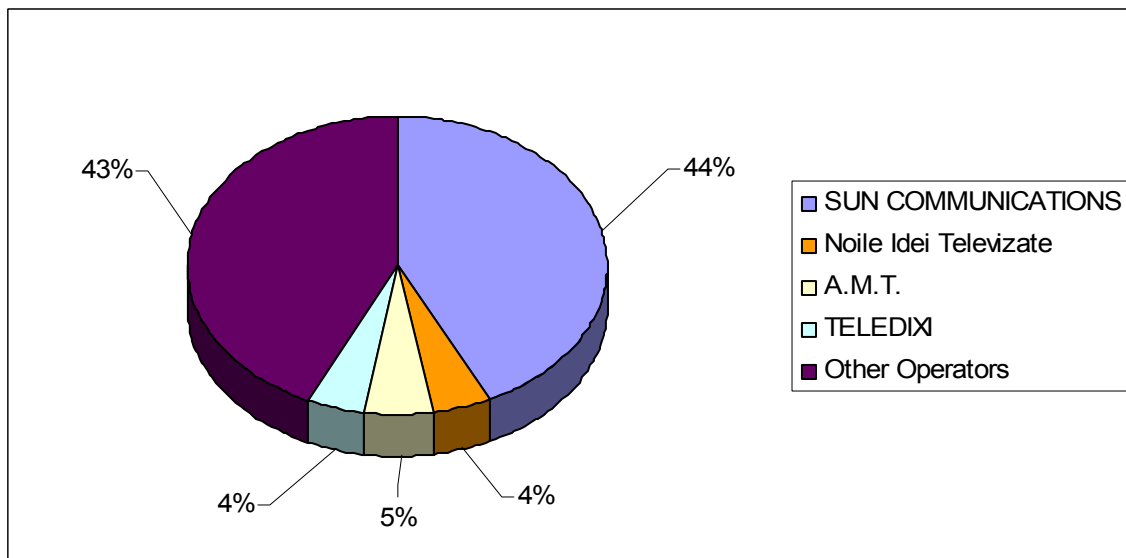
In 2006, the turnover of the cable/air TV and radio service providers grew by 42,14% amounting to 88,7 million lei. The market share of the sector was 2%.



**Fig. 2.49 Evolution of Turnover in Cable /Air TV and/or Radio, million lei**

**Source:** NRATI, according to the statistical data reported by license holders

In 2006, companies Sun Communications and NIT had the most considerable shares on the market, in terms of turnover: 44% and 43%. The shares of 5% and 4% of the market belonged to two other companies – AMT and TELEDIXI.

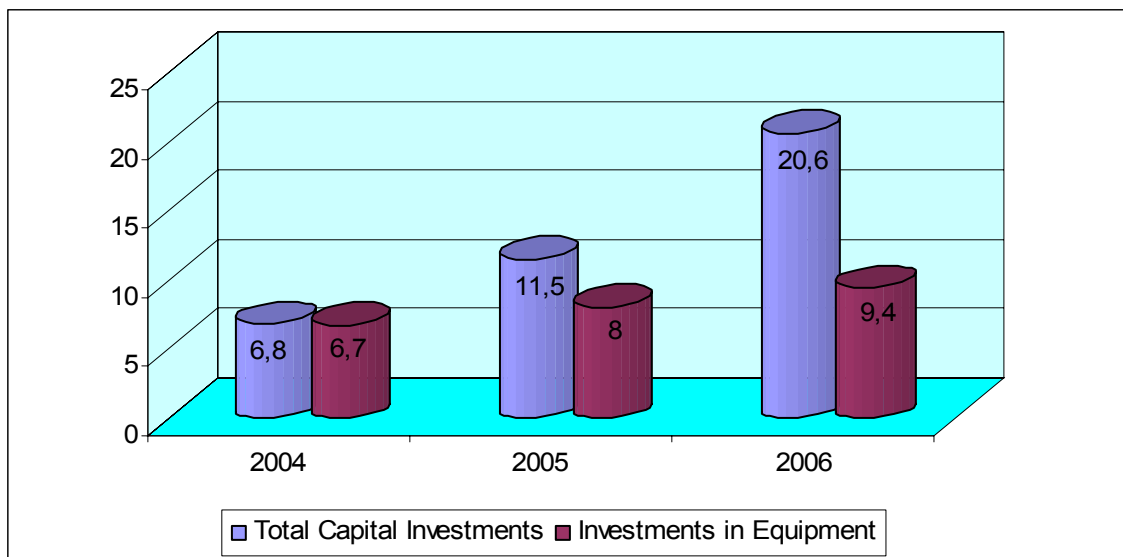


**Fig. 2.50 Market Structure, Depending on Turnover**

**Source:** NRATI, according to the statistical data reported by license holders

### 2.6.2 Investments

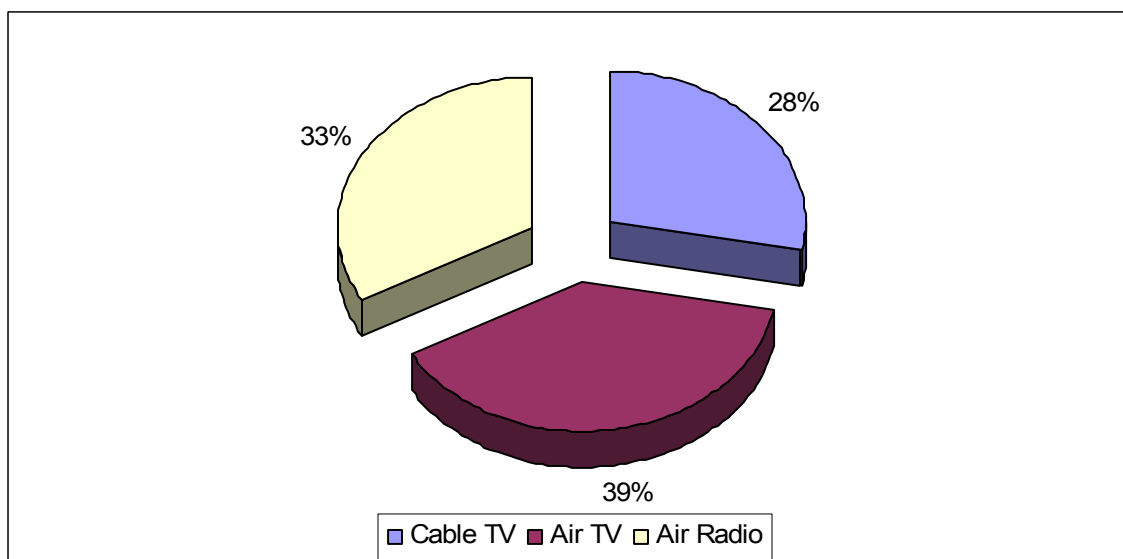
In the timeframe under report, the volume of investments in this sector grew, as against 2005, by 79,13% and amounted to 20,6 million lei. Investments in network equipment grew by 17,5% reaching 9,4 million lei. A big part of these investments were directed to radio signal coverage of new territories, especially in rural areas.



**Fig. 2.51 Investments in Cable/Air TV and Radio Service Sector, million lei**

**Source:** NRATI, according to the statistical data reported by license holders

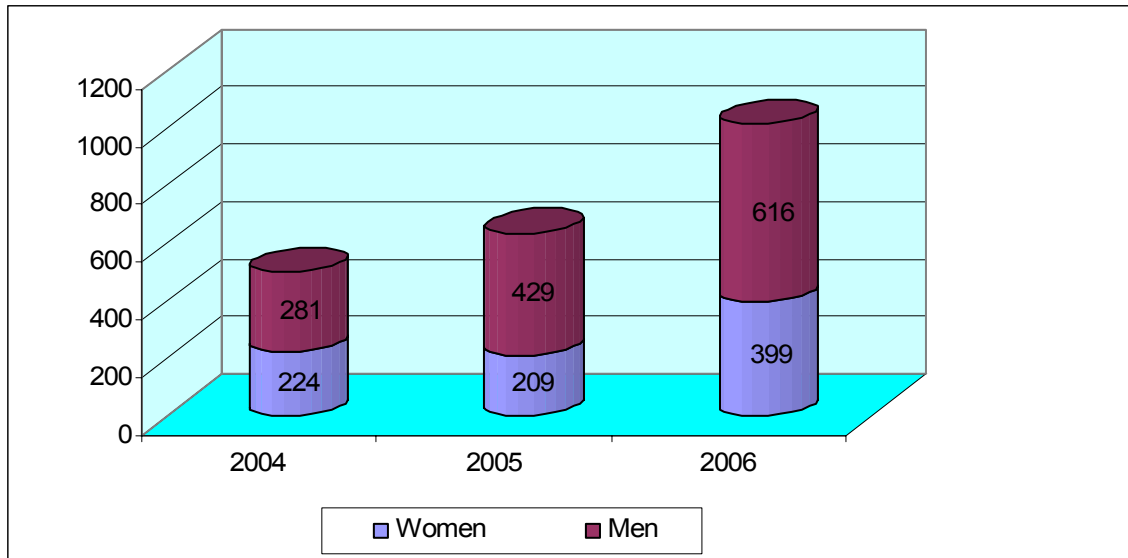
Depending on destination, the biggest amount of investments – 39% - was directed to air TV service sector, 33% - to air radio and 28% - to cable TV sector.



**Fig. 2.52 Shares of Investments in Cable/Air TV and Radio Service Sectors**

**Source:** NRATI, according to the statistical data reported by license holders

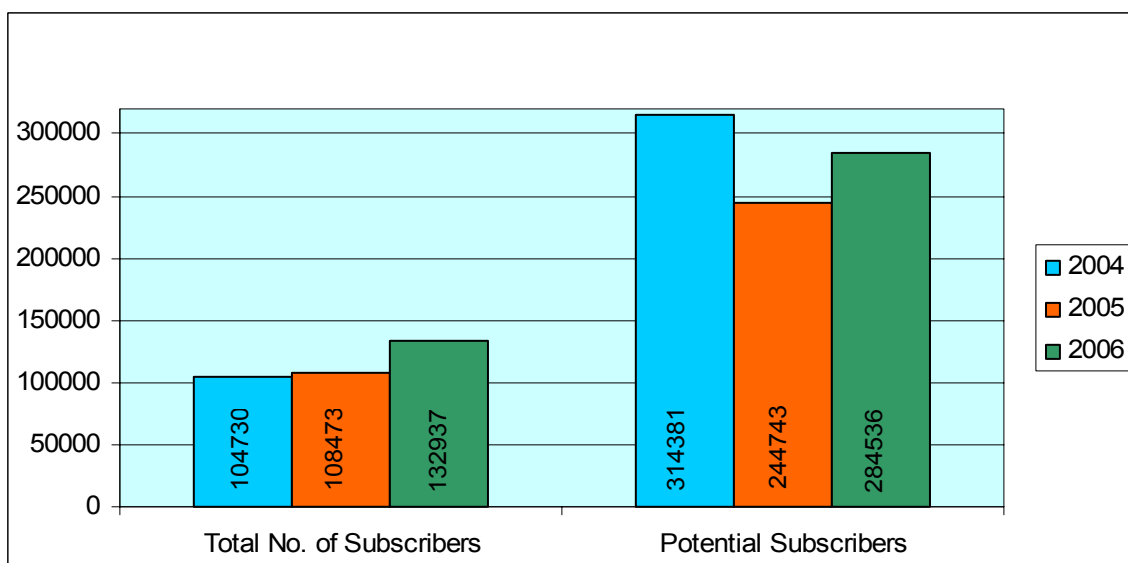
According to the data provided by operators to NRATI, in 2006, the number of employees in the TV and radio sector grew by 59,1 % and totaled to 1015 people. The sector developed due to several reasons: some providers started operation on this market segment; others extended their businesses, which caused them to offer new jobs.



**Fig. 2.53 Evolution and Shares of Employees in TV and Radio Service Sector**  
**Source:** NRATI, according to the statistical data reported by license holders

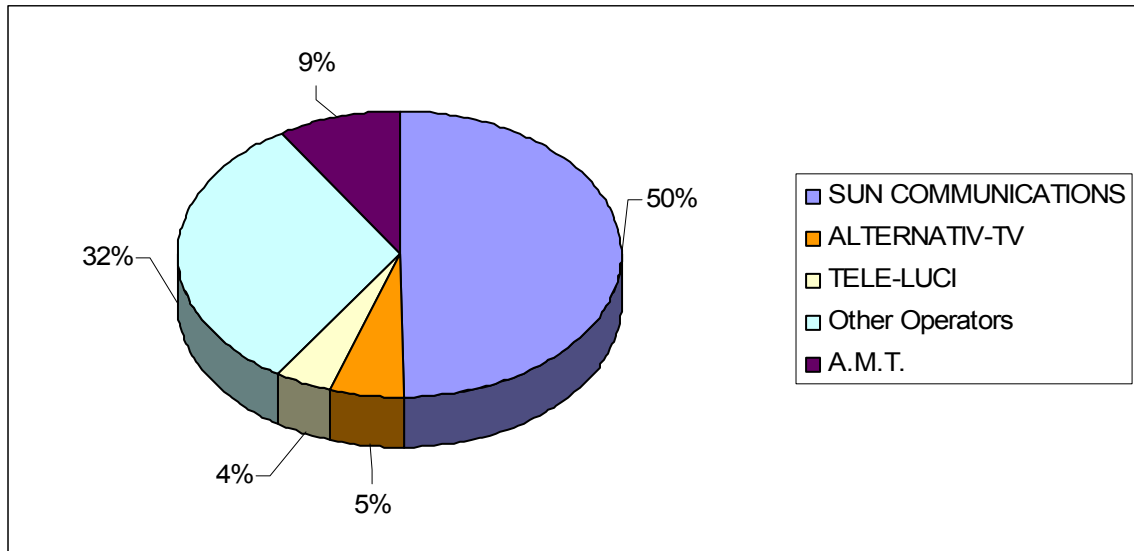
### 2.6.3 Users and Tariffs

In the reporting timeframe, the number of cable and/or air TV users increased by 24,5 thousand or by 22,6% and exceeded 132,9 thousand. The biggest part of users lives in urban areas. However, the calculation of data about the users of TV program retransmission services via cable networks does not include persons accessing TV collective reception systems. According to the estimations of cable TV service providers, the demand on this market is about 284,5 thousand potential users.



**Fig. 2.54 Number of Subscribers of Coded Cable and Air TV Services**  
**Source:** NRATI, according to the statistical data reported by license holders

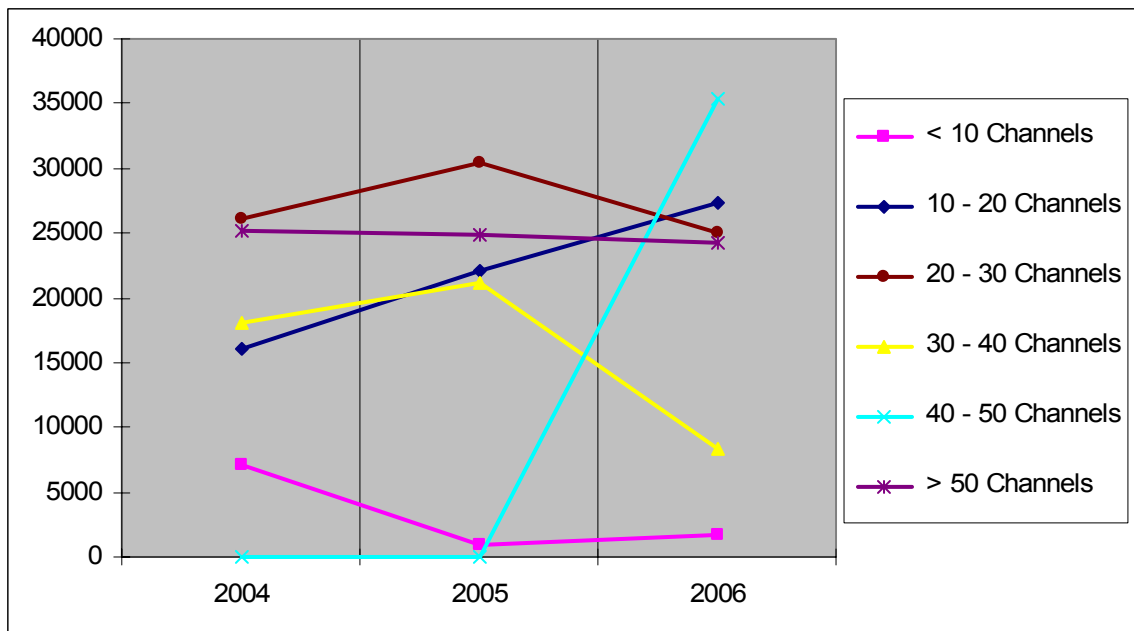
According to the number of subscribers, in 2006 the company Sun Communications was leading the market of retransmission of encoded cable and air TV programs, with 50 % share, followed by company AMT - 9%, ALTERNATIV – TV - 5% and TELE – LUCI - 4%. Alternative operators represent the rest 32%.



**Fig. 2.55 Market Structure depending on Number of Users**

**Source:** NRATI, according to the statistical data reported by license holders

In the reporting timeframe, cable TV users preferred 10-20-channel and 40-50-channel packages. This choice was determined by the users' preferences and by affordable subscription fees.



**Fig. 2.56 Number of Cable TV Users, Depending on Channels Received**

**Source:** NRATI, according to the statistical data reported by license holders

In 2006, subscription fees for cable TV in rural areas (normally, one-package subscriptions) varied from 20 to 40 lei, with the connection fee 200-300 lei. Like in the previous years the company Sun Communications, the biggest cable/air TV service provider in urban areas, offered in 2006 four service packages from 18 to 180 lei, with connection fees from 100 to 250 lei.

According to NRATI estimations, in 2007 this market sector will be developing dynamically, especially in rural areas. As NRATI estimates, the turnover of the operators operating on this segment will come up to 135 million lei and the number of air and cable TV users will increase by over 35 thousand new subscribers.