



**ANNUAL ACTIVITY REPORT
OF THE CROATIAN POST AND ELECTRONIC
COMMUNICATIONS AGENCY FOR 2010**

Zagreb, June 2011

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INTRODUCTION

The Croatian Post and Electronic Communications Agency (hereinafter: HAKOM), pursuant to the Electronic Communications Act (hereinafter: the ECA), hereby submits to the Croatian Parliament and to the Government of the Republic of Croatia its Annual Activity Report for 2010. The Financial Report and the Final Statement make a constituent part of this Report.

HAKOM's activities in 2010 primarily focused on the achievement of the established goals of regulation of the postal services and the electronic communications markets with a special emphasis on maintenance and promotion of effective and sustainable competition, the encouraging of competition as a precondition for more investments in the above-mentioned markets, the ensuring of adequate quality of postal and communications services at an affordable price, and a high level of consumer protection.

By means of its regulatory activities, HAKOM has, by adopting a series of decisions and rulings important for further liberalisation and regulation of the market of postal and electronic communications services, created preconditions for further activities. HAKOM's activities in 2010 were focused on further market liberalisation in the Republic of Croatia (hereinafter: the RoC), and the creation of equivalent conditions for operators and service providers so that users would be able to choose operators and services in accordance with their wishes.

HAKOM's annual report consists of five chapters.

Chapter 1 gives an overview of the situation on the electronic communications market which covers: the publicly available telephone services in the fixed network, the publicly available telephone services in mobile network, broadband Internet access, network access services and building of electronic communications infrastructure, television services and the upcoming services. An overview of and the analysis of the situation and tendencies in every area is provided, together with the comparison of the European Union (hereinafter: the EU), and the regulatory measures undertaken in order to improve individual areas. And finally, the Chapter contains an overview of the situation and activities related to the management of limited resources of the radio frequency spectrum and the addressing and numbering space.

Chapter 2 gives an overview of the situation on the postal services market which comprises both universal and other postal services. There is an overview and analysis of the situation and tendencies, as well as the comparison with the EU and regulatory measures for further development of the postal services market.

Chapter 3 covers consumer protection on the market of electronic communications and postal services. Special attention is dedicated to the protection of children and access of persons with special needs to these services.

Chapter 4 describes the continuation of HAKOM's activities aimed at building its own capacity for market regulation and market development by means of IT introduction into its processes and services, the increase of regulatory competences, the increase of productivity and efficiency and by facilitating access to HAKOM's regulatory activities.

Chapter 5 contains the financial report and the final statement for 2010 and contains the report on revenues, expenditures, an overview of revenue surplus (deficit), balance sheet, investment report, and a report on state budget's revenue.

1. ELECTRONIC COMMUNICATIONS MARKET

1.1. Market Development

In spite of the continuous fall in prices, the electronic communications market had recorded a constant growth in value and total revenue up to 2009, when a fall in revenue amounting to 1.7 percent was recorded for the first time. On the basis of official data¹ about the situation on the electronic communications market in 2010, the fall was terminated and the market of electronic communications recorded a 0.1 percent growth compared to the year before (Figure 1.1.). A fall in revenue was recorded only on the market of mobile public communications networks which was, for the most part, caused by the recession and the introduction of the fee for the provision of services in mobile public communications network amounting to six percent in August 2009.

Operators tried to alleviate the fall in revenue resulting from the introduction of the fee for the provision of services in public communications networks by changing the manner of billing, that is, by changing billing units. Although such an economic environment, which mostly fell on user's shoulders, influenced user's spending, the majority of total revenue on the electronic communications markets was earned precisely on the market of public mobile communications networks.

The Croatian electronic communications market was in 2010 also characterised by a strong development of broadband Internet access and interactive television, increasing demand for Internet contents, growth in revenue in fixed public communications networks and an increasing demand for data services in public mobile communications network stimulated by the development of broadband Internet access.

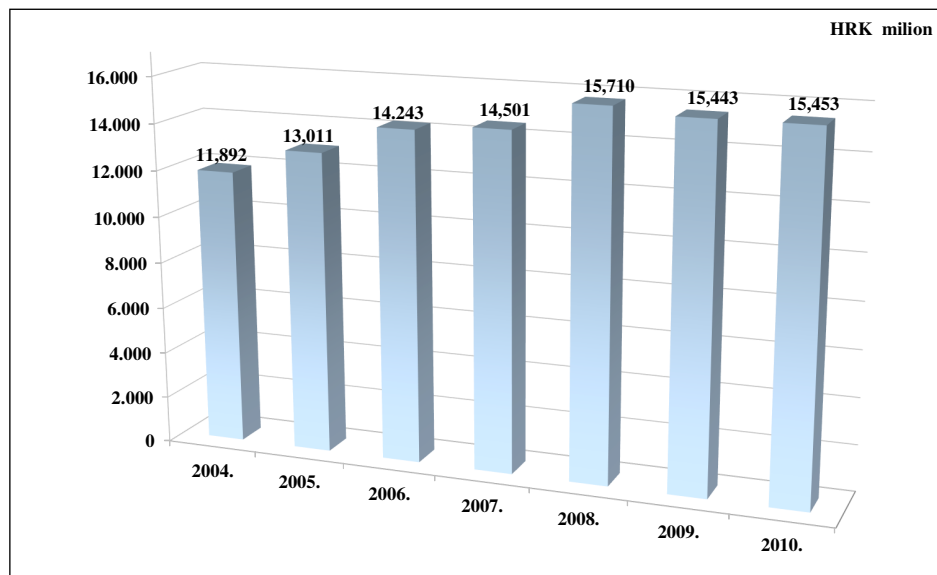


Figure 1.1. Total revenue on the market of electronic communications services

¹ Data originate from annual reports on individual operators.

The total revenue on the market of fixed public communications network increased in relation to 2009, and in 2010 amounted to slightly over HRK 4.7 billion (Figure 1.2.)

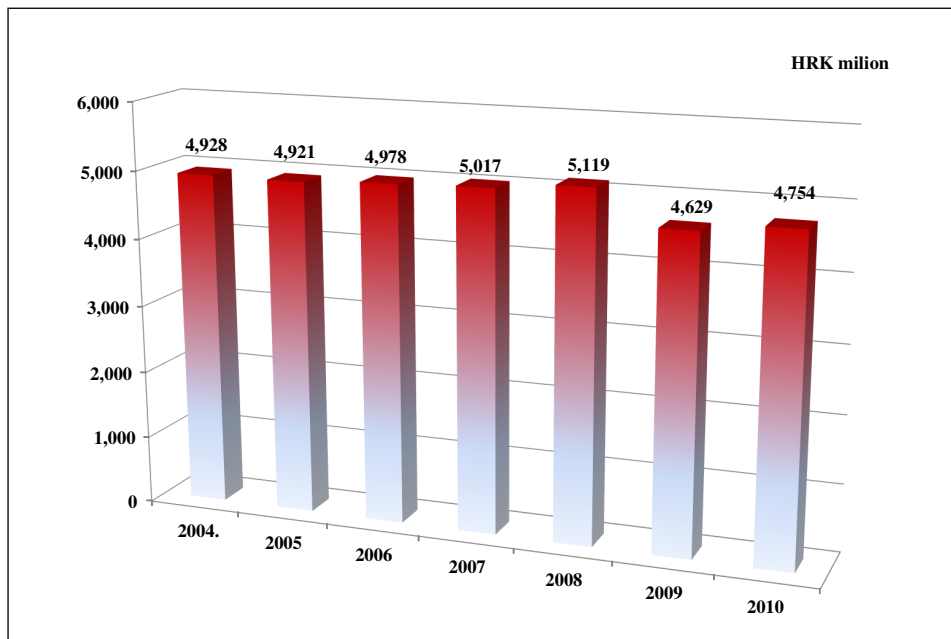


Figure 1.2. Total revenue on the market of fixed public communications networks

Out of the total of HRK 15.45 billion in revenue from all activities during last year, the majority, that is, around HRK 8.17, billion was accrued in mobile public communications networks (Figure 1.3.)

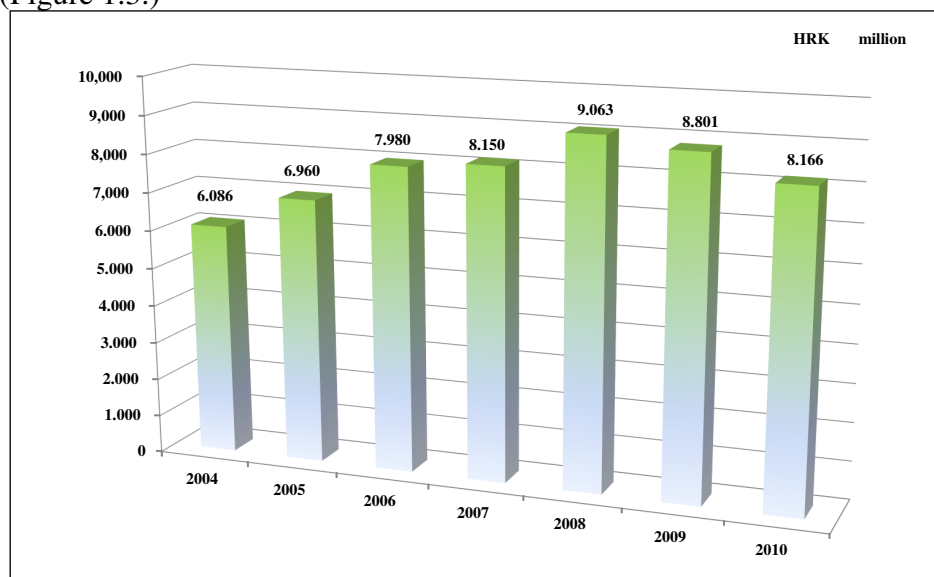


Figure 1.3.
Total revenue on the market of mobile public communications networks

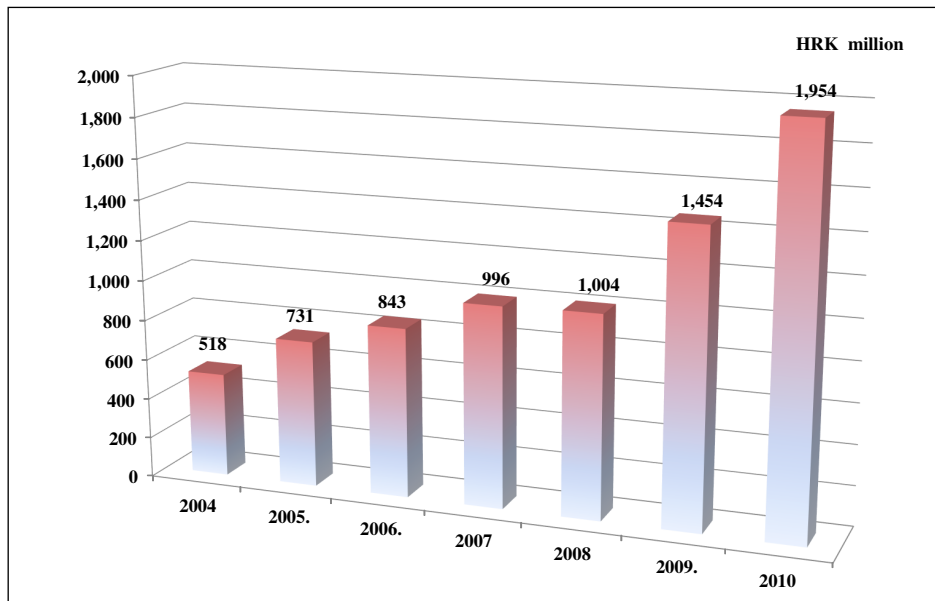


Figure 1.4. Total revenue from the provision of Internet access services

Revenue from data transfer has been growing constantly year after year and in 2010 it exceeded HRK 1.95 billion. The principal reason was a constant increase in the number of users of broadband Internet access. The rest of the total revenue refers to leased lines and cable television. The leased lines segment of the market recorded an increase in revenue of 3.9 percent, while the total revenue on the market of cable television recorded a 2.5 percent growth.

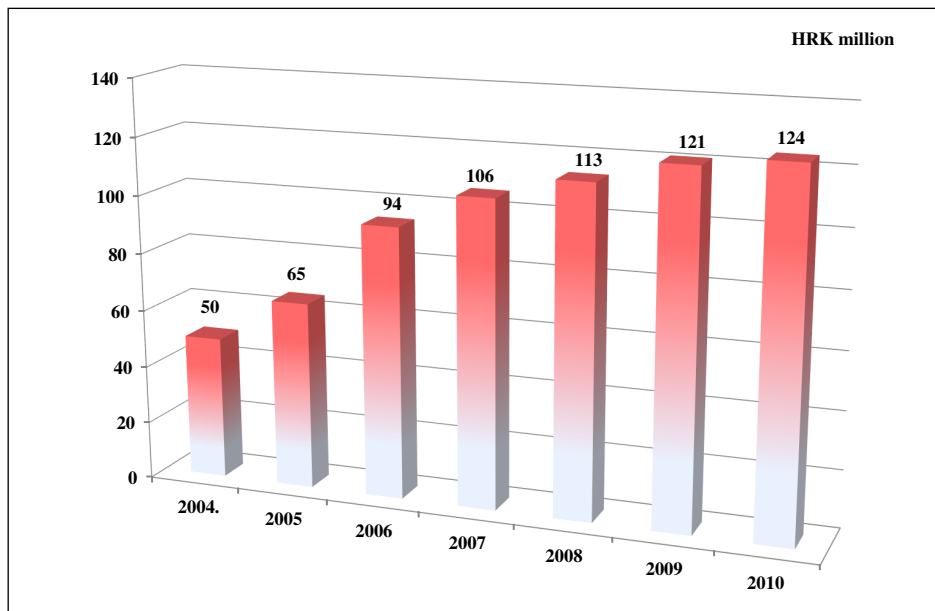


Figure 1.5. Total revenue on the market of cable television

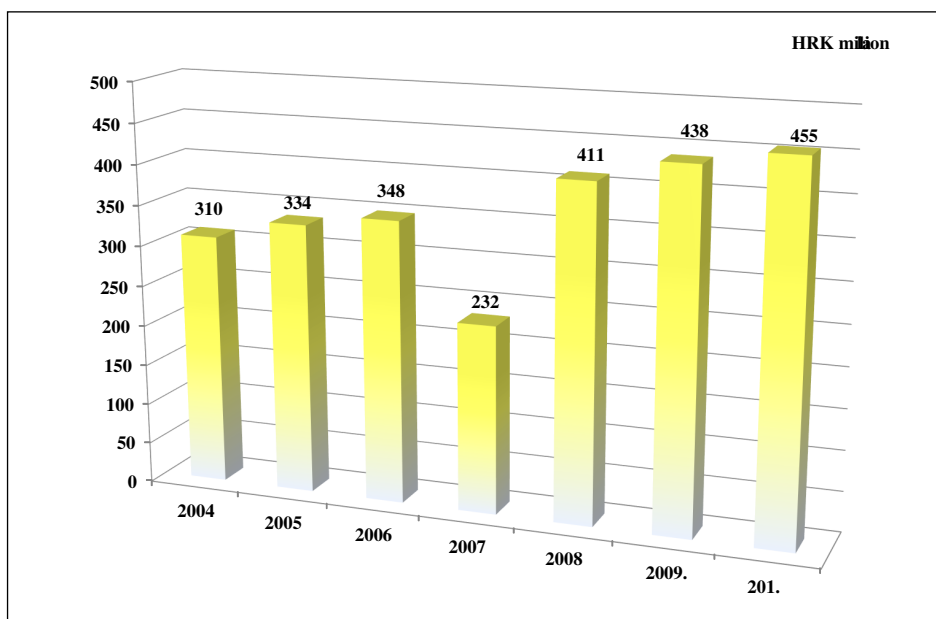


Figure 1.6. Total revenue on the market of leased lines

Table 1.1. Basic data about the electronic communications market

| <i>Basic data about the electronic communications market</i> | |
|--|-----------|
| Operators publicly available telephone services in fixed electronic communications network | 9 |
| Operators of mobile public communications networks GSM/DCS | 3 |
| Operators of mobile public communications networks UMTS | 3 |
| Number of radio networks | 173 |
| Number of television networks (analogue television) | 0 |
| Number of television networks (digital television) | 5 |
| Users of fixed communications networks | 1,865,729 |
| Users of carrier pre-selection services | 236,673 |
| Users of mobile communications networks | 6,362,106 |
| Internet users | 2,675,249 |
| Broadband Internet users - <i>total</i> | 1,132,212 |
| - in fixed public communications networks | 803,823 |
| - in mobile public communications networks | 328,389 |
| Cable television users | 151,315 |
| Realised Co-locations | 510 |
| Realised unbundled local loops | 132,821 |
| Ported numbers in fixed public communications networks | 463,739 |
| Ported numbers in mobile public communications networks | 194,892 |

At the end of 2010, the Croatian electronic communications market was characterised by the indicators shown in Table 1.1.

1.2. Publicly available telephone service in the fixed network

1.2.1. Market overview

The most important trends from 2009 continued in 2010 as well. In relation to the publicly available telephone service in the fixed network, and in accordance with international trends, 2010 was characterised by a growth in revenue and a stable number of users of the publicly available telephone service in the fixed network.

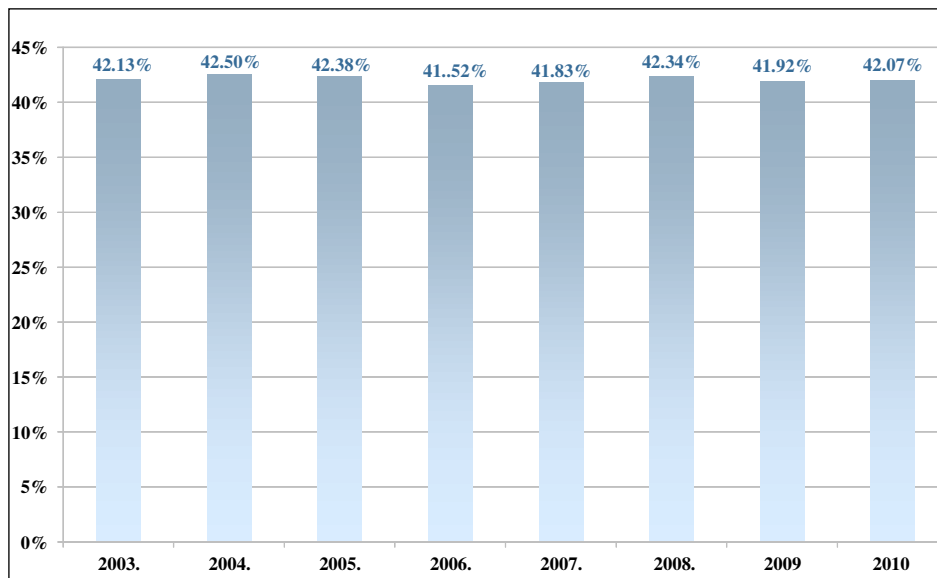


Figure 1.7. Penetration in fixed public communications network

The total number of users of the fixed public communications network at the end of 2010 reached 1,865,729, which means that the penetration in relation to the total number of users amounted to about 42.07 percent. Although, according to the mentioned indicator, the Republic of Croatia is among the average of the EU countries, it is obvious that the penetration of users of the fixed public communications network has been stagnant (Figure 1.7). This is in the first place a result of market saturation since the fixed connection is connected to households and it is therefore not realistic to expect that the penetration will increase in the upcoming years.

The trend in the penetration of users in fixed public communications network is also illustrated by the comparison between the Republic of Croatia and the EU Member States (Figure 1.8.)². It shows that penetration, that is, the number of users of fixed public communications network, has significantly decreased in the EU.

² Data on electronic communications markets in the EU Member States have been taken over from ITU, OECD, COCOM, EUROSTAT Data on the penetration trends in the fixed public communications network for the EU Member States refer to December 2008.

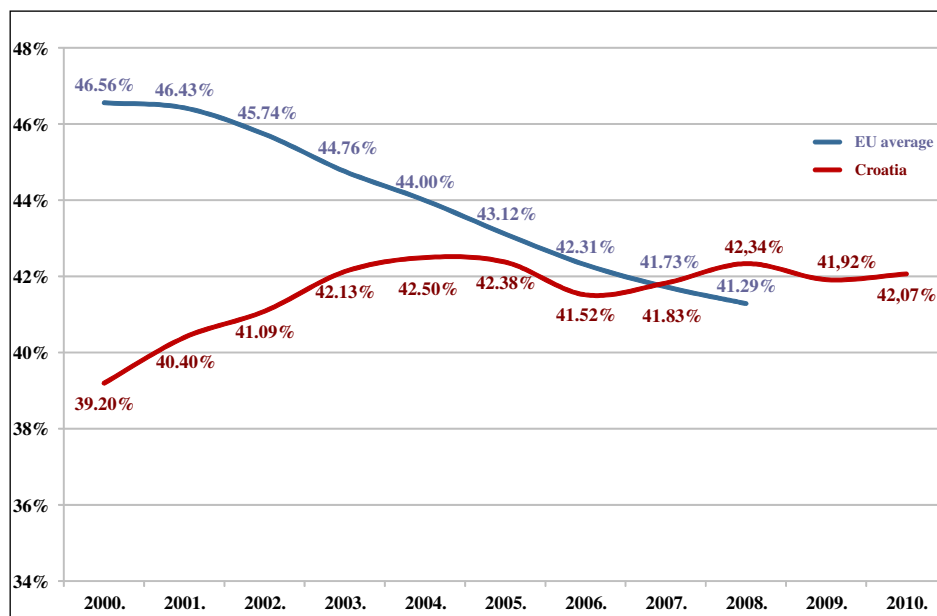


Figure 1.8. Developments in penetration in public fixed communications network

The fall in the penetration of users of fixed public communications network in the EU was brought about, among other things, by the entry of new Member States. They are characterised by a lower density of users in the fixed public communications network, as illustrated in Figure 1.9.

The penetration of users of publicly available telephone service in fixed public communications networks in the EU Member States ranges from 20 percent to 62 percent, while in the Republic of Croatia it amounted to 42.07 percent at the end of 2010, that is, it was around the EU average.

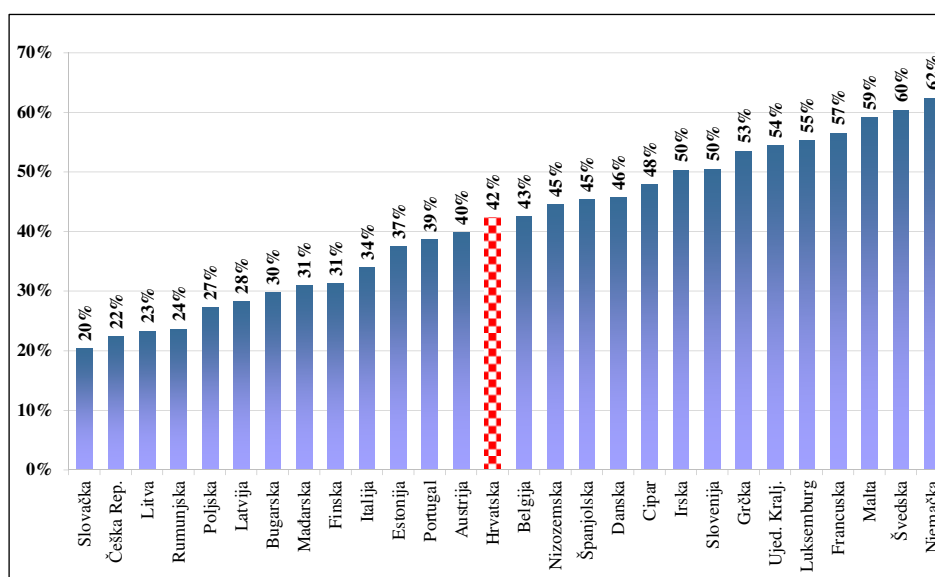


Figure 1.9. Penetration of users of publicly available voice service in fixed communications network (EU and RoC)³

³ Comparison between penetration of users of publicly available telephone service in fixed public communications network in the Roc and the most recent available EU data (December 2008).

Shares of operators at retail level

Indicators of market shares show that HT maintained its leading position in the fixed public communication network. The total revenue of new operators increased as a result of growing competition, that is, of the switching of users to other operators of fixed public communications network. The market share of new operators in relation to total revenue⁴ in 2010 is illustrated in Figure 1.10 and it amounted to 20.01 percent.

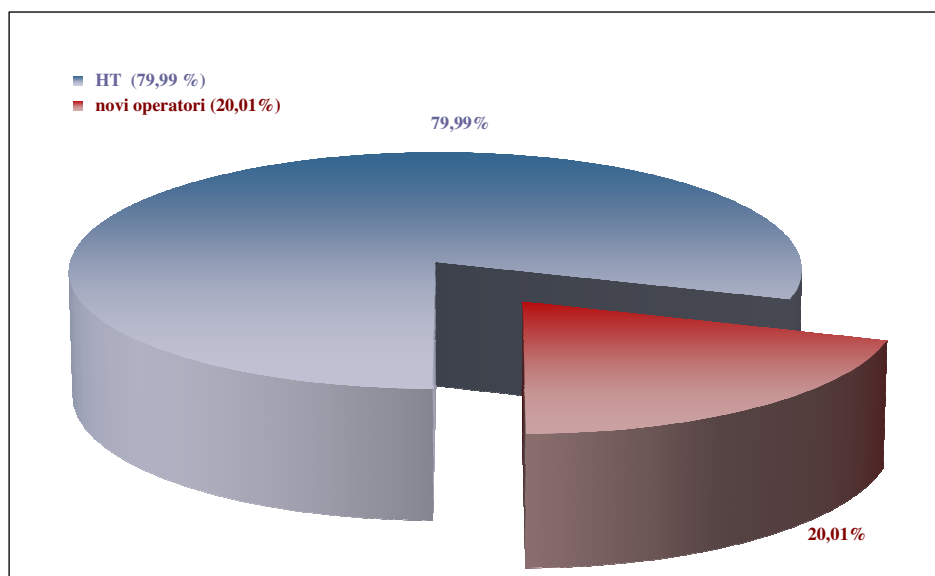


Figure 1.10. Market share of new operators⁵ and HT in relation to total revenue

The share of new operators in relation to the number of users has also increased compared to the previous year. According to data for the end of 2010, it amounted to 31.23 percent (Figure 1.11.). For comparison sake, at the end of 2009, the share of new operators on the market of the public fixed communications network in the RoC in relation to the number of users amounted to 26.73 percent, and in relation to the total revenue earned in 2009 it amounted to 18.81 percent.

⁴ it also includes revenue which is not directly related to revenue at retail level (revenue from call termination)

⁵ including the company Iskon Internet d.d. which is 100% owned by HT (the market share of the company Iskon Internet d.d., in relation total revenue, amounts to 1.43 percent)

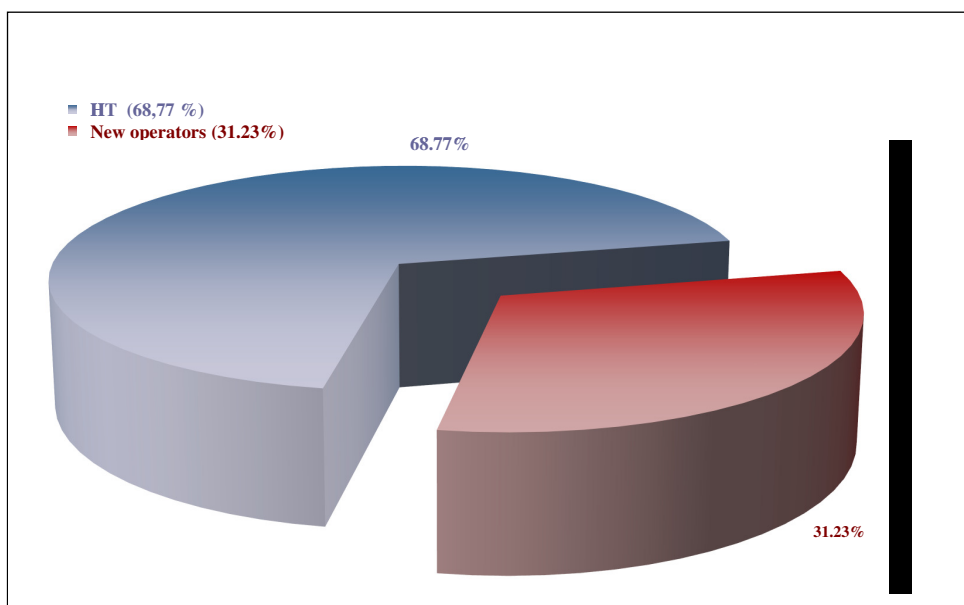


Figure 1.11. Market share of new operators⁶ and HT in relation to number of users

Figure 1.12. shows the market share of new operators and HT in relation to the total revenue earned from providing the publicly available telephone service. The above-mentioned shares indicate that HT has much more traffic when providing the publicly available telephone service compared to the new operators, which was to be expected if we take into account their market share in relation to the number of users.

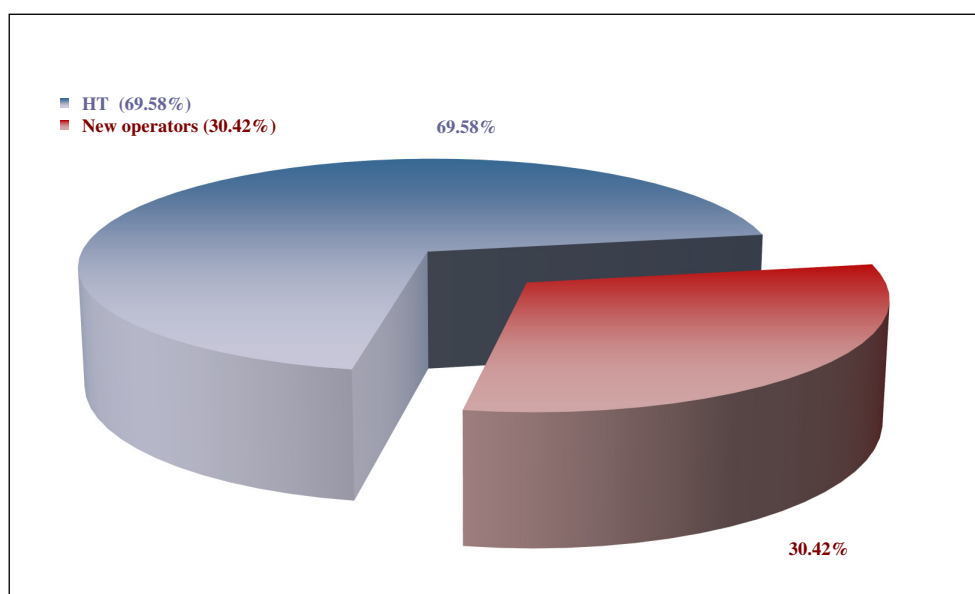


Figure 1.12. Market share of new operators⁷ and HT in relation to total traffic

⁶including the company Iskon Internet d.d. which is 100% owned by HT (the market share of the company Iskon Internet d.d., in relation the number of users, amounts to 2 percent)

⁷ including the company Iskon Internet d.d. which is 100% owned by HT (the market share of the company Iskon Internet d.d., in relation total revenue, amounts to 2.71 percent)

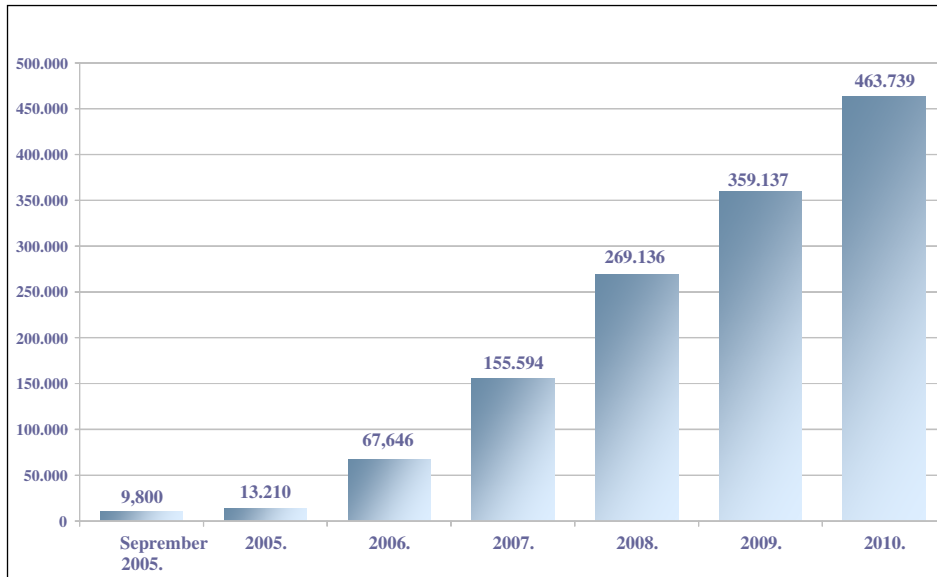


Figure 1.13. Ported numbers in fixed public communications networks

The number of ported numbers in the public fixed communications network increased by 29.13 percent in 2010 compared to 2009, and according to data for the end of 2010, it amounted to 463,739. Data in Figure 1.13. clearly indicate significant migration of users from one operator to another. The migration indicates increased dynamics on this market and a wider selection of services for end users. In this manner, users are able to choose the best operator in accordance with their needs and habits and keep their number.

The number of users of carrier pre-selection service has been continuously increasing in the past three years. The falling trend in the number of users of the CPS service started already in 2008 and it continued in 2009, and, according to data for the end of 2010, the number of users of the carrier pre-selection service has slightly fallen and it amounts to 236,673 (Figure 1.14.).

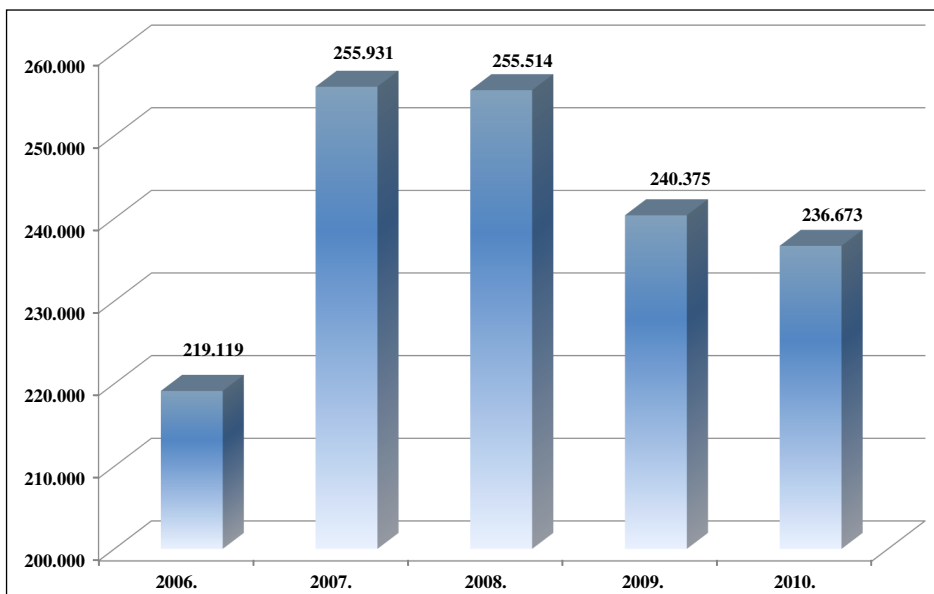


Figure 1.14. The total number of users of the CPS service

The carrier pre-selection service played an important role in market liberalisation. However, further liberalisation, the building of infrastructure, the increased use of broadband Internet access, as well as the trend in switching from fixed public communications networks to mobile networks resulted in a decreasing number of users of the CPS service. In addition to the above-mentioned, HAKOM sees other reasons for the falling trend in the number of users of the CPS service in the simultaneous increase in the number of unbundled local loops on the basis of which operators may offer to their users a wider range of services. Furthermore, the IPTV service of broadband internet access, the demand for which has been increasing, may not be offered over the CPS service, which also influenced the falling trend in the use of the service in question.

1.2.2. Regulatory measures

HAKOMS activities in 2010 primary focused on the achievement of the established principles and objectives of electronic communications market regulation. In this respect, special emphasis has been placed on the supervision over the implementation of regulatory obligations imposed on SMP operators on markets susceptible to regulation, which are related to the provision of the publicly available telephone service in fixed networks. The main purpose is the promotion of effective and sustainable competition.

Market of call origination and call termination on an individual public communications network

By means of its regulatory activities, HAKOM has, by adopting a series of decisions and rulings, ensured further liberalisation and regulation of the electronic communications market. For that reason, activities in 2010 were focused on the definition of wholesale conditions (reference and minimum offers) referring to the provision of interconnection services and their amendments in accordance with market interests and further development of competition. In addition to new prices of the service of call origination and call termination on an individual public communications network, which resulted in lower prices compared to 2009, the manner of billing for interconnection services in fixed network has also been altered with the establishment of calls being included in interconnection price. In this manner all operators have the same manner of billing for the same service, that is, HT aligned its manner of billing with other operators on the market. By reducing the price of the service of local and regional call origination and call termination defined within the obligation of price control and cost accounting, HAKOM wanted to prevent SMP operators from abusing their dominant position on the market by excessive pricing.

SMP operators started applying prices defined in analyses of the relevant market in early 2010 and they are obliged to change their prices every year in accordance with the reference value method, that is, they must determine prices at the EU average until HAKOM is able to apply the cost-oriented price as defined in market analyses. New wholesale prices for the service of call origination and call termination to an individual public fixed communications network entered into force in early 2010. The amount of 0.048 HRK/min for the service of call origination and call termination at local level, and the new price amounting to 0.067 HRK/min for call origination, that is, the new price amounting to 0.068 HRK for call termination at regional level. Prices were calculated on the basis of the presupposition that the

prices during low traffic should amount to 50 percent of prices of services during periods of high traffic. The prices for services of call origination and call termination at regional level defined in the market analysis procedure represent a reduction amounting to approximately 12 percent compared to prices that were valid in 2009. However, due to call establishment which was included in interconnection prices, but has been charged separately since 1 January 2010, it may be said that prices of services of call origination and call termination at local level have also decreased although the amount remained the same compared to 2009.

More favourable wholesale conditions, that is, lower wholesale interconnection prices, which were applicable in 2010, resulted in more favourable retail conditions. This resulted in more competitiveness, a growing base of users and increase in revenue. In the long run, this will contribute to the development of sustainable competition.

An important element was the determination of asymmetrical price of call termination service between the incumbent and other operators on the market, which was regarded as justified by HAKOM to facilitate market entry of operators who have their own infrastructure and considering the fact that other operators are not able to achieve the equivalent economies of scope as the former incumbent. For 2010, new operators were imposed the asymmetrical amount of 42 percent on the price of the service of regional call termination which means that new operators charged 0.095 HRK/min for the service of call termination on their network. HAKOM thus contributed to market liberalisation which resulted in more effective competition in relation to new investments by all operators active on the market and the creation of innovative services that will be offered at competitive prices.

In early 2011 new wholesale prices for call origination and call termination on HT's public fixed communications network were defined amounting to 0.039 HRK/min for call origination at local level and 0.059 HRK/min for call origination and call termination at regional level. Prices were calculated on the basis of a hypothesis that prices of the above-mentioned services during low traffic should amount to 50 percent of the price of services in the period of high traffic, that is, the price of the service of call origination and call termination at local level has been reduced by 18.75 percent, and at the regional level by 12.6 percent compared to prices that were valid in 2010. For 2011, new operators were imposed the asymmetrical amount of 28 percent on the price of HT's service of regional call termination which means that new operators will charge 0.076 HRK/min for the service of call termination in 2011.

The price of national call origination and call termination for 2010 was not amended by the decision from July 2009, that is, it remained at 0.13 HRK/min although it was above the European average at the moment of analysis of the relevant markets. The reason results from the specific nature of interconnection of operators in the Republic of Croatia since the beginning of market liberalisation, or, in other words, this decision helped HAKOM to protect the existing investments of new operators on the electronic communications market. However, year after year during the analysis, while prices of interconnection services are based on the reference value method, the interconnection services at national level should keep the same ratio in relation to the interconnection prices at regional level. For that reason, since 1 January 2011, the amended price for national call origination amounting to 0.113 HRK/min has been applied, that is, for national call termination amounting to 0.114 HRK/min, which indicates a price decrease of 12.7 percent compared to 2010. By controlling prices in this manner, HAKOM is trying to protect the existing investments of operators and

encourage new operators to invest into their own infrastructure, that is, to join in several points and come closer to the end user.

The fact that operators have been lowering their prices in order to attract end users also results in more favourable wholesale conditions defined by the analysis of the market of call termination on an individual mobile public communications network. In other words, lower price of the termination service, defined during market analysis, also means lower retail prices for calls from fixed to mobile network. This in the end leads to more attractive packages for end users and to a more competitive market in general.

Introduction of a virtual channel

In the document "*Analysis of the Wholesale Broadband Access Market*", that is, in the decision of July 2009, HAKOM imposed on HT the obligation to allow such type of bitstream access service (by means of leasing of logical channels) that would ensure to operators technical conditions for the provision of the service of voice over the Internet protocol at the retail market under equivalent conditions and level of quality of service that it provides to its retail arm or affiliates, and in accordance with the obligation of non-discrimination. A separate virtual channel for VoIP service allows operators to provide a voice service based on IP technology by using HT's network and it may be leased only in addition to the service of wholesale broadband access intended for Internet access. By means of the above-mentioned obligation, HAKOM permitted to new operators to define their own products by combining access, traffic, user equipment and other that will be promoted and offered to the end user in their name and for their account and on a single bill. In accordance with the above-mentioned decision, HT incorporated into the Reference Offer for wholesale broadband access technical conditions and prices of services of a separate virtual channel for VoIP for the purpose of providing a publicly available telephone service. Taking into account the fact that the price of the virtual channel for VoIP, which was published by HT on 1 January 2010, did not leave any room for the development of the service, HAKOM, while amending the reference offer of wholesale broadband access, determined a price that will permit further development of effective competition and this price amounts to HRK 11/month for the virtual channel for VoIP -256 kbit/s.

The year 2010 also brought the first noticeable results of the project "*Accounting separation and cost accounting*". In a decision adopted in November 2008 HAKOM imposed on HT the manner of carrying out accounting separation and cost accounting in the manner and within the time limits laid down in the document "*Instructions for Accounting Separation and Cost Accounting*". This decision imposes on HT, as the SMP operator, the contents and manner of collecting accounting data and the manner of preparing regulatory financial statements in order to ensure equal and transparent competition conditions for all participants in the electronic communications market. In other words, HT's activities, on the basis of which it was identified as the operator with significant market power, are divided into separate business entities which enabled the analysis of information from HT's official accounting system for regulatory needs. After the completion of the first project stage in 2009, and further to the granting of consent for the amended accounting documentation based on HCA/FAC methodology in August 2010, HT in delivered the first revised financial statements based on HCA/FAC methodology in September 2010 as well as a report on transfer changes with a view to determining whether HT applies cross-subsidizing and thus

leverages its significant market power from regulated wholesale markets to the downstream retail market.

HT is a vertically integrated operator because of which it is important for HAKOM to have control over internal transfer prices offered by HT to its retail arm in order to prevent cross-subsidising aimed at leveraging significant market power from the regulated wholesale markets to downstream retail markets. Since the wholesale and the retail service are offered by the same vertically integrated operator, accounting separation is the only way of controlling such abuse of dominant market position. The keeping and presenting of accounting data separately for services defined on the call origination market and services of call termination market from accounting data for other HT's activities will permit the transparency of all wholesale prices charged by HT to other operators for its services and transfer prices charged by HT to its retail arm and affiliated companies. In accordance with the above and further to the analysis of the received and revised regulatory financial statements for Segment 4 - Call Origination from public communications network provided at a fixed location and Segment 5 - Call termination on an individual public communications network provided at a fixed location, based on HCA/FAC methodology, HAKOM concluded that HT does not leverage its significant market power from the wholesale to the downstream retail markets, that is, it does not cross-subsidise services on vertically integrated markets.

Furthermore, in December 2010 HAKOM's Council approved the regulatory accounting documentation based on CCA/LRIC methodology. In accordance with the decision of HAKOM's Council and documentation on the basis of which the consent was granted in December 2010, HT is obliged to submit revised regulatory financial statements based on CCA/LRIC methodology in 2011, and every year after that. The purpose of current cost accounting is to provide useful, reliable data, which the historical cost accounting is not able to provide since it does not take into account changes in prices, that is, inflation effects. Furthermore, current cost accounting takes into account current conditions on the market in terms of prices and technology. In that sense, the value of assets on the basis of current costs reflects its value for overall business operations, which results in cost basis and profitability level that might be expected in conditions of full competition. In 2010, HAKOM carried out four supervisions over implementation of CCA/LRIC model for the purpose of monitoring HT's activities.

The analysis of the market of access to public communications network on fixed location for private and business users and the analysis of retail markets of leased lines

In accordance with the ECA, HAKOM initiated in 2010 the market analysis procedure on retail access markets the regulation of which is carried out pursuant to the TA, until the completion of the above-mentioned market analyses. HAKOM's Council adopted in March 2010 a decision designating the market of access to a public communications network at a fixed location for private and business users as a market susceptible to ex ante regulation. After the analysis, in late 2010, HAKOM published, during public consultation, a proposal for the decision on the analysis of the relevant market on its website. Further to the analysis of the comments to public consultation, which was carried out in the first quarter of 2011, HAKOM expects that the final decision on the designation of SMP operators and the associated regulation obligations on this market will be adopted at the beginning of the second quarter of 2011.

In addition to the analysis of the market of access to public communications network at a fixed location for private and business users, HAKOM also initiated in 2010 the procedure for the identification of markets susceptible to ex ante regulation among markets which are not part of the relevant European Commission Recommendation on relevant markets susceptible to ex ante regulation, that is, *on the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for private users, the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for private users and the market of publicly available telephone service in international traffic provided at a fixed location for business users.*

Thus, in March 2010, the Council of HAKOM adopted a decision designating operators on the above-mentioned markets which are obliged to deliver data so that the Three Criteria Test⁸ could be carried out to determine whether they aim towards effective competition. HAKOM completed the proposal for the decision on the mentioned markets in the fourth quarter of 2010, and in January 2011 it organised public consultation. The final decision about the above-mentioned four markets is expected by the end of the first half of 2011. If it is established that the relevant market in question is not susceptible to ex ante regulation, HAKOM shall adopt a decision on the withdrawal of all previously imposed regulatory obligations to SMP operators and will not impose any new regulatory obligations.

Retail packages in fixed network

Considering the direct impact on business operations of new operators and the fact that the existing obligations for the previously mentioned markets arise from the TA, HAKOM continued in 2010 to grant previous consents for the prices of retail services referring to publicly available telephone services in fixed network to operators with significant market power (HT and Iskon Internet). In the process it used the analysis based on operators' traffic data, end user's characteristics, interconnection prices and other associated costs.

HAKOM's Council granted in 2010 a prior consent on the installation prices, that is, publicly available telephone services, in the total of 10 user packages of HT and Iskon. More precisely, it was HT's new user package for business users: „Super Business 1500“ and redesigned user packages: „Super Business 100“, „Super Business 500“, „Business International 50“ and „Business International 150“, as well as the price for the installation of the „Net Phone“ service. The previously mentioned consent was also granted for prices of the publicly available telephone service in the following packages intended for business users of Iskon Internet: „Iskon.DUO Advanced“, „BIZNet.DUO Advanced“, „Iskon.DUO FLAT Expert“, „BIZNet.DUO FLAT Expert“. Furthermore, HAKOM will also supervise the remaining prices which do not require previous consent of HAKOM's Council. This will continue until the completion of analysis of all retail markets pursuant to the provision of the ECA and, in the future, everything will be done in accordance with the results of the analysis. The number

⁸ The **Three Criteria Test** is carried out to establish need for ex ante regulation of the relevant markets which do not make a constituent part of the valid European Commission Recommendation on relevant markets susceptible to *ex ante* regulation. Pursuant to the ECA, HAKOM may adopt a decision that other markets, in addition to those from the European Commission Recommendation, may be regarded as relevant markets susceptible to ex ante regulation provided that the following criteria have been cumulatively met on those markets: the presence of high and non-transitory market entry barriers of structural, legal or regulatory nature; market structure which does not aim towards the development of effective competition within a certain time framework, and the application of relevant competition legislation alone does not make possible the elimination of market entry failures concerned.

of tariff packages and options for which consent was granted indicates market dynamics and results from HAKOM's regulatory activities on the electronic communications market.

Expert supervision and HAKOM's decisions

Several expert supervisions were carried out in 2010 over operators of publicly available telephone service in fixed network. They included, among other things, expert supervision over HT where the electronic communications inspector concluded that HT granted to key business users quantity discounts in a non-transparent and discriminating manner and that it offered lower prices than the approved ones. In this manner, HT not only did not ensure equivalent conditions to all of its users but it also put other operators in an unfavourable position by offering prices and conditions that other operators were unable to offer. For the purpose of protecting users of the publicly available telephone services and to ensure effective competition, HAKOM prohibited HT to continue to offer, contract and provide services at lower prices and ordered it to publish models of quantity discounts that will be applied in a transparent and non-discriminating manner to all users.

Beneficiary operators complained against HT because it was rejecting their requests for the unbundling of the local loop and the number portability service. The most frequent reason for denial, as stated by HT, was the non-existing link between the access network and the end user, the technical non-feasibility and inadequate quality of the pair. By initiating expert supervision or merely by asking for additional information on the situation in the part of the access network referring to denial of requests, HAKOM forced HT to find ways to grant more requests and to implement them. However, the majority of such requests cannot be resolved in a manner that will be satisfactory for beneficiary operators because the capacity and quality of the copper access network does not permit local loop unbundling and the provision of broadband access service, which was concluded after examination of information provided by HT and inspection of the situation on the field.

Users of POTS service reported that they were unable to get internet service because their termination point was located on the device for multiple use of the pair, that is, because of excessive penetration of the existing broadband services and fear of service providers that the quality of service provided to existing broadband users will worsen.

Due to an increasing number of promotional actions offered to private users and their almost permanent duration and repetitions, in November 2010, in order to protect users' interests and to promote competition in the provision of electronic communications networks and services, HAKOM initiated a procedure for the amendment of general business terms and conditions which impose certain rules on SMP operators in relation to the provision of the public voice service at a fixed location. Therefore, in December 2010, HAKOM adopted a decision defining rules that HT and Iskon must abide by when publishing promotional offers. More precisely, it was decided that promotional offers may apply only to new users, that benefits in the offer may not apply for more than three months, and that offers for the same service may not be repeated for one year. HAKOM thinks that the determination of basic rules for promotional offers contributes to the development of effective competition and allows to operators without SMP to attract new users and to survive on the relevant market.

Project "Cost models of operators with significant market power"

In 2010 HAKOM continued working on the public procurement procedure for consultancy services for the implementation of the project "Cost models of operators with significant market power" the completion of which is expected in 2011.

The main objective of the project is to develop, build and apply cost models for the calculation of prices of wholesale services listed in reference offers of SMP operators which have been imposed price control and cost accounting regulatory obligations. The implementation of the project will contribute to better transparency, that is, it will increase confidence into financial indicators of SMP operators thus having a positive impact of the development of the interconnection market.

1.3. Publicly available telephone service in the mobile network

1.3.1. Market overview

The most important trends from 2009 continued in 2010 as well. In the past few years revenue earned on the market of mobile communications became stagnant. In the majority of countries, among which the RoC, user penetration exceeded 100 percent, that is, the number of connections (SIM cards) in mobile public communications network exceeded the number of inhabitants. The penetration of users in mobile public communications networks continues to grow although it was expected that the market will be saturated when it reaches 100 percent. Compared to 2009, the estimated penetration of users of mobile public communications networks increased negligibly and in 2010 it amounts to 143.45 percent (Figure 1.15)

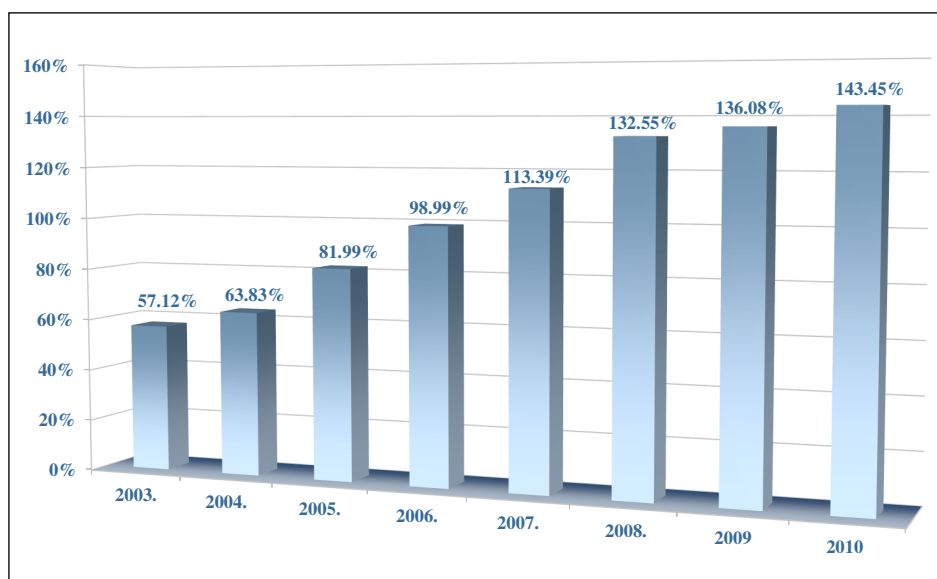


Figure 1.15. Penetration of users in mobile communications network

According to HAKOM, the number of users in the Republic of Croatia increased because lower prices of services in public mobile communications networks, increased competition (especially activities of the third operator of public mobile communications networks) and increased use of services in mobile compared to fixed public communications networks. By its regulatory activities, HAKOM created such conditions on the associated wholesale markets that operators were able to offer more attractive packages at lower retail prices, in order to attract end users. More favourable wholesale conditions defined in the decision of July 2009 have also had a significant influence on the markets of public fixed communications networks. More precisely, a lower price of call termination on an individual fixed public communications network defined by market analysis also means lower retail prices for calls from mobile to fixed network.

An increasing trend in user penetration is obvious in other European countries as well. In some countries this number exceeded 150 percent.

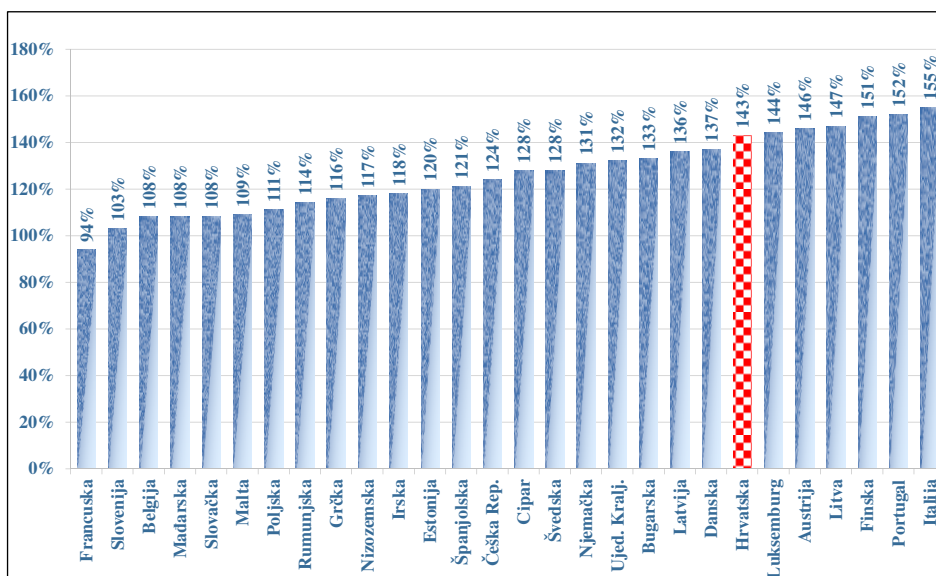
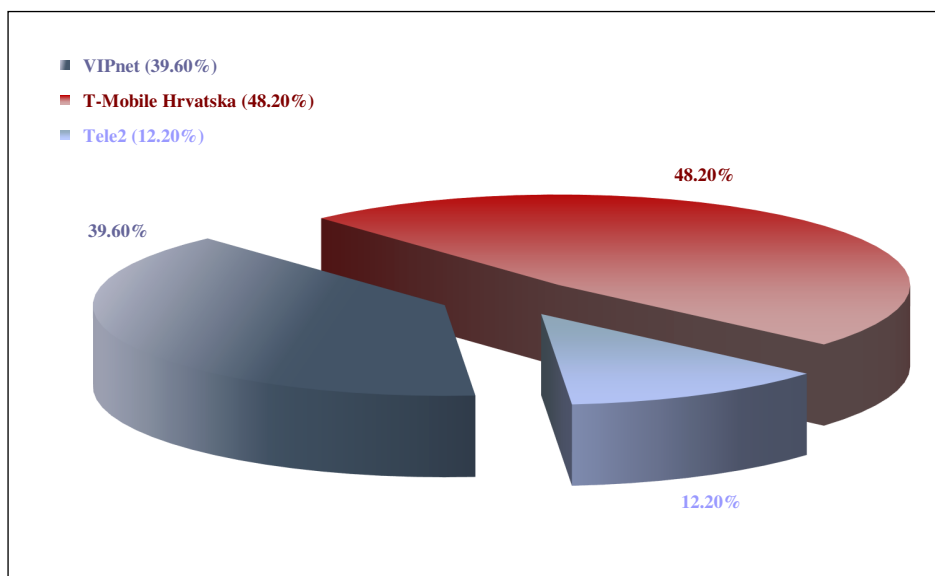


Figure 1.16. Penetration of users of mobile communications networks (EU and RoC)⁹

At this moment, the majority of revenue of operators of public mobile communications networks is based on publicly available telephone services. However, in accordance with market trends, both in the world and in the Republic of Croatia, 2010 was characterised by growing demand for broadband Internet access service in mobile networks. Operators offered better conditions for mobile broadband access which encouraged users to use data services more.

HT maintained its leading market position in terms of total revenue, while the share of the third operator on the market of public mobile communications network in the Republic of Croatia in 2010 (Tele2) amounted to 12.20 percent (Figure 1.17). The share of Tele2 increased compared to 2009 when it amounted to 10.18 percent.



⁹ Comparison between the penetration of users of public mobile communications networks in the RoC with the most recent available data in the EU (data refer to October 2010).

Figure 1.17. Market shares of operators of mobile public communications network in relation to total revenue

The market share of the third operator increased in relation to the total number of users. Market share in 2010 amounted to 11.60 percent (1.18).

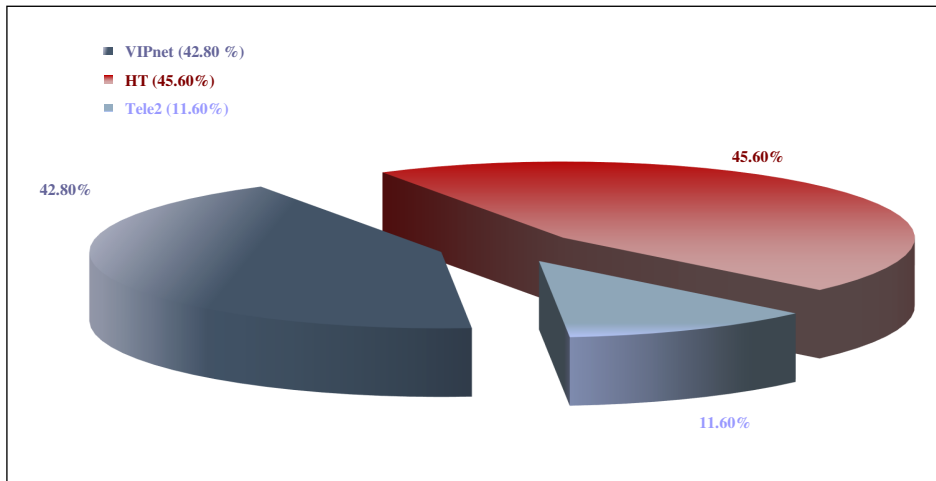


Figure 1.18. Market shares of operators of mobile public communications network in relation to number of users

The increase in the third operator's revenue was influenced by, among other things, HAKOM's regulatory decisions concerning the introduction of asymmetrical prices for call termination on the network of the third operator of the public mobile communication network. Decisions were adopted in order to create market structure aiming at the development of sustainable competition, which is obvious from previously mentioned indicators.

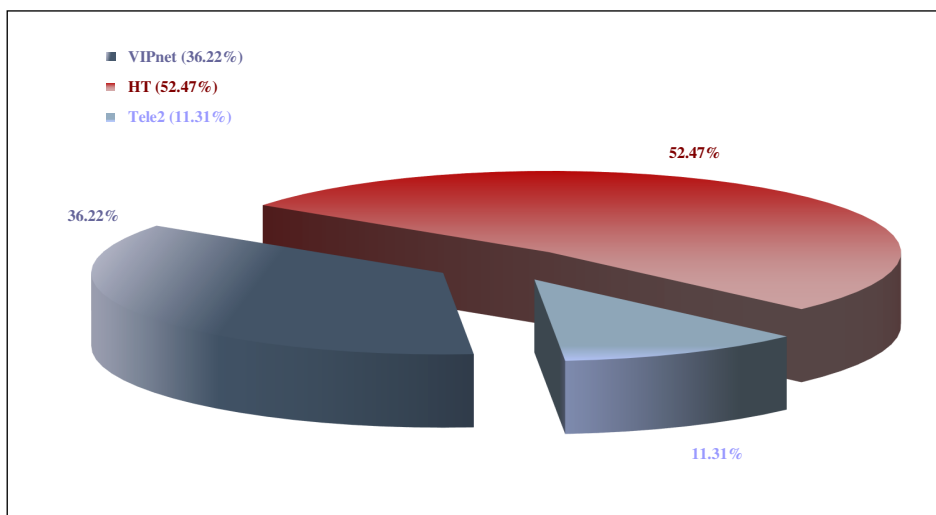


Figure 1.19. Market shares of operators of mobile public communications network in relation to total telephone traffic

The number of ported numbers in mobile public communications network shows an upward trend, as illustrated in Figure 1.20.

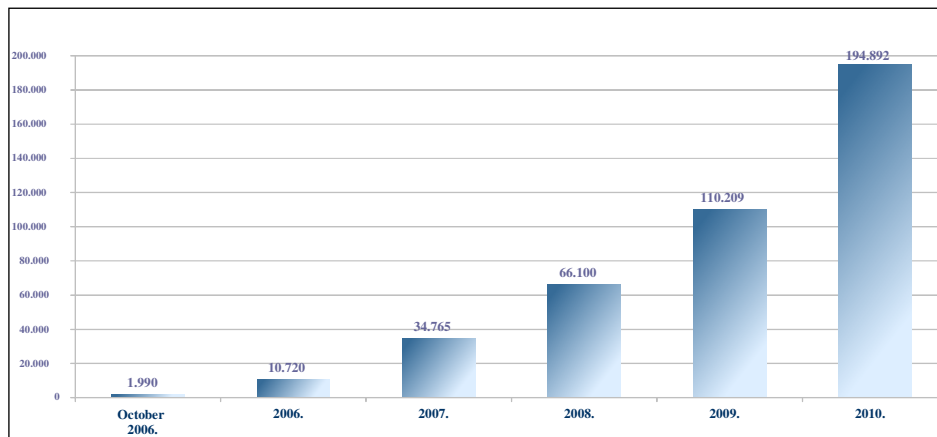


Figure 1.20. Ported numbers in mobile public communications networks

The growth of the number of ported numbers, like the one in fixed communications network, is a sign of a more dynamic market and a better selection for end users.

1.3.2. Regulatory measures

Since the market of *publicly available telephone services in mobile network* is not a part of the relevant European Commission Recommendation on relevant markets susceptible to ex ante regulation, HAKOM carried out the Three Criteria Test on the basis of which it concluded that conditions for effective competition exists and that there is no need for ex ante regulation of the relevant market. For that reason, activities related to publicly available telephone services were in 2010 oriented towards the monitoring of further development of the market of publicly available telephone service in mobile networks.

In addition to the above-mentioned relevant market, after having carried out the Three Criteria Test, HAKOM withdrew in July 2009 the regulatory obligations previously imposed on T-Mobile and Vipnet, as SMP operators according to the TA, in the part referring to access and call origination from mobile public communications network and the services of termination of SMS messages provided by operators T-Mobile and Vipnet.

By means of its regulatory activities, HAKOM has, by adopting a series of decisions and rulings, ensured further liberalisation and regulation of the electronic communications market. For that reason, activities in 2010 were focused on the definition of wholesale conditions (reference and minimum offers) referring to the provision of services of call termination and their amendments in accordance with market interests and further development of competition. Activities on markets on which HAKOM during 2009 adopted decisions on deregulation were monitored to verify the suitability of such decisions. The monitoring did not reveal any need for regulation of the above-mentioned relevant markets because of the existence of effective and sustainable competition.

Market of call termination on an individual mobile public communications network

In order to ensure more favourable wholesale conditions, and considering significant differences between Tele2 and other two operators, HT and Vipnet, HAKOM determined the price for call termination on the network of operator Tele2 as a percentage amount added to the price for call termination which was imposed by HAKOM on HT and Vipnet. The setting of asymmetrical prices for the service of call termination between operators which a strong market share and operators with a weak market share is the prevailing practice in European Union countries, that is, it may be said that asymmetry is a rule, rather than an exception, in European Union Member States.

Asymmetrical prices, imposed in HAKOM's decision of July 2009, which also includes the document *Analysis of call termination on an individual mobile public communications network*, will be applied as of 1 January 2010. Therefore, the set price for call termination on HT's and Vipnet's network amounts to 0.56 HRK/min, and the price for call termination on Tele2's network, due to 30 percent asymmetry determined by the analysis of the relevant market, amounts to 0.728 HRK/min. These new prices are 16.7 percent lower for HT and Vipnet compared to 2009, while Tele 2's price was lower by 7.4 percent compared to 2009. The increase in market volume and Tele2's market share, which contributes to effectiveness of competition on the market of mobile networks, clearly shows that HAKOM's decision on the introduction of a 30 percent asymmetry for 2010 was correct, as well as the decision to set prices at a level where operators will no longer be able to charge for the call termination service above cost.

For every subsequent year, SMP operators must adjust their prices in accordance with the reference value methodology, that is, they must define them in accordance with the European average in the manner defined in market analyses, until HAKOM is able to apply a cost-oriented price. The previously mentioned prices were in force until 31 December 2010. In accordance with market analysis from 2009, Tele 2 was obliged to apply a lower degree of asymmetry since 1 January 2011, that is, the 20 percent asymmetry. However, since market share of Tele 2 did not grow sufficiently in 2010, that is, it did not grow to the extent that Tele 2 would be able to survive the lowering of price for call termination for as much as 35 percent (in accordance with HAKOM's calculations), which would represent the biggest decline in one year, and taking into account the majority of European countries and the fact that the above-mentioned decline would harm Tele2 market share, the Council of HAKOM adopted in December 2010 a decision to keep the asymmetry level of 30 percent, the 2010 level, until 30 June 2011. Regardless of the degree of asymmetry, new prices for the call termination service for operators HT and Vipnet entered into force on 1 January 2011, amounting to 0.396 HRK/min, which represents a 29.3 percent price decrease. At the same time, the price for the same service provided by Tele 2, with the same 30 percent asymmetry, amounts to 0.515 HRK/min, which is the same 29.3 percent decline as in 2010.

In the period between 1 July 2011 and 31 December 2011, Tele2 will apply the wholesale prices for the call terminating service totalling 0.475 HRK/min since the asymmetry level in that period amounted to 20 percent, as defined in the 2009 analysis of the market of call termination. By means of the previously mentioned decisions, that is, the appropriate wholesale conditions, HAKOM created a market structure aiming at the development of effective competition, which is obvious from the above-mentioned market indicators. HAKOM's intention was to lower the prices of services of call termination in mobile public communications networks and thus prevent SMP operators on the relevant markets from

abusing their dominant position by charging excessive prices in order to ensure effective and sustainable competition, as the biggest advantages for end users of services.

The fact that mobile networks operators have been lowering their prices in order to attract end users also results in more favourable wholesale conditions defined by the analysis of the market of call termination on an individual public fixed communications network. In other words, lower price for termination defined in market analysis also leads to lower retail prices of calls from mobile to fixed network, and finally, to more attractive packages for end users and more competitiveness on the market itself.

Furthermore, taking into account market interests and further development of competition, HAKOM amended in March of 2010 the analysis of the market of call termination on an individual public communications network from 2009 in the part concerning the obligation of price control and cost accounting for traffic which originated from abroad and was transited through the national operator's network to mobile operator's networks.

The alignment of prices for call termination for calls originating abroad and transiting through networks of national operators to operators of mobile networks with prices of calls which originated in national operator's network and terminated in the network of operators of public mobile communications network benefits only end users of international operators who are calling the Republic of Croatia or to international operators themselves.

Due to lower wholesale rates, that is, termination prices of calls that international operators must pay for calls that originated in their network and terminated in the Republic of Croatia, international operators would have the possibility to lower the retail prices of calls of their end users to the Republic of Croatia. On the other hand, end users in the Republic of Croatia would not benefit from the lowering of wholesale rates for calls that originated abroad, and terminated in the Republic of Croatia. In that case, wholesale rates paid by national operators of mobile networks would remain at same level, which consequently could not lead to the lowering of retail prices for calls originating from the Republic of Croatia towards other countries.

Therefore, the decision defined that operators of mobile networks may not charge national operators for the call termination service at a price that is lower than the one charged to international operators while at the same time charging national operators for international call termination at a market price.

The above-mentioned decision represents a balance which HAKOM is trying to achieve in the times of economic crisis between the creation of conditions of sustainable competition, that is, the preventing of monopolistic conditions, and stable economic development of the Republic of Croatia.

Expert supervision

In 2010, HAKOM carried out a series of expert supervisions over operators of publicly available telephone service in mobile network, including expert supervision over T-Mobile and Vipnet, during which the inspector concluded that operators T-Mobile and Vipnet, as

operators with significant market power on the market of call termination on own public communications network, violated the regulatory obligation of non-discrimination because they did not publish conditions enabling other operators of electronic communications to interconnect for the purpose of providing VPN service between termination points in mobile and fixed network. More precisely, T-Mobile and Vipnet have, by means of their services of "VPN Direct Access" and "Fixed and Mobile VPN", ensured to their business users the connection of fixed and mobile termination points into one VPN by permitting call termination on their own network by means of short codes, while they did not ensure the same functionality for other operators although they had this obligation because of their SMP position on the relevant market. By means of the above-mentioned activities, T-Mobile and Vipnet put other (fixed) operators into an unfavourable position and HAKOM ordered them to publish interconnection conditions for the provision of the above-mentioned services in order to ensure further development of effective competition and ensure equivalent conditions for the provision of services to end users to all operators on the market. Expert supervision over all three operators was also carried out in 2010 in relation to the obligation of instant identification of users. Expert supervision established that none of the operators was able to promptly identify its users as laid down in the ECA and they were ordered to eliminate this problem.

Retail packages in mobile network

On the market of publicly available telephone service in mobile networks, that is, the market on which HAKOM monitored the influence of the deregulation decision from 2009, and according to available data, there are currently around 180 different tariff packages for publicly available voice services in mobile networks, which shows that the decision on deregulation of the previously mentioned relevant market was appropriate, that is, that competition on the market is effective and sustainable. In this respect it must be mentioned that the fact that shares of operators on the relevant market are changing is not the most important fact, but a certain dynamics of market events leading towards the development of effective competition within an appropriate time frame is what is important.

Other activities

As part of its obligation to encourage the development of electronic communications, HAKOM undertook a series of activities in order to create preconditions for fast and undisturbed development of mobile communications networks of all operators and to create preconditions for building. In the process of adoption of physical planning documents through planning of space, HAKOM participated in amendments to county physical plans, prepared drafts and encouraged the sharing of communications infrastructure for standardised antennae polls for installation of several antennae systems and directed radio links of mobile communications operators. The promoting of joint planning and building and encouraging of cooperation in planning, preparation and building of communications infrastructure between all three operators of mobile communications resulted in quicker granting of building licenses and better preservation and protection of the environment.

1.4. Broadband Internet Access

1.4.1. Market overview

The development of broadband Internet access and of broadband applications and services have been recognised worldwide as key contributors to overall economic growth, employment, competitiveness, and efficiency, and as an inevitable factor for ensuring a more efficient health system, education, science, culture, tourism etc. The Croatian electronic communications market was characterised in 2010 by a strong development of broadband Internet access services but, regardless of this fact, the Republic of Croatia has been lagging behind the EU countries average in relation to the number of termination points.

As a result of liberalisation, operators on Croatian electronic communications market have been successful in finding their way to the end users for several years. By means of a series of regulatory decisions on the market of wholesale broadband access, HAKOM created preconditions for further development of competition, and the total number of users of the service of broadband Internet access in the Republic of Croatia shows a steep upward trend. Last year the number of users of the service of broadband Internet access, as illustrated in Figure 1.21, increased by 20.81 percent.

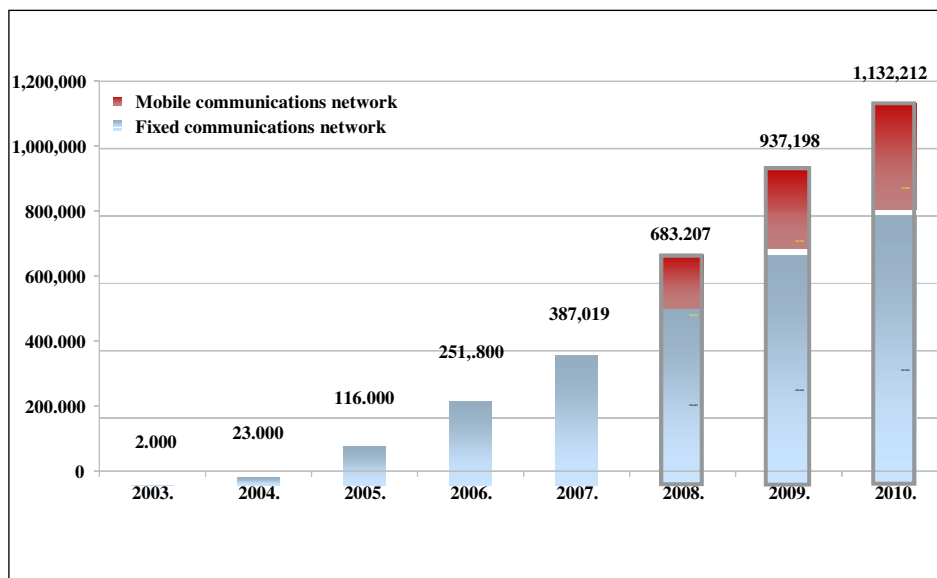


Figure 1.21. The number of users of broadband Internet access

The ratio between price and service, as well as increased Internet use in general, better Internet availability and a growing users' awareness about Internet as a source of information had the most significant influence on the dynamics of the development of the market of broadband Internet access and the increase in the number of users. According to data for the end of 2010, the total number of termination points for broadband Internet access amounted to 1,132,212, which means that the average penetration of broadband termination points was 25.52 percent.

The total number of termination points in public fixed communications network amounted to 803,823, while in the mobile network it amounted to 328,389. Therefore, the penetration of

broadband access points in public fixed communications network reached 18.12 percent, and in the public mobile communications network 7.40 percent.¹⁰

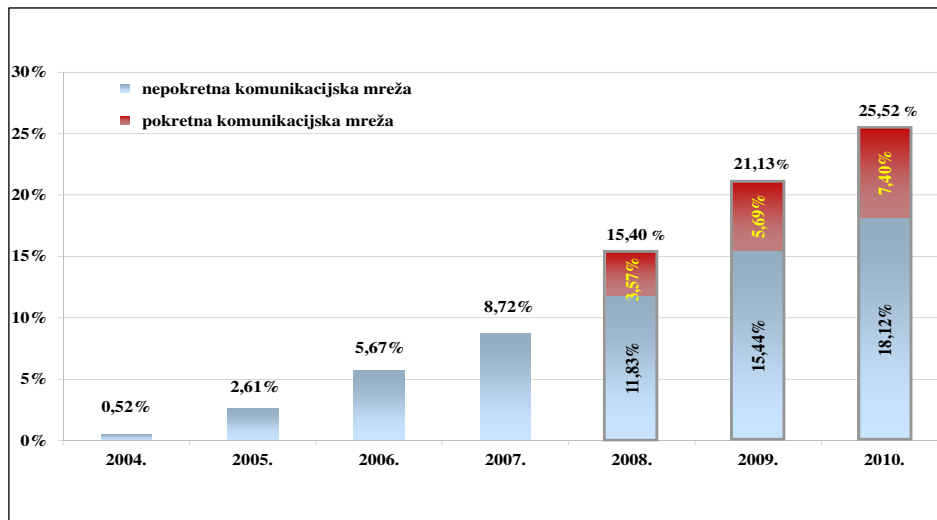


Figure 1.22. Broadband Internet penetration

Internet access over broadband access technologies is very important today in European countries, including the Republic of Croatia, and these technologies have been continuously growing while their prices are falling and data transfer speed is increasing. The majority of operators, as illustrated in Figure 1.23., provide broadband Internet access over ADSL technology.

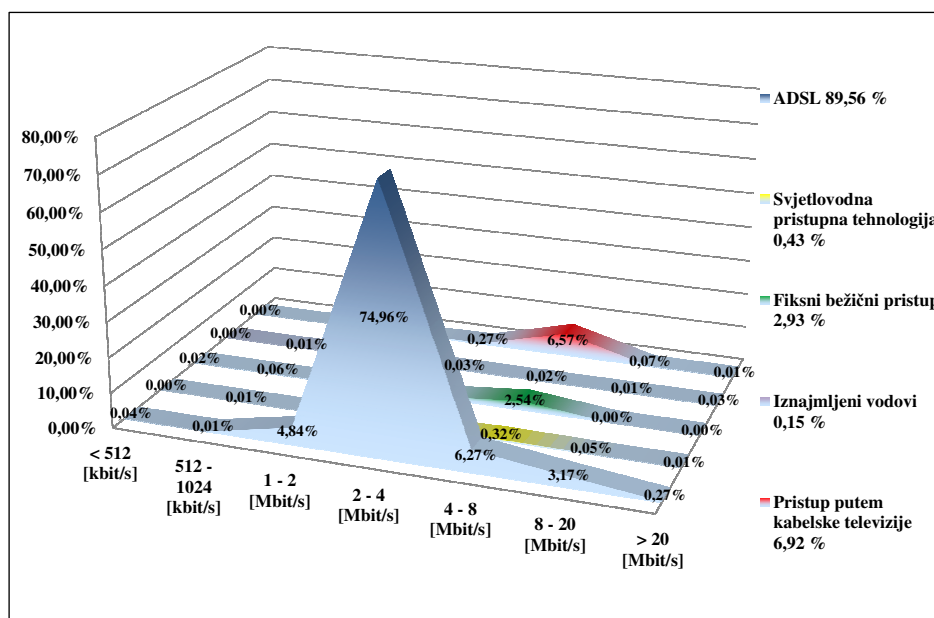
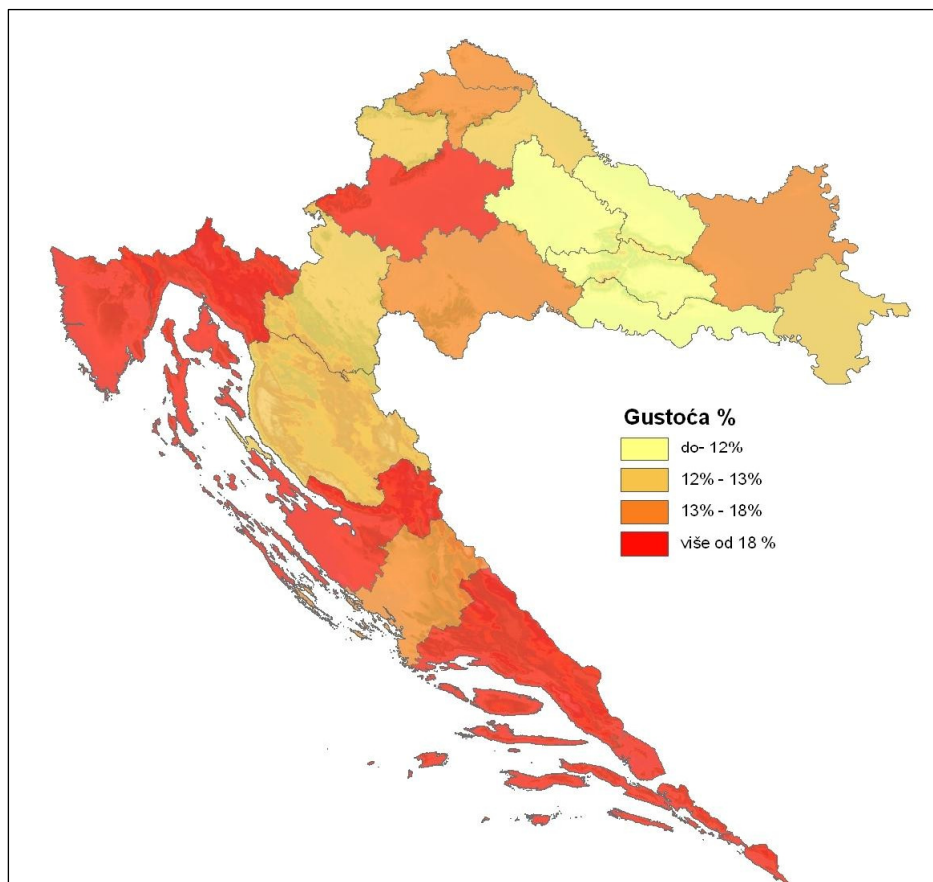


Figure 1.23. Percentage share of broadband access points according to access technology and connection speed

¹⁰ The measuring of broadband Internet access over mobile public communications networks on the market of electronic communications was introduced in 2008.

The prevailing access technology in relation to distribution of the number of termination points for broadband Internet access in fixed communications network in the Republic of Croatia is ADSL, which is represented by 89.56 percent. Out of all other access technologies, the most widespread is access over cable television with 6.92 percent.



Penetration %
 Up to – 12%
 12% -18%
 More than 18%

Figure 1.24. Broadband penetration per counties

Figure 1.24.¹¹ indicates a very unequal distribution of broadband penetration per individual counties, which also justifies regional support to the development of broadband Internet access. The stimulation of growth of broadband Internet access should be based on speedy liberalisation and competition. In that sense, HAKOM has created conditions for development of broadband access by local loop unbundling, shared and bitstream access, and its pricing policy has contributed to quicker growth and more effective competition, which resulted in faster growth in the number of termination points. It is encouraging that analysis and comparisons have shown that monthly fees for full and shared access to the unbundled loop are among the lowest in Europe and that the Republic of Croatia has been catching up with the EU countries.

¹¹ The overview was prepared with the geo-informational support of HAKOM.

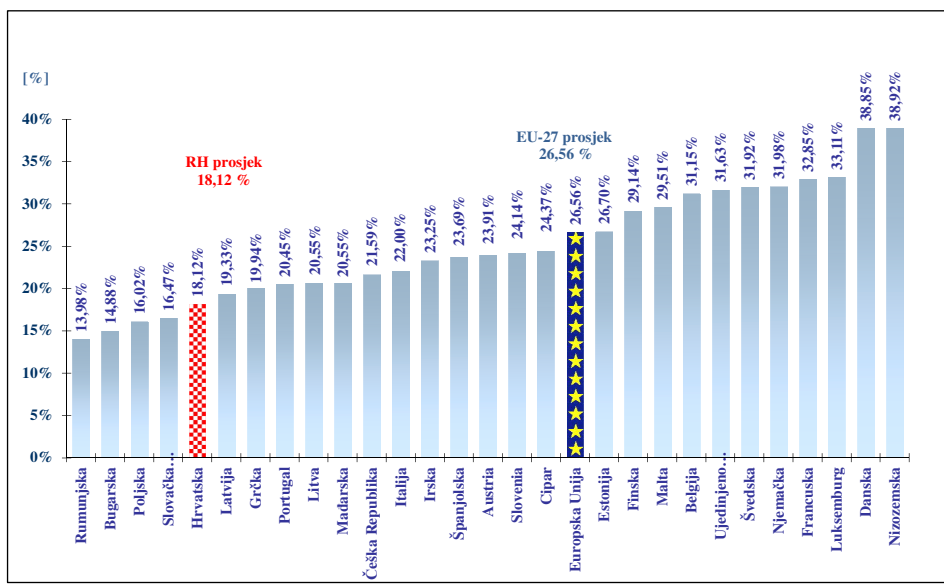


Figure 1.25. Penetration of termination points for broadband Internet access in fixed networks

The Republic of Croatia is among less developed European countries in relation to penetration of broadband termination points. In spite of a significant increase in the number of users on the market of broadband Internet access, the Republic of Croatia still has significant possibilities for growth considering the penetration of 18.12 percent in fixed network and considering the fact that the average penetration of termination points for broadband Internet access in European Union countries amounted to 26.56 percent at the end of 2010.

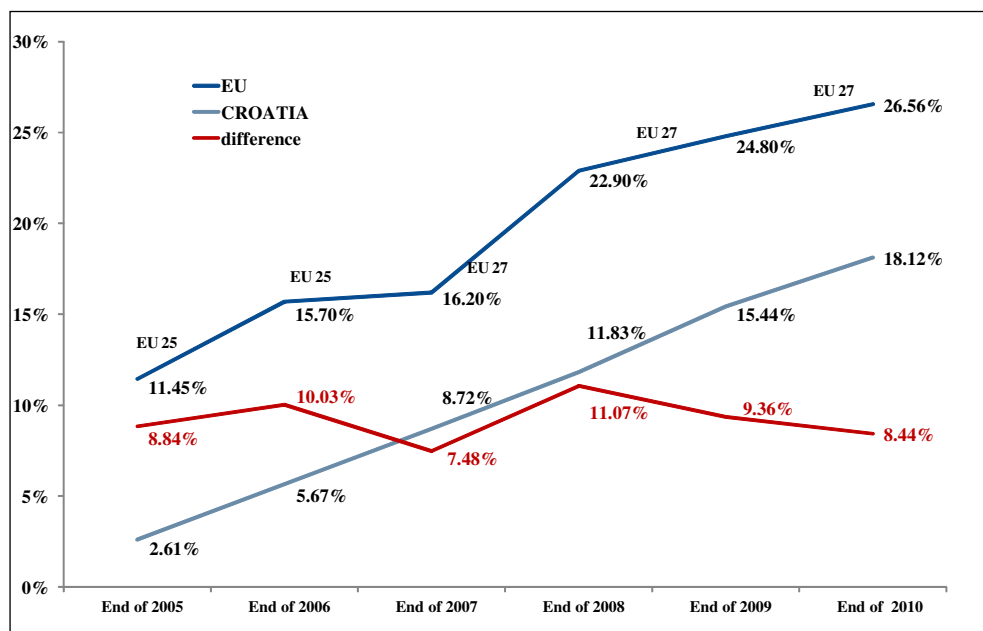


Figure 1.26 Penetration trends in the Republic of Croatia and the European Union

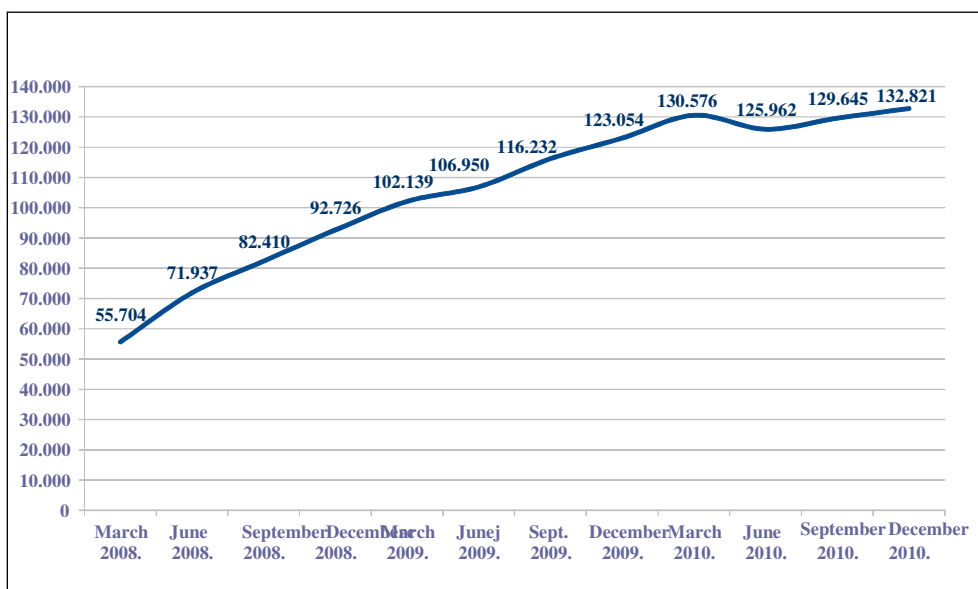


Figure 1.27. The number of unbundled local loops

(The change in the number of unbundled local loops resulted from the changed methodology used by HT)

A steep growth in the number of unbundled local loops and collocations, as illustrated in Figures 1.27 and 1.28, confirms that the electronic communications market in the Republic of Croatia has been growing rapidly. Since HAKOM is in the process of changing the price for the monthly fee for access to unbundled local loop in order to protect competition and thus ensure more favourable wholesale conditions, the growth trend is expected in the following year as well. HAKOM's pricing policy has also contributed to the speedy growth of broadband Internet access.

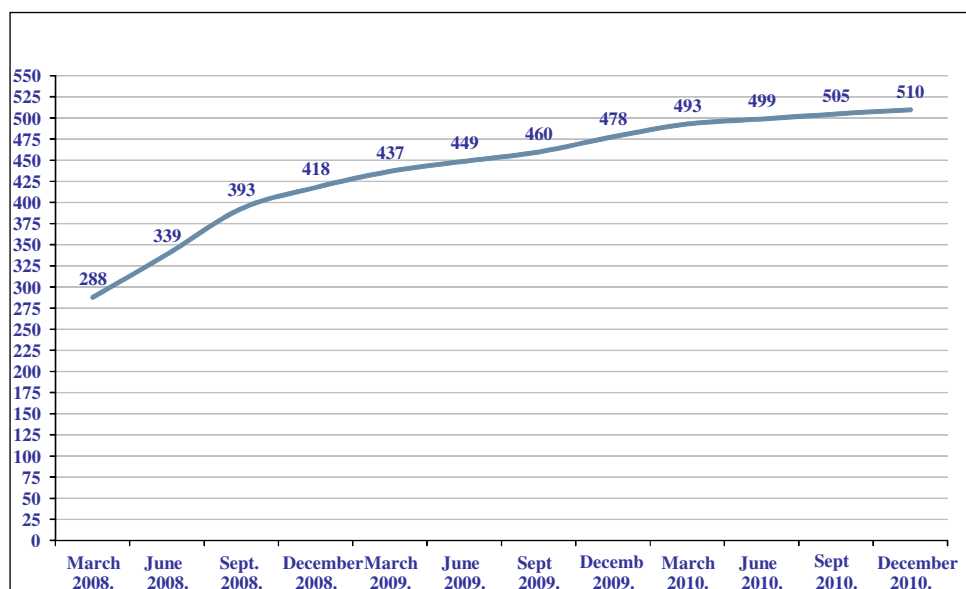


Figure 1.28. Total number of collocations

1.4.2. Regulatory measures

HAKOM's work in 2010 was primarily focused on the achievement of the established principles and objectives of regulation of the electronic communications market with a special emphasis on supervision over the implementation of regulatory obligations of SMP operators and their amendments on the wholesale broadband access market and on the market of wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, that is, on those markets in relation to which the Council of HAKOM adopted decisions in July 2009 for the purpose of promoting effective and sustainable competition.

Market of wholesale broadband Internet access

HT was, among other things, obliged to publish the reference offer for the service of wholesale broadband access and, as part of this service, to determine the wholesale cost of broadband access service on the basis of the retail-minus pricing scheme¹². According to HAKOM, the advantage of this method is the simplicity of its use which allows effective price supervision and encourages entry of operators on a downstream retail market.

Since it was established that HT did not fulfil regulatory obligations laid down in the analysis and decision of HAKOM's Council of July 2009, and since negotiations with HT, which took place in late 2009, did not yield the expected results, HAKOM initiated expert supervision which resulted, in 2011, with a decision determining "percentage X" amounting to 40 percent, that is, at such a level that an operator with minimal efficiency may offer services to end users without incurring losses and realise reasonable gain without at the same time putting into question the already realised investments of operators into local loop unbundling. When calculating "percentage X", HAKOM took into account comparable wholesale services (bitstream access service at IP level), which were determined on the basis of the retail-minus pricing scheme, HT's market share on the relevant market, the ratio between the price of the bitstream access service and the service of access to the unbundled local loop, as well as comments made during public consultation which took place in early 2010. The "Percentage X" at IP level, in the amount and the manner in which it was determined by HAKOM, will allow operators to, without endangering existing investments into the unbundled local loop and without incurring losses, provide to end users a combination of retail packages which currently do not exist on the market, and this will, in turn, lead to new advantages for end users. The methodology used to determine "percentage X" amounting to 40 percent was defined by HAKOM during expert supervision which was completed in December 2009.

In addition to the above-mentioned procedures, an electronic communications supervisor ordered during expert supervision carried out in January, May and July 2010 the alignment of the Reference Offer for the service of wholesale broadband access with regulatory obligations imposed on HT on the wholesale broadband access market by a decision of July 2009.

¹² The retail-minus pricing scheme is a method whereby the wholesale price of a service is determined on the basis of the retail price, and in this manner the wholesale price is directly aligned with the retail price set by the SMP operator. It is based on the decrease in retail price by a certain percent, and it may be illustrated by a formula such as $MPC - X(\text{retail-minus percentage } X)$.

The alignment of the above-mentioned reference offer with regulatory obligations was not sufficient for adequate development of the bitstream service and HAKOM, in March 2010, initiated the procedure for amendments to the *Reference Offer for the Wholesale Broadband Access Service*. During the procedure, HAKOM first, in March 2010, published a public invitation on its website to all interested parties to submit detailed proposals for amendments to the reference offer. This was followed by a public consultation in May and June 2010 when all interested parties were able to comment on HAKOM's proposal. After all received comments have been processed, HAKOM adopted on 15 September 2010 a final decision on all the necessary amendments in the reference offer. The new Reference Offer contains the appropriate wholesale conditions that enable further development of effective competition. This offer allows to new operators to have, in addition to the existing unbundled local loop service, one more wholesale offer they can use to offer their services to end users, in particular the broadband Internet access service. The reference offer defines technical conditions, which enables operators to provide the service of voice over the Internet protocol (VoIP), IP television (IPTV), and video on demand on the retail market over the bitstream access service (by leasing logical channels), under conditions and level of quality of service which are equivalent to those provided by HT to its retail arm or affiliated companies. The prices for the virtual channels for VoIP and IPTV, defined in the procedure for amendments to the reference offer, will enable further development of effective and sustainable competition. The full effects of the mentioned offer are expected in early 2011.

Market of wholesale access to network infrastructure

Since the reference offer for the service of unbundled access to the local loop was not in compliance with regulatory obligations imposed by the 2009 market analysis, HAKOM identified, during expert supervision carried out in January 2010, everything that HT needs to correct in the Reference Offer for the service of unbundled access to the local loop for the purpose of its alignment with regulatory obligations imposed by market analysis from July 2009.

The alignment of the above-mentioned reference offer with regulatory obligations was not sufficient for adequate development of the service of unbundled access to the local loop and HAKOM, in June 2010, initiated the procedure for amendments to the Reference Offer. In the course of the procedure, HAKOM published on its website in June 2010 a public invitation to all interested parties to deliver detailed proposals for amendments to the reference offer. Further to the public consultation carried out in October 2010, HAKOM adopted in January 2011 the final decision on all necessary amendments in the reference offer, which will also have a positive impact on further development of effective competition.

In addition to amendments to reference offers, HAKOM also initiated in December 2010 the procedure for amendments to the analysis of the market of wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location, in the part which, among other things, refers to the obligation of price control and cost accounting. According to HAKOM, amendments to the above-mentioned regulatory obligation changes in the amount of the monthly fee for the service of fully unbundled access to the local loop are justified because of altered circumstances which have a significant impact on regulatory obligations on the relevant market. In January 2011, HAKOM put the proposal of the decision on the new price for the service of unbundled access to the local loop for public consultation. The final decision on the amount of the monthly fee for the service of unbundled access to the

local loop amounting to HRK 43.61 was adopted in March 2011. Since the price of the unbundled local loop has not changed since it was introduced on the market in 2006, HAKOM thinks that changing the price was necessary because the introduction of a lower price, that is, price which is not above the cost-oriented price, is necessary for further development of effective competition and increased penetration of broadband termination points in the Republic of Croatia.

Furthermore, taking into account the fact that HT has been providing the service of access to the unbundled local loop for a long time with a time limit which was appropriate when the service first appeared on the market but is no longer appropriate at the current stage of development of the service of unbundled access to the local loop, and considering the smaller number of requests than in the beginning, HAKOM adopted a decision in March 2011 amending the conditions for use of the twisted copper pair, that is, for access to the unbundled local loop by shortening the deadline for used pairs (subscription exists) from 10 to 5 working days, and the deadline for the existing pairs which are currently not used (there is no subscription) from 20 to 15 working days.

Strategy for Broadband Access Development in the Republic of Croatia

In addition to monitoring the implementation regulatory obligations on broadband markets, in the last quarter of 2010, HAKOM played an active role in the preparation of the Strategy for Broadband Access Development in the Republic of Croatia for the period between 2011 and 2015, as well as the action plan for the implementation of the strategy under the competence of the Ministry of the Sea, Transport and Infrastructure (hereinafter: MSTI). HAKOM cooperated on the preparation of the above-mentioned documents with MSTI and the Central Office for e-Croatia. The purpose of the above-mentioned documents is to assist with further increase in the number of broadband connections in the Republic of Croatia by encouraging investments into new generation networks of fixed and mobile networks that will provide to end users innovative and more quality services.

Static Frequency Spectrum Management Plan

The Static Frequency Spectrum Management Plan makes possible better penetration of broadband services. The adopted frequency plan ensures spectral compatibility of different types of broadband transfer technologies in the unbundled environment, which is one of the basic preconditions for more efficient use of the existing access network. By systematic monitoring and analysis of data delivered by operators on the basis of the Decision on the adaptive mode, the effects thereof were established on the basis of the number of newly installed xDSL connections (+196,978 broadband users in the network) under equivalent network conditions and effects in energy efficiency. Other measures for the increase in penetration and/or energy efficiency were analysed as well, such as: limits on the maximum margin value (MaxSNRM) of triple play packages of services at 16 db, introduction of L0/L2 mode of operation, dynamic line management (DLM), that is, level 1 dynamic spectrum management (DSM - 1). The realistic transfer speeds at DSL lines (ADSL 2+ transfer technology) in the unbundled environment were analysed and available measurement equipment for the control of key parameters of the DSL line was examined, such as speed, margin, power, number of resynchronisations and the similar.

VDSL

The introduction of VDSL2 transfer technology into the unbundled environment of the Republic of Croatia from CO and RT locations was analysed. The 8b profile was selected as the most flexible for the CO location and it was introduced into the new version of the Reference Offer as an obligation for all operators using the unbundled environment. Speed achieved for that profile was analysed in relation to loop length for our concrete access network. Possible electromagnetic disturbances in the frequency range up to 8.5 MHz that might occur in the surface part of the network were analysed and this part of the network was analysed with NF cables without screen. All the necessary preparations for such measurements were carried out on the field and the valid standards applicable to these issues were analysed. The effects of the introduction of a new transfer technique were analysed, that is, of vectorised VDSL2, which permits respectable transfer speed (up to 100 Mbit/s) on the existing copper pair at smaller distances (in our circumstances 300 to 500m).

Investments into optical access infrastructure

The Council of HAKOM adopted in July 2009 a decision designating HT as the significant market operator on the wholesale broadband access market. This decision included the analysis of the wholesale broadband access market. Among other things, HT was ordered to ensure access for the provision of bitstream access service at IP level on the basis of FttH solution, that is, it was decided that optical access infrastructure needs to be regulated. This decision obliges HT to incorporate technical conditions and prices for the provision of the bitstream access service at IP level on the basis of FttH solution. Furthermore, it was decided that HT may provide retail services on the basis of FttH solution upon expiry of six months from the publication of wholesale conditions of the bitstream access service at IP level on the basis of FttH solution.

On the basis of regulation decided upon in 2009, HAKOM and HT initiated negotiations in early 2010 concerning the definition of an investment model that will satisfy both regulatory objectives: sustainable competition and economic security for further HT's investments (that is, investments of any operator who is prepared to invest into new generation networks.) In cooperation with the Ministry of the Sea, Transport and Infrastructure, a series of meetings took place in 2010 and basic principles of the investment model were presented at these meetings.

In June and July 2010, meetings were held between representatives of HT and new operators, and HT presented a proposal of an investment model, that is, wholesale conditions, that would allow other operators to offer services to end users by means of optical access infrastructure. Since HT's proposal did not satisfy both of the previously mentioned regulatory objectives, activities aimed at finding the appropriate investment model were continued in the last quarter of 2010. Although significant progress was made in searching for the model that could lead to investments into optical access infrastructure without endangering effective competition, the negotiations process was not completed by the end of 2010, and the final agreement on the investment model into optical access networks is expected in 2011.

Analysis of the market of leased lines

In the first quarter of 2010, HAKOM initiated the market analysis procedure of the leased lines markets which are regulated in accordance with the TA until the completion of the above-mentioned analyses. The mentioned market consists of 3 markets: *the market of terminating segments of leased lines, the market of trunk segments of leased lines and the market of a minimum set of leased lines*. The market of trunk segments of leased lines and the market of a minimum set of leased lines do not make a constituent part of the European Commission Recommendation on relevant markets, which means that the Three Criteria Test is a prerequisite for the regulation of these markets.

The analysis of the above-mentioned markets is currently in progress, and the proposal for a decision, that will be subject to public consultation, is expected at the beginning of the second quarter of 2011. The above-mentioned analysis should in the first place assist with the further development of broadband services in the segment of business users.

1.5. IPTV, cable and satellite television

1.5.1. Market overview

The television market is constantly changing. The digitalisation of audiovisual content allows the introduction of many new services based on personalisation and interactivity (such as personal selection and programme schedules, delayed programmes, video on demand, interactive voting, participation in game shows, elimination or viewing of selected commercials only). Furthermore, digitalisation permits users to receive audio-visual contents through different networks: satellite, cable, terrestrial, UMTS, IPTV, DVB-H. Official data for cable television subscribers are shown in Figure 1.29, while official data for IPTV and satellite television subscribers will be available from 2011.



1.29. The total number of cable subscribers

1.5.2. Regulatory measures

By means of its regulatory activities, HAKOM has, by adopting a series of decisions and rulings, ensured further liberalisation and regulation of the electronic communications market. For that reason, activities in 2010 were focused on the definition of wholesale conditions (reference offer) and their amendments in accordance with market interests and further development of competition.

Introduction of a virtual channel for IPTV

On the market of wholesale broadband access, HAKOM imposed on HT the obligation to provide such bitstream access service (by leasing digital channels) that will provide to operators technical conditions for the provision of the IP television service (IPTV) and video on demand on the retail market, under conditions and level of quality of service equivalent to those provided to its retail arm or affiliated companies.

A separate virtual channel for IPTV service enables operators to provide digital television signal to end users over IP network by means of HT's infrastructure and it may be leased, according to HAKOM's decision, as an independent service on the basis of the reference offer for wholesale broadband access or as a supplement to broadband access service intended for Internet use.

Since demand for IP television services (IPTV) and video on demand on has increased on the retail market, if operators using the bitstream access service were not able to provide the above-mentioned services to end users, they would not be able to compete with HT's retail arm or affiliated companies, which would result in ineffective competition to the detriment of end users. HT was obliged to incorporate technical conditions and prices for the above-mentioned service, regardless of speed, into its Reference Offer for Wholesale Broadband Access since 1 January 2010 in a manner that enables effective and sustainable competition.

Since HT did not propose an appropriate price, that is, a price fostering effective and sustainable competition, HAKOM defined the price in the procedure for the amendment of the reference offer and it amounts to HRK 20 for the virtual channel for IPTV 4 Mbit/s. The final decision specifying all the necessary amendments was adopted in September 2010. Thus HAKOM allowed to beneficiary operators of the service in question to define their own products to promote and offer to the end user in their name and for their account, which significantly influences the development of competition.

Reference Offer for the Service of Unbundled Access to the Local Loop

In addition to the broadband access service, the IPTV service is regarded as the main originator of interactive services. The development of IPTV brings many advantages which, among other things, include personalisation, interactivity and on-demand access to all forms of digital content. Precisely for this reason, HAKOM had to ensure appropriate conditions so that other operators on the market could offer IPTV service to end users. Therefore, in addition to the Reference Offer for Wholesale Broadband Access, HAKOM defined the conditions for the provision of IPTV services also in the *Reference Offer for Unbundled Access to the Local Loop* so that operators could offer the service in question under better conditions.

It must be mentioned that all regulatory measures that were imposed by HAKOM with a view to regulating the service of wholesale access to the unbundled local loop will have a significant impact on this market since it allows the provision of IPTV service. However, the actual effects of regulation on this market are expected by HAKOM during 2011.

1.6. Digital terrestrial television

1.6.1. Market overview

The Republic of Croatia is among countries that have successfully switched over from analogue to digital broadcasting since the switch-over in Croatia was completed by the end of 2010 in accordance with the Analogue to Digital Switch-over Strategy for the Republic of Croatia.

The gradual switching-off of digital television per regions (nine of the so-called digital regions) was first carried out for national television broadcasters by 5 October 2010, and it was followed by the switching off of analogue television for television broadcasters at regional and local levels.

This places Croatia among the first European countries, that is, among fourteen countries in the entire Europe that have successfully completed the digital switch-over process in 2011.

The digitalisation of audiovisual content enables the increase in the quality and number of the existing, so-called, linear services of audiovisual content, and the introduction of numerous new services based on personalisation and interactivity, such as personal selection and programme schedules, delayed programmes, video on demand, interactive voting, participation in game shows, elimination or viewing of selected commercials only.

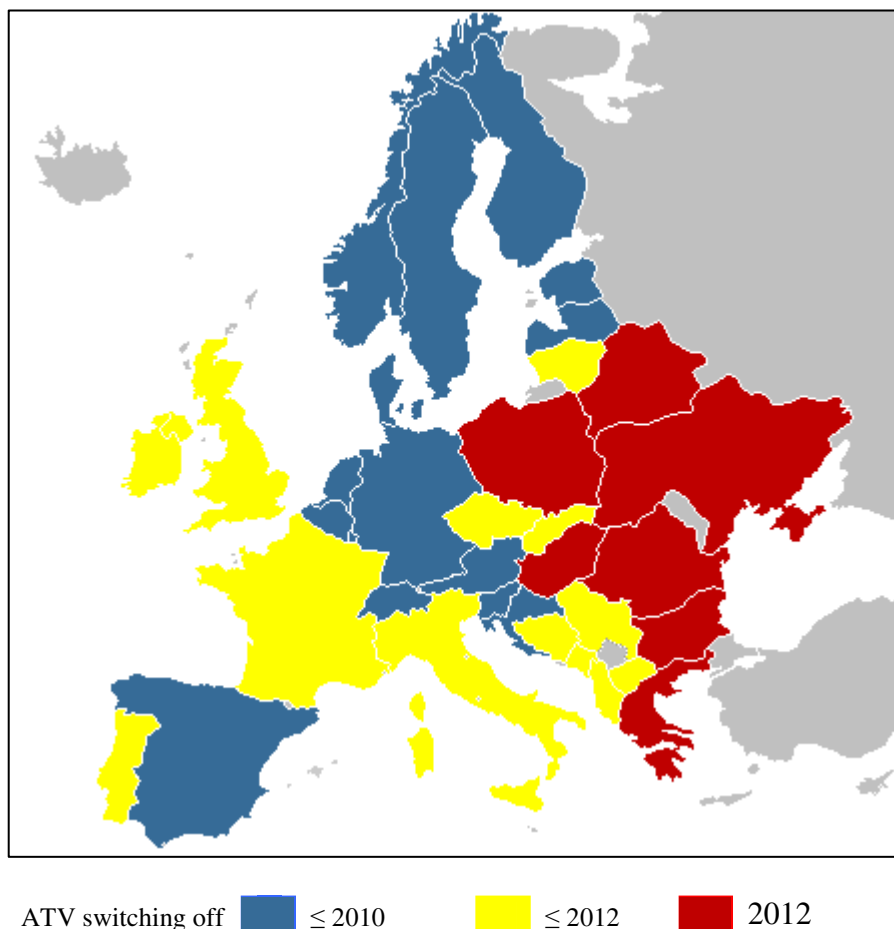


Figure 1.30. Overview of digital switch-over per countries

The market is faced with the possibility for introducing a series of new contents and services, and, consequently, with the ownership protection programme, user protection, advertising, preservation of social and cultural values.

The EU is trying to speed up the process of switchover to terrestrial DTV in order to free the spectrum and ensure the so-called “digital dividend” for additional television contents and new information and communication services. For that reason the European Commission (EC) has published a recommendation to switch off analogue terrestrial television (ATV) by 2012.

Countries such as Sweden, Finland, Switzerland, Germany, the Netherlands, Luxembourg, Denmark, Norway, Spain, Estonia, Latvia, Austria and Slovenia have switched off analogue terrestrial television, while the rest of the European countries are planning to complete the process by 2012, and only a small number of countries by the final deadline in 2015.

1.6.2. Regulatory measures

In the further process of implementation of the strategy, after the issuing of the first licence in 2009 which enabled the provision of the service of management of electronic communications network of digital television for MUX A, and MUX B in the territory of the Republic of Croatia, that is, the transmission of the existing four channels (HRT1, HRT2, Nova TV and RTL) and up to six new digital television channels at the national level, HAKOM continued with further activities aimed at planning and ensuring the radio frequency spectrum for new digital television networks at the national, regional and local level.

On the basis of public competition for the granting of individual licenses for use of the radio frequency spectrum for the provision of the service of management of two electronic communications digital television networks for MUX D in the territory of the Republic of Croatia, in July 2010, HAKOM issued a license to the company Odašiljači i veze d.o.o. In accordance with the granted license for use of the radio frequency spectrum for multiplex MUX D for digital television, the company Odašiljači i veze d.o.o. has become the operator of the network and the multiplex for the national and regional network, and for the local network of MUX D multiplexes.

The implementation of the action plan for the switch off of analogue television transmitters of national broadcasters created preconditions for the launching of MUX D which permitted the switch-over of the existing broadcasters at regional and local level and the introduction of new contents at all levels.

During switch-over from analogue to digital television broadcasting, before the switching off of analogue signal, HAKOM carried out measurements of digital signal coverage in each of the nine digital regions. Measurement vehicles carried out the total of 3521 measurements on 2880 locations in the entire territory of the Republic of Croatia. The measurements have proven the fulfilment of conditions for minimum coverage with DVB-T signal in each digital region.

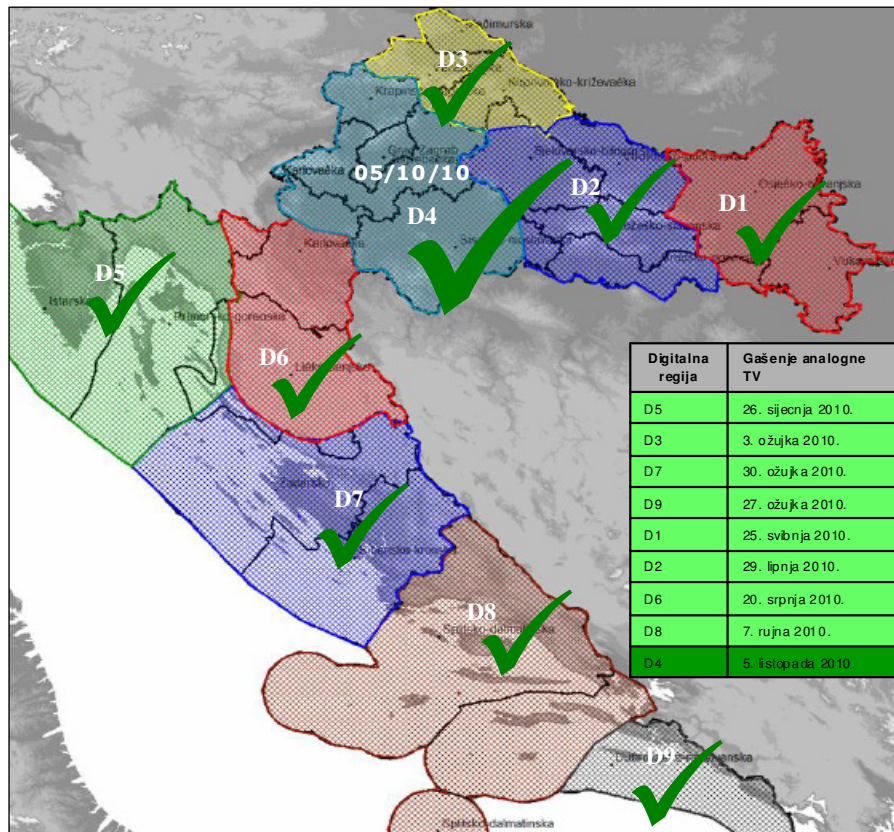


Figure 1.31. Dynamics of switching off of analogue TV transmitters

Furthermore, on the basis of a received licence application for use of the radio frequency spectrum for digital television in the digital region d82 (wider territory of the city of Split), HAKOM published a public invitation for additional licence applications and the licence for use of the radio frequency spectrum was, pursuant to the Electronic Communications Act, granted on the basis of a summary procedure to the company Korak d.o.o.

In accordance with the license for the provision of the service of management of electronic communications digital television networks for MUX A and MUX B, by the end of 2010 the population coverage amounted to more than 98 percent for MUX A and than 96 percent for MUX B.



Figure 1.32. Coverage of the Republic of Croatia with DVB-T signal MUX A and MUX B

Furthermore, after the granting of the license, the network operator and multiplex operator or the national and regional network for the local multiplex network MUX D, the company Odašiljači i veze d.o.o. initiated the building and release of the new network and by the end of 2010 and achieved population coverage in the RoC amounting to more than 85 percent.

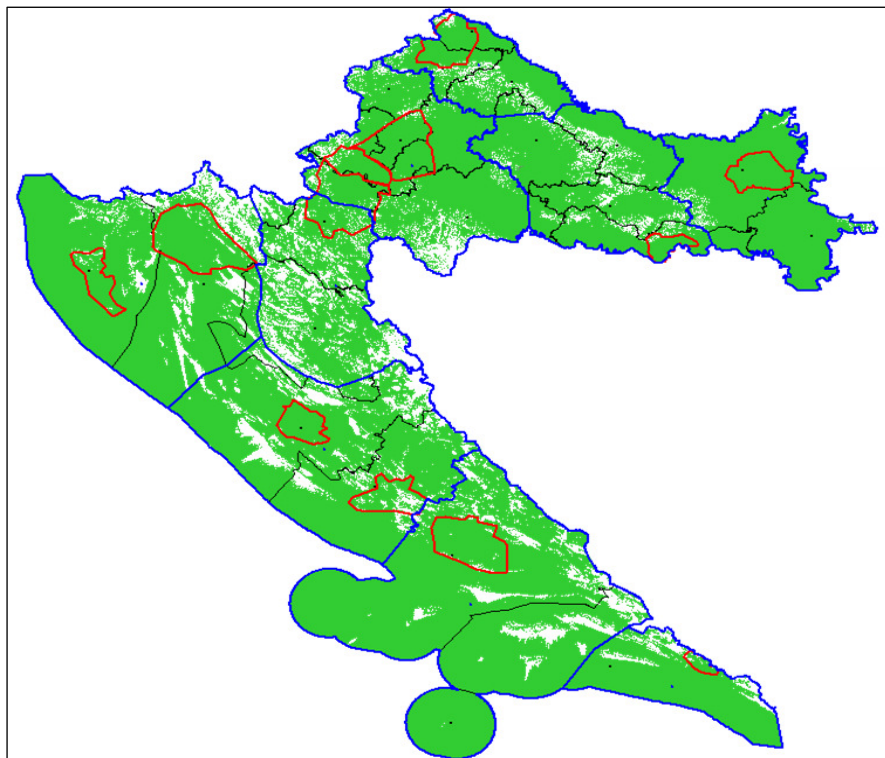


Figure 1.33. Coverage of the RoC by DVB-T signal of MUX D

The experimental broadcasting of high definition television was continued by the end of 2010 (HDTV - High Definition Television) in Osijek, Split, Rijeka and Zagreb.

In 2010, HAKOM built and published on its website a "Recommendation on minimum technical requirements for DVB-T receivers in the Republic of Croatia", a type of a guide for producers and distributors of reception equipment about necessary equipment characteristics for the Croatian market.

For the purpose of technical implementation of new contents and services in digital broadcasting networks that will provide to end users added value compared to the existing services and ensure to service providers the manner and conditions for use of the RF spectrum that will enable them to develop a successful and sustainable business model in the Republic of Croatia, HAKOM initiated the collection of opinions related to the provision of electronic communications services of multiplex management in terrestrial broadcasting.

In December 2010, HAKOM recorded first serious problems in the reception of digital television signals. When Italy was switching over from analogue to digital broadcasting of television channels, television multiplexes in the Italian Republic were launched on frequencies used by the Republic of Croatia. Because Italian transmitters were operating on frequencies used by Croatian DVB-T multiplexes, a significant number of Croatian citizens in Istria were unable to receive multiplexes with national and regional television channels. This topic was analysed in more detail in Chapter 1.9.1. Radiofrequency spectrum:

1.7. Other services

1.7.1. VAS services

During 2010, HAKOM carried out preventive activities against operators of value added services by undertaking efforts to familiarise them with their rights, that is, with laws in their field of activities. After the information process, verification of the manner of providing services available on the market was carried out and on the basis thereof expert supervision was initiated in order to remove problems in the provision of services. The carrying out of expert supervision and the sanctioning of operators were aimed at the alignment of the provision of existing and future added value services with the provisions laid down in the Electronic Communications Act and the Ordinance on the manner and conditions for the provision of electronic communications networks and services aimed at the protection of end users. The total of 64 supervisions were initiated against providers of VAS.

1.7.2. Universal services

One of the principles and objectives of regulation of the electronic communications market in the Republic of Croatia is to ensure access to universal services for all service users.

Universal services in electronic communications represent a minimum set of electronic communications services of a certain quality, which must be available to all end users at an affordable price in the entire territory of the Republic of Croatia regardless of their geographical location and with the minimum possible distortion of competition.

Universal services comprise one or more of the following services:

1. access to public telephone network and publicly available telephone services at a fixed location,
2. access of end users to at least one comprehensive directory of all subscribers of publicly available telephone services, in a printed or electronic form, which must be updated on a regular basis,
3. access of end-users, including users of public pay telephones, to a telephone directory enquiry service,
4. placing of public pay telephones on public locations accessible at any time,
5. special measures for disabled users including access to emergency services, directory enquiry services and directories, equivalent to that enjoyed by other end-users,
6. special tariff systems adjusted to needs of socially disadvantaged groups of end users of services.

Since the period for obligatory provision of universal services for current universal services operator expired, HAKOM invited and carried out a public tender with a view to designating universal services operator.

During the public procurement procedure, in early October 2010, a decision was adopted designating the company Imenik d.o.o. Zagreb, Trg bana Josipa Jelačića 3 (Imenik d.o.o.) as the provider of universal services, in particular, the service of access to at least one comprehensive directory of all subscribers of publicly available telephone services in the territory of the Republic of Croatia for five years.

Since no tenders were submitted for the remaining services under the scope of universal services laid down in the ECA and because universal services need to be provided, HAKOM designated the SMP operator as the universal services operator. For that reason, the company Hrvatski Telekom d.d. was designated as the universal services operator in the territory of the Republic of Croatia in the period of five years for the following services.

1. access to public telephone network and publicly available telephone services,
2. access to directory inquiry service,
3. installation of public pay telephones in public places,
4. special measures for disabled persons,
5. special tariff systems adjusted to needs of socially disadvantaged groups of end users of services.

Universal services must be available to all end users of services at an affordable and identical price in the entire territory of the Republic of Croatia. The universal services operator prepared special tariff systems adjusted to needs of socially disadvantaged groups of end users, including a special tariff package for persons with low income, and a price for the directory inquiry service (Directory Inquiry services 118xx) and it was approved by the Council of HAKOM. In 2010, HAKOM paid special attention to the quality and availability of universal services.

1.7.3. Upcoming services

In 2010, HAKOM followed international development trends in relation to new services. All upcoming services were analysed, as well as the need for their regulation. In that manner, in case of need, simple and timely regulation of individual communications services was ensured.

With the development of new technologies, operators have changed their existing network with the new access and core networks based on IP protocol, which enables simpler and faster introduction of services and provides more flexibility to operators. The switch-over to such networks will require all devices, such as today's computers, to have their IP address, which will result in significant spending of addressing resources. Even today a big problem is the existing IP protocol version 4 the use of which is planned for this year. It is therefore very important to start with the migration from IP protocol version 4 to IP protocol version 6 as soon as possible. In 2010, HAKOM undertook preparatory steps aimed at promoting migration to IP protocol version 6. In order to encourage users to migrate to IPv6 protocol, HAKOM is planning to enable users to access its own web services over both protocols, IPv4 and IPv6, and publish a questionnaire for operators in order to establish the readiness of operators for migration to Ipv6 protocol.

In addition to the above-mentioned issues concerning migration to IPv6 protocol, HAKOM monitored the development of a new market segment in 2010, the so-called "cloud computing". "Cloud computing" simplifies the development of services and enables the convergence of the media, electronic communications and ICT. The simplest example of such services are google applications such as gtalk, picasso, google maps and others. Since cloud computing does not cover only services but also the infrastructure, HAKOM focused

particularly on the monitoring of the development of this segment to be able to introduce regulation for individual services at any time. This segment still has not reached its full potential in the Republic of Croatia, and first services, such as interactive television and television on mobile devices, have appeared.

1.8. Infrastructure and network access services and building of electronic communications infrastructure

1.8.1. Market overview

HAKOM particularly focused on sharing on the existing cable ducts. An infrastructure operator who manages distribution cable ducts (hereinafter: DCD) must allow the use of free space to any beneficiary operator upon its request, if there is free space on a requested path. Since there have been attempts at preventing beneficiary operators from exercising their rights by treating as occupied the space that the infrastructure operator was planning to use for self-supply in the upcoming period and by not pulling out the unused capacity, that is, cables, HAKOM adopted the Ordinance on the manner and conditions for access to and sharing of electronic communications infrastructure and associated facilities. The application of the Ordinance and of its amendments almost completely eliminated the possibility for a negative reply by the infrastructure operator in relation to beneficiary operator's request for use of free space in DTD, and complaints by beneficiary operators concerning the inability to contract and use DTD have been reduced to the biggest possible extent. Instead of on negligible mediation in disputes between the infrastructure operator and beneficiary operator, the focus was placed on the establishment of the actual state of facts in cases of sharing of the existing electronic infrastructure and associated facilities, collecting data about infrastructure and associated facilities of infrastructure operators, legalisation, that is, regulation of sharing.

HAKOM's activities concerning building cover activities related to issuing of special conditions for building that is, the confirmation of the design, the evaluation of design, the compliance of main projects with conditions for building, that is, the design, the participation in the work of commissions for technical inspection of buildings, the participation in the evaluation of designs and main projects in the procedures for the granting of location and building permits, providing guidelines/requests for the contents of spatial planning documents in the part referring to the planning of electronic communications and participation in previous and public consultations about public spatial plans and providing opinions on final proposals of spatial plans.

1.8.2. Regulatory measures

DTD

In early 2010, a regulatory measure was adopted imposing on HT the obligation to apply the principles of cost orientation when determining the price of lease of free space in cable ducts, including fees paid by beneficiary operators for the service of sharing of DTD. At the end of the year, a procedure will be initiated for preparation and adoption of the reference offer for access to HT's cable ducts, which will additionally speed up the sharing and introduce the principle of discrimination and granting of access to HT's cable ducts to all operators under equivalent conditions.

Right of way

The main problem with the issuing of certificates refers to ownership papers because of which the infrastructure operator may not obtain the right-of-way certificate on the entire path in continuity. The owner of a property who is in the records and who is supposed to exercise the right to a fee is often no longer the owner or the certificate may not be issued. The certificate of the right of way provides to the infrastructure operator undisturbed access to electronic communications infrastructure built on property owned by others, and enables the initiation of legalisation proceedings, that is, the settling of affairs with beneficiary operators on those paths. HAKOM has been continuously working on the improvement of the process for the issuing of the right-of-way certificates together with all infrastructure operators, which resulted in the adoption of amendments to the Ordinance, and the shortening on the time required for issuing the certificate of the right of way.

Building of electronic communications infrastructure and associated facilities

Special attention was paid to the issuing of special requirements for building of facilities within the zone of electronic communications infrastructure and associated facilities and protection zone and the radio corridor of certain radio stations. Certain difficulties occurred in relation to the issuing of special requirements laid down in the Ordinance on the manner and conditions for the determination of the zone of electronic communications infrastructure and associated facilities, protection zone and the radio corridor, and obligations of investors or buildings, and the procedure for amendments to this ordinance was initiated.

As part of the activities aimed at encouraging development and effective investments, HAKOM undertook a series of activities to create preconditions for quick and undisturbed development, and for building of cable ducts and optical networks. Concrete regulatory measures in this area consist primarily of the adoption of the ordinance and amendments to the existing ordinances. Several ordinances were adopted last year, which, among other things, contribute to the improvement of the process for the issuing of right-of-way certificates, define relations in sharing of distribution cable ducts more clearly, and regulate technical and usage principles for the building and use of cable ducts and optical distribution networks. The main principles laid down in Ordinance on technical and usage conditions are: network openness, ensuring of sufficient capacity of cable ducts and optical networks for all users in the covered territory.

1.9. Management of limited resources

The management and use of the radio frequency spectrum and the addressing and numbering space, as naturally limited public resources, are of interest for the Republic of Croatia. As a national regulatory authority, HAKOM is in charge of promoting competition in electronic communications by effective management of these resources.

1.9.1. Radiofrequency spectrum

The management of the frequency spectrum is under HAKOM's competence. At the national level this implies the planning and preparation of technical parameters for the issuing of licenses for use of the radiofrequency spectrum and control of the spectrum, while at the international level this refers to the coordination of use of the radio frequency spectrum in accordance with the valid decisions and recommendations of CEPT and valid international agreements.

Simpler use of the RF spectrum

For the purpose of greater harmonisation of use of the radiofrequency spectrum, alignment with European legislation and easier circulation of devices using the radio frequency spectrum in the territory of CEPT, in 2010 HAKOM issued 20 new general licenses, amended 10 existing licenses and withdrew 5 general licenses. Furthermore, HAKOM's website contains an application which permits browsing through general licenses according to type of device and frequency band. As a result, the number of questions by users has decreased since they now have easy access to information.

Public consultation about the proposal for amendments to the Radio Frequency Spectrum Allocation Table was also available on HAKOM's website, after which the amended proposal of the Table was submitted to the MSTI for publication.

The 2010 amendments to the Ordinance on the conditions for assignment and use of radio-frequency spectrum simplified the procedure for putting of radio stations into operation. Obligatory technical checks for individual radio stations have been cancelled. Furthermore, it is necessary to notify a radio station to HAKOM only when required by the license, and it is no longer the case for all stations. The possibility for delivery of technical data in electronic form has been introduced.

During 2010, procedures were introduced for simplified issuing of licenses for short-range dedicated links in areas where possibility for interference between two systems is small. The regular procedure for issuing of licenses is simplified in such a manner that the user defines technical parameters for individual connections and notification is made electronically, which means that technical documentation does not need to be delivered. These procedures will in 2011 be incorporated into appropriate regulations thus simplifying planning for HAKOM and notification for users.

Due to cases of unlawful use of devices for interfering with frequencies used by public mobile communications networks, HAKOM issued a notice explaining that import and use of such devices are possible only for services of special importance and when required in the interest of defence or national security.

Public mobile communications networks

As part of regular activities related to public mobile networks, HAKOM received in 2010 notifications of base stations from operators and, after having verified the submitted data, it issued certificates of compliance for those base stations. In the process of verification of submitted data and calculations related to radiation of base stations, special attention is paid to areas of increased sensitivity (residential areas, schools, preschools, hospitals etc.) and, where necessary, HAKOM carries out additional measurements. Figure 1.34 illustrates growth in the number of notified base stations (coverage sector) in the Republic of Croatia.

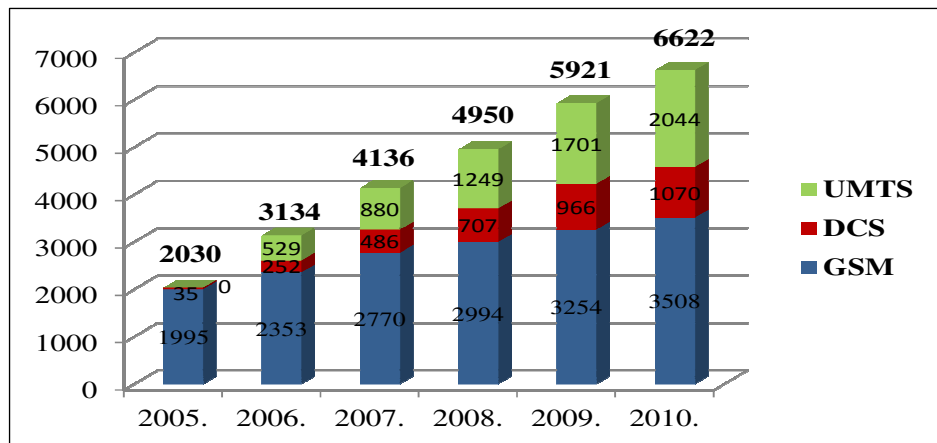


Figure 1.34. The number of notified base stations

Upon request of the company VIPnet d.o.o., in July 2010, HAKOM aligned the old license for use of the radio frequency spectrum for UMTS with the currently valid regulations by issuing a technologically neutral licence. This means that any of the technologies mentioned in the relevant Radio Frequency Allocation Plan may be used.

In late 2010, an implementation agreement on international coordination and use of UMTS technology in GSM frequency bands was signed with Austria, Hungary, Slovenia and Serbia. Since the use of UMTS technology is permitted in the Republic of Croatia in frequency bands intended for GSM, and operators have been using this segment for UMTS as well, this agreement permits such use in border areas as well.

The total of 5 licenses for testing of the LTE technology in different frequency bands were granted in 2011 to the existing operators and equipment producers.

As part of preparations for the possibility to organise a public auction of the radio frequency spectrum, HAKOM participated in the workshop about public auctions organised by the Austrian regulator RTR (*Die Rundfunk and Telekom Regulierungs*). Furthermore, in relation to the same issue, HAKOM participated in CEPT workshop on the implemented public auction of the radio frequency spectrum (800 MHz, 900 MHz, 1800 MHz, 2 GHz, 2.5 GHz) in Germany.

Private mobile communications networks

As part of regular activities related to private mobile networks in 2010, HAKOM planned the use of the radiofrequency spectrum for that purpose.

The number of granted licenses for private mobile communications networks, which use new digital technologies compared to the analogue technology increased.

International coordination took place pursuant to the HCM agreement and requests of the neighbouring signatory countries were resolved.

Microwave and satellite networks

As part of regular activities related to microwave networks, in 2010 HAKOM planned the use of the radiofrequency spectrum and granted licences. International coordination was carried out in compliance with the HCM Agreement.

The allocation plan for frequency bands used for microwave connections was adopted after public consultation on HAKOM's website.

In relation to satellite networks, HAKOM analysed and replied to coordinating requests of other countries, in accordance with ITU procedures.

In cooperation with the MSTI, explanation of provisions of the ECA concerning the provision of services of satellite communications in the Republic of Croatia was prepared for the purpose of more detailed clarification of the obligations of operators and users.

Radio networks

After the planning of networks of digital radio in VHF III frequency band (Very High Frequency III) was initiated in late 2009, during 2010 HAKOM focused the majority of its activities on the preparation of three coverage plan by digital radio in the territory of the Republic of Croatia and international coordination of DAB radio stations. For that purpose, more than 130 radio stations have been prepared and submitted for international coordination.

According to the existing plans, several types of digital radio standard from the EURECA 147 family may be used in the above-mentioned frequency band: DAB (Digital Audio Broadcasting), DAB+ (advanced Digital Audio Broadcasting) and DMB (Digital Multimedia Broadcasting).

In order to consider the possibilities of introducing digital radio and adopt conclusions and basic guidelines for the adoption of a strategic decision on the introduction of digital radio and selection of the "Croatian standard", during 2009 HAKOM initiated a Forum on digital radio which gathers experts of different profiles from different institutions. During 2010, intensive activities were continued as part of the Forum by means of activities of the working group for technical issues and within the framework of the plenary meeting of the Forum. As part of activities of the working group, HAKOM initiated the drafting of documents containing available standards, network planning and overview of use of digital radio in the territory of Europe.

In spite of significant saturation of VHF II frequency part of the spectrum (FM radio), HAKOM has continued with intensive planning and optimisation of networks of radio stations in order to ensure better coverage of the existing broadcasters and provide frequencies

for new concessions. More than 60 requests of radio broadcasters related to increasing coverage or possibility to amend technical parameters were processed.

Furthermore, activities related to broadcasting of medium-wave and short-wave radio signals continued in 2010, as well as experimental broadcasting of digital radio in DAB and DRM (Digital Radio Mondiale) standards.

As a main precondition for the granting of concessions for media activities, HAKOM regularly delivered technical parameters, that is, technical basis, for the invitation of the tender for the carrying out of radio activities, and answers to questions on the existence of technical parameters for the granting of concessions in individual areas. It also carried out technical inspections of the fulfilment of minimum conditions for the carrying out of media activities as a precondition for the signing of concession agreements. During all these activities, HAKOM closely cooperated with the Agency for Electronic Media (hereinafter: AEM).

On the basis of results of re-planning of the existing and planning of new FM networks and the international coordination of frequencies HAKOM updated the database of the radio frequency spectrum for radio, which is publicly available on HAKOM's website.

Within the framework of international coordination, FM radio stations published via ITU BRIFIC were analysed on a regular basis, and the registration of shortwave radio stations for the season A09, B09 and A10 was carried out.

Intense international coordination of radio stations with the neighbouring countries, Austria, Bosnia and Herzegovina, Montenegro, Hungary, Slovenia, Serbia and Italy, was continued, and, as part of international cooperation, the total of 500 coordination requests for FM/T-DAB radio stations were sent and/or analysed.

Television networks

In 2010 HAKOM continued working intensively on the planning and creating of conditions for the launching of digital television networks in accordance with the Analogue to Digital Television Broadcasting Switchover Strategy in the Republic of Croatia.

Activities related to analogue television were continued at the level of re-planning of the existing TV networks, that is, replacing of the existing channels of analogue TV transmitters as well as the switching off of transmitters and converters of analogue television in order to free the radio frequency spectrum for further introduction of digital television, in the first place MUX D.

In 2010, HAKOM issued two licenses for use of the radio frequency spectrum for the services of management of electronic communications networks of digital television: multiplex MUX D in the territory of the Republic of Croatia, which ensured the switch-over of the existing regional and local television broadcasters to digital broadcasting and the introduction of new contents, and for the network in the digital region d82, that is, the wider territory of the city of Split.

The experimental operation of the DVB-T HDTV (high definition television) multiplex was continued until the end of the year, which included the broadcasting of high quality television in Zagreb, Split, Rijeka and Osijek.

The switching off of analogue television in the Republic of Croatia began by the switching off of national broadcasters and it was carried out gradually by 5 October 2010 through nine digital regions, that is, by 31 December 2010 for broadcasters below national level. Licences granted by the end of 2010 ensured population coverage amounting to more than 98 percent for MUX A, 96 percent for MUX B and 85 percent for MUX D in the territory of the Republic of Croatia.

In relation to the freeing of the radio frequency spectrum in the 790-862 MHz band, the so-called digital dividend, which was envisaged for the introduction of mobile communications, that is, the termination of use of the above-mentioned frequency band for digital television, HAKOM carried out the re-planning of DVB-T networks in the 470-790 MHz frequency band in order to try to substitute for planned coverage that is being lost in the 790-862 MHz band (one to two coverages depending on the geographical area).

This also included the beginning of international coordination of Croatian DVB-T stations with neighbouring countries and the total of 220 coordination requests were processed through intensive cooperation with administrations of Austria, Bosnia and Herzegovina, Hungary, Slovenia and Montenegro.

The database of the radio frequency spectrum for television, which is publicly available on HAKOM's website, was renewed on the basis of results of the re-planning of the existing and planning of new TV networks and international coordination of frequencies.

HAKOM regularly determined technical parameters for the renewal of the existing television concessions, that is, the technical basis about available capacities in multiplexes of digital television networks in cooperation with AEM. While processing requests for the granting of licences or putting into operation of DVB-T stations, HAKOM carried out the control of a large number of projects and parameters TV/DVB- T stations in accordance with the defined parameters, thus having processed about 280 requests.

Because of the process of switching off of analogue television during 2010, HAKOM has intensively worked on resolution of various issues related to digitalisation of television. For that purpose, numerous press releases have been put on HAKOM's website, and there were many appearances on radio and television.

Monitoring and supervision of the spectrum

For the purposes of supervision of the radio frequency spectrum (hereinafter: RF) and in order to perform other expert and technical tasks within the framework of efficient RF spectrum management; HAKOM has established a system of control and measurement centres (hereinafter: CMC), and control and measurement stations (hereinafter: CMS).

The control and measurement stations have been established in Zagreb, Osijek, Split and Rijeka, which is an optimal number considering Croatia's geographical characteristic. In addition to CMC, there are six CMS which are remotely controlled from control and

measurement centres. HAKOM also owns five measurement vehicles equipped for measurements in the RF spectrum.

The control and measurement system was modernised and completed in 2010. The facility for the CMC in Rijeka was built, two old vehicles were replaced by new ones, and measurement equipment and software were upgraded through a project financed from the IPA 2007 pre-accession assistance programme. The new equipment and software, amounting to EUR 3,415,510 were financed by the European Union, which provided 75 percent of funds, and HAKOM, which provided 25 percent.

In relation to measurements, 2010 was mostly marked by the realisation of the "Analogue to Digital Television Broadcasting Switchover Strategy", which was adopted by the Government of the Republic of Croatia. For that purpose, the measurement vehicles carried out over 3500 measurements of the coverage of the Republic of Croatia by digital signal, and over 390 technical checks of DVB-T radio stations that were put into operation before the switching off of analogue television transmitters. In addition to these measurements, HAKOM also carried out systematic measurements aimed at protecting the RF spectrum as a naturally limited resource of interest for the Republic of Croatia. Everyday measurements were carried out from all four monitoring and measuring centres and six remote control and measurement stations, while the measurement vehicles carried out periodic measurements in areas where the immobile part of the measurement system does not provide satisfactory control. In addition to measurements aimed at protection or monitoring the spectrum, measurements for frequency planning and international coordination were also carried out, where necessary.

The planned measurement campaigns, including the measuring of the signal for radio and television on the coast and coastal areas with a particular emphasis on protection against interference were carried out successfully, as well as the taking into account the work of radio stations in microwave link in accordance with the prescribed licences and the taking into account of operation of radio stations in broadcasting. The results of measurements of the signal for radio and television on the coast and in coastal areas indicate further increase in the number of uncoordinated broadcasting signals coming from the Italian Republic. Other countries do not follow suit.

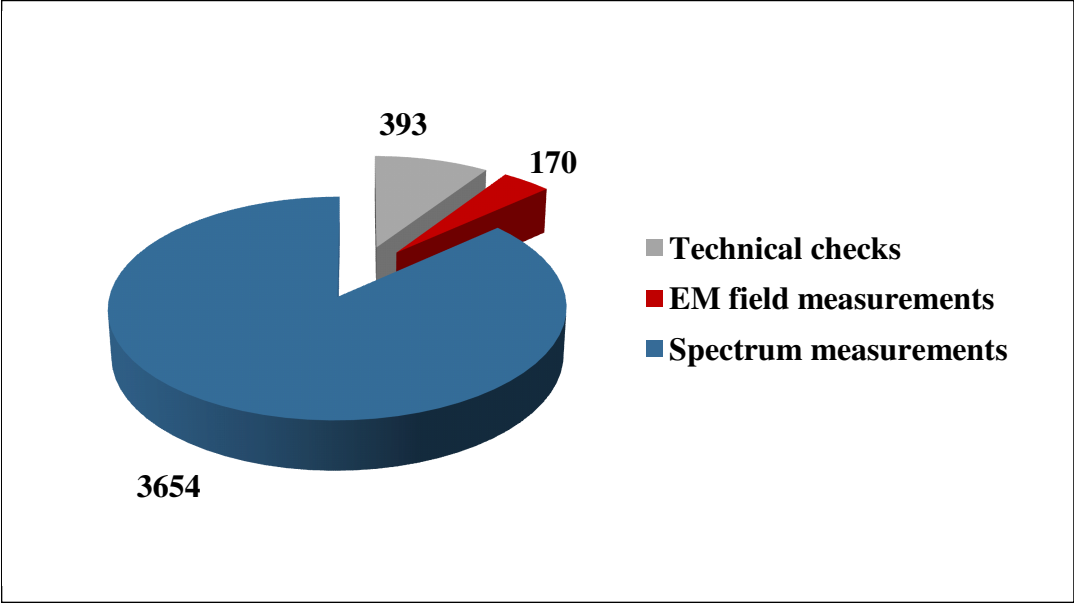


Figure 1.35. RF spectrum control

Regulatory measures included expert supervision in all cases when laws and secondary legislation prescribing use of the radio frequency spectrum were not complied with. The total of 30 procedures were initiated with a view to prohibiting the work of illegal radio stations and it was ordered that they must comply with regulations.

Measurements of electromagnetic radiation

The RF spectrum monitoring also included the measurement of the size of electromagnetic fields for the purpose of efficient protection of human health from the influence of the electromagnetic field, with a special emphasis on the protection of children. A measurement campaign was carried out in preschools and elementary schools in the Republic of Croatia, and HAKOM is regularly checking the results of measurements submitted by legal persons authorised to carry out the measurement of electromagnetic radiation.

For the purpose of protecting preschool and school children from the influence of electromagnetic fields, HAKOM carried out the regular annual control by measurements in preschools and elementary schools which are close to sources of electromagnetic waves (base stations of mobile communications networks, broadcasting transmitters and similar sources of electromagnetic radiation in the RF spectrum). Measurements have shown that levels of electromagnetic fields are significantly below the prescribed levels at all locations where measurements were carried out. Although measuring took place only in preschools and elementary schools which are close to radio stations, the total of 123,¹³ values were significantly below permitted values. There were no registered cases of exceeded values, which means that preschools and elementary schools in the Republic of Croatia are safe from electromagnetic radiation resulting from operation of electronic communications devices.

Protection from interference

Special attention was paid to protection from interference in radio communications, with a special emphasis on state administration bodies in charge of search and rescue, emergency services, maritime and air traffic control radio communications (whose purpose is the safety of human lives) and operators of electronic communications.

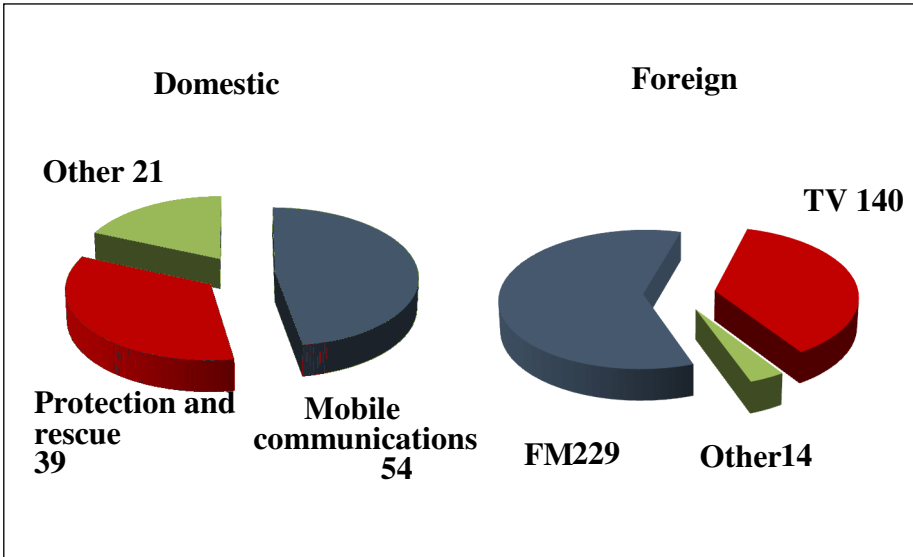


Figure 1.36 Interferences in the radio frequency spectrum

¹³ The list of locations and the measurement reports are available at www.hakom.hr.

A increasing trend in number of reported and eliminated interferences in the UMTS frequency band in mobile communications networks may be noticed, which is followed by the increase in the number of base UMTS stations of all three operators, that is, by the expansion of their networks. At the same time, the number of interferences in communications of maritime or air radio communications fell compared to 2009.

The measurement of radio and television signal on the coast and in the coastal areas indicated an increasing trend in the number of interferences from the Italian Republic. Measurements were mostly carried out during warm summer months when the distribution of electromagnetic waves, that is, disturbances, is more noticeable. Furthermore, since the Republic of Croatia had already switched to digital broadcasting, reports of interferences for television did not include frequencies used in the analogue period (which was, for example, the case in 2009 or 2008). Although the uncoordinated signals from Italy were present in the summer, the strength of these signals did not prevent the reception of Croatian DVB-T multiplexes. Although there were many reports of interference made to the competent Italian administration, the Italian side did not take any steps to resolve this problem. In case of interferences with other neighbouring countries, cooperation was adequate and successful.

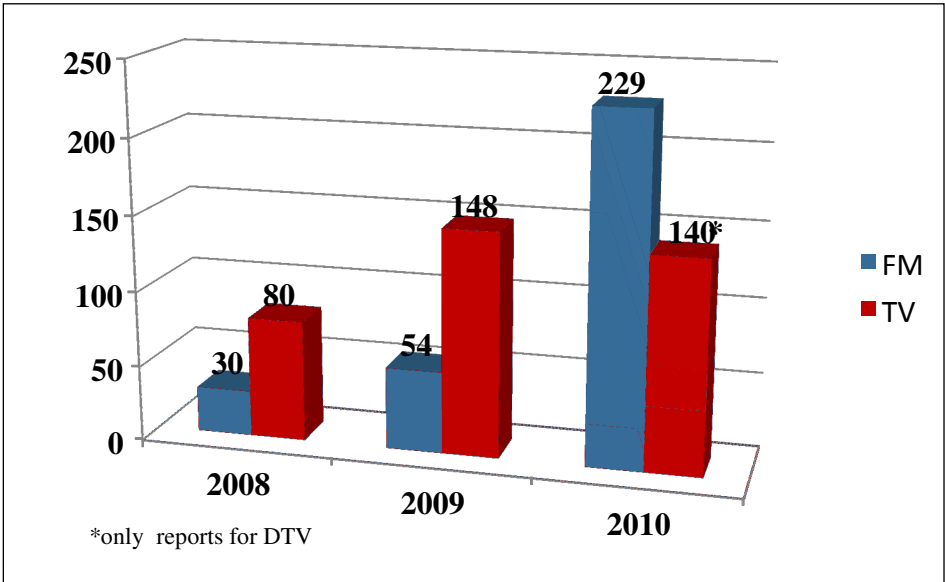


Figure 1.37 Interference reports to Italian state administration by years

Radio frequency spectrum stealing by the Italian Republic

The switch-over to complete digital broadcasting in the frequency band for television in the three Northern Adriatic regions of the Italian Republic, which took place in December 2010, brought into operation the interfering transmitters which seriously interfere with the reception of Croatian television programmes in all three multiplexes (multiplexes A, B and D.) In spite of many official interference reports sent to the Italian competent body, notifications to the ITU and contacts made through the Ministry of Foreign Affairs and European Integration, the Italian side not only did not remove the interference but did not even reply to any of the 17 letters sent since the most recent occurrence of interferences until the end of the year.

By this kind of behaviour, which shows the lack of a minimum of cooperation expected between bodies managing the radio frequency spectrum, Italy seriously diminishes and

endangers frequency rights of the Republic of Croatia which were provided for at the Regional Radiocommunication Conference in Geneva in 2006. The agreement resulting from the mentioned conference, which includes the frequency plan for television frequency bands (VHF III and UHF IV and V), was signed by 101 countries, including the Republic of Croatia and the Italian Republic.

In addition to the damage already incurred to the Republic of Croatia in the territory of Istria, there is serious concern that the continuation of Italian digitalisation towards the South could endanger the entire coastal territory and expand the problem with the reception of the television signal to Kvarner and Dalmatia. HAKOM will continue to do everything in its power to solve the problem, but this interference is no longer just a problem between two bodies managing the radio frequency spectrum but they also represent a serious problem in relations between the two countries.

1.9.2. Addressing and numbering space

HAKOM's task is to manage the addressing and numbering space in the RoC in order to ensure the efficient use of addresses and numbers. HAKOM is therefore carrying out the following activities:

- assigns addresses and numbers to operators on the basis of the Addressing Plan and the Numbering Plan,
- controls the use of addresses and numbers,
- supervises number portability and carrier pre-selection,
- monitors the operation of the Central Administrative Database of Ported Numbers (CADPN) to ensure its proper functioning.

Management of the addressing and numbering space

Effective, reasonable and proportionate management of the addressing and numbering space in the Republic of Croatia is one of HAKOM's most important tasks. Only transparent, objective, proportionate and unbiased allocation of addresses and numbers to operators fosters fair competition on the market of electronic communications.

According to the Numbering Plan of the Republic of Croatia, short codes (numbers) 192, 193, 194 and 155 are reserved for future needs of emergency services (police, fire department, emergency medical assistance and the National Headquarters for Search and Rescue at Sea. Therefore, in 2010, the existing numbers for emergency services were changed, more precisely, "the police" switched over from 92 to the suggested new number 192, and the "Road Assistance Service" changed its number from 987 to 1987 for the purpose of alignment with the provision from the Plan.

Number portability

In order to remove barriers to entry of new participants in the market, it is very important to offer the number portability service to all users of services. In order for the service to reach its final goal, simple and fast number porting for the end user, HAKOM focused the majority of its activities in 2010 on the improvement of the number portability process in the manner that

it paid special attention to the administrative procedure of number portability. Therefore, in 2010, HAKOM upgraded the CADPN system.

During 2010, the total of 157 decisions on primary assignment of addresses and numbers were adopted, and 209 invoices for the fee for addresses and numbers were issued. HAKOM had to intervene 5078 times into the number portability procedure in order to speed up the process (of number porting or of giving up the request for number porting) and satisfy the requests of users of the above-mentioned services to the greatest possible extent.

1.9.3. R&TT equipment

In 2010, HAKOM also carried out the activities of issuing approvals for import and/or placing on the market of R&TT equipment and evaluation of compliance of R&TT equipment.

On HAKOM's website there is a regularly updated database of approved R&TT equipment, which significantly facilitates import and monitoring.

During 2010, HAKOM organised two workshops for inspectors and supervisors on the implementation of the Ordinance on R&TT equipment.

HAKOM participated in MSTI's working groups for the drafting of proposals for the Ordinance on R&TT equipment and the Ordinance on EMC; which will be adopted in 2011.

2. THE POSTAL SERVICES MARKET

2.1. Market Development

Despite the unfavourable economic situation in the Republic of Croatia in 2010, the situation on the market of postal services did not change significantly, and, as a result of market liberalisation, the number of providers of postal services increased.

Since the new Postal Services Act (hereinafter: PSA) was adopted in 2009, and classified postal services in a different manner, data on the market of postal services for 2010 were collected on the basis of a new scope and classification of services, in accordance with the mentioned PSA. Therefore, the received and processed data on the postal services market in 2010 are not comparable to data from previous years, which is why data for 2010 will not be presented in comparison with previous years. In addition to indicators on the market as a whole, individual market indicators were divided and presented separately for the public operator Hrvatska pošta d.d. (hereinafter: HP) and jointly for all other providers (group other providers). Data were based on quarterly reports of postal service providers and may not be regarded as final official annual data. This particularly refers to financial results and indicators.

According to data delivered by postal services providers in 2010, the total number of provided postal services amounted to 364,493,884. HP's share on the market was almost 76 percent with 277,174,136 of provided services, and the group of other providers had a share of around 24 percent with 87,319,748 of provided services (Figure 2.1.).

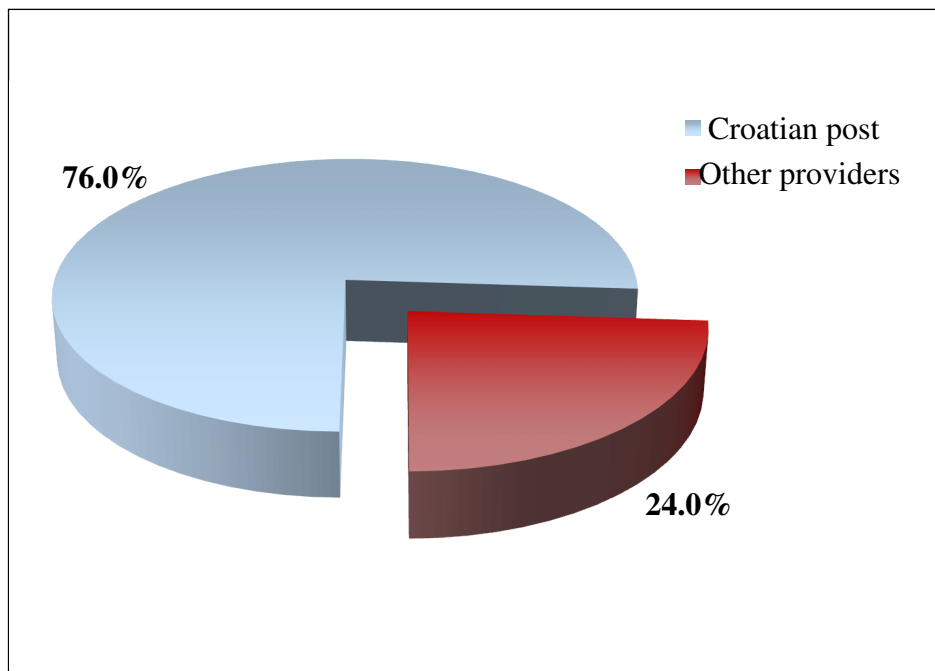


Figure 2.1 Market share of providers in the total number of provided postal services in 2010

Out of the total number of provided services, approximately 343.5 million of services were provided in domestic traffic, about 12.4 million in international incoming traffic, and about 8.7 million of services in international outgoing traffic (Figure 2.2.)

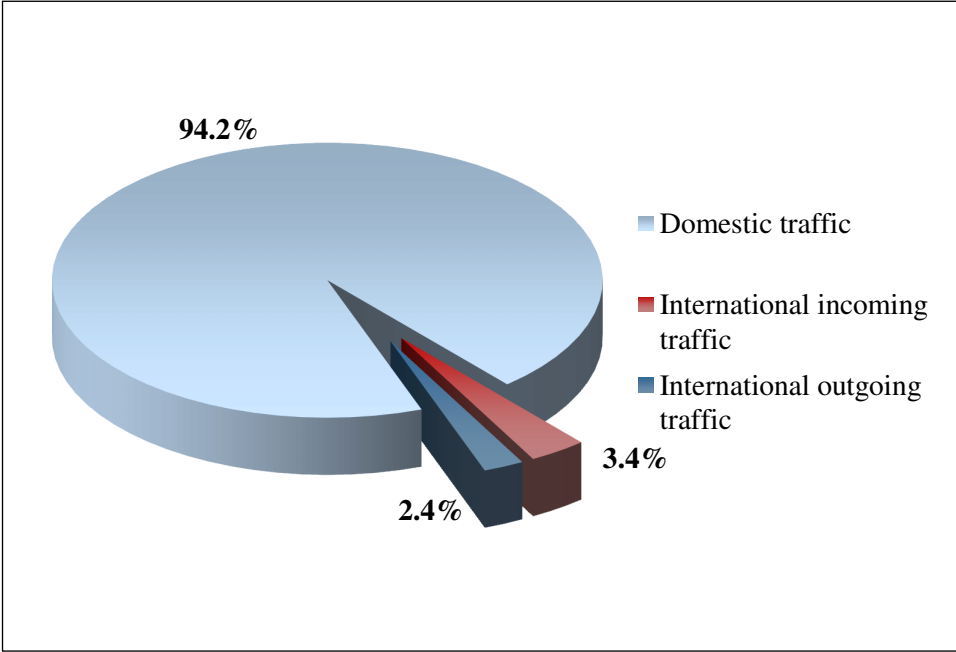


Figure 2.2 Shares of provided services per types of traffic in 2010

The analysis of the number of postal services in 2010 per quarters (Figure 2.3.) shows a continuous growth trend in the number of services with the most significant growth, compared to the previous quarter, of approximately 7 percent, recorded in the fourth quarter. Therefore, it is realistic to expect that this trend will continue in the future as well as the growth of the postal services market in general in 2011. The group of other providers achieved growth in the number of provided services in every quarter of 2010, while HP recorded a fall in the second and third quarter.

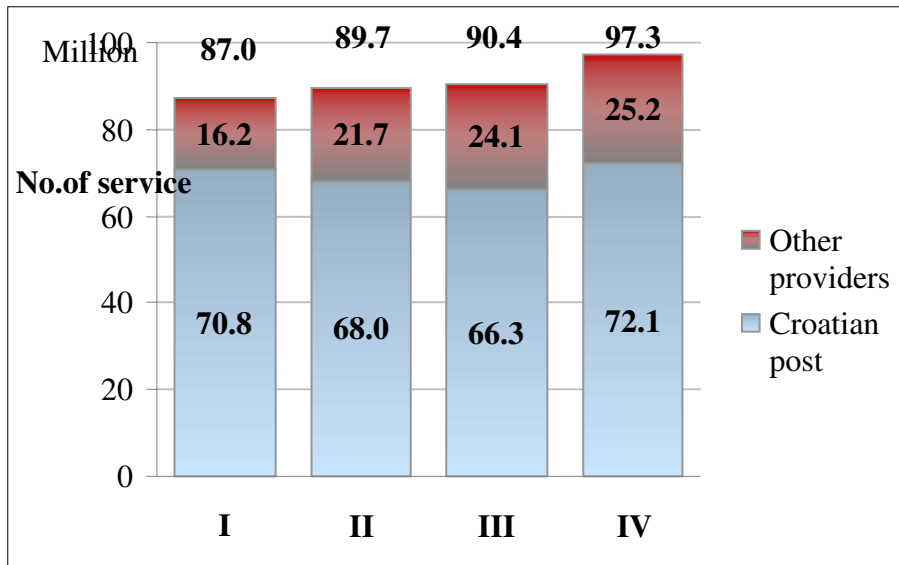


Figure 2.3 Number of provided postal services in 2010 per quarters

According to data from unofficial, non-audited financial statements, that is, estimated data for providers who, in addition to postal, also provide other services, postal service providers reported the total of HRK 1,538,786,206 in revenue earned only from the provision of postal services. Out of the total revenue of all active providers, HP earned the total of HRK 1,117,156,535 revenue or nearly 73 percent, and the group of other providers earned HRK 421,629,671, that is, nearly 27 percent (Figure 2.4).

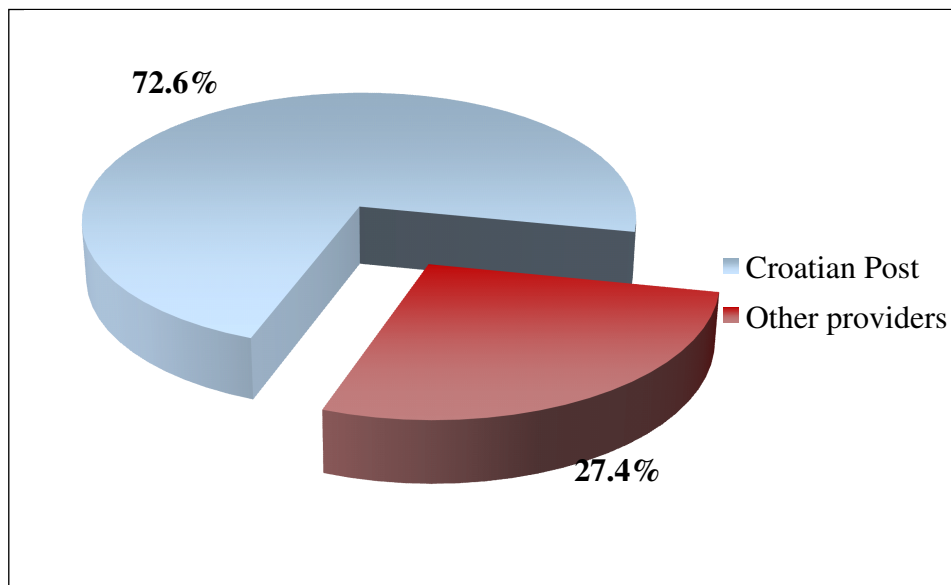


Figure 2.4. Shares of revenue of individual providers in total revenue earned in 2010

In early 2010, there were 19 registered providers of postal services in the RoC, while at the end of 2010, there were the total of 21 providers of postal services active on the market of postal services who were providing postal services on the basis of a licence and/or notification (Table 2.1.). According to the PSA, the public operator HP is the provider of all universal postal services and is entitled to and obliged to provide universal services in the entire

territory of the Republic of Croatia. During 2010, HAKOM received five new applications for the provision of other postal services and three cancellations.

Out of the providers mentioned in Table 2.1., only HP is the provider of all universal postal services in the entire territory of the Republic of Croatia. The remaining two providers of universal postal services were issued a licence for the provision of universal postal services by HAKOM in 2010, but not for the entire territory of the RoC, that is, not for all universal postal services. The remaining eighteen providers, as well as HP and providers who have been granted the licence for the provision of universal postal services, have been notified for the provision of the remaining postal services. In relation to the type of service they provide, 17 providers have been notified for all remaining postal services, three providers only for value added services and one provider for other postal services which are not universal. In relation to the territory in which they provide their services, 12 providers have been notified for the provision of services in the territory of the RoC and in international traffic, and nine providers for the provision of services only in the territory of the RoC.

According to data delivered by providers, there were the total of 10,151 employees engaged in the provision of postal services, out of which 8,294 are employed by HP, that is, about 82 percent, while other providers employ 1,857 people or approximately 18 percent.

Table 2.1 List of postal service providers

| POSTAL SERVICE PROVIDERS | | |
|---|-------------------------------|-------------------|
| PROVIDERS OF UNIVERSAL POSTAL SERVICES | | |
| HP - Hrvatska pošta d.d. | Jurišićeva 13 | ZAGREB |
| POST d.o.o. | Zastavnice 38 | HRVATSKI LESKOVAC |
| LIDER EXPRESS d.o.o. | Ulica Sv. Roka 3, Donje Sitno | ŽRNOVNICA |
| PROVIDERS OF OTHER POSTAL SERVICES | | |
| HP - Hrvatska pošta d.d. | Jurišićeva 13 | ZAGREB |
| DHL – INTERNATIONAL d.o.o. | Turinina 3 | ZAGREB |
| DPD CROATIA d.o.o. | Franje Lučića 23 | ZAGREB |
| LAGERMAX AED CROATIA d.o.o. | Franje Lučića 23 | ZAGREB |
| INTEREUROPA, LOGISTIČKE USLUGE d.o.o. | Josipa Lončara 3 | ZAGREB |
| IN TIME d.o.o. | Velika cesta 78 | ZAGREB |
| RHEA d.o.o. | Buzinski prilaz 36/a | ZAGREB |
| LIDER EXPRESS d.o.o. | Ulica Sv. Roka 3, Donje Sitno | ŽRNOVNICA |
| ZUM DISTRIBUCIJA d.o.o. | Tomislavova 11 | ZAGREB |
| BICIKL EXPRESS d.o.o. | Radićev odvojak 37 | VELIKA GORICA |
| OVERSEAS TRADE Co. Ltd d.o.o. | Kovinska 20 | ZAGREB |

| | | |
|---|--------------------------|-------------------|
| TISAK TRGOVAČKO d.d. | Slavonska avenija 2 | ZAGREB |
| NOVA DISTRIBUCIJA d.o.o. | Kneza Branimira 11 | DUBROVNIK |
| BRZO SREBRO d.o.o. | Vrapčanska 195 | ZAGREB |
| D.F.F.Ž. d.o.o. | Potok 41 | ZAGREB |
| A1 DIREKT d.o.o. | Zrinskih i Frankopana 18 | OZALJ |
| POST d.o.o. | Zastavnice 38 | HRVATSKI LESKOVAC |
| NADA, obrt za usluge prijevoza, Goran Andrašec | Vukomerec 26 | ZAGREB |
| CITY EX d.o.o. | Donje Svetice 40 | ZAGREB |
| DIREKT KONTAKT d.o.o. | Bencekovićeveva 31/b | ZAGREB |
| A2B EXPRESS d.o.o. | Bani 108 | ZAGREB |

2.2. Market overview

2.2.1. Universal postal services

Universal postal services, according to the PSA, represent a set of postal services of appropriate quality and at affordable prices, which are available to all users of postal services in the area where the licence has been issued, whereby the public operator must ensure availability of these services under equal conditions, in terms of quality and affordability of prices, to all users in the entire territory of the Republic of Croatia. Universal postal services in domestic and international traffic include the following postal services: items of correspondence, registered items and insured items (up to 2 kilograms), packages up to 10 kilograms in domestic traffic and up to 20 kilograms in international incoming traffic, and Braille letters for the blind up to 7 kilograms, free of charge.

HP is the provider of all universal postal services and has the right and obligation to provide universal services in the entire territory of the Republic of Croatia, as opposed to other two providers who have been granted a licence to provide universal postal services which does not cover the entire territory of the Republic of Croatia, that is, it does not include all universal postal services. Only one of the providers, except HP, started providing universal postal services and its indicators on the total market are almost negligible, which is why data and indicators for universal postal services identical to data and indicators for HP have been shown.

According to the delivered data, providers of postal services provided the total of 232,433,901 universal postal services in 2010 or about 64 percent of all postal services. Out of the total number of universal postal services, 205.8 million or 89 percent were reserved universal postal services. The majority of universal postal services, approximately 92 percent, were provided in domestic traffic, 3.5 percent in international outgoing traffic and 4.5 percent in international incoming traffic. It is obvious from the number of universal postal services in 2010 per quarters (Figure 2.5.), that the majority of services were provided in the first quarter.

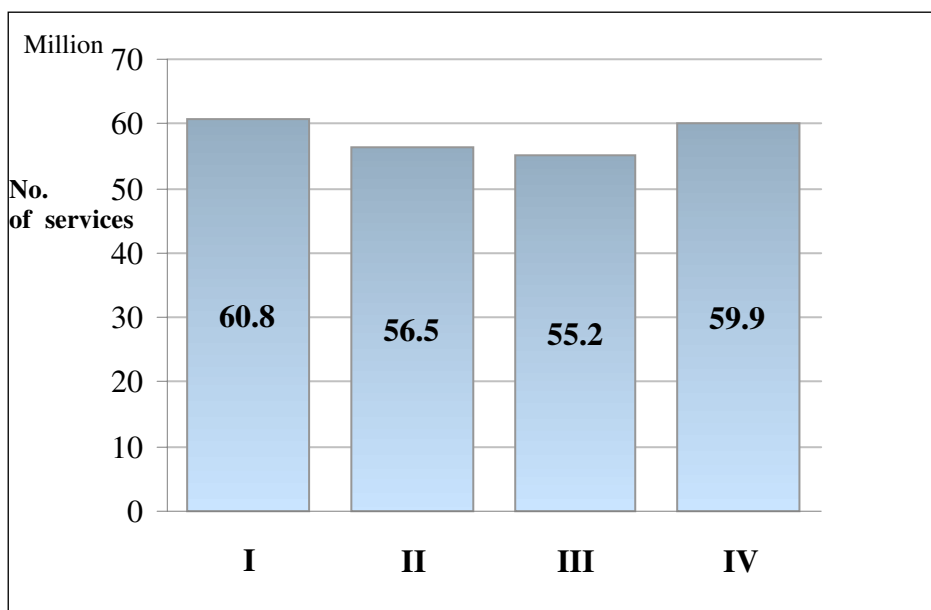


Figure 2.5 Number of provided postal services in 2010 per quarters

The number of services in the second and third quarter was on the decline, but growth was again recorded in the fourth quarter when the number of services came close to the number provided in the first quarter. Therefore, developments in the number of universal postal services in 2011 may not be predicted with certainty.

It is obvious from the structure of provided universal postal services (Figure 2.6.) that items of correspondence, which amounted to 197.6 million made up almost 85 percent of all universal postal services, registered items with 32.5 million made almost 14 percent, and packages with 1.4 million of provided services made up less than 1 percent, while the number of insured items and Braille letters for the blind was negligible in the total number of postal services.

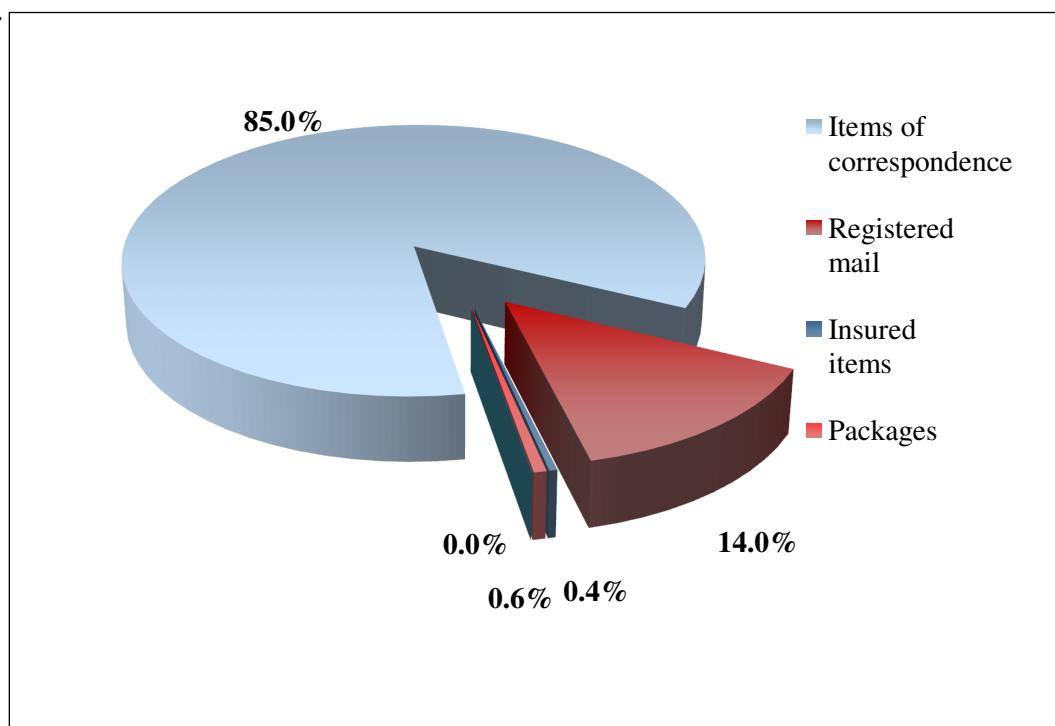


Figure 2.6. Shares of provided universal postal services per types of traffic in 2010

Providers of postal services have, in 2010, shown revenue from the provision of postal services amounting to HRK 853.3 million.

2.2.2 Other postal services

Other postal services include value added postal services and other postal services which are not universal postal services. There were the total of 21 providers of postal services registered for the provision of other postal services.

According to the delivered data, providers of postal services provided the total of 132,059,983 of universal postal services in 2010 or about 36 percent of all postal services. HP's share on the market was almost 34 percent with 44,771,435 of provided services, and the group of other providers had a share of around 66 percent (Figure 2.7.) with 87,288,548 of provided services.

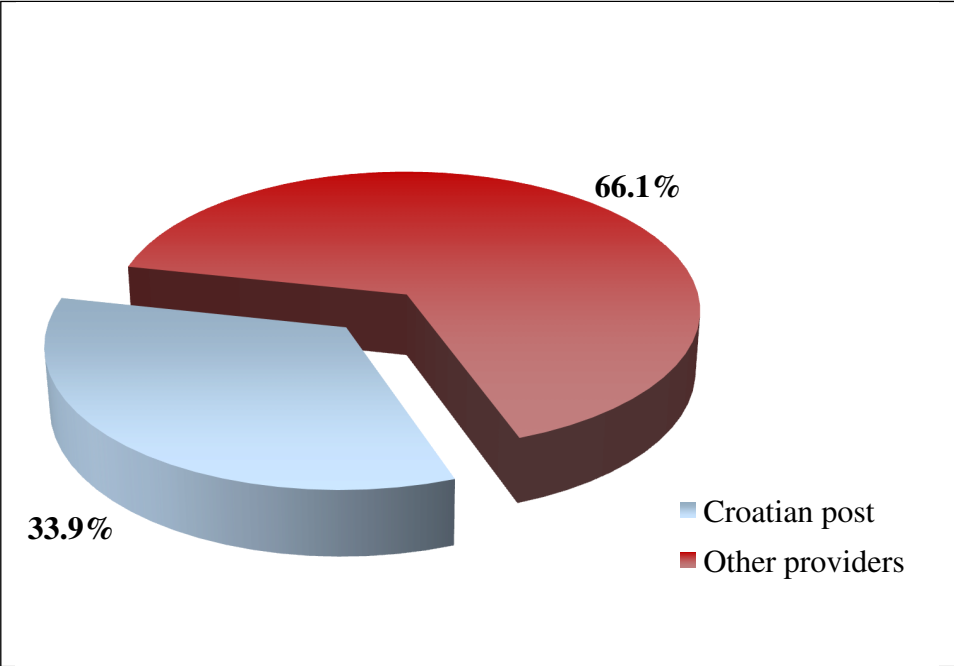


Figure 2.7. Market share of providers in the total number of provided postal services in 2010

The majority of services, approximately 98 percent, were provided in domestic traffic, 0.5 percent in international outgoing traffic and 1.5 percent in international incoming traffic.

The numbers of postal services in 2010 per quarters (Figure 2.8.) show a tendency of continuous growth in the number of services with the most significant growth, compared to the previous quarter, of approximately 26 percent, recorded in the second quarter. Therefore, it is realistic to expect that this trend will continue in the future as well as the growth of the postal services market in general in 2011.

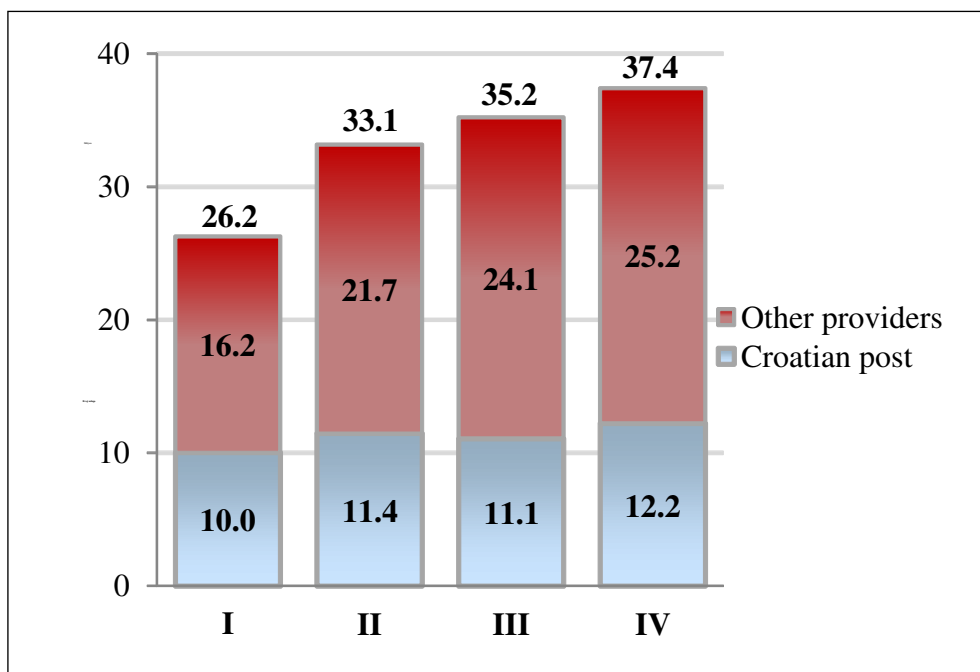


Figure 2.8. Number of provided postal services in 2010 per quarters.

It is obvious from the structure of the total provided postal services (Figure 2.9.) that value added postal services with 69.6 million of services made up approximately 53 percent of all postal services, and other postal services, which are not universal, made up almost 47 percent with 62.5 million.

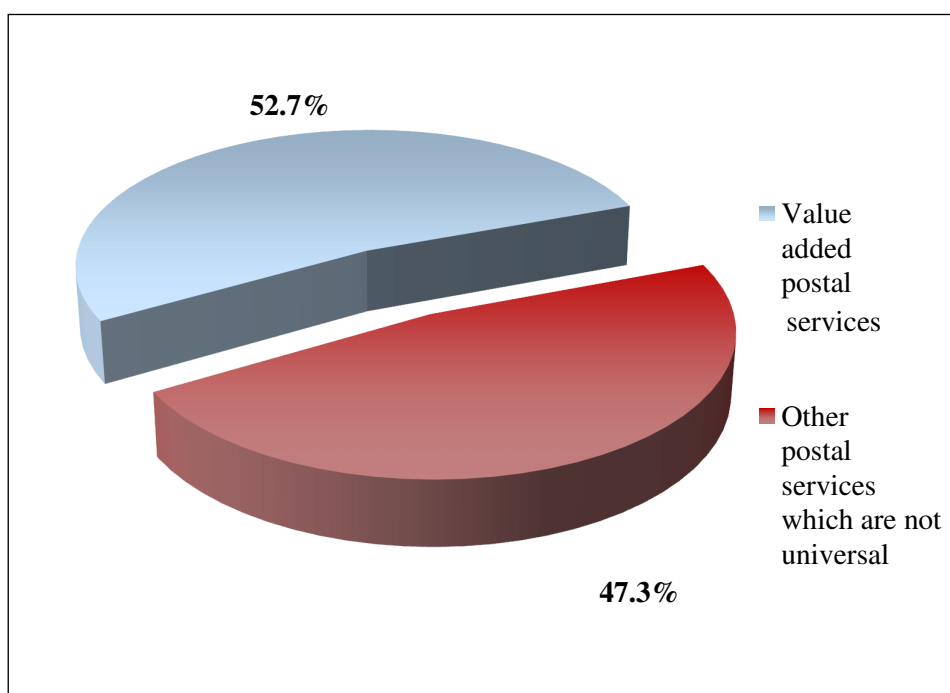


Figure 2.9. Shares of provided other postal services per types of traffic in 2010

The biggest share among other postal services referred to services of sending printed matter with a share of 53 percent, and the direct mail services with a 45 percent share.

In 2010, providers of postal services have reported revenue from the provision of other postal services amounting to HRK 685.5 million. Out of the total revenue of all active providers, HP

earned the total of HRK 264 million in revenue or nearly 39 percent, and the group of other providers earned HRK 422 million or nearly 61 percent (Figure 2.10).

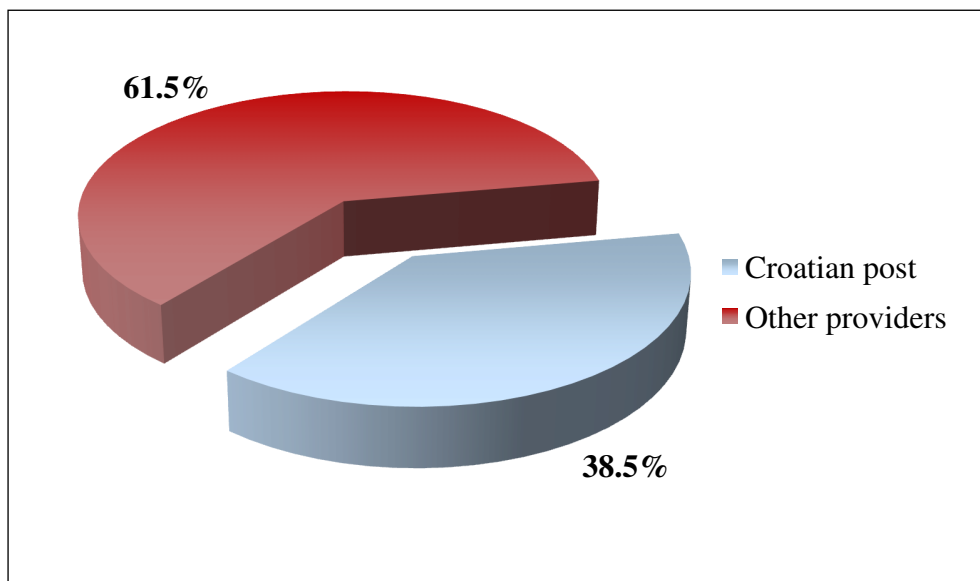


Figure 2.10. Shares of providers among total revenue from the provision of other postal services in 2010

2.3. Regulatory measures

HAKOM carries out its regulation of the postal services market in the two basic ways:

1. Proactive – giving initiatives for further development of the postal services market;
2. Corrective – reaction to noticed situations and development trends on the postal services market.

The proactive component of HAKOM's activities includes collection, analysis, directing and publishing of data, information and documents on the situation on and development of the postal services market. In addition, HAKOM strengthened and confirmed its role of the market regulator through frequent contacts and cooperation with all providers of postal services on the market and by guiding postal services providers towards complete market liberalisation.

The corrective component of HAKOM's activities consists in taking adequate measures aimed at the development of the postal services market in accordance with the PA, or, the PSA, the Strategy for Development of the Postal Services Market in the RoC and the Action Plan for the Strategy.

By its internal organisation and creation of links between organisational units, HAKOM managed to use the existing potentials and thus create conditions for effective functioning on the postal services market. The connecting of organisational units resulted in more efficiency and diminished the need for additional employment in the postal services department. These are practical results of synergistic effects which were planned when the regulatory agency for

post was merged with the regulatory agency for telecommunications and when HAKOM was created.

The most important HAKOM's activities in the area of postal services in 2010 concerned the adoption of the Ordinance on the provision of postal services, the procedure for the determination of prices of reserved postal services, the procedures for amendments of general terms and conditions for the provision of universal postal services, granting of licenses for the provision of universal postal services, the carrying out of expert supervision over the application of the provisions of the PSA, the monitoring of the postal services market in the RoC, the collection and processing of statistical data on the market and the implementation and presentation of the project "Survey on the satisfaction with and use of postal and courier services in the RoC" Part II - business entities.

Drafting of subordinate legislation

In accordance with the provisions of the ECA, HAKOM, in 2010, drafted, adopted and published, following a public consultation, the Ordinance on the provision of universal postal services, which is the last piece of subordinate legislation under its competence. The provisions of the above-mentioned Ordinance on the provision of universal postal services regulate in more detail:

- standards and criteria that must be satisfied by HP's postal network,
- conditions, manner and procedure for the provision of postal services,
- conditions and procedure for delivery by means of shared letter boxes,
- exemptions from deadlines for the delivery of postal items,
- the list of Croatian standards for measuring the quality of provision of universal postal services,
- constituent parts of the annual report on the quality of provision of universal postal service,
- locations and conditions for access to HP's postal network,
- contents of the requests and contracts, the principles for determination of prices for access to the public operator's postal network and other issues concerning access to HP's postal network,
- and other issues related to the provision of universal postal services

Regulatory activities in the sector of universal postal services

In February 2010, HP delivered to HAKOM a proposal for the approval of prices of reserved universal postal services. HP mentions in its letters that the main reason for the submission of the proposal for the approval of prices of reserved universal postal services are the provisions of the Act on Amendments to the Value Added Tax Act, which entered into force on 1 January 2010, and according to which, universal postal services and related services of delivery of all accompanying goods, as deliveries of public interest, are exempted from the value added tax. At the same time, the Value Added Tax Act prescribes that a tax payer may not deduct pre-tax contained in invoices for received goods and provided services which are used for the provision of services which are exempt from value added tax. Furthermore, HP calculated in the above-mentioned proposal the percentage of 8.77 percent which represents a necessary price increase until the coverage point, that is, it covers the increase of the value added tax as accounts payable. On the basis of this percentage, +/- 1 percent, HP proposed all

prices for reserved universal postal services and other letters, registered items and insured items. One exception was made for the service of priority letter, which included a calculation, in HP's words, based on per minute charges for activities in the technological process and calculation of an average minute of work. This gave the amount of HRK 1.50 as a cost price in faster handling and sorting of items of correspondence which, together with the proposed price of HRK 3.10 for a letter up to 50g, gave the total proposed price for the priority letter service of 50g amounting to HRK 4.60. HAKOM's expert service, for the purpose of verification of delivered data and calculations and obligations provided for in the Postal Services Act, requested for the delivery of additional information which was delivered by HP, except for the calculation of prices of all reserved universal postal services. In the procedure for the approval of prices of reserved universal postal services, HP, on the basis of the HAKOM Council's decision, adopted a decision approving the prices of reserved postal services of the public operator HP, except for the price referred to in paragraph 1.3. *"Judicial documents, documents in administrative or tax procedure"* because these were supplemental postal services in the sense of special treatment upon their delivery and they had to be excluded from the Price List of Reserved Universal Postal Services in Internal Traffic.

While analysing HP's general conditions for the provision of universal postal services, HP established that individual provisions of general terms and conditions are contrary to the provisions of the PSA. HP's terms and conditions included under universal postal services the clearance, sorting, transport and delivery of judicial documents, documents in administrative and tax procedure and registered items with proof of delivery, which is contrary to the provisions of the PSA. Since the above-mentioned items represent registered items with a supplementary service, the Council of HAKOM adopted a decision on amendments to HP's terms and conditions.

After the adoption of the Ordinance on the provision of universal postal services, HAKOM, pursuant to Article 11 of the PSA, received two applications for licence for the provision of postal services but not for the entire territory of the Republic of Croatia, that is, for all universal postal services. Applications were submitted by the company Post d.o.o., Zastavnice 38a, Hrvatski Leskovac and company Lider Express d.o.o., Svetog Roka 3, Gornje Sitno, 21251 Žrnovnica, both of which are registered for other postal services. Since the above-mentioned companies complied with all conditions laid down in the PSA and necessary for the provision of universal postal services, the Council of HAKOM adopted decisions on the granting of the licence for the provision of postal services for a period of 5 years.

Regulatory accounting

The PSA imposes accounting obligation on all providers of postal services, and, in particular, on HP as the public operator. Furthermore, the Strategy for the Development of the Postal Services Market in the Republic of Croatia and its Action Plan include an activity and a measure of "Accounting Separation and Allocation of Costs of the Public Operator", with HP and HAKOM being the institutions competent for their implementation. From the regulatory point of view, "accounting separation" or "separation of accounting" are two different activities representing a subgroup among accounting activities of a postal services provider in order to obtain the appropriate basis for monitoring and/or execution of prescribed obligations, that is, for the adoption of decisions under their competence. "Accounting separation", that is, the keeping and allocating revenue and expenditure according to precisely defined categories, subcategories, groups and types of services and according to activities

undertaken for the purpose of providing such services, represents a long-lasting and exceptionally demanding business project. For that reason it is necessary to adopt an additional regulatory document to supplement a legal obligation by using experiences of other regulatory bodies, in particular from the postal sector, in the country or abroad.

For the above-mentioned reasons, HAKOM applied for funds from EU pre-accession fund IPA 2009 for the project "Support to HAKOM in the area of accounting separation of postal services". The above-mentioned project was approved by the EU Delegation in November 2010, and its execution is expected in 2011. One of the key results of this project is the "Manual for Accounting Separation", which will represent an additional regulatory act, and the main purpose of which is to support the implementation of the valid regulatory framework. The objective of this document is to define more precisely HAKOM and HP's obligations and lead to the publication of HAKOM's decision, following public consultation, that will contain all provisions that must be applied by HP to comply with regulatory obligations. The objective of this document, that is, of prescribing more detailed and transparent accounting procedures, is to assist HP in the fulfilment of its regulatory obligations, and to assist HAKOM in the appropriate monitoring and supervision of such compliance.

Quality of services

With a view to aligning with the EU *acquis*, and the PSA, HP was imposed the obligation to comply with certain criteria and ways of quality control of universal postal services. The criteria for cross-border postal traffic in EU Member States were taken over from Annex 2 of the EU Postal Directive (at least 85 percent of priority items of correspondence must be delivered within three days, and 97 percent within five days), while criteria for domestic traffic have been laid down in the PSA (at least 85 of postal services must be delivered in one day, that is 95 percent within two days, while 95 percent of non-priority postal items must be delivered within three days). The measuring of quality of transport of postal items must be carried out by the public operator continuously throughout the year by means of an independent body and in compliance with Croatian standards laid down in the Ordinance on the provision of universal postal services. The results must be published annually, at the latest by 1 April for the previous year. However, in the transitional period up to 2011, the PSA imposed on public operator the obligation to carry out only fifteen-day measurements of the quality of transfer of postal services by means of an independent body. Therefore, HAKOM delivered to HP already in June a "Report on the Quality of Universal Postal Services for 2010", which was prepared by an independent market research body in accordance with the adjusted methodology from the Croatian standards. The results of measurements show a trend towards improvement of quality of transfer of postal services in relation to 2009, including the quality of priority mail delivered within D+1 which increased by 24 percent, and represents in 2010 the total of 78 percent of all priority mail delivered within one day. However, it must be mentioned that this quality still has not reached the prescribed legal benchmark of 85 percent, as opposed to the measured 95.73 percent of priority mail delivered within D+2 (where the quality increased by 5.80 percent), that is, 95.23 percent of non-priority mail delivered within D+3 (where the quality increased by 5.69 percent). At the moment of writing of this report, the results of the measured quality of priority mail for 2010 in international traffic are still unfamiliar, and for that reason quality indicators for 2009 which did not reach the prescribed criteria are given. An independent company, International Postal Corporation (IPC) measured by its certified measurement system UNEX only 55

percent of priority mail delivered within D+3 (the prescribed criterion is 85 percent) and 89 percent within D+5 (the prescribed criterion is 97 percent). In relation to the above-mentioned results, it must be mentioned that HP is carrying out another two non-obligatory measurements. One in cooperation with the Universal Postal Union in international traffic, and the other one, diagnostic one, in order to remove problematic areas in its technological process in order to improve the quality of transport. HAKOM will continue to insist in its regulatory activities on the increase in quality of universal postal services and, where necessary, undertake other legally prescribed measures in order to achieve the measured quality results which are in compliance with criteria prescribed in the Act. And finally, it must be pointed out that, during 2010, HP prepared for continuous measurements of quality of universal postal services and, in a public tender, selected an independent body that will carry out the measurements in 2011. HAKOM's employees participated in two projects, under the auspices of TAIEX (Expert mission on the application of HRN standard 13850 and Implementation of Postal Directives) aimed at future training so that they could fulfil their regulatory task consisting of the monitoring of quality of postal services.

Post offices

In 2010 HP closed nine post offices out of which two were without the delivery area, and one with the delivery area. Thus, at the end of 2010, there were 1,141 post offices in the entire territory of the Republic of Croatia. When closing a post office with a delivery area, HP fully complied with the provisions of the Ordinance on the public operator's postal system which means that, after the closing of the post office, users of postal services were ensured the minimum level of quality of universal postal services in accordance with the prescribed criteria. Since the new manner of organisation of business operations did not place users into a less favourable position compared to the previous organisation, that is, the prescribed quality of the provision of postal services was not jeopardised, HAKOM agreed with the proposed closing of the post office.

The eight post offices that were closed were located on border crossings and did not form a part of a logical whole of any populated area but a special area with special conditions of access and stay and served mostly for monetary transactions, and, for the small part, for postal services. Therefore, pursuant to Article 16 of the Ordinance on the provision of universal postal services, the procedure for the invitation of public tender for the conclusion of a contract with a natural or legal person was not possible in this case because this was an area under a special entry and movement regime where businesses require special licences issued by the competent police administration. Furthermore, the procedure related to co-financing model for post offices was fulfilled because the Ministry of Finance, which formerly co-financed the mentioned post offices, gave up further financing because it did not have any interest in keeping them open.

The working hours of 399 postal offices changed in 2010, and in 153 post offices this change referred to extended working hours by one workday. The changes in the working hours of post offices did not lower the quality of services but increased it.

Expert supervision

In 2010, in accordance with the PSA, HAKOM carried out expert supervision over the implementation of the provisions of the PSA and regulations which were adopted pursuant to the PSA and which are under HAKOM's competence. Expert supervision was carried out over HP and the following providers of other postal services: OVERSEAS TRADE Co Ltd d.o.o. from Zagreb, BICIKL EXPRESS d.o.o. from Zagreb, A1 DIREKT d.o.o. from Ozalj, LIDER EXPRESS d.o.o. from Gornje Sitno, Obrt „NADA“ from Zagreb, TISAK d.d. from Zagreb, BRZO SREBRO d.o.o. from Zagreb and D.F.F.Ž. from Zagreb.

The expert supervision over HP established that HP did not delivery to HAKOM the price list for universal postal services on time and that it changed the prices of reserved postal services contrary to the PSA, and without HAKOM's approval. The postal inspector ordered to HP in a decision to eliminate all irregularities and continue to apply prices that were valid until the date of entry into force of the price list for universal postal services which was adopted contrary to the PSA. The postal inspector issued a misdemeanour order against the public operator and the responsible person representing the public operator because of the violation of the provisions of the PSA.

Expert supervision over the above-mentioned providers of other postal services revealed that postal services are provided in accordance with the PSA and the submitted notifications.

Monitoring of the situation and of the development of postal services market and public information

As in the years before, HAKOM continued in 2010 to collect statistical and other data from postal service providers. A part of data was collected as part of the statistical survey of the postal services market carried out by the EC and EUROSTAT in cooperation with CERP, with HAKOM being the competent authority for the project in the RoC. In addition to collecting data on the postal services market on the annual basis, HAKOM also began collecting data on a quarterly basis. The collected data were used for the purpose of monitoring the situation on the postal services market and for the development thereof, and for the purpose of comparison with the previous periods, and quarterly data on the postal services market were regularly published on HAKOM's website. Furthermore, HAKOM regularly published on its website a list of providers of postal services.

The second stage of the project "Survey on satisfaction and use of postal services in the Republic of Croatia" was completed in 2010. The target group of the project were business entities in the Republic of Croatia. The objective of this survey was the familiarisation with and assessment of the situation on the postal services market and the satisfaction with the scope and quality of provided postal services in the Republic of Croatia. The project was executed by employees of the administrative service. The results of the survey were presented in the publication "Survey on satisfaction and use of postal and courier services in the Republic of Croatia" Part II - business entities, which was issued by HAKOM, and results were also presented to the public.

Cooperation with stakeholders on the postal services market

In the postal services sector, HAKOM in 2010 actively participated in the work of and cooperated with the following stakeholders in the postal services market at the national and international level:

- HP,

- other postal service providers,
- Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia,
- Ministry of Foreign Affairs and European Integration of the Republic of Croatia,
- Central Office for Development Strategy and Coordination of EU Funds,
- Central Finance and Contracting Agency (CFCA),
- Croatian Standards Institute,
- European Regulators Group for Postal Services (ERGP),
- European Committee for Postal Regulation (CERP) and participation in the CERP working groups,
- Directorate-General for Internal Market and Services of the European Commission
- Universal Postal Union (UPU).

3. CONSUMER PROTECTION

HAKOM's regulatory activities serve to achieve certain regulatory principles and objectives related to users of services in the manner that it, by encouraging competition, ensures the best possible benefits for users of services in terms of selection, price and quality of service.

The promotion of users' interests is achieved in particular by means of the following procedures: ensuring access to universal services for all users, providing a simple and accessible dispute resolution procedure between operators and users of services; promoting clear information, in particular in relation to transparency of prices and conditions for use of publicly available services; catering to the needs of special social groups, in particular disabled users; ensuring a high level of protection of personal data and privacy.

3.1. Protection of users of electronic communications

In 2010 HAKOM ensured an even higher level of protection of users of electronic communications by carrying out a series of activities related to the implementation of laws and subordinate legislation, which entered into force in early January 2009, in order to impose those regulations as rules of behaviour for all operators.

HAKOM's activities were focused on:

- resolution of user complaints related to the proposed opinion of the Consumer Protection Commission by adopting individual binding decisions and decisions and opinions of general nature,
- analysis of complaints establishing the reasons of complaints and adoption of adequate measures for consumer protection in public communications services which eliminate possible causes for future complaints,
- control and alignment of operators' bylaws defining their business procedures as well as special obligations on consumer protection in electronic communications,
- adoption of appropriate decisions, interpretations of implementation of laws and opinions of general nature,
- organisation of meetings with operators concerning concrete services and situations on the market,
- preventive activities by educating users on the websites, publishing a brochure with instructions for users,
- helpline for assistance, instructions and information on concrete cases,
- regular (1-2 times a month) participation in radio and TV shows aimed at informing the public and answering to concrete questions of users,
- research on the use of public communications services and on attitudes of users of public communications services (needs and satisfaction of users).

Furthermore, HAKOM actively participated in the work of other state institutions on projects concerning consumer protection.

3.1.1. PRINCIPLES OF CONSUMER PROTECTION

HAKOM's role in the promotion of interests of users of services, laid down in the ECA, was emphasised, in particular, in the following ways:

- a) by ensuring a high level of consumer/user protection,
- b) by a simpler and more accessible dispute resolution procedure,
- c) by promoting the giving of unambiguous information and
- d) by addressing the needs of special social groups.

For that purpose, the Ordinance on the manner and conditions for the provision of electronic communications networks and services, and in particular its Annex 5, additionally regulates these relations and the manner and conditions for the provision of value added services, and it achieved the following:

- unfair conditions in contracts are prohibited,
- free access to Customer Service 24/7,
- the publication of terms and conditions and pricing systems in daily newspapers and instructions to existing users on the possibility to terminate the contract in case of unfavourable conditions,
- the specification of tariff systems which provide data for calculation of the future debt,
- return or refund of the unspent amount in mobile and fixed networks,
- the barring of outgoing calls to a certain number or a group of numbers or a monetary limit on the monthly telephone bill upon user's request, regular information of users about the possible bans,
- the monitoring of traffic habits of subscribers and issuing of warnings when the subscriber's spending reaches a certain amount (double average amount spent in the previous 3 months), equal rights of users of pre-paid services and rights and conditions that apply to subscribers for the same type of service and, when applicable, detailed procedures for resolution of users' complaints (establishing of proper administrative and technical functioning of the electronic communications network and subscriber's terminal equipment and the impossibility of unauthorised use outside the subscriber's zone of responsibility), and internet services - before the beginning of provision of such services, a user must be given written instructions of use and possibilities for protection against unauthorised use,
- Value added services
 - stating of the price and possibility to interrupt the call (2 seconds) before the charging starts,
 - for services charged per minute – Announcement of the interruption and interruption of the call, after the expiry of 30 minutes or after having spent a certain amount (HRK 250.000.00)
 - for SMS services – notification about the price and manner of interrupting the service
 - Obligation to dial numbers in case of adult services,
- Child protection,
 - possibility to ban access to contents not appropriate for children,
 - dialling of numbers for children services,
 - spending limit (HRK 50.00)
 - operators of public communications services must record and exchange data on numbers and addresses the contents of which are not intended for children,
- persons with special needs:
 - ensuring equipment and services to be provided,

- including educated persons to work in customer service.

For the purpose of additional consumer protection, and on the basis of the ECA, a preliminary procedure was carried out and a public consultation with a view to adopting a decision on spending limits that will allow users to set a monetary limit amounting to HR 50.00. This provided additional control of costs to all users. This decision shall apply from March 2011.

3.1.2. DISPUTE RESOLUTION BETWEEN USERS AND OPERATORS

Analysis of received user complaints in 2010

HAKOM resolves disputes and may adopt decisions which are binding for operators on the basis of the opinion of the Consumer Protection Commission, as an advisory body. The Commission consists of seven members out of which two are representatives from two Unions of Consumer Protection Associations and five are HAKOM's employees.

The following text provides some statistical indicators of received complaints the analysis of which confirms that the newly-founded body, as well as novelties introduced into legislation, brought about some positive results in consumer protection.

The increase in the number of complaints (Figure 3.1) since 2006 with a significant leap in 2007 when the first new changes in the treatment of irregularities were introduced, and in 2008 when rules of behaviour were established but still not fully enforced, and a relatively stable development trend in 2009, all show that former and implemented preventive activities in 2010 contributed to the stabilisation in the number of complaints. The stabilisation trend in the number of complaints seems to be present although the number of users of public communications services has significantly increased and a series of new services and operators have been introduced. On the basis of complaints analysis, HAKOM implements measures focused on critical points in the provision of services and in a short time manages to achieve the elimination of the established irregularities. At the same time, HAKOM collects information on the basis of which it may intervene as a regulator.

Pursuant to legislation, complaints refer to: a) complaints about the amounts of bills for public communications services and b) complaints about the quality of public communications services. It is obvious that more than 70 percent of all complaints still refer to bills, however, the increase of complaints in 2010 compared to the year before was only 11 percent while complaints on the quality of service remained at a similar level. Considering the number of new services, we believe that preventive activities in the provision of services stopped a more significant increase in the number of complaints.

Table 3.1. Number of received cases

| Year | Number of cases | Bill complaints | Quality complaints |
|------|-----------------|-----------------|--------------------|
| 2006 | 382 | 356 | 26 |
| 2007 | 700 | 395 | 305 |
| 2008 | 915 | 654 | 261 |
| 2009 | 930 | 687 | 243 |
| 2010 | 1011 | 764 | 247 |

Types of complaints

The analysis of complaints revealed that, in addition to basic types of bill and quality complaints, complaints about the behaviour of operators during provision of services must also be followed. Appropriate procedures have been established for this type of complaints. For that reason, complaints against business attitude of operators have been followed for 3 years, as well as complaints referring to carrier pre-selection and complaints referring to number portability (Table 3.2.). The number of complaints against number portability has decreased by 35 percent, which means that this area has been successfully regulated by the introduction of criteria for the definition of actual technical inability to port a number. Complaints against business procedures of operators in the first place refer to insufficiently transparent information about products and to inappropriate contracting procedures.

Table 3.2. Types of complaints

| Types of complaints | 2008 | 2009 | 2010 |
|--|-------------|-------------|-------------|
| Quality complaints | 135 | 111 | 124 |
| Complaints against business procedures | 48 | 31 | 36 |
| Carrier pre-selection complaints | 21 | 24 | 37 |
| Number portability complaints | 57 | 77 | 50 |
| Bill complaints | 654 | 687 | 764 |
| Total complaints | 915 | 930 | 1011 |

Analysis of bill complaints – basic groups of bill complaints

Bill complaints show a slight 11 percent increase which may be regarded as a positive indicator considering the increase in the number of users and introduction of new services – particularly value added services and the fact that users are more familiar with their rights. This was significantly assisted by the fact that HAKOM insisted the operators adopt the new regulatory framework and additional controls.

In the group of basic services, the number of complaints primarily refers to new packages of services which have not been clearly and transparently communicated to users, that is, to insufficiently clear contractual conditions which resulted in bills for services that the user did not know he or she signed up for. In this segment ex ante control of new services prior to their introduction on the market will have to be strengthened, as well as of new tariffs. Interventions into regulations are also possible. HAKOM often has only limited competence in such cases and for that reason only those opinions are adopted which attempt to influence the operators on the basis of HAKOM's authority.

The number of complaints against internet traffic services remains at the same level although the number of users in fixed and mobile networks significantly increased. This is a result of the introduction of obligatory control of traffic and clear provision of instructions to users by operators. Users need to be additionally educated in this respect.

Table 3.3. Structure of bill complaints

| Bill complaints | 2008 | 2009 | 2010 |
|-----------------------------------|-------------|-------------|-------------|
| Basic services | 100 | 216 | 391 |
| Other debts | 20 | 20 | 15 |
| Dialler | 23 | 15 | 6 |
| Internet traffic | 123 | 187 | 186 |
| Special tariff services | 222 | 92 | 42 |
| Games of fortune | 166 | 1 | 0 |
| MAG DRIVE | 0 | 155 | 32 |
| SMS IQ | 0 | 0 | 3 |
| SMS services with special tariffs | 0 | 1 | 89 |
| Total | 654 | 687 | 764 |

ADSL Internet access is a desired option for the user of this service but it is currently still accompanied by technical and infrastructural limitations of operators and insufficient technical literacy of users and awareness about possible abuse or, in other words, the insufficient insistence of operators on the education of their users.

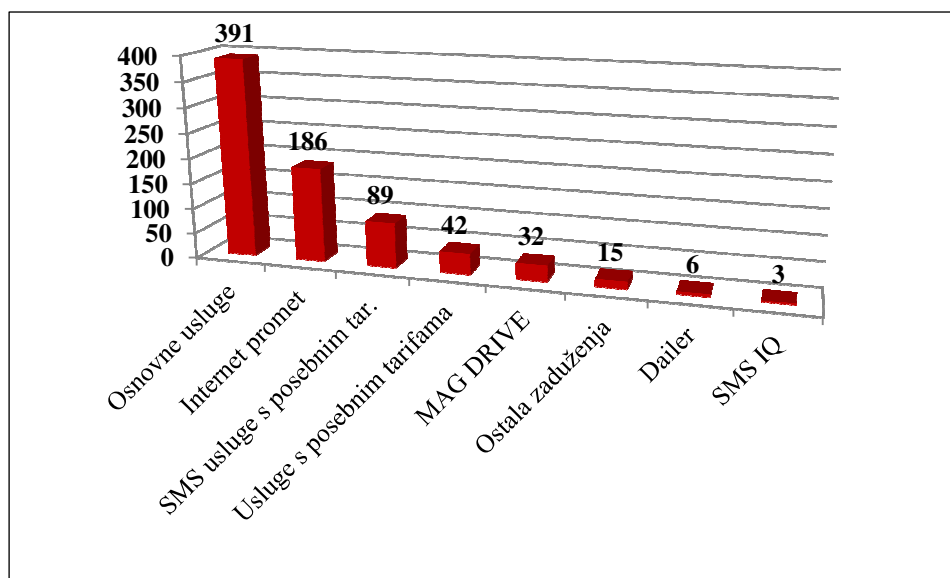
In mobile networks, the introduction of new types of technologies and tariffs for Internet access for more advanced mobile devices resulted in the increase in the number of cases when undesired Internet connections were established. The principal problem is that users are insufficiently educated and also, on the other hand, that operators are very passive when it comes to the giving of adequate instructions.

Some groups of complaints have almost completely disappeared (diallers, games of chance – as a special category of a value added services).

Special tariff services show certain uniformity which results from the fact that the appearance of “illegal services” comes in cycles – every six months there is a new (as a rule one) problematic service of this kind.

An example (MAG DRIVE) on the basis of which we may conclude that HAKOM selected a good method for resolving possible disputes is the supervision which is carried out over the provider of value added services on the basis of users' complaints and a decision prohibiting the provision of this service. This decision prevents further provision of the disputed service by means of TV shows and future billing for unlawfully provided services. The decision adopted as a result of supervision also served as a legal basis for positive resolution of users' complaints against this specific service. This binding decision forced operators to act to the benefit of users but this was followed by a series of administrative complaints against HAKOM. When the Administrative Court adopted a decision rejecting the complaints in 10 cases, the operator decided to terminate the procedure in other 15 cases.

In 2009 it was envisaged that the number of SMS services with added value might increase, which might potentially include "illegal services", which happened in 2010. Since special attention was dedicated to internal supervision over these services and to workshops with operators for all registered complains from this group (approx. 55 percent), which was based on insufficient transparency in the manner of activation of the service (service was activated on the Internet and not by SMS confirmation), complaints were resolved in favour of users without adoption of a binding decision for operators.



Basic services Internet traffic SMS services with special tariffs, Special tariff services, MAG DRIVE, Other debts, Dailer, SMS IQ

Figure 3.1 Bill complaints in 2010

Analysis of quality complaints

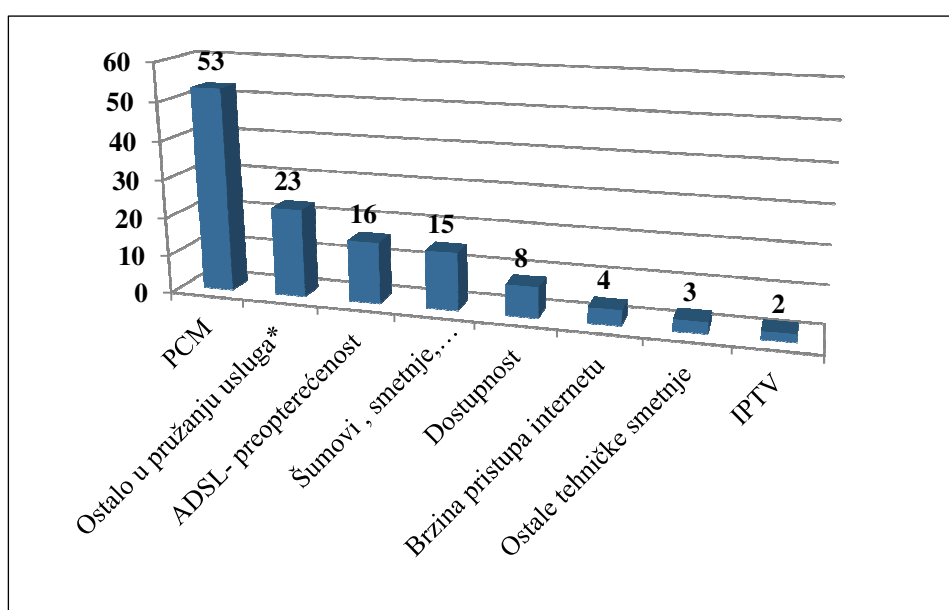
The number of complaints against the quality of service has increased compared to the year before, but still remains below the 2008 level. In the structure of complaints (Table 3.4.), a more significant growth was recorded among complaints in which users request for the removal of PCM devices in order to get ADSL Internet access.

Table 3.4. Structure of quality complaints

| Subject of complaint | 2008 | 2009 | 2010 |
|--|------|------|------|
| Internet access speed | 1 | 1 | 4 |
| Accessibility | 14 | 7 | 8 |
| IPTV | 17 | 44 | 2 |
| Lack of technical ability to remove PCM devices, it requires expansion of network capacity | 21 | 20 | 53 |
| Inability to use ADSL due to network overload | 3 | 3 | 16 |
| Other technical problems | 13 | 20 | 3 |

| | | | |
|--|------------|------------|------------|
| Noise, interference, crosstalk and signal interruption | 5 | 16 | 15 |
| Other in provision of services* | 61 | | 23 |
| Total | 135 | 111 | 124 |

Although the number of users of IPTV increased, the number of complaints decreased because operators adopted a more transparent manner of selling of this services. The problem that still remains is the technical inability to provide services to all potential users. Interferences and signal interruption as well as other technical problems mostly refer to Internet access services and associated services. The category of services "other in provision of services" has been divided into some other categories of services according to the new classification and has not been recorded in 2009. However, in 2010, it is again recorded and represents complaints against technical characteristics of services in mobile networks (e.g. automatic award of services which were not requested by the user, but may be charged.)



PCM, Other in provision of services, ADSL- overload, Interference, Availability, Access speed, Other technical problems, IPTV

Figure 3.2 Quality complaints in 2010

Complaints against operator's behaviour – arising as a result of deceptive business practices

Complaints representing oversights in the behaviour of operators have been separated since 2008 and HAKOM is authorised to act upon such complaints pursuant to new regulations. It is a fact that operators on our market have different ways of forcing their subscribers to stay and ways of illegally stealing subscribers from other providers in combination with the non-transparency of contractual relations and a deceiving offer of services. This section deals with complaints about the impossibility to realise certain services (e.g. number portability, LLU (Local Loop Unbundling) and broadband), that is, various forms of deceptive sales practices. In order to eliminate occurrences of such behaviour, HAKOM pays special attention to control of prescribed bylaws of operators and their business practice.

Table 3.5. New types of complaints

| Complaints against operator behaviour | 2008 | 2009 | 2010 |
|---------------------------------------|------|------|------|
| Misleading advertising by operators | 48 | 31 | 36 |
| Carrier pre-selection complaints | 21 | 24 | 37 |
| Carrier pre-selection complaints | 57 | 77 | 50 |

Bearing in mind the data presented by other European regulators, this kind of behaviour of operators is on the rise and they are perfecting their deception methods.

User complaints via HAKOM's website

The introduction of a new website (in mid 2009), which in a simple manner gives instructions to users and provides a possibility to ask HAKOM and to register as a user in order to initiate dispute resolution procedures before HAKOM, permits quick and simple communication with users and during 2010, the following was recorded:

1. general user questions and answers: 162 questions
2. registration to initiate dispute resolution: 206 users

Overview and analysis of resolved complaints

The total of 12 sessions of Consumer Protection Commissions were held in 2010. The total of 834 cases were processed at the above-mentioned sessions. Since the prescribed time limit for the resolution of a case is 4 months, this number includes a part of received cases from 2009 (328 cases).

Below is an overview of the structure of resolution of cases in 2010 (Figure 3.3.).

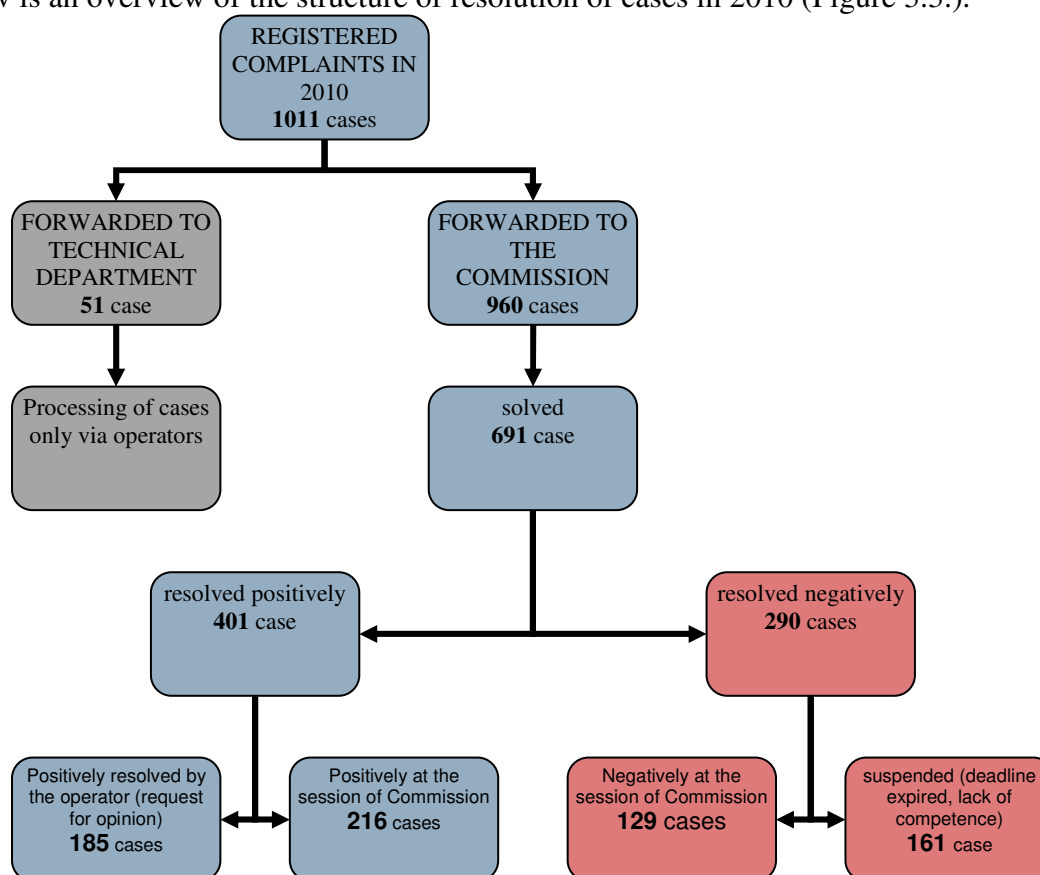


Figure 3.3. Structure of resolution of cases

Those complaints for which HAKOM has a direct basis in its regulations received a positive resolution, that is, opinions were adopted on the need for a positive resolution of the user's complaint in case of subordinate application of other regulations. This results from the general HAKOM's attitude that willingness to accept one's own mistakes and oversights, that is, the need to protect a weaker party in proceedings, is more useful in the long run than the adoption of drastic measures. In relation to this it must be emphasised that operators reconsidered the subject of the complaint in 185 cases (27 percent) and, on the basis of HAKOM's request for an additional explanation, changed their originally negative decision themselves. This kind of behaviour of operators indicates a positive trend, while an increase in the number of resolved complaints by 88 percent compared to 2009 confirms HAKOM's attitude and also indicates a fact that operators are prepared for cooperation and a more significant contribution to the protection of their users.

Unfortunately, on the other hand, there are still cases of not acceptance and stalling attempts. Operators are executing HAKOM's decisions in relation to users, but they are also instituting administrative disputes against HAKOM. Their administrative complaints were rejected in 2010 thus proving that such procedures represent only additional unnecessary spending of HAKOM's resources. This means that legislation should be amended and preparations have already been made in 2010 and should be realised in the first half of 2011.

Table 3.6. Structure of resolution of complaints

| Structure of resolution of complaints | 2009 | 2009 in 2010¹⁴ | 2010 |
|--|-------------|----------------------------------|-------------|
| Positively | 193 | 192 | 216 |
| Operator positively in the meantime | 98 | 0 | 185 |
| Dismissal of proceedings | 62 | 10 | 161 |
| Negatively | 217 | 126 | 129 |
| Total | 570 | 328 | 691 |

Out of the total number of resolved complaints, 290 (41 percent) of complaints had a negative resolution, or, 18% out of the total number of resolved complaints, because 161 (23 percent) complaints were dismissed because of formal or legal reasons. In case of negative resolutions of complaints, users, unfortunately, incorrectly interpreted their rights and obligations and there was no legal basis for accepting the complaint. The increase in the number of dismissed cases indicates the fact that users are aware that HAKOM exists but they are not completely familiar with its role and do not follow with the prescribed procedures and competences.

Changes in dispute resolution procedures

According to the ECA, HAKOM has competence to resolve disputes between subscribers and operators of public communications services. New manner of dispute resolution entitles

¹⁴ Cases received in 2009 and resolved by the Commission in 2010

HAKOM to adopt binding decisions which ensure a high level of protection of users because the operator is obliged to act in accordance with the decision. The adoption of binding decisions completely protects the user and the procedure is thereby terminated. Unfortunately, some operators initiate administrative disputes against these decisions thus unnecessarily burdening their own, HAKOM's and judicial resources because the court, as a rule, dismisses the complaints.

HAKOM resolves disputes in a transparent, objective and non-discriminating manner on the basis of an opinion adopted by the Consumer Protection Commission.

Decisions on dispute resolution are adopted by HAKOM's Director on the basis of the Commission's opinion which satisfies the principle of cost effectiveness of procedures, and takes into account small value of disputes compared to disputes between operators the resolution of which is under the competence of HAKOM's Council.

Preventive activities in consumer protection - regular procedures

In order to ensure a high level of consumer protection, various preventive procedures which have proven to be effective and useful are carried out because they permit the elimination of irregularities when they first appear. Below is a list of more important preventive activities carried out by HAKOM in 2010:

- Ex ante and ex post control and alignment of terms and conditions of operators (terms and conditions of business and tariff systems) defining their business operations and special obligations concerning consumer protection in electronic communications. Reviewed, aligned and approved terms and conditions for 10 biggest operators,
- Research and control of 229 existing and new packages of services and promotional offers of operators,
- the total of 26 operators' inquiries for expert opinion and interpretation of legislation processed,
- the total of 26 questions from media and various associations related to concrete questions of users processed,
- the education of users by means of websites containing instructions and possibility to submit requests (see *Complaints of uses via HAKOM's website*).
- the publication of a brochure with instructions for users in the daily newspapers in December 2010,
- telephone line for information about specific cases, that is, assistance and instructions on what and how to act in case of problems encountered when using public communications services, the total of 2469 calls were received,
- regular (1-2 a month) participation in radio and TV shows where users may complain about problems encountered in the use of public communications services and where they can get the necessary advice and instructions,
- in September 2010 a survey was conducted on the use of public communications services and attitudes of users about public communications services (needs and satisfaction of users),
- furthermore, HAKOM actively participated in the work of other state institutions on projects concerning consumer protection (September 2010 MELE's round table on consumer protection, lecture for vocational school teachers organised by the Agency for Vocational Training in October 2010, participation in the work of the National Consumer Protection Council).

Preventive activities in consumer protection - expert supervision procedures

It was noticed in the past two years that new products are appearing on the market of public communications services, in particular in the group of value added services, and these new services are often barely legal. Considering the new legal procedures for preventive action and implementing measures, as well as a systematic definition of permitted and prohibited services in legislation, provision of such a service may be terminated as a result of expert supervision, and quick alignment procedures may be applied. In this manner, the number of complaints decreased because the number of “deceived” customers is lower and initiated disputes may be resolved more quickly on the basis of an inspector’s general decision. In 2010 four inspections were initiated for that purpose against providers of value added services on the basis of which operators themselves accepted and positively resolved users’ complaints. This kind of practice will gain in importance in the upcoming period.

It must be emphasised that in 2010 operators also reacted to requests for comments on individual services and aligned them/or positively resolved complaints without formal expert supervision.

3.2. Protection of users of postal services

After the entry into force of the PSA, HAKOM's competence also includes the protection of rights of users of postal services and the resolution of disputes between users and providers of postal services thus offering a more effective and more quality mechanism for the protection of rights of users of postal services.

In accordance with the provisions of the PSA, a user of postal services may submit a written complaint to a provider of postal services if a postal item was not delivered to the recipient, or was delivered with delay, if the agreed services was not provided, or was not provided in its entirety or if the contents of the postal item were damaged or alienated. In case of dispute between users and providers of postal services in relation to the resolution of a complaint, a user may, before initiating proceedings before the competent court or before initiating some other out-of-court proceedings, submit a request for dispute resolution to HAKOM.

HAKOM resolves disputes by adopting a final decision on the basis of an opinion of the Consumer Protection Commission. HAKOM's decisions in disputes between users and providers of services are final and may not be appealed but an administrative dispute may be initiated before the Administrative Court of the RoC.

Pursuant to the provisions of the ECA, there are certain differences in relation to the resolution of disputes with users and operators. Final decisions on the resolution of disputes between users and providers of postal services are adopted by HAKOM's Council, while, according to the provisions of the ECA, they are under HAKOM's competence. Besides, the provisions of the PSA identify HAKOM as a second instance body in the resolution of user's complaints, and the user addresses the regulatory authority after having received a reply from the provider of services. The ECA prescribes that a user is entitled to file a complaint to the operator's Consumer Complaints Commission, and, after that, to HAKOM as the third instance in the complaints resolution procedure. HAKOM thinks that differences should be aligned with the ECA.

In 2010, HAKOM received 13 requests for dispute resolution between users and providers of postal services. Out of the 13 requests, 12 referred to HP and one to other providers of postal services. In relation to types of complaints, 6 referred to a service that was not provided (loss of a postal item), 5 to damaged contents of the postal item, and one to the exceeded deadline for the delivery of a postal item. In 2010, HAKOM adopted final decisions in 10 disputes between users and providers of postal services and no procedures were initiated before the Administrative Court of the RoC against these decisions.

3.3. Protection of children

As part of its competences, HAKOM pays special attention to protection of children. Therefore, with a view to protecting children against abuse that might arise in relation to value added services, the following have been introduced:

- special numbers for services for adults (064 xxx xxx), which are prohibited to children,
- special numbers of children services (069 xxx xxx),
- spending limit for the use of children services (HRK 50.00),

and the following duties prescribed for operators:

- record and exchange data on numbers and addresses the contents of which are not intended for children,
- ensure the monitoring of traffic habits of subscribers and notification when they exceed the prescribed limit,
- introduce the barring of calls towards a certain number or a group of numbers when the limit agreed with the user has been exceeded,
- regularly notify users about all possibilities for barring which are available to them.

With a view to promoting safer internet use, network technologies and mobile phones, HAKOM opened an e-mail address zastita-djece@hakom.hr for reporting illegal and inappropriate contents and services.

3.4. Access to services by persons with special needs

In accordance with European practice and the announced new guidelines for the regulation of this area, HAKOM has already created a basis in the existing legislation to ensure equality in access to and use of electronic communications services and for implementing a high level of special protection of disabled persons.

Operators must, among other things:

- ensure appropriate access to its services and appropriate equipment for such access which are specifically adjusted to needs of individual groups of persons with difficulties in verbal, visual and motoric communication,
- ensure access to and communication with customer service adjusted to special needs of individual groups of disabled persons.

In 2010, HAKOM initiated the organisation of joint working groups that would include specialised associations and operators with a view to establishing special needs and rules of behaviour that would additionally ensure the inclusion of disabled persons into the world of new technologies.

4. HAKOM's ORGANISATIONAL CAPACITIES

4.1. E-Agency project

E-Agency is a project for the transformation of HAKOM's activities through application of information and communication technology thus making HAKOM's work more user-oriented. E-Agency also includes continuous adjustment of processing and technological framework of HAKOM's activities with a view to achieving more efficiency, optimum use of funds and a more quality provision of available services, all on the basis of transparency, collaboration and participation of all interested parties on the markets of postal services and electronic communications.

In 2010, HAKOM continued with the implementation of e-Agency projects focused on the improvement of business processes on the basis of web-oriented services.

The infrastructure was upgraded in terms of the processing and storage capacity of the server, visualisation platform, platform for data storage and software updating. Digital signature and document encryption, which permit identification, authorisation and protection of communications, have been launched into operation.

Background information systems have been upgraded on the basis of the amended legislation and for the purpose of alignment with the business processes by means of upgrading the Enterprise Resource Planning (ERP), Document Management System (DMS) and the Human Resources Management System (HRM).

Open systems are represented by a modern portal with numerous online applications such as Public consultation, e-Complaints, e-Portability, e-Licences, e-Market, e-Advice, e-Procurement, e-Employment. The following e-applications have been developed on HAKOM's website:

- e-Licences for vessels – the speeding up of the process of submission of applications for devices using the RF spectrum on vessels, A web-oriented application which integrates the functionality of a portal, Enterprise Resource Planning and Document Management System.
- e-Licences overview - overview of granted general and individual licences for use of the RF spectrum and licences for approved radio and telecommunications terminal equipment with a possibility for browsing according to several criteria,
- e-Procurement - provides an overview of all of HAKOM's procurement cases with the possibility to download tender documentation,
- e-Complaints – after registration, an user may file a complaint electronically and follow the status of the complaint
- e-Certificates - a solution within the Document Management System which automates the process for the granting of the right-of-way certificate to infrastructure operators. It comprises the submission of the request, preparation of the certificate and its presentation on the portal,
- e-Portability – a user may follow the progress of number portability process and find out in which network the number is currently located in real time, synchronised with the central database of ported numbers,
- e-Market – an application that allows the collection of information on the situation on the market. It is managed electronically with the authorisation of users from a remote

location by means of a web service or a web portal. The application enables flexible analysis of market developments,

- e-Operator – an application which supports the management of data on electronic communications operators. The central register of operators has been established as well as the database of the addressing and numbering space, the interface for entry of the necessary data by operators and HAKOM's employees has been made and data processing has been automated by means of software integration with other business systems used in the process.

The Document Management System has become part of regular work activities of 70 percent of HAKOM's employees. Business processes have been optimised and documented. Internal procedures have been additionally automated by means of own knowledge and standard office tools.

E-Agency resulted from the ICT strategy of the Republic of Croatia and is a part of the e-business development strategy in the RoC. One of the tasks that need to be solved is the connection of regulatory authorities with the corresponding ministries and agencies. In that sense, we have participated in the development of the concept of electronic document and information exchange in office document management.

Activities have been focused on the increase in availability of on-line services. As opposed to rigid forms, services have already become accessible and more comprehensible to end users. Another important concept is the open integration of the system by means of transaction interfaces in order to ensure automation of processes from one end to another. The E-Agency must offer on its website all services that will govern the user intuitively. The monitoring of progress of activities and resolution of requests is very important for the transparency of procedures and assessment of the regulatory authority's efficiency. It must be stressed that the user may carry out all the activities during a single visit, while the system makes sure that all departments competent for the resolution of the request are included.

Activities and software solution of e-Agency have been recognised by postal and electronic communications regulatory authorities in the region, which is why we have participated in workshops, conferences and coordination meetings with representatives from Macedonia, Montenegro, Slovenia and Greece, as part of international cooperation, and solutions which were implemented in HAKOM, were presented at gatherings in Romania, Bulgaria, Serbia, Bosnia and Herzegovina and Croatia. Particularly interesting solutions are the Indicator System, the E-Market, the Central Database of Ported Numbers and the methodology for management and optimisation of business processes.

4.2. Development of competences

In 2010, HAKOM continued working on the strategy for the development of market regulation which includes, among other things, continuous development of capacities and expertise of employees based on knowledge, skills and morals, and the development of analytical skills, that is, the ability to analyse past events and to simulate future ones. The modern and intelligent market regulation is closely related to an appropriate number and educational structure of employees, their overall regulatory capacity and experience. This can be achieved only by an interdisciplinary approach which includes engineers, economists, lawyers, sociologists and by means of continuous training of all employees. The above-

mentioned development strategy envisages the training of HAKOM's employees in a postgraduate course, research projects, seminars, conferences, working groups, workshops and courses.

With the Modernisation programme, HAKOM initiated several projects for the development of regulatory competences out of which the most important are: the interdisciplinary post-graduate course, the "Looking to the Future" project and foreign languages, all this with a view to increasing organisational and individual regulatory capacity.

4.2.1 Multidisciplinary postgraduate studies

In cooperation with the Faculty of Electrical Engineering and Computing, the Faculty of Economics and Business and the Faculty of Law in Zagreb, HAKOM started an interdisciplinary specialist post-graduate university course in electronic communications market regulation. The responsible authority is the University of Zagreb, the coordinator of the course is the Faculty of Electrical Engineering and Computing, and the course is executed by the mentioned faculties and by HAKOM.

The framework, curriculum, conditions of study and lecturers have been defined for every subject. The curriculum comprises obligatory subjects, elective subjects and the final dissertation and it gives the total of 60 (European Credit Transfer System) ECTS points. The requirements for enrolment in the course include the completed four-year undergraduate course, the adequate work experience, knowledge of the English language and a proposal for the specialisation area. The selection procedure for participants includes an interview in which the area of expertise for the dissertation is established and a mentor appointed depending on the field. Since this is, to our knowledge, the first course of such nature in Europe, it is possible that regulatory authorities and operators from the neighbouring countries might show interest.

Obligatory courses are held in the first semester. Elective classes are held in the second semester. The classes from obligatory and elective subjects consist of lectures by teachers and visits from domestic and foreign lecturers and of seminars and workshops for discussion and elaboration of case studies. The dissertation includes a regulatory project.

The academic title acquired after the completion of the course is that of a "Specialist in the regulation of the electronic communications market" and the student acquires the following competences: a) economic, legal and technological aspects of market regulation and b) ability to apply the regulatory framework and to solve regulatory problems.

As opposed to other forms of professional training (courses, workshops), which are focused on information and skills, the course is aimed at developing and improving the thinking process.

In 2010, HAKOM gave scholarships to 12 employees who satisfied the criteria of the internal competition, including a dissertation topic interesting for HAKOM, as well as the criteria of the course, which is expected to be completed in 2011. In 2011, HAKOM is planning to finance another ten employees.

4.2.2. “The Looking to the Future” project

Immediately following the completion of organisational aspects of the specialist multidisciplinary post-graduate course in regulation of electronic communications market, HAKOM started preparing a multidisciplinary project “Looking to the Future”.

After having defined the areas of interest and prepared a detailed specification of this interdisciplinary project, in the last quarter of 2010, HAKOM launched the project in cooperation with the Faculty of Electrical Engineering and Computing in Zagreb, the Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture in Split, the Faculty of Electrical Engineering in Osijek and the Faculty of Business and Economics in Zagreb. The plan is to include all interested law schools in the country. HAKOM invited all other relevant, interested participants in the electronic communications market (operators, manufacturers...) to participate in the project thus attempting to create a Croatian Electronic Communications Forum. Until this moment, the decision on becoming involved in the project was adopted by Ericsson Nikola Tesla and Nokia Siemens Networks.

The project is supposed to prepare HAKOM and other actors on the electronic communications market for challenges awaiting in the near future:

A) Next Generation Networks NGN: core network (NGN core), access network (NGN access), numbering (NGN numbering), new services and applications (IMS - Internet Protocol Multimedial Subsystem),

B) development of the electronic communications market: market analysis (8 markets), market regulation, management and economy of the spectrum, cost separation and cost models.

The dominant topics in the project comprise the future development of technology, new regulatory issues created by the new technology, their influence on the development of the electronic communications market and economic and legal aspects of proactive, neutral and transparent market regulation, stimulating measures for investments and innovations and fair competition conditions.

The first results of the project have already been published on HAKOM's website and are available to all interested participants on the electronic communications market.

4.2.3 Foreign languages

HAKOM is aware that its employees, if they do not speak foreign languages, especially English, cannot communicate internationally and are limited only to “knowledge sources” written in the Croatian language, which is unacceptable in such a dynamic sector as electronic communications. The need to improve language competences arises from the need of HAKOM's employees to build on knowledge necessary to follow the development of professional aspects of HAKOM's activities through participation in international regulatory organisations, at conferences and by reading literature in HAKOM's field of competence. In our opinion this is one of the necessary conditions for the development of HAKOM as a national regulatory authority.

Since HAKOM is constantly trying to improve its efficiency by increasing knowledge and skills of its employees, it has organised the courses of English and French language in order to improve the competences of its employees. In 2010, foreign language courses were started for 45 employees. English language courses for four groups and French language courses for one group started in October 2009 and their continuation is planned depending on HAKOM's goals and employees' interest.

4.3. Publicity of Work

In 2010, HAKOM continued to fulfil its obligations in relation to the publicity of its work. All the relevant information about HAKOM's activities is regularly published on the website, including:

- a) the publication of all the adopted decisions and other administrative acts, and the received judgements of the Administrative Court of the Republic of Croatia,
- b) the carrying out of public consultation pursuant to Article 22 of the ECA, and public debates on all important issues,
- c) regular keeping and updating of databases with all registers and records kept for the purpose of carrying out of its activities, operators and providers of electronic communications and postal and courier services.
- d) regular publication of statistical data on markets of electronic communications and postal services,
- e) regular publication of data intended for users of electronic communications and postal services,

In addition to publishing information on its website, HAKOM appeared in many radio and television shows (e.g. Consumer Code) where it regularly informed the public about important issues from the electronic communications and postal services sector.

HAKOM issues press releases about all more important decisions and events.

Furthermore, HAKOM also regularly and within the shortest possible time replies to all questions from journalists and to all other questions.

4.4. Judicial proceedings

HAKOM's judicial proceedings are administrative proceedings initiated against HAKOM's final decisions and misdemeanour proceedings initiated by HAKOM against legal and natural persons violating the provisions of the ECA.

Administrative disputes

According to the provisions of the ECA, all HAKOM's decisions are final in the administrative procedure and may not be appealed. They may be disputed in an administrative dispute, in a procedure before the Administrative Court of the Republic of Croatia.

Concerning decisions of the Administrative Court, it must be pointed out that this Court in 2010 intensified its work on administrative disputes initiated against HAKOM's decisions. Judgements and decisions of the Administrative Court refer both to claims against HAKOM's decisions adopted in previous years (2006-2009) and to some of the decisions adopted in 2010.

The total of 112 administrative proceedings was initiated against HAKOM in 2010.

The Administrative Court adopted in 2010 the total of 89 decisions related to HAKOM.

Out of those 89 decisions, HAKOM's decision was confirmed 81 times, and cancelled only 8 times.

The analysis of the submitted claims reveals that the majority of them refer to decisions adopted in the complaint resolution procedure, as many as 55.

Generally speaking, the majority of claims against HAKOM's decisions were submitted by Hrvatski telekom d.d., the total of 68.

It may be noticed in relation to HAKOM's decision from 2010 that the Administrative Court decided to give priority to similar cases, that is, cases relating to a large number of claims filed against decisions based on identical or similar facts. This is also the case with claims against decisions on the "right of way" by which the Administrative Court established that the right-of-way certificate is not an administrative document. Furthermore, this is the case with decisions concerning user complaints which refer to responsibility of the access beneficiary operator for the waiver of the amount of the bill for unlawfully billed call towards the value added services operator in which case the Administrative Court confirmed HAKOM's attitude that the access operator is responsible towards its users.

Such Administrative Court's practice significantly contributes to legal security and to the unburdening of the Administrative Court from a large number of same cases.

Misdemeanour proceedings

In accordance with its legally prescribed authority, HAKOM issued in 2010 the total of 8 misdemeanour orders and submitted 7 misdemeanour motions because of the violation of provisions of the ECA.

All misdemeanour proceedings are currently in first instance proceedings before competent misdemeanour courts.

In relation to misdemeanour proceedings initiated in the previous years, one non-final judgement was adopted in 2010 proclaiming the operator and the responsible person guilty for

the misdemeanour referred to in Article 119, paragraph 1, item 50 of the ECA (withholding of information). HAKOM appealed against the decision on the amount of the fine.

Administrative measures

Pursuant to authority laid down in Article 116, paragraph 4 of the ECA, HAKOM's inspectors imposed two administrative measures. The first administrative measure was imposed on responsible persons in the operator Hrvatski telekom d.d. amounting to the total of HRK 76.770.00 and the second to responsible persons in the operator Vipnet d.o.o., amounting to the total of 76,770.00.

4.5. ISO 9001 quality management system

On the basis of the certification of the quality management system in accordance with the international standard ISO 9001:2008 in November 2009, HAKOM's activities in 2010 were in the first place focused on implementation and improvement of efficiency of the quality management system and the increase of satisfaction of users by complying with their demands.

HAKOM's commitment to continuous improvement is reflected in the effective achievement of mission objectives and HAKOM's values, effective management of financial and human resources, and in the satisfaction of users and all interested parties in the organisation.

After the certification audit, the first supervision audit in HAKOM, in accordance with requirements of the ISO 9001:2008 standard, was carried out in October 2010. Taking into account the quality policy, set objectives, results of judgement, corrective and preventive measures and its employee's proposals, HAKOM invests significant efforts in continuous improvement of its business system and quality management system as its constituent part. In that sense, HAKOM focused in 2010 on improvements related to quality system documentation.

With a view to improving efficiency of HAKOM's work, department heads in HAKOM are preparing quarterly reports on planned activities at department level and at employee level with set objectives for the next quarter. Special forms have been prepared for this purpose. The above-mentioned objectives result from HAKOM's Annual Activity Programme and HAKOM's Strategic and Operational Plan. In this process, special attention is paid to the determination of objectives in accordance with the SMART¹⁵ principle logic, that is, objectives must be specific, measurable, achievable, relevant and time bound. For the purpose of measuring the achievement of objectives, and after the end of each trimester, the Director receives a report with percentages of completed activities after the realisation of the set objectives.

The improvement of the quality of work of HAKOM's departments, as well as of the entire HAKOM's business operations, is achieved by continuous upgrading of business processes. The existing business processes are analysed and workshops are organised with participants in the process to discuss problematic issues and proposals for changes. Problematic issues are

¹⁵ eng. Specific, Measurable, Achievable, Relevant, Time Bound

resolved by modelling the improved process models which are presented to participants in the process and to the management. After the acceptance of the proposed model, training is carried out in the form of workshops for participants in the modelled process and the application of the improved process begins. Proposals for changes are analysed, and, if it is assessed that a certain proposal means progress for a certain segment of business operations, the proposal is then incorporated into the existing model and the application of the altered process begins.

Certain improvements of business processes require the upgrading of the existing software or the procurement of new software. In such cases, in cooperation with the supplier, the IT system is modelled and/or upgraded. The most significant step forward in the improvement of business processes, and in the quality of business operations in general, was made by HAKOM through optimization and IT introduction into the process by means of introducing a software product, which was up to that moment used only in some departments, into entire HAKOM, and by its upgrading in accordance with requirements of key users and models of the case management process.

The actual improvement in quality depends on complete familiarity with and control of processes on the basis of data resulting from systematic process monitoring, which is why quality improvement in HAKOM is an integral part of business activities of any employee.

4.6. Cooperation

4.6.1. International

Year after year, as Croatia gets closer to the EU membership, HAKOM is following and keeping up with the best practice in market regulation in accordance with the development and situation on the Croatian market, which is confirmed through international cooperation which will become one of HAKOM's key activities on the path towards the European electronic communications market and postal services market after Croatia's accession to the EU and in harmonised application of regulation.

In 2010 HAKOM continued with international cooperation and participated in a series of bilateral and multilateral meetings and workshops thus promoting effective regulation of electronic communications and postal services markets, the radio frequency management and numbering resources, and promoting HAKOM as an active and modern regulator in the network of European regulators in terms of application of the regulatory framework and market development. HAKOM is a full member the Independent Regulators Group IRG and observer in the newly founded Body of European Regulators for Electronic Communications (BEREC). Although HAKOM has observer status in the work of BEREC, that is, it is not entitled to vote when decisions are adopted, which is a prerogative only of EU Member States, HAKOM's experts participate in the work of all BEREC's working groups and project teams in all areas important for the regulation of the electronic communications market. On one hand, HAKOM's experts actively participate and contribute to the work of BEREC, while on the other hand they are gaining experience in activities related to cooperation with the European Commission which will be very useful after accession to the EU when HAKOM will become a full member of BEREC with all rights and obligations.

During 2010, HAKOM actively participated in the work of European Commission's working groups (COCOM, ERG, IRG, RSPG, RSC) and in the work of ITU's and CEPT's working groups in the sector of electronic communications market and in CERP's and UPU's working groups in the sector of the postal services market. In September 2010, HAKOM successfully organised a plenary meeting of the HCM Agreement in Zagreb when the new HCM Agreement was accepted and officially signed by all member states.

Special attention was paid by HAKOM to cooperation with neighbouring countries. Within the framework of cooperation with the neighbouring countries, a series of multilateral and bilateral meetings were organised with regulatory authorities of countries in the region. Furthermore, HAKOM organised several workshops in order to transfer its knowledge about market regulation and frequency spectrum management to colleagues from the neighbouring countries. Invitations and organised workshops show that HAKOM has become a successful and competent regulator in international terms.

Furthermore, as part of professional training, HAKOM's employees participated in several gatherings, trainings and workshops abroad.

4.6.2. Domestic

In 2010, HAKOM cooperated on a daily basis with actors on the market of electronic communications and postal services by resolving their requests, by organising public consultation on decisions which are important for market development, joint meetings, working groups and seminars.

HAKOM regularly cooperated with state bodies and ministries in joint activities, among which, particular emphasis must be placed on cooperation with the:

- Ministry of the Sea, Transport and Infrastructure,
- Ministry of Foreign Affairs and European Integration,
- Ministry of Defence,
- Ministry of Culture,
- Central Office for E-Croatia,
- Electronic Media Agency,
- Croatian Competition Agency,

In 2010, HAKOM's employees have actively participated in several gatherings by participating at round tables and workshops and by presenting their activities.

4.7. Pre-accession funds

The main objective of pre-accession funds programmes is to assist candidate countries and potential candidates to align their national legislation with the EU *acquis communautaire*.

For the purpose of better market regulation, HAKOM continues to use pre-accession assistance instruments through the IPA programme in order to adopt and apply the European practice in market regulation in compliance with development and situation on the Croatian market.

In 2010, HAKOM continued implementing a project within I component of the IPA programme (IPA TAIB 2007) entitled "**Reinforcement of Institutional and Administrative Capacity for Croatian Post and Electronic Communications Agency**" valid EUR 4,114,910.00, with national co-financing amounting to EUR 853,877.50.

The project consists of two components for the procurement of equipment for the frequency monitoring radiolocation system and technical assistance for the reinforcement of HAKOM's institutional and administrative capacity.

Equipment procurement component

"Upgrade of Frequency Monitoring Radiolocation System"

The equipment and the related software have been delivered in 2010 and installed at measurement locations in Zagreb, Rijeka, Split and Osijek. The testing of the equipment and software was carried out as well as the training of employees handling the equipment. After the successful completion of this stage of the project, a provisional acceptance certificate was issued on 30 June 2010. The one-year guarantee period for the equipment has started from that date. After the expiry of the guarantee period, the final acceptance certificate will be issued in 2011.

During project implementation, a part of the delivered equipment was installed into measurement vehicles. Two out of the total of five measurement vehicles have been replaced by new vehicles because they were too old. All measurement devices and software have been transferred from the old vehicles into the new ones. The equipment includes broadband measurement receivers and software for vehicles which are now located in Mercedes Sprinters in Osijek and Zagreb.

Capacity reinforcement component

"Reinforcement of institutional and administrative capacity for HAKOM"

The implementation of this project component started in March 2011. The project is oriented towards the development of expert knowledge in HAKOM's scope of activities and on the reinforcement of administrative and operational capacity of its employees.

The contract on technical assistance component amounting to EUR 699,400.00 was signed in January 2010. This project, as a successor of CARDS programme, provides support to HAKOM's operational capacity and ensures capacity for supervising the implementation of EU's *acquis communautaire*.

The IPA 2009 Twinning light project "Support to HAKOM in the area of accounting separation of postal services"

In 2010, within the framework of IPA 2009 pre-accession programme, HAKOM was approved funds amounting to EUR 193,420.00 for the implementation of the Twinning light project entitled "Support to HAKOM in the area of accounting separation of postal services",

with the share of national co-financing amounting to EUR 19,342.00. The objective of the project "Support to HAKOM in the area of accounting separation of postal services" is to promote and maintain the operation of a liberalised postal sector in compliance with European Union directives in the postal services sector and to ensure the implementation of legislation and appropriate market regulation for the protection of users of postal services. The purpose of the project is to promote administrative and regulatory capacities of HAKOM in the area of accounting separation. The implementation of the project will start in the second trimester of 2011.

TAIEX

In 2010, there were two missions carried out within TAIEX, which also included HAKOM's employees.

Expert mission on the application of HRN 13850 standard

In September 2010, HAKOM hosted a project under the auspices of TAIEX: Expert mission on the application of HRN 3850 standard. The project was initiated by the Postal Services Department in order to train department employees for the implementation of HRN 13850 standard concerning the measuring of quality of provision of universal postal services.

Seminar on the EU regulatory framework in the electronic communications sector

In September 2010, the TAIEX office of the European Commission, the Judicial Academy and HAKOM jointly organised a seminar on the EU regulatory framework in the electronic communications sector and its implementation in Member States. The seminar gathered participants from the Administrative Court of the RoC, from misdemeanour courts and from HAKOM. The lectures of domestic lecturers - judges from the Administrative and Misdemeanour Court and lecturers from various EU Member States familiarised participants with the main characteristics of the regulatory framework in the electronic communications sector, with the role of national courts in its implementation, in particular the judicial control of lawfulness of decisions adopted by regulatory authorities, and with the punishments for those who violate the rules laid down in the regulatory framework.

The implementation of the initiated projects financed from pre-accession funds in 2010 will continue in 2011 as well.

4.8. Bylaws

Implementing legislation and general bylaws

The Council of HAKOM adopted the following new pieces of implementing legislation or the amendments thereof:

1. The Ordinance on the provision of universal postal services (OG No. 37/2010)
2. The Ordinance on amendments to the Ordinance on conditions for the assignment and use of the radiofrequency spectrum (OG No. 70/2010)

3. The Ordinance on amendments to the Ordinance on the certificate and fee for the right of way (OG No. 89/2010)
4. The Ordinance on amendments to the Ordinance on the manner and conditions for access to sharing of electronic communications infrastructure and associated facilities (OG No. 93/2010)
5. The Ordinance on technical requirements and conditions of use for optical distribution networks (OG No. 108/2010)
6. The Ordinance on technical requirements for duct systems (OG No. 114/2010)
7. The Ordinance on payment of fees for the carrying out of tasks by the Croatian Post and Electronic Communications Agency (OG No. 144/2010)

Furthermore, as a result of the adoption of new legislation or with a view to improving and upgrading performance, the following general bylaws were adopted or amended in 2010:

1. The amendments to the Statute of the Croatian Post and Electronic Communications Agency,
2. The Ordinance on amendments to the Ordinance on the work of the Croatian Post and Electronic Communications Agency,
3. The Ordinance on amendments to the Ordinance on classification of work places of HAKOM's employees,
4. The Ordinance on the protection and processing of HAKOM's archival and registry material
A special list of HAKOM's documents,
5. The Code of Ethics of HAKOM's employees,
6. The amendments to the Ordinance on the use of services within mobile networks and the assignment of HAKOM's mobile devices.

Cases and documents

Last year HAKOM processed the total of 33,803 incoming documents and 28,820 outgoing documents with the total of 62,623 documents passing through HAKOM. Therefore, in 2010 HAKOM counted the following:

- 33,833 incoming acts out of which 8,997 are administrative cases, and 24,806 non-administrative cases,
- 23,469 initiated new proceedings out of which 8,401 are administrative cases, and 15,068 non-administrative cases,
- 22,216 resolved cases out of which 8,866 are administrative cases, and 12,742 non-administrative cases,
- 28,820 outgoing acts out of which 8,122 are administrative cases, and 20,698 non-administrative cases,

Building conditions: In 2010, the total of 8,272 cases was processed, and 7,603 documents were issued.

Right of way: the total of 2,654 right-of way certificates were granted for 153,394.36m of cable ducts for which the infrastructure operators are obliged to pay a fee for the right of way amounting to HRK 471,606.09 a year.

R&TT equipment and approvals for import and placing on the market: the total of 32830 cases was processed, and 8432 documents were issued.

Primary assignment of addresses and numbers: 66 decisions on assignment (2,073,868 addresses and numbers) and 42 decisions on withdrawal.

Licences and authorisations for use of the radio frequency spectrum

Table 4.1 Data on issued certificates of compliance of a radio station

| Certificates of compliance of a radio station | Issued |
|--|---------------|
| Certificates of compliance of DVB-T radio station | 303 |
| Certificates of compliance of GSM/DCS/UMTS radio station | 853 |
| TOTAL | 1156 |

Table 4.2 Data on issued licences and authorisations for use of RF spectrum

| Licences for use of the radio frequency spectrum | Issued |
|--|---------------|
| Licences for use of the RF spectrum for a fixed radio station | 758 |
| License for use of the RF spectrum in microwave link | 944 |
| Licences for use of the RF spectrum for a fixed radio station | 671 |
| License for use of the RF spectrum in satellite service | 4 |
| License for use of the RF spectrum in broadcasting | 290 |
| License for use of the RF spectrum in satellite service | 213 |
| License for CEPT amateur license | 33 |
| License for use of the RF spectrum on a vessel | 1283 |
| License for use of the RF spectrum on an aircraft | 50 |
| License for use of the RF spectrum for digital television networks | 2 |
| General licences | 35 |
| New licences | 20 |
| Amendments to existing | 10 |
| Withdrawn licences | 5 |
| Authorisations for use of the radio frequency spectrum | 13 |
| TOTAL | 4283 |

4.9. HAKOM's employees

At the end of 2010, HAKOM employed 168 people.

Table 4.2. Number of people employed by HAKOM on 31 December 2010

| Level of education | Number of employees | Number of employees in% |
|--------------------|---------------------|-------------------------|
| Ph.D. | 2 | 1.19 |
| M.Sc. | 15 | 8.93 |
| Bachelor's degree | 98 | 58.33 |
| College education | 19 | 11.31 |
| High school | 34 | 20.24 |
| TOTAL | 168 | 100.00 |

The analysis of employees according to level of education presented in Table 4.1 indicates that HAKOM is a highly-educated regulatory authority. More precisely, 80 percent of HAKOM's employees have college or university education. It is important to mention that 10 percent of employees have completed postgraduate education in electrical engineering, transport science, law or economy.

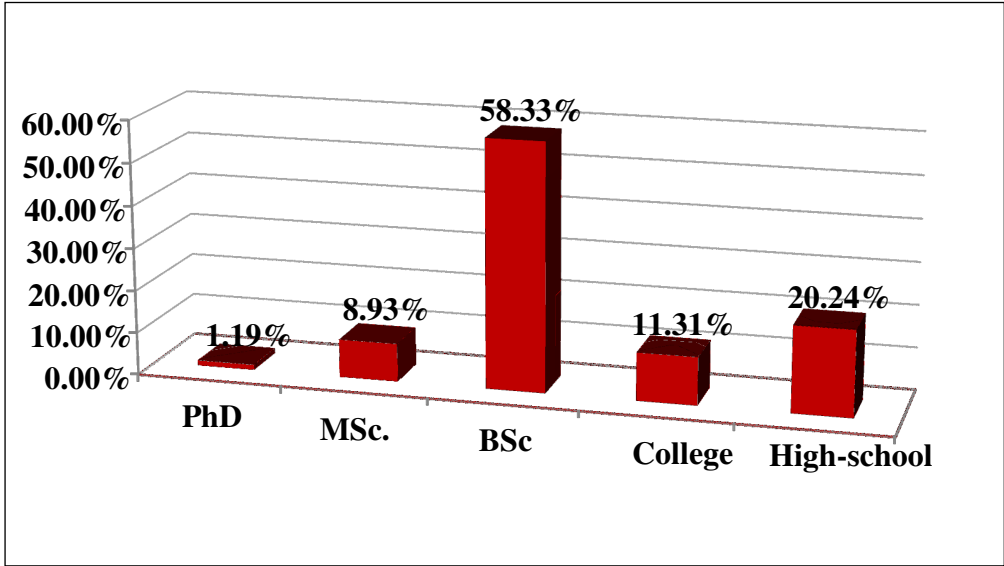


Figure 4.1. The structure of HAKOM's employees according to level of education

Out of the total number of HAKOM's employees, 44 percent are women and 56 percent men.

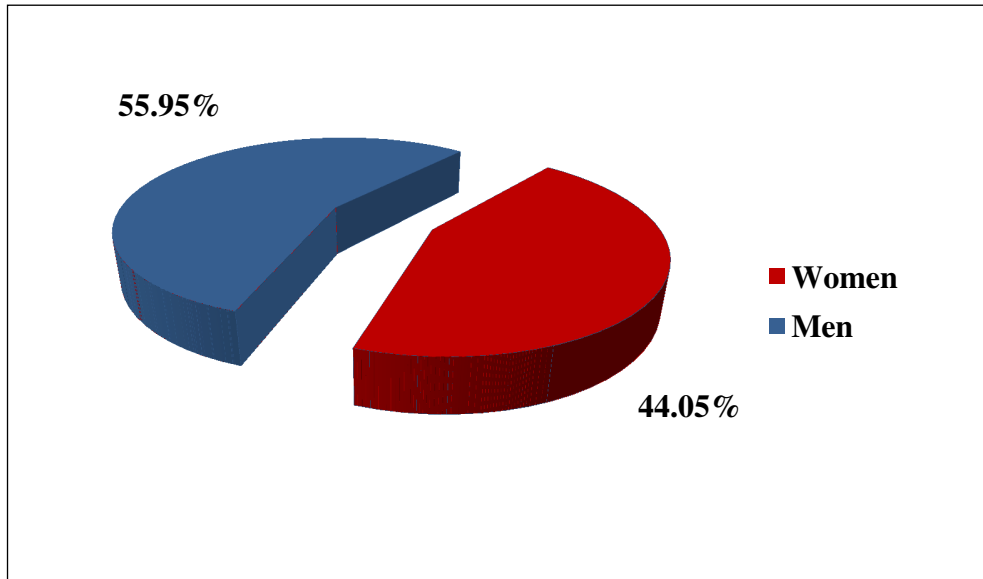


Figure 4.2 Structure of employees according to gender

The age structure is 30 to 40 years of age, and more than 60 percent of employees are less than 40 years of age. The average age of employees in HAKOM is 39.

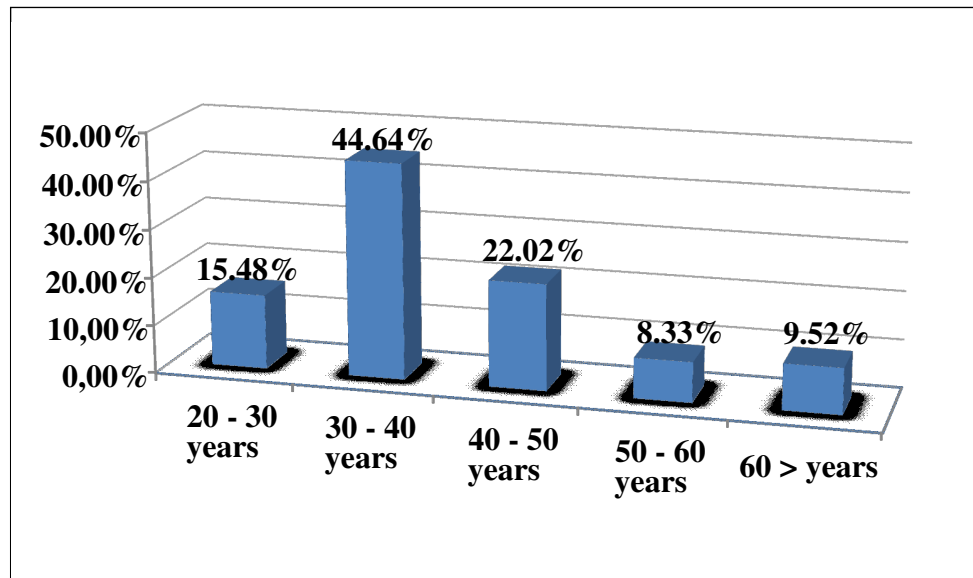


Figure 4.3 Structure of employees according to age

The structure of employees according to profession corresponds to the multidisciplinary nature of the job and tasks presented in front of HAKOM.

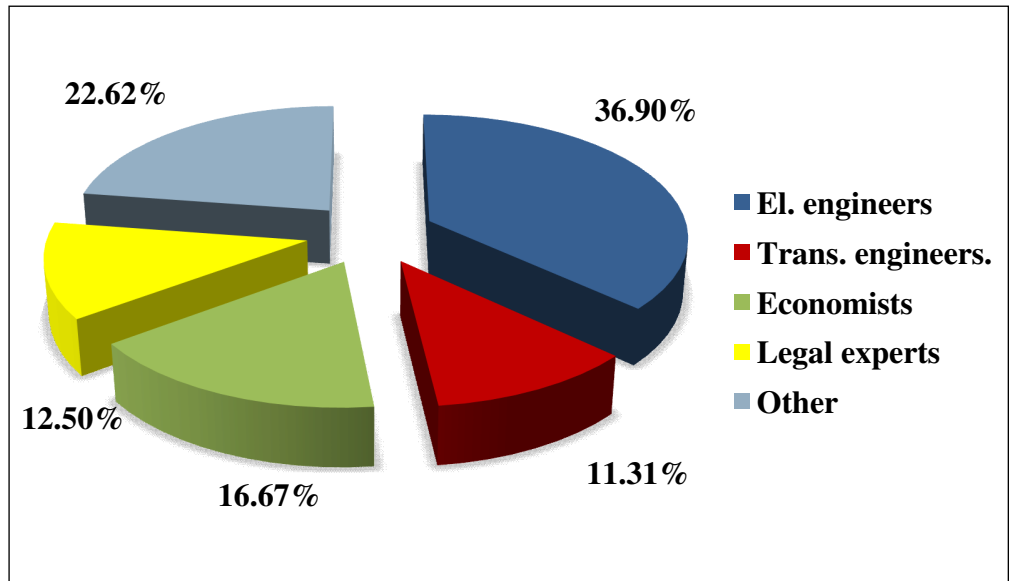


Figure 4.4 Structure of employees according to profession

5. FINANCIAL REPORT AND FINAL STATEMENT

5.1. Legislation

HAKOM applies legislation referring to non-profit organisations. The accounting of non-profit organisations is laid down by the Regulation on the accounting of non-profit organisations and it is based on generally accepted accounting principles of accuracy, authenticity, reliability and single recording of positions. It is prescribed that revenue and expenditure is shown according to the principle of occurrence of events regardless of collection or payment.

The ECA prescribes separate recording of accounting events related to electronic communications and postal services. Revenue, expenditure and results for the electronic communications and postal services sectors are separated in the financial and final statements. The final statement consists of the analysis of revenue, expenditure and surplus revenue, the analysis of surplus of obtained funds, the balance sheet as of 31 December 2010, the analysis of investments and analysis of revenue of the State Budget of the Republic of Croatia.

The ECA prescribes that HAKOM will transfer the surplus of funds in relation to the annual financial plan to the following calendar year.

The Ordinance on payment of fees for the carrying out of tasks by HAKOM prescribes the amount and manner of payment of fees to HAKOM.

The ECA prescribes that HAKOM must issue invoices on behalf and for the account of the State Budget. State Budget funds are kept in the off-balance-sheet records per vendors and issued invoices.

5.2. Revenue

Funds for the carrying out of HAKOM's activities in 2010 were ensured in the following manner:

- for the electronic communications sector, on the basis of the approved HAKOM's annual financial plan, from the fee for the use of addresses and numbers, fees for the use of the RF spectrum, fees for the carrying out of other HAKOM's tasks, fees for compliances, donations and revenue from assets,
- for the postal services sector, on the basis of the approved HAKOM's annual financial plan, as a percentage of the total annual gross revenue earned in the previous calendar year by providers of postal services.

The total HAKOM's revenue earned in 2010 was lower than HAKOM's revenue in 2009 when it amounted to 108,780,458 and planned revenue as a result of delayed recognition of revenues, that is, as a result of the application of the event occurrence principle.

HAKOM's total revenue in 2010 amounted to HRK 96,278,366 out of which:

- HRK 91,615,682 refers to the electronic communications sector,
- HRK 4,662,684 refers to revenue in the postal services sector.

Table 5.1 Revenue earned in 2010 compared to the annual financial plan (in HRK)

| | DESCRIPTION | Plan 2010 | Realised in 2010 | Index |
|---|---|----------------|------------------|-------|
| 1 | Revenue from fees for use of the RF spectrum | 45,184,404.56 | 20,242,164.50 | 45 |
| 2 | Revenue from fees for the carrying out of other HAKOM's activities | 35,044,469.33 | 41,640,852.56 | 119 |
| 3 | Revenue from fees for use of addresses and numbers | 7,581,774.60 | 6,752,232.51 | 89 |
| 4 | Revenue from annual fees for the carrying out of activities in the postal services sector | 3,830,000.00 | 4,658,976.94 | 122 |
| 5 | Revenue from compliance | 600,000.00 | 793,844.93 | 132 |
| 6 | Revenue from donations | 25,000,000.00 | 21,428,398.88 | 86 |
| 7 | Revenue from assets | 300,000.00 | 661,049.59 | - |
| 8 | Other unmentioned revenue | | 100,846.19 | - |
| | TOTAL | 117,540,648.49 | 96,278,366.10 | 82 |

Revenue from fees for use of the RF spectrum

In Section 5.1 Legislation, it has already been mentioned that revenue and expenditure is shown according to the principle of occurrence of events regardless of collection or payment. Fees for use of the RF spectrum are paid one year in advance, which does not correspond to a calendar year. The proportionate part of the fee for the use of the RF spectrum, that is, the part of the fee for the period in 2010, represents 2011 revenue, regardless of the moment of collection.

In 2010, the amount of revenue for future periods (2011 revenue) amounts to HRK 45,174,750. For this reason, the revenue from the fee for the use of the RF spectrum in 2010 is lower than planned.

Table 5.2. Revenue from fees for use of the RF spectrum (in HRK)

| | | |
|---|--|----------------|
| 1 | Revenue in 2010 transferred from 2009 | HRK 4,293,951 |
| 2 | Revenue in 2010 | HRK 15,948,213 |
| 3 | Future revenue (2011) - invoices in 2010 - revenue for 2011 | HRK 45,174,750 |

It is envisaged that the same amount of revenue will be transferred from the previous periods and that revenue in future period will be similar

Revenue from fees for the carrying out of other HAKOM's activities

The fee for the carrying out of other HAKOM's activities is expressed as a percentage of total annual gross revenue which was accrued by operators in the previous calendar year as a result of the provision of electronic communications networks and services on the market. In 2010 this percentage amounted to 0.29% of the total annual gross revenue. Year after year, HAKOM has been reducing the fee for the carrying out of HAKOM's activities by the Ordinance on payment of fees for carrying out of tasks by HAKOM

| Year | 2009 | 2010 | 2011 |
|------------|--------|--------|--------|
| Percentage | 0.32 % | 0.29 % | 0.28 % |

Revenue from fees for use of addresses and numbers

The amount of the annual fee is determined depending on the type of electronic communications services for which addresses or numbers are used.

Revenue from fees for the carrying out of activities in the postal services sector

The public operator and other providers of postal services are obliged to pay the annual fee for the carrying out of HAKOM's activities in the postal services sector as a percentage of the total annual gross revenue earned from the provision of postal services in the previous calendar year. The calculation and the amount of the fee as well as the manner of payment are laid down in the Ordinance on payment of fees for the carrying out of tasks by HAKOM. In 2010, this percentage amounted to 0.29%.

| Year | 2010 | 2011 |
|------------|--------|--------|
| Percentage | 0.29 % | 0.28 % |

Revenue from compliance

The revenue from compliance is laid down in the Ordinance on radio equipment and telecommunications terminal equipment

Revenue from donations

Revenue accrued on the basis of reported and selected projects from pre-accession funds. Projects from pre-accession funds are discussed in Section 4.7. Pre-accession funds.

Revenue from assets

They represent revenue from interest rates on sight deposits, penalty rates and positive exchange rate differences.

Other unmentioned revenue

Other unmentioned revenue consists of revenue from refunds and compensations for damage.

5.3 Expenditure

5.3.1 Total HAKOM's expenditure per sectors

HAKOM's total expenditure in 2010 amounted to HRK 100,462,782 out of which:

- HRK 68,819,273 refers to revenue in the electronic communications sector,
- HRK 3,057,634 refers to revenue in the postal services sector,
- HRK 28,585,875 refers to revenue for capital donations.

Out of the total expenditure for the **electronic communications sector**, HRK 36,059,115 refers to expenditure for employees, HRK 26,087,436 refers to material expenditure, HRK 6,346,183 refers to expenditure from depreciation, HRK 78,364 refers to financial expenditure, HRK 132,000.00 refers to current donations and HRK 116,176 refers to other expenditure.

Out of the total expenditure for the **postal services sector**, HRK 2,132,543 refers to expenditure for employees, HRK 911,027 refers to material expenditure, HRK 13,507 refers to expenditure from depreciation, and HRK 557 refers to financial expenditure.

Capital donations do not represent expenditure related to the carrying out of regular HAKOM's activities and are not financed from HAKOM's regular revenue. The capital donations account records expenditure incurred as a result of decisions adopted by the Government of the RoC. Funds for the coverage of this expenditure are recorded under surplus revenue over expenditure in the previous years, including: 2005, 2006, 2007 and 2008. The surplus revenue over expenditure from previous periods is kept on a separate giro account.

5.3.2 Total HAKOM's expenditure according to accounts from the accounting plan

Total **expenditure for employees** is lower than total expenditure approved in HAKOM's 2010 annual financial plan. The annual salaries accounting was for the first time included in 2010. In relation to expenditure for employees, there was an increase, that is, a decrease on individual accounts from the accounting plan in relation to the approved accounts in the annual financial plan because of the occurrence of unplanned events.

Total **material expenditure** is lower than total expenditure approved in HAKOM's 2010 annual financial plan. The analysis of material expenditure also shows an increase in certain items compared to the planned amounts because of the occurrence of unplanned events. Out of the total material expenditure, HRK 3,933,261 refers to reimbursements to employees, HRK 21,072 refers to compensation of costs to members of representative and executive bodies, HRK 85,380 refers to compensations to external contractors, HRK 20,252,449 refers to expenditure for services, HRK 1,969,658 refers to expenditure for supplies and power, and HRK 736,643 refers to other unmentioned expenditure.

The majority of material expenditure consists of rent costs for premises used by HAKOM.

Business trip expenditure exceeds expenditure approved by the annual financial plan by 15%, that is, by HRK 263,321, as a result of increased international activities and activities of control of the RF spectrum. International activities are discussed in Section 4.5.1. International cooperation; and control of the RF spectrum is discussed in Section 1.9. Management of limited resources.

Compensations to members of representative and executive bodies represent fees for the work of the consumer protection commission. The work of the consumer protection commission is discussed in Section 3.1. Protection of users of electronic communications

In 2010, **compensations to external associates** were planned on the account for intellectual and personal services. It was decided in 2010 that compensations to external associates will be recorded on a separate account, account 42, in accordance with the accounting plan. In the previous years these compensations were included under intellectual and personal services. The planned amount for these compensations in 2010 is included under the account of intellectual and personal services, and the realisation of these compensations is included in the account of compensations for external associates and cannot be compared with the annual financial plan for 2010.

Expenditure for the services of telephone, mailing and transportation exceed those approved by the annual financial plan for 2010 by 20%, that is, by HRK 296,630.

Table 5.3. Realisation of costs of services for telephone, mailing and transportation (in HRK)

| | |
|--|--------------|
| Amount approved in HAKOM's annual financial plan for 2010 | 2,313,917.11 |
| Amount approved in amendments to HAKOM's annual financial plan | 1,400,793.45 |
| Realisation for 2010 | 1,697,423.00 |

The rationalisation of expenditure on telephone services resulted in significant savings on these expenditures. However, the decrease in these expenditures was overestimated in amendments to HAKOM's annual financial plan for 2010. The total expenditure for telephone, mail and transportation services was reduced by 39%. Expenditure for these services is significantly lower than the planned and approved in the first HAKOM's annual financial plan for 2010, but in the amendments to the annual financial plan, HAKOM overestimated the cuts in these expenditures.

There are two bigger items within material expenditure in relation to the approved annual financial plan for 2020, in particular, **utilities and power**.

Due to the change in the accounting principle and the beginning of application of depreciation, the planning of **depreciation** was unrealistic in HAKOM's financial plan for 2010, but the depreciation expenditure does not influence the efflux of cash. The amount of depreciation does not influence the surplus of collected funds either or the increase or decrease in the funds necessary to finance HAKOM. The increased amount of depreciation influences the expressed revenue deficit in the Income and Expenditure Statement.

Capital donations - support

Capital donations amounting to HRK 28,585,875.57 consist of:

- HRK 27,168,914.57 intended for digital switchover of television channels in the RoC - paid into the state budget,
- HRK 1,416,960.00 for the implementation of the Broadband Access Development Strategy in the RoC

The surplus of funds from 2008, which consists of the difference between HAKOM's revenue and expenditure earned in 2008 amounting to HRK 27,168,914.57 on the basis of a decision adopted by the Government of the RoC (CLASS: 344-03/09-02/02; Reg No. 5030116-10-1 of 21 January 2010) on 11 February 2010 was paid for the benefit of the State Budget of the RoC as special purpose revenue intended for digital switchover of television channels in the RoC in accordance with the decision on the manner of allocation of funds, and criteria and principles for providing support to natural persons paying the radio and television fee when purchasing digital receivers.

Table 5.4. Analysis of capital donations (in HRK)

| | Surplus of funds | | | |
|---------------------------|------------------|------------|------------|------------|
| | 2005 | 2006 | 2007 | 2008 |
| Balance on 01/01/2008 | 28,712,593 | 19,390,117 | 29,381,684 | - |
| Capital donations in 2008 | 7,805,731 | 0 | 29,000,000 | - |
| Balance on 31/12/2008 | 20,906,862 | 19,390,117 | 381,684 | - |
| Capital donations in 2009 | 19,267,101 | 0 | 0 | - |
| Balance on 31/12/2009 | 1,639,761 | 19,390,117 | 381,684 | 27,168,915 |
| Capital donations in 2010 | 1,416,960 | 0 | HRK 0 | 27,168,915 |
| Balance on 31/12/2010 | 222,801 | 19,390,117 | 381,684 | 0 |

5.3.3 Earned revenue in 2010 compared to the annual financial plan

Table 5.5 HAKOM's expenditure in 2010 compared to the annual financial plan (in HRK)

| Account | DESCRIPTION | Plan 2010 | Realisation 2010 | Index |
|------------|--|------------|------------------|-------|
| 41 | Expenditure for employees | 38,313,115 | 38,191,658 | 100 |
| 411 | Salaries | 31,780,867 | 31,955,235 | 101 |
| 4111 | Salaries for regular work | 31,424,467 | 31,632,900 | 101 |
| 4112 | Payment in kind | 200,000 | 295,145 | 148 |
| 4113 | Compensation for overtime work | 156,400 | 27,190 | 17 |
| 412 | Other expenditure for employees | 607,590 | 682,620 | 112 |
| 413 | Contributions on salaries | 5,924,658 | 5,553,803 | 94 |
| 4131 | Contributions for health insurance | 5,148,129 | 5,035,954 | 98 |
| 4132 | Contributions for employment | 776,528 | 517,849 | 67 |
| 42 | Material expenditure | 31,765,611 | 26,998,463 | 85 |
| 421 | Reimbursements to employees | 4,268,371 | 3,933,261 | 92 |
| 4211 | Business trips | 1,794,549 | 2,057,871 | 115 |
| 4212 | Travel expenses | 813,025 | 682,470 | 84 |
| 4213 | Professional training of employees | 1,660,796 | 1,192,920 | 72 |
| 422 | Compensations for members of commissions | 62,186 | 21,072 | 34 |
| 4221 | Compensations for carrying out of activities | - | 11,521 | - |
| 4222 | Reimbursement of travel expenses | - | 9,551 | - |
| 424 | Compensations for external associates | - | 85,380 | - |
| 4241 | Compensations for carrying out of activities | - | 85,380 | - |
| 425 | Expenditure for services | 23,845,500 | 20,252,449 | 85 |
| 4251 | Telephone, mail and transportation services | 1,400,793 | 1,697,424 | 121 |
| 4252 | Services of current and investment maintenance | 1,395,006 | 1,249,315 | 90 |
| 4253 | Promotion and information services | 892,088 | 558,085 | 63 |
| 4254 | Utilities | 607,535 | 701,983 | 116 |
| 4255 | Leases and rent | 8,044,392 | 7,100,045 | 88 |
| 4256 | Health and veterinary services | 390,000 | 348,355 | 89 |
| 4257 | Intellectual and personal services | 7,955,639 | 5,551,381 | 70 |
| 4258 | IT services | 1,823,765 | 1,740,558 | 95 |
| 4259 | Other services | 1,336,280 | 1,305,303 | 98 |
| 426 | Expenditure for supplies and power | 1,950,009 | 1,969,658 | 101 |
| 4261 | Office supplies and other material expenditure | 894,494 | 867,481 | 97 |

| Account | DESCRIPTION | Plan 2010 | Realisation 2010 | Index |
|--------------|---|--------------------|--------------------|------------|
| 4263 | Energy | 744,693 | 899,086 | 121 |
| 4264 | Small inventory and car tyres | 310,823 | 203,091 | 65 |
| 429 | Other unmentioned material expenditure | 1,639,546 | 736,643 | 45 |
| 4291 | Insurance premiums | 1,129,400 | 427,391 | 38 |
| 4292 | Entertaining | 173,089 | 163,387 | 94 |
| 4293 | Membership fees | 257,937 | 145,647 | 56 |
| 4295 | Other unmentioned material expenditure | 79,120 | 218 | 0 |
| 43 | Depreciation expenditure | 3,500,000 | 6,359,690 | 182 |
| 44 | Financial expenditure | 206,304 | 78,920 | 38 |
| 443 | Other financial expenditure | 206,304 | 78,920 | 38 |
| 4431 | Banking services and transaction services | 76,799 | 40,657 | 53 |
| 4432 | Negative exchange rate differences and currency clause | 9,757 | 20,281 | 208 |
| 4433 | Penalty interest | 58,830 | 3,846 | 7 |
| 4434 | Other unmentioned financial expenditure | 60,918 | 14,136 | 23 |
| 45 | Donations | 69,867,612 | 28,717,875 | 41 |
| 451 | Current donations | 132,000 | 132,000 | 100 |
| 452 | Capital donations | 69,735,612 | 28,585,875 | 41 |
| 46 | Other expenditure | 8,935 | 116,176 | 1300 |
| 461 | Fines, penalties and damages | 8,935 | 6,120 | 68 |
| 4612 | Penalties, storage charge and other | 8,419 | 6,120 | 73 |
| 4614 | Agreed fines and other compensations for damage | 515 | 0 | - |
| 462 | Other unmentioned expenditure | - | 110,056 | - |
| 4621 | Unwritten off value and other expenditure from alienated assets and disposals | - | 110,056 | - |
| TOTAL | | 143,661,577 | 100,462,782 | 70 |

Table 5.6 Expenditure incurred in electronic communications sector by HAKOM in 2010 compared to the annual financial plan (in HRK)

| Account | DESCRIPTION | Plan 2010 | Realisation 2010 | Index |
|------------|---------------------------|-------------------|-------------------|------------|
| 41 | Expenditure for employees | 36,078,115 | 36,059,115 | 100 |
| 411 | Salaries | 29,880,867 | 30,201,431 | 101 |
| 4111 | Salaries for regular work | 29,553,867 | 29,901,280 | 101 |

| | | | | |
|------------|---|-------------------|-------------------|------------|
| 4112 | Payment in kind | 180,000 | 272,961 | 152 |
| 4113 | Compensation for overtime work | 147,000 | 27,190 | 18 |
| 412 | Other expenditure for employees | 562,590 | 615,492 | 109 |
| 413 | Contributions on salaries | 5,634,657 | 5,242,191 | 93 |
| 4131 | Contributions for health insurance | 4,898,129 | 4,753,337 | 97 |
| 4132 | Contributions for employment | 736,528 | 488,855 | 66 |
| 42 | Material expenditure | 30,269,779 | 26,087,436 | 86 |
| 421 | Reimbursements to employees | 4,028,371 | 3,731,893 | 93 |
| 4211 | Business trips | 1,694,549 | 1,953,133 | 115 |
| 4212 | Travel expenses | 733,025 | 635,790 | 87 |
| 4213 | Professional training of employees | 1,600,796 | 1,142,970 | 71 |
| 422 | Compensations for members of commissions | 62,186 | 21,072 | 34 |
| 4221 | Compensations for carrying out of activities | - | 11,521 | - |
| 4222 | Reimbursement of travel expenses | - | 9,551 | - |
| 424 | Compensations for external associates | - | 85,380 | - |
| 4241 | Compensations for carrying out of activities | - | 85,380 | - |
| 425 | Expenditure for services | 22,813,067 | 19,652,476 | 86 |
| 4251 | Telephone, mail and transportation services | 1,320,794 | 1,609,872 | 122 |
| 4252 | Services of current and investment maintenance | 1,340,006 | 1,241,609 | 93 |
| 4253 | Promotion and information services | 860,088 | 542,654 | 63 |
| 4254 | Utilities | 577,535 | 652,404 | 113 |
| 4255 | Leases and rents | 7,644,392 | 6,733,136 | 88 |
| 4256 | Health and veterinary services | 360,000 | 337,939 | 94 |
| 4257 | Intellectual and personal services | 7,655,639 | 5,541,823 | 72 |
| 4258 | IT services | 1,768,333 | 1,736,887 | 98 |
| 4259 | Other services | 1,286,280 | 1,256,154 | 98 |
| 426 | Expenditure for supplies and power | 1,807,009 | 1,902,110 | 105 |
| 4261 | Office supplies and other material expenditure | 805,494 | 839,697 | 104 |
| 4263 | Energy | 714,693 | 866,608 | 121 |

| Account | DESCRIPTION | Plan 2010 | Realisation 2010 | Index |
|------------|--|--------------------|---------------------|-----------|
| 4264 | Small inventory and car tyres | 286,823 | 195,805 | 68 |
| 429 | Other unmentioned material expenditure | 1,559,146 | 694,504 | 45 |
| 4291 | Insurance premiums | 1,084,400 | 415,082 | 38 |
| 4292 | Entertaining | 148,689 | 139,282 | 94 |
| 4293 | Membership fees | 247,937 | 139,923 | 56 |
| 4295 | Other unmentioned material expenditure | 78,120 | 218 | 0 |
| 43 | Depreciation expenditure | 3,500,000 | 6,346,183 | 181 |
| 44 | Financial expenditure | 197,604 | 78,364 | 40 |
| 443 | Other financial expenditure | 197,604 | 78,364 | 40 |
| 4431 | Banking services and transaction services | 73,799 | 40,134 | 54 |
| 4432 | Negative exchange rate differences and currency clause | 8,757 | 20,252 | 231 |
| 4433 | Penalty interest | 55,830 | 3,842 | 7 |
| 4434 | Other unmentioned financial expenditure | 59,218 | 14,136 | 24 |
| 45 | Donations | 69,867,612 | 28,717,875 | 41 |
| 451 | Current donations | 132,000 | 132,000 | 100 |
| 452 | Capital donations | 69,735,612 | 28,585,875 | 41 |
| 46 | Other expenditure | 8,335 | 116,176 | 1394 |
| 461 | Fines, penalties and damages | 8,335 | 6,120 | 73 |
| 4612 | Penalties, storage charge and other | 7,919 | 6,120 | 77 |
| 4614 | Agreed fines and other compensations for damage | 415 | 0 | - |
| 462 | Other unmentioned expenditure | - | 110,056 | - |
| 4621 | Unwritten off value and other expenditure from alienated assets and disposals | - | 110,056 | - |
| | TOTAL | 139,921,445 | 97,405,148 | 70 |

Table 5.7 Expenditure incurred in the postal services sector for HAKOM in 2010 compared to the annual financial plan (in HRK)

| Account | DESCRIPTION | Plan 2010 | Realisation 2010 | Index |
|---------|--|-----------|------------------|-------|
| 41 | Expenditure for employees | 2,235,000 | 2,132,543 | 95 |
| 411 | Salaries | 1,900,000 | 1,753,804 | 92 |
| 4111 | Salaries for regular work | 1,870,600 | 1,731,620 | 93 |
| 4112 | Payment in kind | 20,000 | 22,184 | 111 |
| 4113 | Compensation for overtime work | 9,400 | 0 | - |
| 412 | Other expenditure for employees | 45,000 | 67,128 | 149 |
| 413 | Contributions on salaries | 290,000 | 311,612 | 107 |
| 4131 | Contributions for health insurance | 250,000 | 282,617 | 113 |
| 4132 | Contributions for employment | 40,000 | 28,995 | 72 |
| 42 | Material expenditure | 1,495,832 | 911,027 | 61 |
| 421 | Reimbursements to employees | 240,000 | 201,367 | 84 |
| 4211 | Business trips | 100,000 | 104,737 | 105 |
| 4212 | Travel expenses | 80,000 | 46,680 | 58 |
| 4213 | Professional training of employees | 60,000 | 49,950 | 83 |
| 425 | Expenditure for services | 1,032,432 | 599,973 | 58 |
| 4251 | Telephone, mail and transportation services | 80,000 | 87,552 | 109 |
| 4252 | Services of current and investment maintenance | 55,000 | 7,707 | 14 |
| 4253 | Promotion and information services | 32,000 | 15,431 | 48 |
| 4254 | Utilities | 30,000 | 49,579 | 165 |
| 4255 | Leases and rents | 400,000 | 366,909 | 92 |
| 4256 | Health and veterinary services | 30,000 | 10,416 | 35 |
| 4257 | Intellectual and personal services | 300,000 | 9,558 | 3 |
| 4258 | IT services | 55,432 | 3,671 | 7 |
| 4259 | Other services | 50,000 | 49,150 | 98 |
| 426 | Expenditure for material and power | 143,000 | 67,548 | 47 |
| 4261 | Office supplies and other material expenditure | 89,000 | 27,784 | 31 |
| 4263 | Energy | 30,000 | 32,477 | 108 |
| 4264 | Small inventory and car tyres | 24,000 | 7,287 | 30 |
| 429 | Other unmentioned material expenditure | 80,400 | 42,139 | 52 |
| 4291 | Insurance premiums | 45,000 | 12,309 | 27 |
| 4292 | Entertaining | 24,400 | 24,105 | 99 |
| 4293 | Membership fees | 10,000 | 5,725 | 57 |
| 4295 | Other unmentioned material expenditure | 1,000 | 0 | - |
| 43 | Depreciation expenditure | - | 13,507 | - |
| 44 | Financial expenditure | 8,700 | 557 | 6 |
| 443 | Other financial expenditure | 8,700 | 557 | 6 |
| 4431 | Banking services and transaction services | 3,000 | 524 | 17 |
| 4432 | Negative exchange rate differences and currency clause | 1,000 | 29 | 3 |
| 4433 | Penalty interest | 3,000 | 4 | 0 |
| 4434 | Other unmentioned financial expenditure | 1,700 | 0 | - |
| 46 | Other expenditure | 600 | 0 | - |

| | | | | |
|--------------|-------------------------------------|------------------|------------------|-----------|
| 461 | Fines, penalties and damages | 500 | 0 | - |
| 4612 | Penalties, storage charge and other | 100 | 0 | - |
| TOTAL | | 3,740,132 | 3,057,634 | 82 |

5.4. Revenue surplus (deficit)

In 2010 HAKOM recorded HRK 4,184,416 in revenue deficit.

Table 5.8. Results of HAKOM's business operations according to sectors (in HRK)

| No. | DESCRIPTION | Realisation 2010 | Realisation electronic communication s sector | Realisation postal services sector |
|-----|--|---------------------|--|--|
| | A) REVENUE (1 to 4.) | 96,278,366 | 91,615,682 | 4,662,684 |
| 1 | Revenue according to special regulations | 74,105,868 | 69,446,891 | 4,658,977 |
| 2 | Revenue from assets | 661,050 | 657,343 | 3,707 |
| 3 | Revenue from donations | 21,428,399 | 21,428,399 | 0 |
| 4 | Other revenue | 83,049 | 83,049 | 0 |
| | A) EXPENDITURE(1 to 6.) | 100,462,782 | 97,405,148 | 3,057,634 |
| 1 | Expenditure for employees | 38,191,658 | 36,059,115 | 2,132,543 |
| 2 | Material expenditure | 26,998,463 | 26,087,436 | 911,027 |
| 3 | Depreciation expenditure | 6,359,690 | 6,346,183 | 13,507 |
| 4 | Financial expenditure | 78,920 | 78,363 | 557 |
| 5 | Donations | 28,717,875 | 28,717,875 | 0 |
| | - current donations | 132,000 | 132,000 | 0 |
| | - capital donations | 28,585,875 | 28,585,875 | 0 |
| 6 | Other expenditure | 116,176 | 116,176 | 0 |
| | C) REVENUE DEFICIT/SURPLUS for period | - 4.184.416 | -5,789,466 | 1,605,050 |

The expressed revenue deficit in 2010 resulted from:

- delayed recognition of revenue from fees for use of the RF spectrum - discussed in Section 5.2. Revenue,
- capital donations expenditure (HRK 28,585,875) do not represent expenditure related to the carrying out of regular HAKOM's activities and are not financed from HAKOM's regular revenue. On the basis of the accounting events principle, revenue for the financing of this expenditure was revenue earned in the corresponding years (2005, 2006, 2007 and 2008), and expenditure since it occurred in 2010 also represents 2010 expenditure. Due to a time difference between the occurrence of revenue and expenditure, in some business years HAKOM's revenue surplus was very high, while in some years it recorded a revenue deficit.

Both of these situations belong to the electronic communications sector.

Business results are not related to the surplus funds which are transferred to the following year, that is, to the deficit which must be compensated pursuant to the ECA.

Surplus funds are discussed in the next Section.

Table 5.9. Results of HAKOM's business operations in 2010 compared to business results in the previous year (in HRK)

| ž | DESCRIPTION | Realisation 2009 | Realisation 2010 | Index |
|---|--|---------------------|---------------------|------------|
| | A) REVENUE (1 to 4.) | 108,780,458 | 96,278,366 | 89 |
| 1 | Revenue according to special regulations | 106,551,118 | 74,105,868 | 70 |
| 2 | Revenue from assets | 1,047,554 | 661,050 | 63 |
| 3 | Revenue from donations | 1,062,029 | 21,428,399 | 2018 |
| 4 | Other revenue | 119,757 | 83,049 | 69 |
| | A) EXPENDITURE(1 to 6.) | 82,259,176 | 100,462,782 | 122 |
| 1 | Expenditure for employees | 38,008,807 | 38,191,658 | 100 |
| 2 | Material expenditure | 22,278,208 | 26,998,463 | 121 |
| 3 | Depreciation expenditure | 2,422,562 | 6,359,690 | 263 |
| 4 | Financial expenditure | 127,450 | 78,920 | 62 |
| 5 | Donations | 19,398,101 | 28,717,875 | 148 |
| | - current donations | 131,000 | 132,000 | 101 |
| | - capital donations | 19,267,101 | 28,585,875 | 148 |
| 6 | Other expenditure | 24,048 | 116,176 | 483 |
| 7 | C) REVENUE DEFICIT/SURPLUS for period | 26,521,282 | - 4.184.416 | - |

Realisation of *revenue according to special regulations* is significantly lower than the income realised in 2009. The explanation for low revenue in 2010 is given in Section 5.2. Revenue.

Revenue from assets is revenue from interest rate on sight deposits, revenue from lawful interest rates and revenue from positive exchange rate differences. The decrease in revenue from assets in 2010 compared to 2009 results from lower revenue from lawful interest rates for delayed payments, which represents a positive trend in the payment of bills.

Revenue from donations is revenue earned on the basis of reported and selected projects from pre-accession funds

Expenditure for employees in 2010 did not increase but remained at the 2009 level.

The growth in *material expenditure* in 2010 compared to 2009 results from the realisation of projects financed from pre-accession funds, that is, from revenue from donations.

Due to changes in the accounting principle and the beginning of application of *depreciation* in 2008, revenue from depreciation has increased.

Capital donations are discussed in Section 5.3.2.

The analysis of capital donations is given in Table 5.4.

It is obvious from Table 5.9 that the expressed revenue deficit in 2010 resulted from:

- delayed recognition of revenue,
- growth in depreciation expenditure,
- increase in expenditure from capital donations.

Expenditure, except for expenditure financed from notified and selected projects, has remained at the 2009 level.

5.5. Surplus collected funds

The ECA prescribes that HAKOM will transfer the surplus of funds in relation to the annual financial plan to the following calendar year.

5.5.1. Legislation up to 2008

The TA (Article 16, paragraph 4), which was in force until 1 July 2008, prescribed that: "The amount and the methods of allocating the **surplus of funds** referred to in paragraph 1 of this Article and which represents the difference between the revenues and expenditure of the Agency at the end of the current budget year shall be defined by a **decision passed by the Government of the Republic of Croatia** within six months after the end of the current budget year."

Until 1 January 2008, the Ordinance on accounting of non-profit organisations prescribed the accounting principle of recording economic events. Since revenue and expenditure was recorded in accordance with the accounting principle, business results, that is, revenue surplus/deficit represented the surplus of funds.

In accordance with the TA, there are decisions of the Government of the RoC for the allocation of surplus funds in 2005, 2006, 2007 and 2008. In accordance with all these decisions, HAKOM has been allocating surplus funds from 2005, 2006, 2007 and 2008, until their final allocation.

Table 5.10. Balance of surplus funds 2005, 2006, 2007 and 2008, balance as of 31/12/2010

| | |
|------------------------------------|-------------|
| Balance of funds on | 31/12/2010 |
| Balance of surplus funds from 2005 | HRK 222,801 |

| | |
|------------------------------------|-------------------|
| Balance of surplus funds from 2006 | HRK 19,390,117 |
| Balance of surplus funds from 2007 | HRK 381,684 |
| Balance of surplus funds from 2008 | HRK 0 |
| TOTAL | HRK 19,994,602 |

The surplus funds from 2005, 2006 and 2007 are kept on a separate giro-account. The balance on the separate giro-account amounts to HRK 20,296,224.82, that is, the amount of surplus funds from 2005, 2006 and 2007 as of 31/12/2010 increased by the regular interest rate on the giro-account.

The allocation of surplus funds is given in Table 5.4. Analysis of capital donations.

5.5.2 Legislation after 2008

The ECA prescribes that HAKOM will transfer the **surplus collected funds** in relation to the annual financial plan to the following calendar year. The surplus collected funds from 2008 has been transferred by Amendments to the 2010 Financial Plan to 2010.

The Regulation on accounting of non-profit organisations prescribes that revenue and expenditure is shown according to the **principle of occurrence of events** regardless of collection or payment.

The surplus collected funds is no longer kept by year but is transferred by amendments to the financial plan to the following calendar year.

Table 5.11. Unallocated surplus collected funds (in HRK)

| | | |
|-----|---|---------------|
| 1 | Funds in HAKOM's bank and petty cash on 31/12/2010 | 81,187,233.25 |
| 2 | Total planned in the 2011 Financial Plan (2A + 2B) | 45,018,921.13 |
| 2A. | Special purpose funds, funds surplus from 2005, 2006 and 2007, planned in the 2011 Financial Plan | 20,296,224.82 |
| 2B. | Surplus collected funds planned in the 2011 Financial Plan | 24,722,696.31 |
| 3 | Unallocated surplus collected funds (1 -2) | 36,168,312.12 |

Surplus collected funds will be transferred to 2011 by amendments to 2011 Annual Financial Plan.

5.6. Balance sheet

5.6.1 Assets

Assets consist of resources controlled by HAKOM as a result of previous events and which are expected to give future benefits. Assets are observed by type, duration and function in the carrying out of activity, and, in the non-profit system, it is classified into:

- non-financial assets - class 0,
- financial assets - class 1.

Non-financial assets

As a result of investments into software, facilities, instruments, devices and licences, HAKOM's non-financial assets in 2010 (totalling HRK 47,729,677) increased by 98% (totalling HRK 23,633,627) compared to 2009 (totalling HRK 24,096,050).

The control and measurement system was modernised and completed in 2010. The facility for the CMC in Rijeka was built, two old vehicles were replaced by new ones, and measurement equipment and software were upgraded through a project financed from the IPA 2007 pre-accession assistance programme. The new equipment and software, amounting to EUR 3,415,510 were financed by the European Union, which provided 75% of funds, and HAKOM, which provided 25%.

The programme was also modernised through the E-Agency project. The project was discussed in Section 4.1 of the Annual Report.

For long-term assets procured by 1 January 2008 the value correction is applied to the source of financing, and for assets procured after 1 January 2009, the value of long-term assets is corrected and expressed as depreciation expenditure.

Facilities include business premises and other buildings. Business premises include facilities for measurement stations. The only control and measurement centre (CMC) owned by HAKOM is the newly built one in Rijeka. The CMC Rijeka was built in 2010. Other CMC's are situated in Zagreb, Osijek and Split, and all are located in rented business premises. Other buildings consist of control and measurement stations (CMS). CMS Plešivica has been erased from the cadastre on the basis of a Decision adopted on the basis of a Decision adopted by the Ministry of Environmental Protection and Physical Planning.

Plants and equipment are special devices in CMCs and CMSs. The value of investments in 2010 on this item amounts to HRK 12,582,935.

Two old vehicles were replaced by new ones, and measurement equipment and software were upgraded through a project financed from the IPA 2007 pre-accession assistance programme.

The facility in preparation refers to one facility in Veliko Bokolje- Pašman.

5.6.2 Financial assets

Table 5.12. HAKOM's financial assets (in HRK)

| Calculation from the accounting plan | Balance as of 31/12/2009 | Balance as of 31/12/2010 | % |
|--------------------------------------|--------------------------|--------------------------|-------|
| 11 cash in bank and petty cash | HRK 72,803,739 | HRK 73,287,233 | 101 % |
| 12 deposits, guarantees | HRK 3,721,124 | HRK 11,813,311 | 317 % |
| 16 liabilities | HRK 22,203,631 | HRK 22,900,590 | 103 % |
| TOTAL | HRK 98,728,494 | 108.001.134 kn | 109 % |

A part of HAKOM's funds totalling HRK 7,900,000 was put into deposit account in the Croatian Postal Bank, HAKOM's mother bank. The putting of funds on the deposit account resulted in more favourable interest rates. The analysis established that the putting of HRK 7,900,000 onto deposit account may not influence current liquidity. Term deposits are located on account 12 Deposits.

Table 5.13 Funds in HAKOM's bank and petty cash

| Calculation from the accounting plan | Balance as of 31/12/2010 |
|--------------------------------------|--------------------------|
| 11 cash in bank and petty cash | 73,287,233 |
| part of account 12 deposits | 7,900,000 |
| Total funds in bank and petty cash | 81,187,233 |

On the basis of a concluded preliminary purchase agreement for the purchase of business premises in Osijek - the purchase of CMS Osijek, a notarial deposit was concluded with a notary public amounting to HRK 3,590,000 (value of facility) as a security instrument. After the fulfilment of all conditions from the preliminary agreement and conditions under the notarial deposit, the deposit will go towards the payment for the facility. Notarial deposit is located on account 12 deposits.

Liabilities for business revenue, account 16, refer to the total amount of HAKOM's claims for invoiced uncollected revenue.

5.6.3 Liabilities

Account 2922 Delayed recognition of revenue contains delayed revenue, that is, revenue for 2011. Since many fees are paid one year in advance (which does not correspond to a calendar year), the proportionate part of the fee represents income for the following business year. Delayed revenue in 2010 amounts to HRK 45,174.750.

Account 24 contains Liabilities for expenditure referring to salaries for December 2010 (HRK 3.4 million) and to obligations towards suppliers (HRK 1.5 mil.)

Account 51 Own sources shows the decrease in own sources resulting mostly from value corrections and disposal of assets procured in 2007 and before.

Account 5221 Surplus revenue shows the results of business operations as of 31/12/2010, which consists of accumulated surplus/deficit of revenue over expenditure in previous years increased by the indicated revenue deficit in 2010.

Table 5.14. HAKOM's balance as of 31/12/2010 (in HRK)

| n from the accounting | DESCRIPTION | Balance 01/01/2010 | Balance 31/12/2010 | Index (4/3) |
|-----------------------|--|--------------------|--------------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| | ASSETS | 122,824,544 | 155,730,811 | 126 |
| 0 | Non-financial assets | 24,096,050 | 47,729,677 | 198 |
| 01 | Unproduced long-term assets | 5,779,205 | 3,915,641 | 68 |
| 011 | Material assets - natural resources | 93,397 | 93,397 | 100 |
| 0111 | Land | 93,397 | 93,397 | 100 |
| 012 | Non-material assets | 17,267,378 | 17,744,232 | 103 |
| 0123 | Licences | 851,761 | 1,476,589 | 173 |
| 0124 | Other rights | 9,006 | 9,006 | 100 |
| 0128 | Other non-material assets | 16,406,611 | 16,258,637 | 99 |
| 019 | Value correction of unproduced long-term assets | 11,581,570 | 13,921,988 | 120 |
| 02 | Produced long-term assets | 17,747,636 | 43,623,782 | 246 |
| 021 | Facilities | 5,959,016 | 7,119,346 | 120 |
| 0212 | Business premises | 0 | 2,160,393 | - |
| 0213 | Other facilities | 5,959,016 | 4,958,953 | 83 |
| 022 | Plants and equipment | 112,554,652 | 125,155,155 | 111 |
| 0221 | Office equipment and furniture | 8,889,955 | 8,915,671 | 100 |
| 0222 | Communications equipment | 260,431 | 242,970 | 93 |
| 0223 | Maintenance and protection equipment | 217,190 | 222,490 | 102 |
| 0225 | Instruments, devices and machines | 99,233,435 | 111,816,370 | 113 |
| 0227 | Devices, machines and equipment for other purposes | 3,953,641 | 3,957,654 | 100 |
| 023 | Means of transport | 18,874,985 | 20,766,608 | 110 |
| 0232 | Other means of transport | 18,874,985 | 20,766,608 | 110 |
| 024 | Books, works of art and other artefacts | 28,174 | 28,174 | 100 |
| 0244 | Other unmentioned artefacts | 28,174 | 28,174 | 100 |
| 026 | Non-material produced assets | 2,277,033 | 17,867,091 | 785 |
| 0261 | Investments into software | 2,277,033 | 17,867,091 | 785 |
| 029 | Value correction of produced long-term assets | 121,946,224 | 127,312,592 | 104 |

| n from the n accounting | DESCRIPTION | Balance 01/01/2010 | Balance 31/12/2010 | Index (4/3) |
|----------------------------|--|-----------------------|-----------------------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| 04 | Small inventory | 0 | 0 | - |
| 042 | Small inventory in use | 276,457 | 479,548 | 173 |
| 049 | Value correction of small inventory | 276,457 | 479,548 | 173 |
| 05 | Non-financial assets in preparation | 569,209 | 190,548 | 33 |
| 051 | Facilities in preparation | 569,209 | 190,254 | 33 |
| 1 | Financial assets | 98,728,494 | 108,001,134 | 109 |
| 11 | Cash in bank and petty cash | 72,803,739 | 73,287,233 | 101 |
| 111 | Cash in bank | 72,779,894 | 73,279,462 | 101 |
| 1111 | Money on accounts in domestic business banks | 72,779,894 | 73,279,462 | 101 |
| 112 | Contingency fund | 939 | 0 | - |
| 113 | Cash in bank | 22,906 | 7,771 | 34 |
| 12 | Deposits, guarantee deposits and receivables from employees and for overpaid taxes and other | 3,721,124 | 11,813,311 | 317 |
| 121 | Deposits in banks and other financial institutions | 0 | 7,900,000 | - |
| 1211 | Deposits in domestic banks | 0 | 7,900,000 | - |
| 122 | Guarantee deposits | 6,982 | 3,590,000 | 0 |
| 123 | Receivables from employees | 1,212 | 516 | 43 |
| 129 | Other receivables | 3,712,930 | 322,795 | 9 |
| 1291 | Receivables for refundable fees | 1,125 | 23,905 | 2125 |
| 1293 | Receivables for advance payments | 3,711,805 | 298,890 | 8 |
| 16 | Receivables for business revenue | 22,203,631 | 22,900,590 | 103 |
| 163 | Receivables for revenue in accordance with special regulations | 21,415,923 | 22,452,028 | 105 |
| 164 | Receivables for revenue from assets | 787,708 | 448,562 | 57 |
| 1641 | Receivables for revenue from financial assets | 787,708 | 448,562 | 57 |

| Calcuttation from the accounting | DESCRIPTION | Balance 01/01/2010 | Balance 31/12/2010 | Index (4/3) |
|----------------------------------|---|--------------------|--------------------|-------------|
| 1 | 2 | 3 | 4 | 5 |
| | LIABILITIES AND OWN RESOURCES | 122,824,544 | 155,730,811 | 126 |
| 2 | Liabilities | 8,265,940 | 50,210,655 | 607 |
| 24 | Liabilities for business expenditure | 3,924,365 | 4,994,704 | 127 |
| 241 | Liabilities for employees | 2,981,081 | 3,455,863 | 116 |
| 2411 | Liabilities for net salaries | 1,516,429 | 1,782,988 | 118 |
| 2414 | Liabilities for income tax and surtax on salary income | 437,138 | 527,492 | 120 |
| 2415 | Liabilities for contributions from salaries | 498,512 | 583,710 | 117 |
| 2416 | Liabilities for contributions on salaries | 424,076 | 499,072 | 117 |
| 2417 | Other liabilities for employees | 104,926 | 62,601 | 60 |
| 242 | Liabilities for material expenditure | 907,919 | 1,538,841 | 170 |
| 2422 | Compensations to members of representative and executive bodies, commissions and similar | - | 612 | - |
| 2424 | Compensations for external associates | | 37,650 | - |
| 2425 | Liabilities towards domestic suppliers | 907,919 | 1,500,579 | 165 |
| 245 | Liabilities for collected assistance funds | 11,045 | 0 | - |
| 249 | Other current liabilities | 24,320 | 0 | - |
| 2493 | Liabilities for advance payments, deposits, received guarantees and other unmentioned liabilities | 24,320 | 0 | - |
| 29 | Delayed expenditure payments and future revenue | 4,341,575 | 45,215,951 | 1041 |
| 292 | Unpaid future revenue | 4,341,575 | 45,215,951 | 1041 |
| 2921 | Pre-paid revenue | 47,624 | 41,201 | 87 |
| 2922 | Delayed recognition of revenue | 4,293,951 | 45,174,750 | 1052 |
| 5 | Own resources | 114,558,604 | 105,520,156 | 92 |
| 51 | Own resources | 12,932,027 | 8,077,996 | 82 |
| 511 | Own resources | 12,932,027 | 8,077,996 | 82 |
| 5221 | Surplus revenue | 101,626,577 | 97,442,160 | 95 |
| 6 | Off balance sheet records (=0) | 0 | 0 | |
| 61 | Off-balance sheet records -assets | 75,318,379 | 54,519,510 | 72 |
| 62 | Off-balance sheet records - liabilities | 75,318,379 | 54,519,510 | 72 |

5.7. Investments

Total HAKOM's investments in 2010 amount to HRK 34,957,405

Table 5.15 Realisation of investments in 2010 (in HRK)

| Description of investment | Plan 2010 | Realisation 2010 | Index |
|---|-------------------|---------------------|-----------|
| I. Facilities | 7,445,000 | 1,891,494 | 25 |
| - building of HAKOM's centre in Rijeka | 1,940,000 | 1,884,606 | 97 |
| - building of CMS Veliki Bokolj | 1,805,000 | 6,888 | - |
| - building of HAKOM's centre in Osijek | 3,700,000 | 0.00 | - |
| II. Measurement and IT equipment | 25,082,497 | 27,771,379 | 111 |
| A) Procurement of measurement equipment for CMS and HAKOM's centres | 24,119,000 | 27,212,144 | 113 |
| - modernisation of the measurement system | 22,519,000 | 25,622,317 | 114 |
| - equipment for measurement vehicles | 1,600,000 | 1,589,827 | 99 |
| B) Procurement of IT equipment | 963,496 | 559,235 | 58 |
| III. Furniture | 700,967 | 55,509 | 8 |
| IV Investments into software | 5,001,381 | 2,895,263 | 58 |
| V. Means of transport | 1,040,000 | 993,500 | 96 |
| VI Development projects and expert studies | 9,749,000 | 1,053,839 | 11 |
| VII. Other equipment | 413,980 | 296,421 | 72 |
| TOTAL | 49,432,825 | 34,957,405 | 71 |

I. Facilities

HAKOM's centre in Rijeka was built in 2010. A preliminary agreement and notarial deposit amounting to HRK 3,590,000 have been signed for the purchase of the HAKOM's centre in Osijek. The procurement value of both facilities is lower than the approved funds. The building of CMS Veliki Bokolj was postponed for 2011 in the first place because the power supply issue needs to be resolved.

II. Measurement and IT equipment

- a. The measurement system of the CMS and CMC was modernised by new portable measurement receivers for searching and locating of interferences. The majority of funds represent a second part of HAKOM's participation in IPA project referred to in Chapter 4.7. Pre-Accession Funds - *Equipment Procurement Component*. The remaining 40 percent of the price defined in the contract have been paid after delivery, installation and testing.

Two measurement vehicles, which were 15 years old, were replaced by new vehicles. This item should be taken into consideration together with V. Means of transportation, because HAKOM bought two new vehicles into which new equipment necessary for measurement has been installed.

- b. Desktops and laptops have been procured with a view to modernising infrastructure and client IT equipment, as well as equipment for permanent storage of data on tapes. Since the planned relocation of equipment into new premises was not carried out, the planned network equipment and server were not purchased.

III. Furniture

Since HAKOM planned the relocation into integral business premises in Zagreb in 2010, which did not happen as a result of many different circumstances, the planned funds for furniture were not spent. Only the newly built facility in Rijeka was furnished.

IV Investments into software

The main focus in 2010 was on the automation of business processes and the opening of self-service towards users, which is why the resources management system and the document management systems have been adjusted to support the issuing of licences for use of the RF spectrum to vessels and the issuing of the right of way certificate. With a view to improving the efficiency of HAKOM's work, a reporting module for following life cycle of cases has been introduced. Taking into consideration the changes of business requirements in the first quarter of 2010 and the approved rebalance of the procurement plan in the third quarter, the initiated activities focused on the upgrading, and changes of the platform of the Central Database of Ported Numbers were not finished by the end of 2010 and neither was the implementation of an internal portal with tools for the automation of processes of travel orders with the integration of the Resources Management System. For the same reason, the second part of the e-Licences project was not completed. The intention of this project is to speed-up the process of the granting of licences for use of the RF spectrum on vessels.

V. Means of transport

HAKOM has, in addition to two vehicles purchased for the purpose of turning them into measurement vehicles, also purchased one personal vehicle for CMS Rijeka and CMS Osijek.

VI Development projects and expert studies

Because the tender for consultancy services for cost models was not finished and the entire "Looking to the future" project was not realised, only 11 percent of development projects has been realised.

5.8. State Budget revenue

The off-balance sheet records keep track of the assets of others. It records revenue of the State Budget of the RoC expressed as liabilities from users, with liabilities towards the budget of the RoC expressed at the same time. HAKOM only invoices these fees for the benefit of the

State Budget, and amounts of the fees are paid directly into the State Budget. Off-balance sheet records are recorded analytically by buyers and issued invoices for the benefit of the budget.

The total of HRK 422,628,911 was invoiced in 2010 for the benefit of the State Budget. Out of the total invoiced amount, HRK 398,868,820 (94 percent) refers to fees for use of the radio frequency spectrum. Everything else refers to fees for authorisations and licences, addresses and numbers and legal penalty rates.

According to our records, the total of HRK 443,427,780 was paid into the State Budget in 2010. Old liabilities which are paid into HAKOM's account (2008 and before) and funds paid by mistake to HAKOM's account instead of to the State Budget are regularly paid by HAKOM into the State Budget. HAKOM paid the total of HRK 13,042,735 into the State Budget in 2010. As of 31 December 2010, there are no unpaid State Budget funds on HAKOM's bank account.

Table 5.16. Realisation of State Budget revenue in 2010 (in HRK)

| | |
|---|-----------------|
| Outgoing invoices in 2010 for the benefit of the State Budget | HRK 422,628,911 |
| Paid into the State Budget in 2010 | HRK 443,427,780 |

Table 5.17. Off-balance sheet records (in HRK)

| 6 | Off-balance sheet records | Balance 01/01/2010 | Balance 31/12/2010 | |
|----|---|-----------------------|-----------------------|----|
| 61 | Off-balance sheet records -assets | 75,318,379 | 54,519,510 | 72 |
| 62 | Off-balance sheet records - liabilities | 75,318,379 | 54,519,510 | 72 |

The fall in off-balance sheet records year after year implies the improvement in the collection of State Budget revenue and decrease of liabilities, which is evident from Table 5.16 where the amount paid into the State Budget exceeds the total amount of issued invoices.

D) SUMMARY

ELECTRONIC COMMUNICATIONS MARKET

Market overview

In 2010, the revenue on the electronic communications market fell by 3.4 percent compared to the year before. The fall, for the most part, resulted from the economic crisis, the lowering of prices of services and the introduction of the fee for the provision of services in public communications networks amounting to six percent in August 2009.

As expected, the most significant fall in revenue was recorded on the market of mobile public communications networks, and the fall in public communications networks slowed down compared to the year before. Revenue earned on the cable television market was only slightly lower than in 2009.

Regardless of the economic crisis, the Croatian market of electronic communications services was in 2010 characterised by a strong development of broadband internet access and interactive television services, and increasing demand for Internet content. Revenue on the market of the provision of Internet access services has continued to grow, as well as the leased lines market. This indicates the direction of the development of the electronic services market, with data transfer prevailing over other services.

Publicly available telephone service in the fixed network

The most significant trends that characterised 2009 continued to be present in 2010 as well: fall in revenue and a stable number of users of a publicly available telephone service in a fixed network. The total number of users of fixed public communications network reached a penetration of around 42.07 percent. Although, according to the mentioned indicator, the Republic of Croatia is among the average of the EU countries, it is obvious that the penetration of users has been stagnant. This indicator is in the first place a result of market saturation since the fixed connection is connected to household and it is therefore not realistic to expect that penetration will increase in the upcoming years.

HT maintained its leading position in the fixed public communications network, but the total revenue of new operators increased as a consequence of the growing competition, that is, users started switching to new operators of a fixed public communications network. The market share of new operators in relation to total revenue amounts to 21.58 percent and in relation to the number of users 31.23 percent. For comparison sake, at the end of 2009, the share of new operators on the market of the public fixed communications network in the RoC in relation to the number of users amounted to 26.73 percent, and in relation to the total revenue earned in 2009, it amounted to 18.81 percent.

In 2010, the number of ported numbers in the public fixed communications network increased by 29.13 percent compared to 2009, and according to data for the end of 2010, it amounted to 463,739.

HAKOM has adopted a series of decisions and rulings, as part of its regulatory activities, and thus ensured further liberalisation and regulation of the electronic communications market. For that reason, activities in 2010 were focused on the definition of wholesale conditions (reference and minimum offers) referring to the provision of interconnection services and

their amendments in accordance with market interests and further development of competition. In addition to new prices for the service of call origination and call termination on an individual public communications network, which resulted in the lowering of prices compared to 2009, the manner of billing for interconnection services in fixed network has also changed by including the charge for the establishment of calls into the interconnection price which enables all operators to have the same manner of billing for the same service, that is, HT's manner of billing is aligned with the manner of billing of other operators active on the market. By reducing the price of the service of local and regional call origination and call termination defined within the obligation of price control and cost accounting, HAKOM wanted to prevent SMP operators from abusing their dominant position on the market by excessive pricing.

In the document "*Analysis of the Wholesale Broadband Access Market*", that is, in the decision adopted in 2009, HAKOM imposed on HT the obligation that would provide to operators technical conditions for the provision of the service of voice over the Internet protocol at the retail market under equivalent conditions and level of quality of service that it provides to its retail arm or affiliates, and in accordance with the obligation of non-discrimination. Since HT's reference offer did not promote the development of the service, in the process for the amendments to the reference offer for the service of wholesale broadband access, HAKOM determined a price that will encourage the development of effective competition amounting to HRK 11 for VoIP -256 kbit/s.

In 2010 we also saw the first noticeable results of the project "*Accounting separation and cost accounting*". In September 2010, HT delivered the first audited regulatory financial statements based on HCA/FAC methodology and the report on transfer charges so that it can be established whether HT is cross-subsidizing services and thus vertically leveraging its significant market power from the regulated wholesale market to the downstream retail market.

HAKOM initiated the market analysis procedure on retail access markets the regulation of which is carried out pursuant to the TA. The proposal for the decision on the analysis of the above-mentioned relevant market was published in December 2010 so that all interested parties may give their objections and comments. HAKOM expects the final decision on the designation of the SMP operator and its regulatory obligations on the above-mentioned relevant market to be adopted at the beginning of the second quarter of 2011.

In addition to the analysis of the market of access to a public communications network, HAKOM initiated in 2010 the procedure for the establishment of markets susceptible to ex ante regulation and for markets which are not a part of the relevant European Commission Recommendation on relevant markets susceptible to ex ante regulation.

In 2010, HAKOM continued issuing preliminary consent to SMP operators (HT and Iskon Internet) for prices of retail services related to the publicly available telephone service in a fixed network on the basis of the analysis based on operators' traffic data, characteristics of end users, interconnection prices and other associated costs.

In 2010, HAKOM continued working on the public procurement procedure for consultancy services for the implementation of the project "*Cost models of operators with significant market power*" the completion of which is expected in 2011.

Publicly available telephone service in the mobile network

Trends that were present in previous years continued in 2010. In the majority of countries, user penetration exceeded 100 percent, that is, the number of connections (SIM cards) in mobile public communications network exceeded the number of inhabitants (which is also the case in the Republic of Croatia). The penetration of users in mobile public communications networks continues to grow although it was forecasted that the market will be saturated when it reaches 100 percent. In comparison with 2009, the estimated penetration of users of mobile public communications networks increased negligibly and in 2010 it amounts to 143.45 percent.

HT maintained its leading market position in relation to the number of users, while the share of the third operator on the market of public mobile communications network in the Republic of Croatia in 2010 (Tele2) amounted to 11.60 percent. The share of Tele2 increased compared to 2009, when it amounted to 10.18 percent. In 2010 the share amounted to 12.35 percent.

The number of ported numbers in the mobile public communications network is continuously increasing, and the dynamics of number portability compared to the previous years has improved significantly. The main reason may be found in the fall in prices, which is also one of the significant factors in the decline of revenue on this market.

In 2009, HAKOM concluded that conditions for effective competition do exist and that ex ante regulation of the relevant market is not necessary. For that reason, activities concerning the publicly available telephone service in 2010 were focused on the monitoring of further development of the market of publicly available telephone service in mobile network, such as the definition of wholesale conditions (reference and minimum offers) referring to the provision of services of call termination and their amendments in accordance with market interests and further development of competition.

In order to contribute to market development and to more favourable wholesale conditions, and taking into consideration significant differences between Tele2 and HT and Vipnet, HAKOM determined an asymmetrical price for the service of call termination between operators with a strong market share and operators with a weak market share.

As part of its obligation to encourage the development of electronic communications, HAKOM undertook a series of activities in order to create preconditions for fast and undisturbed development of mobile communications networks of all operators and to create preconditions for building. HAKOM participated in amendments to county physical plans, prepared drafts and encouraged the sharing of communications infrastructure for standardised antennae polls for installation of several antennae systems and directed radio links of mobile communications operators. The promotion of joint planning and building and the encouraging of cooperation in planning, preparation and building of communications infrastructure between all three operators of mobile communications resulted in quicker granting of building licenses and better preservation and protection of the environment.

Broadband Internet Access

The Croatian electronic communications market was characterised in 2010 by a strong development of broadband Internet access services but, regardless of this fact, the Republic of Croatia has been lagging behind the EU countries average in relation to the number of

termination points. The total number of users of the broadband Internet access service in the Republic of Croatia has been growing rapidly. Last year the number of users of broadband Internet access increased by 20.81 percent. At the same time, the total number of termination points for broadband Internet access amounted to 1,132,212, which means that the average penetration of broadband termination points was 25.52 percent. The total number of termination points in public fixed communications network amounted to 803,823, while in the mobile network it amounted to 328,389. The most prevailing access technology in relation to distribution of the number of termination points for broadband Internet access in fixed communications network in the Republic of Croatia is ADSL, which is represented by 89.56 percent. Among other access technologies, the most widespread is access over cable television with 6.92 percent.

HAKOM's work in 2010 primarily focused on the achievement of the established principles and objectives of regulation of the market of electronic communications with a special emphasis on supervision over the implementation of regulatory obligations of SMP operators and their amendments on the wholesale broadband access market and on the market of wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location.

In addition to monitoring the implementation of regulatory obligations on broadband markets, in the last quarter of 2010, HAKOM played an active role in the preparation of the Strategy for Broadband Access Development in the Republic of Croatia for the period between 2011 and 2015, as well as the action plan for the implementation of the strategy. HAKOM prepared the above-mentioned documents in cooperation with MSTI and the Central Office for e-Croatia. The Strategy and the Action plan should increase to further increase in the number of broadband access points in the Republic of Croatia through the stimulation of investments into next generation networks of mobile and fixed networks.

The introduction of VDSL2 transfer technology into the unbundled environment of the Republic of Croatia from CO and RT locations was analysed. The best profile for the CO location was selected and it was introduced into the new version of the Reference Offer as an obligation for all operators using the unbundled environment. The static frequency management plan was also analysed.

Negotiations with HT concerning investments into optical access infrastructure were continued but without results, that is, no compromise was reached that would combine investments and market preservation.

HAKOM initiated the market analysis procedure of the leased lines markets which are regulated in accordance with the TA, until the completion of the above-mentioned analyses. The proposal of the decision, which will be subject to public consultation, is expected at the beginning of the second quarter of 2011.

IPTV, cable and satellite television

The television market is constantly changing. The digitalisation of audio-visual content introduces numerous new services and makes possible the technological convergence, that is, the reception of audio-visual contents by means of different networks: satellite, cable, terrestrial, UMTS, IPTV, DVB-H. The number of cable television subscribers has been growing constantly and it now amounts to 151,315 users. The increase in the number of users

can be noticed both in relation to IPTV and satellite reception, and official data will be available starting from 2011.

On the market of wholesale broadband access, HAKOM imposed on HT the obligation to provide such type of bitstream access service (by leasing digital channels), that will ensure to operators technical conditions for the provision of the IP television service (IPTV) and video on demand on the retail market, under conditions and level of quality of service equivalent to those provided to its retail arm or affiliated companies. Since HT did not propose an appropriate price, that is, a price that would enable effective and sustainable competition, HAKOM defined the price of HRK 20 in the procedure for the amendment of the reference offer for the virtual channel for IPTV 4 Mbit/s. On the basis of such regulation, HAKOM enabled beneficiary operators of the service in question to define their own products to promote and offer to the end user in their name and for their account, which has had a positive impact on the development of competition. Therefore, in addition to the *Reference Offer for Wholesale Broadband Access*, HAKOM defined the conditions for the provision of IPTV services also in the *Reference Offer for Unbundled Access to the Local Loop* so that operators could offer the service in question under better conditions. However, the actual effects of regulation on this market are expected by HAKOM during 2011.

Digital terrestrial television

The Republic of Croatia is among countries that have successfully switched over from analogue to digital broadcasting since the switch-over in Croatia was completed by the end of 2010 in accordance with the Analogue to Digital Switch-over Strategy for the Republic of Croatia. This places Croatia among the first European countries, that is, among fourteen countries in the entire Europe that have successfully completed the digital switch-over process in 2011.

The EU is trying to speed up the process of switchover to terrestrial DTV in order to free the spectrum and ensure the so-called “digital dividend” for additional television contents and new information and communication services. Countries such as Sweden, Finland, Switzerland, Germany, the Netherlands, Luxembourg, Denmark, Norway, Spain, Estonia, Latvija, Austria and Slovenia completed the switch-over in 2010.

On the basis of a public competition for the granting of licence for use of the radio frequency spectrum for MUX D in the territory of the Republic of Croatia, HAKOM issued a license to the company Odašiljači i veze d.o.o. in July 2010.

In accordance with the license for the provision of the service of management of electronic communications digital television networks for MUX A and MUX B, by the end of 2010 the population coverage amounted to more than 98 percent for MUX A and than 96 percent for MUX B. At the same time, the coverage of population of the RoC with MUX D exceeded 85 percent.

Other services

During 2010, HAKOM carried out preventive activities against operators of value added services by undertaking efforts to familiarise them with their rights, that is, with laws concerning their field of activities. After the information process, their manner of providing services available on the market was assessed and on the basis thereof expert supervision was initiated in order to remove deficiencies in the provision of services. The purpose of expert

supervision and the sanctioning of operators was the alignment of the existing and future added value services with legislative provisions.

Since the period for obligatory provision of universal services for current universal services operator was expiring, HAKOM invited and carried out a public tender with a view to designating universal services operator. A decision was adopted designating the company Imenik d.o.o. Zagreb, Trg bana Josipa Jelačića 3 as the provider of universal services, in particular, of the service of access to at least one comprehensive directory of all subscribers of publicly available telephone services in the territory of the Republic of Croatia for five years. Since no tenders were submitted for the remaining services under the scope of universal services laid down in the ECA, HAKOM designated HT, which is the SMP operator, as the universal services operator.

In 2010, HAKOM followed international development trends in relation to new services. All upcoming services were analysed, as well as the need for their regulation in order for HAKOM to prepare for their regulation. Preparations were also carried out to promote migration towards IP version 6 protocol.

Services of infrastructure and network access and building of electronic communications infrastructure

HAKOM particularly focused on sharing of the existing cable ducts. The amendments to and the application of the Ordinance on the manner and conditions for access to and sharing of electronic communications infrastructure and associated facilities almost eliminated all obstacles faced by applications for sharing.

In early 2010, a regulatory measure was adopted imposing on HT the obligation to apply the principles of cost orientation when determining the price for leasing free space in cable ducts, including fees paid by beneficiary operators for the service of sharing of DTD. The procedure for preparation and adoption of the reference offer for access to HT's ducts was initiated at the end of the year.

HAKOM has been continuously working on the improvement of the process for the issuing of the right-of-way certificates together with all infrastructure operators, which resulted in the adoption of amendments to the Ordinance, and the shortening on the time required for issuing the right-of-way certificate.

Due to certain difficulties noticed in relation to the issuing of special requirements laid down in the Ordinance on the manner and conditions for the determination of the zone of electronic communications infrastructure and associated facilities, protection zone and the radio corridor, and obligations of investors or buildings, the procedure for amendments to this ordinance was initiated.

As part of the activities aimed at encouraging development and effective investments, HAKOM undertook a series of activities to create preconditions for quick and undisturbed development, and for building of cable ducts and optical networks. Concrete regulatory measures in this area consist primarily of the adoption of the ordinance and amendments to the existing ordinances.

Management of limited resources

Radiofrequency spectrum

For the purpose of greater harmonisation of use of the radiofrequency spectrum, alignment with European legislation and easier circulation of devices using the radio frequency spectrum in the territory of CEPT, HAKOM in 2010 issued 20 new general licenses, amended 10 existing licenses and withdrew 5 general licenses.

Concerning a simpler use of the radio frequency spectrum, the amendments to the Ordinance on the conditions for assignment and use of radio-frequency spectrum in 2010 simplified the procedure for putting of radio stations into operation. Also, procedures were prepared in 2010 for simplified issuing of licenses for short-range dedicated links in cases where there is very small possibility for interference between two systems.

In late 2010, an implementation agreement on international coordination and use of UMTS technology in GSM frequency bands was signed with Austria, Hungary, Slovenia and Serbia. Since use of UMTS technology is permitted in the Republic of Croatia in frequency bands intended for GSM, and operators have been using this segment for UMTS as well, this agreement permits such use in border areas as well.

A significant part of HAKOM's activities in 2010 were focused on the preparation of the plan for coverage with digital radio in the territory of the Republic of Croatia and international harmonisation of DAB radio stations. For that purpose, a large number of radio stations have been prepared and submitted for international coordination. At the same time, intensive activities within the Digital Radio Forum have continued through activities of the working group for technical issues. Furthermore, the procedure for planning and optimization of analogue networks of radio stations resulted in a large number of requests for international coordination of radio stations.

Considering the freeing of the radio frequency spectrum in the 790-862 MHz band, the so-called digital dividend, which was envisaged for the introduction of mobile communications, HAKOM carried out the re-planning of DVB-T networks in the 470-790 MHz frequency band in order to try to substitute for planned coverage that is being lost in the 790-862 MHz band (one to two coverages depending on the geographical area). This also included the procedure for international coordination of Croatian DVB-T stations with the neighbouring countries.

Two licences for use of the radio frequency spectrum for services of management of electronic communications network of digital television (MUX D and wider area of the city of Split) were granted in 2010.

The control and measurement system was modernised and completed in 2010. The facility for the CMC in Rijeka was built, two old vehicles were replaced by new ones, and measurement equipment and software were upgraded through a project financed from the IPA 2007 pre-accession assistance programme.

In relation to measurements, 2010 was mostly marked by the realisation of the "Analogue to Digital Television Broadcasting Switchover Strategy", which was adopted by the Government of the Republic of Croatia. The planned measurement campaigns, including the measuring of the signal for radio and television on the coast and coastal areas with a particular emphasis on protection against interference, the taking into account the work of radio stations in microwave link in accordance with the prescribed licences and the taking into account of

operation of radio stations in broadcasting, were carried out successfully. The results of measurements of the signal for radio and television on the coast and in coastal areas indicate further increase in the number of uncoordinated broadcasting signals coming from the Italian Republic. Other countries do not follow suit.

The Italian switch-over to complete digital broadcasting in the frequency band for television in the three Northern Adriatic regions in the Italian Republic brought into operation the interfering transmitters which seriously interfere with the reception of Croatian television programmes in all three multiplexes (multiplexes A, B and D.) In spite of many official interference reports sent to the Italian competent body, notifications to the ITU and contacts made through the Ministry of Foreign Affairs and European Integration, the Italian side not only did not remove the interference but did not even reply to any of the 17 letters sent between the most recent occurrence of interferences to the end of the year. By this kind of behaviour, which may be characterised as stealing of the limited resource of the radio frequency spectrum, the Italian Republic shows the non-existence of minimum cooperation expected between bodies managing the frequency spectrum, seriously diminishes and endangers frequency rights of the Republic of Croatia which were provided for at the Regional Radiocommunication Conference in Geneva in 2006.

The RF spectrum control also included the measurement of the size of electromagnetic fields for the purpose of efficient protection of human health from the influence of those fields, with a special emphasis on the protection of children. HAKOM carried out a measurement campaign in preschools and elementary schools in the Republic of Croatia, and regularly checked the results of measurements submitted by legal persons authorised to carry out the measurement of electromagnetic radiation.

HAKOM paid particular attention to protection from interference in radio communications, in particular of state administration bodies in charge of search and rescue, emergency services, maritime and air traffic control radio communications (whose purpose is the safety of human lives) and operators of electronic communications.

Addressing and numbering space

According to the Numbering Plan of the Republic of Croatia, short codes (numbers) 192, 193, 194 and 155 are reserved for future needs of emergency services (police, fire department, emergency medical assistance and the National Headquarters for Search and Rescue at Sea. Therefore, in 2010, the existing numbers for emergency services were changed, more precisely, "the police" switched over from 92 to the suggested new number 192, and the "Road Assistance Service" changed its number from 987 to 1987.

The majority of HAKOM's activities in 2010 related to number portability issues were focused on improving the number portability procedure, and the upgrading of the CADPN systems was initiated.

R&TT equipment

In 2010, HAKOM also carried out the activities of issuing approvals for import and/or placing on the market of R&TT equipment and evaluation of compliance of R&TT equipment, and the online database of approved R&TT equipment has been regularly updated. During the year, HAKOM organised two workshops for inspectors and supervisors on implementation of the Ordinance on R&TT equipment in practice, and it participated in MSTI's working groups

drafting the proposal for the Ordinance on R&TT equipment and Ordinance on EMC, which will be adopted in 2011.

THE POSTAL SERVICES MARKET

In spite of the unfavourable economic situation in the Republic of Croatia in 2010, the situation on the market of postal services did not change significantly, and, as a result of market liberalisation, the number of providers of postal services has increased.

The analysis of developments in the number of postal services in 2010 per quarters shows a tendency of continuous growth, with the most significant growth recorded in the fourth quarter. Therefore, it is realistic to expect that this trend will continue in the future as well as the growth of the postal services market in general in 2011.

In early 2010, there were 19 registered providers of postal services in the RoC, while at the end of 2010, there were the total of 21 active providers of postal services. During 2010, HAKOM received five new applications for the provision of other postal services and three cancellations.

Market overview

Universal postal services

HP is the provider of all universal postal services and has the right and obligation to provide universal services in the entire territory of the Republic of Croatia, as opposed to other two providers who have been granted a licence to provide universal postal services which does not cover the entire territory of the Republic of Croatia, that is, it does not include all universal postal services. Only one provider, in addition to HP, started providing universal postal services with negligible indicators.

According to the delivered data, providers of postal services provided the total of 232,433,901 of universal postal services in 2010 or about 64 percent of all postal services. Out of the total number of universal postal services, 205.8 million or 89 percent, were reserved universal postal services. The majority of universal postal services, approximately 92 percent, were provided in domestic traffic, 3.5 percent in international outgoing traffic and 4.5 percent in international incoming traffic. On the basis of developments in the number of universal postal services in 2010, the number of universal postal services in 2011 cannot be predicted with certainty.

Other postal services

The total of 21 providers of postal services was registered for the provision of other postal services. According to the delivered data, providers of postal services provided the total of 132,059,983 of other postal services in 2010, or approximately 36 percent of all postal services. Out of the total number of other postal services, HP's share on the market was almost 34 percent with 44,771,435 provided services, and the group of other providers had a share of around 66 percent or 87,288,548 of provided services.

The majority of services, approximately 98 percent, were provided in domestic traffic, 0.5 percent in international outgoing traffic and 1.5 percent in international incoming traffic. The analysis of the number of other postal services in 2010 indicates a continuous growth trend in the number of services.

Regulatory measures

The most important HAKOM's activities in the area of postal services in 2010 concerned the adoption of the Ordinance on the provision of postal services, the procedure for the determination of prices of reserved postal services, the procedures for amendments of general terms and conditions for the provision of universal postal services, the granting of licenses for the provision of universal postal services, the carrying out of expert supervision over the application of the provisions of the PSA, the monitoring of the postal services market in the RoC, the collection and processing of statistical data on the market and the implementation and presentation of the project "Survey on the satisfaction with and use of postal and courier services in the RoC" Part II - business entities.

In accordance with the provisions of the ECA, HAKOM in 2010 drafted, adopted and published, following a public consultation, the Ordinance on the provision of universal postal services, which is the last piece of subordinate legislation under its competence.

In the procedure for the approval of prices of reserved universal postal services, HP, on the basis of the HAKOM Council's decision, adopted a decision approving the prices of reserved postal services of the public operator HP.

HP's terms and conditions for the provision of universal services include under universal postal services the clearance, sorting, transport and delivery of judicial documents, documents in administrative and tax procedure and registered items with proof of delivery, which is contrary to the provisions of the PSA. Since the above-mentioned items represent registered items with a supplementary service, the Council of HAKOM adopted a decision on amendments to HP's terms and conditions.

The PSA imposes accounting obligation on all providers of postal services, and, in particular, on HP as the public operator. Furthermore, the Strategy for the Development of the Postal Services Market in the Republic of Croatia and its Action Plan include an activity and a measure "Accounting Separation and Allocation of Costs of the Public Operator", with HP and HAKOM being the institutions competent for their implementation. HAKOM applied for funds from EU pre-accession fund IPA 2009 for the project "Support to HAKOM in the area of accounting separation of postal services". The above-mentioned project was approved by the EU Delegation in November 2010, and its execution is expected in 2011. One of the key results of this project is the "Manual for Accounting Separation", which will represent an additional regulatory act, and the main purpose of which is to support implementation of the valid regulatory framework.

Therefore, HAKOM delivered to HP already in June a "Report on the Quality of Universal Postal Services for 2010", which was prepared by an independent market research body in accordance with the adjusted methodology from the Croatian standards. The results of the research show an improvement in the quality of provision of postal services compared to 2009.

In 2010 HP closed nine post offices out of which two were without the delivery area, and one with the delivery area. Thus, at the end of 2010, there was the total of 1,141 post offices in the entire territory of the Republic of Croatia. When closing a post office with a delivery area, HP fully complied with the provisions of the Ordinance on the public operator's postal system.

As in the years before, HAKOM continued in 2010 to collect statistical and other data from postal service providers. Part of data was collected as part of the statistical survey of the postal services market carried out by the EC and EUROSTAT in cooperation with CERP, with HAKOM the competent authority for the project in the RoC.

The second stage of the project "Survey on the satisfaction and use of postal services in the Republic of Croatia" was completed in 2010. The target group of the project were business entities in the Republic of Croatia. The objective of this survey was to get familiar with and assess the situation on the postal services market and the satisfaction with the scope and quality of provided postal services in the Republic of Croatia.

CONSUMER PROTECTION

Protection of users of electronic communications

In 2010 HAKOM ensured an even higher level of protection of users of electronic communications by carrying out a series of activities related to the implementation of laws and subordinate legislation, which entered into force in early January 2009, in order to impose those regulations as rules of behaviour for all operators. Furthermore, HAKOM actively participated in the work of other state institutions on projects concerning consumer protection.

Principles of consumer protection

HAKOM's role in the promotion of interests of users of services, laid down in the ECA, was emphasised, in particular in the following ways:

- e) by ensuring a high level of consumer protection,
- f) by a simpler and more accessible dispute resolution procedure,
- g) by promoting the giving of unambiguous information and
- h) by addressing the needs of special social groups.

For that purpose, the Ordinance on the manner and conditions for the provision of electronic communications networks and services, and in particular its Annex 5, additionally regulates these relations and the manner and conditions for the provision of value added services, and it achieved significant progress.

DISPUTE RESOLUTION BETWEEN USERS AND OPERATORS

Preventive activities carried out in 2010 and the years before contributed to the stabilisation in the number of user complaints. The stabilisation trend in the number of complaints is present although the number of users of public communications services has significantly increased and a series of new services and operators have been introduced.

The number of complaints against number portability has decreased by 35 percent, which means that this area has been successfully regulated by introduction of criteria for the definition of actual technical inability to port a number. Complaints against business procedures of operators refer in the first place to insufficiently transparent information about products and to inappropriate contracting procedures.

Bill complaints show a slight 11 percent increase which may be regarded as a positive indicator considering the increase in the number of users and introduction of new services – particularly value added services and the fact that users are more familiar with their rights.

The number of complaints against internet traffic services remains at the same level although the number of users in fixed and mobile networks significantly increased. This is a result of the introduction of obligatory control of traffic and clear provision of instructions to users by operators. Users need to be additionally educated in this respect.

Special tariff services show certain uniformity which results from the fact that the appearance of “illegal services” comes in cycles – every six months there is a new (as a rule one) problematic service of this kind. In such cases HAKOM carried out expert supervision over the provider of value added services and adopted a decision prohibiting the provision of the service. This decision also served as a legal basis for positive resolution of users' complaints against this specific service.

The number of complaints against the quality of service has increased compared to the year before, but still remains below the 2008 level. In the structure of complaints, a more significant growth was recorded among complaints in which users request for the removal of PCM devices in order to get ADSL Internet access. At the same time, although the number of users of IPTV increased, the number of complaints decreased because operators adopted a more transparent manner of selling of this service. The problem that still remains is the technical inability to ensure the provision of the service to all potential users.

Complaints representing oversights in the behaviour of operators have been separated since 2008 and HAKOM is authorised to act upon such complaints pursuant to new regulations. It is a fact that operators on our market have different ways of forcing their subscribers to stay and ways of illegally stealing subscribers from other providers in combination with the non-transparency of contractual relations and a deceiving offer of services. In order to eliminate occurrences of such behaviour, HAKOM pays special attention to control of prescribed internal acts of operators and their business practice. Bearing in mind the data presented by other European regulators, this kind of behaviour of operators is on the rise and they are perfecting their deception methods.

Those complaints for which HAKOM has a direct basis in its regulations received a positive resolution, that is, opinions were adopted on the need for a positive resolution of the user's complaint in case of subordinate application of other regulations. This results from HAKOM's general attitude that willingness to accept one's own mistakes and oversights, that is, the need to protect a weaker party in proceedings, is more useful in the long run than the adoption of drastic measures. In this respect it must be emphasised that operators reconsidered the subject of the complaint in 185 cases (27 percent) and, on the basis of HAKOM's request for an additional explanation, changed their originally negative decision themselves. This kind of behaviour of operators indicates a positive trend and an increase in the number of resolved complaints by 88 percent compared to 2009 confirms HAKOM's attitude and also indicates a fact that operators are prepared for cooperation and a more significant contribution to the protection of their users. Unfortunately, on the other hand, there are still cases of not acceptance and stalling attempts. Operators are executing HAKOM's decisions in relation to users, but they are also instituting administrative disputes against HAKOM.

Protection of users of postal services

After the entry into force of the PSA, HAKOM's competence also includes the protection of rights of users of postal services and the resolution of disputes between users and providers of postal services thus offering a more effective and more quality mechanism for the protection

of rights of users of postal services. Pursuant to the provisions of the ECA, there are certain differences in relation to the resolution of disputes with users and operators. HAKOM thinks that differences should be aligned with the ECA.

In 2010, HAKOM received 13 requests for dispute resolution between users and providers of postal services. Out of the 13 requests, 12 referred to HP and one to other providers of postal services. In relation to types of complaints, 6 referred to the a service that was not provided (loss of a postal item), 5 to damaged contents of the postal item, and one to the exceeded deadline for the delivery of a postal item. In 2010, HAKOM adopted final decisions in 10 disputes between users and providers of postal services and no procedures were initiated before the Administrative Court of the RoC against these decisions.

Protection of children

With a view to protecting children against abuse that might arise in relation to value added services, the following have been introduced:

- special numbers for services for adults (064 xxx xxx), which are prohibited to children,
- special numbers of children services (069 xxx xxx),
- spending limit for the use of children services (HRK 50.00),

and the following duties prescribed for operators:

- record and exchange data on numbers and addresses the contents of which are not intended for children,
- ensure the monitoring of traffic habits of subscribers and notification when they exceed the prescribed limit,
- introduce the barring of calls towards a certain number or a group of numbers when the limit agreed with the user has been exceeded,
- regularly notify users about all possibilities for barring which are available to them.

With a view to promoting safer internet use, network technologies and mobile phones, HAKOM opened an e-mail address zastita-djece@hakom.hr for reporting illegal and inappropriate contents and services.

Access to services by persons with special needs

In 2010, HAKOM acted initiated the organisation of joint working groups that would include specialised associations and operators with a view to establishing special needs and rules of behaviour that would additionally ensure the inclusion of disabled persons into the world of new technologies.

HAKOM's ORGANISATIONAL CAPACITIES

E-Agency project

In 2010, HAKOM continued with the implementation of e-Agency projects focused on the improvement of business processes based on web-oriented services.

Infrastructure was upgraded in terms of the processing and storage capacity of the server, visualisation platform, platform for data storage and software updating. Digital signature and document encryption, which permit identification, authorisation and protection of communications, have been launched into operation.

Background information systems have been upgraded on the basis of the amended legislation and for the purpose of alignment with the business processes by means of upgrading the Enterprise Resource Planning (ERP), Document Management System (DMS) and the Human Resources Management System (HRM).

Systems opened towards users are represented by a modern portal with numerous online applications such as Public consultation, e-Complaints, e-Portability, e-Licenses, e-Market, e-Advice, e-Procurement, e-Employment. Numerous e-applications have been developed on HAKOM's website.

Development of competences

In 2010, HAKOM continued working on the strategy for the development of market regulation which includes, among other things, continuous development of capacities and expertise of employees based on skills and morals, and the development of analytical skills, that is, the ability to analyse past events and to simulate future ones. Modern and intelligent market regulation is closely related to an appropriate number and educational structure of employees, their overall regulatory capacity and experience.

With the Modernisation programme, HAKOM initiated several projects for the development of regulatory competences out of which the most important are: the interdisciplinary post-graduate course, the "Looking to the Future" project and foreign languages, all this with a view to increasing organisational and individual regulatory capacity.

Publicity of work

In 2010, HAKOM continued to fulfil its obligations in relation to the publicity of its work. All the relevant information about HAKOM's activities is regularly published on the website. In addition to publishing information on its website, HAKOM appeared in many radio and television shows (e.g. Consumer Code) where it regularly informed the public about important issues from the electronic communications and postal services sectors. HAKOM regularly issues press releases about more important decisions and events and regularly, within the shortest possible period of time, replies to received questions from journalists, and to all other questions.

Judicial proceedings

Concerning decisions of the Administrative Court, it must be pointed out that this Court in 2010 intensified its work on administrative disputes initiated against HAKOM's decisions. Judgements and decisions of the Administrative Court refer both to claims against HAKOM's decisions adopted in previous years (2006-2009) and to some of the decisions adopted in 2010.

The total of 112 administrative proceedings has been initiated against HAKOM in 2010. The Administrative Court adopted in 2010 the total of 89 decisions related to HAKOM. Out of those 89 decisions, HAKOM's decision was confirmed 81 times, and repealed only 8 times.

In 2010 HAKOM issued the total of 8 misdemeanour orders and submitted 7 misdemeanour motions because of the violation of provisions of the ECA. All misdemeanour proceedings are current in first instance proceedings before competent misdemeanour courts.

HAKOM's inspectors imposed two administrative measures.

ISO 9001 quality management system

On the basis of the certification of the quality management system in accordance with the international standard ISO 9001:2008 in November 2009, HAKOM's activities in 2010 were in the first place focused on implementation and improvement of efficiency of the quality management system and the increase of satisfaction of users by complying with their demands.

After the certification audit, the first supervision audit in HAKOM according to requirements of the ISO 9001:2008 standard was carried out in October 2010. Taking into account the quality policy, set objectives, results of judgement, corrective and preventive measures and its employee's proposals, HAKOM invests significant efforts in continuous improvement of its business system and quality management system as its constituent part. In that sense, HAKOM focused in 2010 on improvements related to quality system documentation.

Cooperation

In 2010 HAKOM continued with international cooperation and participated in a series of bilateral and multilateral meetings and workshops thus promoting effective regulation of electronic communications and postal services markets, the radio frequency management and numbering resources, and promoting HAKOM as an active and modern regulator in the network of European regulators in terms of application of the regulatory framework and market development. HAKOM is a full member the Independent Regulators Group IRG and an observer in the newly founded Body of European Regulators for Electronic Communications (BEREC). Although HAKOM has observer status in the work of BEREC, that is, it is not entitled to vote when decisions are adopted, which is a prerogative given to EU Member States only, HAKOM's experts participate in the work of all BEREC's working groups and project teams in all areas important for the regulation of the electronic communications market.

During 2010, HAKOM actively participated in the work of European Commission's working groups (COCOM, ERG, IRG, RSPG, RSC) and in the work of ITU's and CEPT's working groups in the sector of electronic communications market and in CERP's and UPU's working groups in the sector of the postal services market. In September 2010, HAKOM successfully organised a plenary meeting of the HCM Agreement in Zagreb when the new HCM Agreement was accepted and officially signed by all member states.

In 2010, HAKOM cooperated on a daily basis with actors on the market of electronic communications and postal services by resolving their requests, by organising public consultation on decisions which are important for market development, joint meetings, working groups and seminars. HAKOM regularly cooperated with state bodies and ministries on joint activities.

Pre-accession funds

In 2010, HAKOM continued implementing a project within Component I of the IPA programme (IPA TAIB 2007) entitled "Reinforcement of Institutional and Administrative Capacity for Croatian Post and Electronic Communications Agency" valid EUR 4,114,910.00 out of which EUR 853,877.50 is the amount of national co-financing.

In 2010, within the framework of IPA 2009 pre-accession programme, HAKOM was approved funds amounting to EUR 93,420.00 for the implementation of the Twinning light project entitled "Support to HAKOM in the area of accounting separation of postal services", with the share of national co-financing amounting to EUR 19,342.00. The purpose of the project is to promote administrative and regulatory capacities of HAKOM in the area of accounting separation.

Annex A SUMMARY OF THE WORK PROGRAMME FOR 2010

In 2010 HAKOM will particularly focus on creating a regulatory environment that will enable and encourage investments and innovations on the Croatian electronic communications and postal services market. In this process, particular account will be taken of promoting balanced development by making electronic communications and postal services equally accessible to all citizens of the Republic of Croatia regardless of where they live.

HAKOM will encourage, in particular:

- Competition in the offer of communications services;
- Constant growth and rapid implementation of modern communications technology;
- Stable, interoperable and reliable communications infrastructure;
- Affordable offer of communications services to Croatian consumers;
- Efficient use of the spectrum;
- Rapid growth of broadband products and services;
- Increased reliability of communications in crisis situations;
- Further development of the Croatian economy.

The basic elements of the programme of work and development of HAKOM are elaborated in detail in the following chapters of this text:

- Regulation of the electronic communications market,
- Radio frequency spectrum management,
- Regulation of the postal services market,
- Consumer protection
- HAKOM's capacity.

1 Regulation of the electronic communications market

1.1 Regulatory affairs

The Commission Recommendation (2007/879/EC) on relevant markets susceptible to ex ante regulation contains 7 relevant markets susceptible to ex ante regulation in relation to which the three criteria test does not have to be carried out to prove the need for ex ante regulation. National regulatory authorities may also regulate markets which are not a constituent part of the relevant Recommendation on relevant markets by proving that the three criteria (The Three Criteria Test), which prove the need for ex ante regulation, have been cumulatively met on those markets. National regulatory authorities mostly regulate those markets which are a part of this Recommendation, while the need for regulation of other markets depends on national idiosyncrasies.

In the EU Member States which implement the regulatory obligation of accounting separation, CCA is most frequently used as a cost basis, while FAC is the most frequently used cost methodology in retail access markets and LRIC on wholesale markets.

In July 2009, HAKOM completed 5 analyses of relevant markets which are a part of the European Commission Recommendation and 4 analyses of relevant markets which are not a constituent part of the mentioned Recommendation. HAKOM's Council adopted decisions identifying SMP operators on 5 relevant markets which are a constituent part of the Recommendation and regulatory obligations of SMP operators, and it confirmed the existence of effective competition on the remaining 4 relevant markets. HAKOM will continue with the

analysis of markets which are a part of the Recommendation and of other markets which are not a part of the Recommendation with a view to further liberalisation of the electronic communications market in the Republic of Croatia. The process of analysis of three relevant markets related to leased lines services at retail and wholesale level has started in the last quarter of 2009.

In August 2009, the Council of HAKOM approved HT's regulatory accounting documents that will serve as a basis for HT to prepare and submit to HAKOM draft regulatory financial statements prepared on the basis of the HCA/FCA model. The procedure of the Council's approval of HT's regulatory accounting documents based on CCA/LRIC model is currently in progress. HAKOM has also initiated a public procurement procedure for consultancy services in order to ensure a successful implementation of the project "Cost- models of operators with significant market power" which will enable better verification of financial information by the operators. Work procedures for cost models will be decided upon in agreement with selected consultants.

In 2010, HAKOM will focus, in particular, on the following:

- supervising the implementation of regulatory obligations of SMP operators with a special emphasis on the determination of reasonable prices for wholesale services offered by HT on wholesale broadband markets;
- defining the amendment procedure for reference offers and process for controlling the correspondence of prices of services to regulatory obligations imposed on SMP operators;
- ensuring successful cooperation with operators which have been imposed the obligation of cost accounting and/or accounting separation;
- finding the optimal approach to the development of cost models by taking into account market demands and actual possibility of the operators to deliver the requested data;
- improving of the public consultation procedure concerning market analyses and/or the three criteria test;
- improved drafting of market assessment reports,
- publication of glossaries with detailed explanations of individual indicators.

1.2 Communications networks

The increase in the number of operators in the EU results in the increased demand for resources in the addressing and numbering space. There is also a trend of using new technologies, and the appearance of new services (NGN, fixed-mobile convergence, IPTV), which makes the technical and regulatory conditions for the provision of services more complex.

A similar trend may also be noticed in the Republic of Croatia, which requires continuous training of employees in the department to keep up to date with world trends in the introduction of new technologies on the EC market and with the application of new IT aids for the management of the addressing and numbering space.

The increasing number of market participants requires continuous upgrading of the portability database while taking into account the demands of market participants and making number portability much simpler in the administrative sense.

In 2010, HAKOM will focus, in particular, on the following:

- upgrading and modernising of the central administrative number portability database;
- carrying out the annual verification of the manner of use of numbers in order to ensure efficient use and management of the addressing and numbering space;
- identifying universal services operators;
- advanced keeping of the list of available/allocated addresses and numbers and of the procedure for resolving applications for the allocation of addresses and numbers;
- supervising payments of fees for the use of numbers and of fees from gross income of operators for the carrying out of the activity of electronic networks and services (state budget/HAKOM financing);
- creating and connecting the database of EC operators by means of a web interface offering a simpler search for operators by name and type of service.

1.3 Facilities and infrastructure

1.3.1 Building requirements

In order to efficiently encourage the development of electronic communications infrastructure, HAKOM will continue to undertake actions aimed at creating preconditions for fast and undisturbed development of mobile communications networks of all operators and for the building of quality cable ducts by means of spatial planning. It will continue to contribute to efforts to create quality Spatial Plans in counties and at lower levels that will better appreciate the contribution made by electronic communications to the overall economic and social development of the observed areas. By systematic efforts and proposals, HAKOM will try to influence the improvement of Spatial Planning documents at all levels. Seminars will be organised for organisations authorised for the preparation of spatial plans where the importance of including electronic communications infrastructure in the plans will be presented in order to realise the preconditions for the improvement of economic, social and other starting points for sustainable development.

The EU is trying to speed up investments and building of electronic communications infrastructure as a precondition for the development of the electronic communications market, in particular, Internet, broadband access and broadband services market which have been recognised in the world as stimulating overall economic growth, employment and competitiveness. All obstacles that might result in the decrease in investments and building of electronic communications infrastructure are being removed. In the process, special attention is paid to the protection of the environment and of space.

In 2010, HAKOM will focus, in particular, on the following:

- participating in the adoption or amendments to spatial planning documents;
- satisfying the requirements for the protection of human health and space and for the preservation of the environment;
- endeavouring to keep spatial planning in the part relating to electronic communications on a common basis;
- stimulating investments into electronic communications infrastructure on the common basis;
- encouraging effective investments into infrastructure by issuing special conditions for construction/approvals for projects;
- ensuring that all building owners may freely chose an operator, and that all operators have access to a building under equal and non-discriminating conditions;
- establishing special conditions for interventions in space in the zone of electronic communications equipment and associated facilities;
- securing protection zones and radio corridors;

- stimulating the construction of integrated infrastructure.

1.3.2. Infrastructure

The effective use of electronic communications infrastructure is a precondition for market development, in particular Internet, broadband access and broadband services and it has been recognised in the world as the key instigator of overall economic development, employment and competitiveness and, thus, an obligatory factor for a more efficient health, education, science, tourism and other sectors.

The total number of Internet and broadband users in the Republic of Croatia shows a rapidly increasing trend. However, concerning broadband access, the Republic of Croatia is not as competitive as other EU Member States. In this respect, it is important to mention the lack of balance in the distribution of broadband termination points in individual counties. For that reason, selective stimulation of broadband Internet access development in the Republic of Croatia, as proposed by the Government, was fully justified. In 2010, HAKOM will continue to guide and supervise the sharing of electronic communications infrastructure and associated facilities in order to reduce the number of incidents of unauthorised access into the distribution electronic communications ducts and continue the issuing of certificates for the right of way.

In 2010, HAKOM will continue to work intensively on further development of broadband Internet access. In spite of enviable results achieved in previous years, the density of broadband Internet access is still unsatisfactory. HAKOM will continue to promote new technologies and the development of infrastructure that will improve the availability of broadband Internet access and allow a diverse offer of broadband services of all operators.

HAKOM will start collecting and entering data on paths and infrastructure capacities into the geo-information system thus contributing to more efficient processing of requests for sharing of telecommunications infrastructure and resolving of the existing situation related to the use of infrastructure.

In relation to infrastructure, HAKOM will, in 2010, focus, in particular, on the following:

- supporting effective use of the existing electronic communications infrastructure as a limited resource;
- prompt issuing of right of way certificates and carrying out of procedures related to the right of way;
- defining technical, occupancy and other conditions for certain types of electronic communications networks and electronic communications infrastructure and associated facilities;
- promoting and encouraging broadband Internet access;
- monitoring the development of access technologies and models encouraging more rational use;
- collecting data on paths and infrastructure capacities in the geo-information system.

R&TT equipment

In 1999, the EU adopted Directive 1999/5/EC on important requirements and manner and conditions for the placing on the market of R&TT equipment. The above-mentioned directive replaced the old Type Approval system with a new system which allows free movement of R&TT equipment among EU Member States. Since Directive 1999/5/EC introduces some kind of "ex post" regulation of the market of R&TT equipment, EU Member States attribute

particular importance to market control with the prevailing trend in the EU being the alignment between quality level and manner of market control.

The Ordinance on R&TT equipment was adopted in the process of accession of the Republic of Croatia to the EU and the alignment of legislation with the EU regulations. This Ordinance partially implements Directive 1999/5/EC and it will have to be amended before the accession of the Republic of Croatia into the EU for the purpose of complete harmonisation. This Ordinance lays down the obligation to obtain HAKOM's prior approval before import and placing on the market of R&TT equipment, which represents ex ante market regulation. The approval is issued on the basis of documentation which is usually provided to inspection services in EU Member States and it represents a sort of inspection supervision. However, in accordance with the criteria that the Republic of Croatia must meet as part of Chapter 1, this will have to be changed by enabling free import and placing on the market, followed by on site inspection. For that reason, HAKOM will have to establish and train a professional control service that will be capable of controlling the R&TT equipment market.

In 2010, HAKOM will focus, in particular, on the following:

- regular tasks of issuing approvals for import and placing on the market, assessing compatibility, receipt and processing of notifications on the intention to place on the market R&TT equipment operating in non-harmonised frequency bands in the order in which they were received;
- speeding up of procedures, better information of users who need our services and availability of the most recent technologies on the market of the Republic of Croatia, which allow more effective use of the RF spectrum (considering laws regulating the use of the RF spectrum and standardisation).

1.4 Expert supervision

The market of electronic communications in the Republic of Croatia and in the EU shows a trend of further liberalisation which permits easier entry and participation of companies on the market and the provision of very diverse services. Simplified market entry procedures and various aspects of market deregulation call for better control and supervision. A system of inspection, that is, of supervision, has been established in all EU countries in the same or similar manner as in the Republic of Croatia.

During expert supervision, HAKOM will, in particular, focus on the following:

- implementing regulatory obligations of SMP operators,
- lawfulness of provisions of electronic communications services,
- protection of users from the point of view of the provision of services and pricing systems;
- provision of postal services;
- protection from interference;
- limiting effects of electromagnetic fields;
- complying with the obligations of producers and importers when importing and/or placing on the market of R&TT equipment;
- protecting against unauthorised access into cable ducts and legal obligations of infrastructure operators.

2 Radio Frequency Spectrum Management

The EU has been striving towards more technological and service-related neutrality in radio communications, that is, towards the allocation of the radio frequency spectrum to users

without determining the type of the communications service, concrete technology used and services provided in this part of the spectrum. The application of this principle has also been attempted in those radio frequency bands where it is possible.

By following the trends in radio frequency management in the EU, laws and bylaws in the EU have been adjusted to the allocation of the radio frequency spectrum on a technically and technologically neutral basis. Before the adoption, the Allocation Plan is subject to a public consultation where all interested parties may give their comments and proposals. Operators of public electronic communications networks have already been issued technologically neutral licenses, and operators of mobile communications networks have, in particular, already been allowed to use the GSM and UMTS technologies, depending on their business plans.

The digital switch-over in broadcasting has made significant progress in EU Member States ever since the European Commission adopted a recommendation for the switching-off of digital television by 2012. The consequence of the application of digital technology is a more efficient use of radio frequencies, which releases part of the used spectrum and ensures a "digital dividend" for the provision of additional broadcasting and communications services. After the disappearance of analogue television, it is envisaged that new broadband electronic communications services with service and technological neutrality will be more frequently applied in the 790-860 MHz frequency band.

In July 2008, the Government of the Republic of Croatia adopted the Analogue to Digital Television Broadcasting Switchover Strategy in Republic of Croatia and the accompanying Action Plan. As part of the implementation of measures from the Strategy, all the necessary bylaws have been adopted which served as a basis for the invitation of the public tender resulting in the granting of an individual licence for the use of the radio frequency spectrum for the provision of the services of management of electronic communications networks for digital television for MUX A and MUX B in the territory of the Republic of Croatia. The mentioned multiplexes ensured the broadcasting of the existing four national television channels and the introduction of six new digital channels at the national level. In accordance with the Strategy and the Action Plan, HAKOM continued its activities related to the international harmonisation of frequencies to ensure conditions for the transition of television broadcasters below the national level for MUX D, and to ensure frequencies for other future multiplexes (for HDTV and DVB-H).

The appearance of new technologies, technological solutions, services and users in radio communications resulted in better usage of the radio frequency spectrum. Due to the liberalisation trend on the European and international markets, the control of the radio frequency spectrum has become an important factor in regulation, efficient management of radio frequencies, protection of users from interferences and electromagnetic radiation and in preventing unauthorised use. Because of this, all EU Member States have established measuring systems for spectrum control and the possibility of inspection i.e. supervision of all participants in the market.

HAKOM has established a measuring system for the control of the radio frequency spectrum which must be developed in such a manner to be able to measure and control systems which are using new technologies and to enable more efficient control of the radio frequency spectrum and the protection of people from electromagnetic radiation. The appearance of new users of the RF spectrum and particularly the introduction of new technologies and technological solutions require constant upgrading of the system to prevent unauthorised use

of the RF spectrum and to offer efficient protection against interference and electromagnetic radiation to all users. Measurement and control centres are currently located in inadequate leased premises in Split, Rijeka and Osijek, and the system of remotely controlled control and measuring stations has not been fully completed. Measurement vehicles are old, and measurement equipment needs to be modernised in order to achieve more efficient control of new technologies.

Bearing in mind the key processes, the situation in the EU and the Republic of Croatia, HAKOM will in 2010 focus on the following:

- implementing positive European and international practice in the management and regulation of use of the radio frequency spectrum and the alignment with the new EU regulatory framework when it is adopted;
- international harmonisation of the radio frequency spectrum and the conclusion of international agreements related to the use of the RF spectrum;
- switch-over from analogue to digital television and the provision of frequencies for digital television multiplexes, in accordance with the Strategy;
- planning of radio frequencies and preparation of technical parameters for the issuing of licences for the use of the radio frequency spectrum;
- protecting citizens from non-ionising electromagnetic radiation with particular emphasis on protection in areas of increased biological sensitivity (residential areas, schools, preschools, hospitals etc.);
- ensuring frequencies for the introduction of digital radio and the continuation of the Forum on digital radio. Planning support for the introduction of new services and technologies (T-DAB, DMB, DRM etc.) and the definition of the “Croatian standard” and strategic guidelines for the introduction of the digital radio;
- planning and optimising the network of the FM radio in the Republic of Croatia with a view to more efficient use of the RF spectrum;
- upgrading and modernising the control system of the radio frequency spectrum;
- carrying out regular measuring by means of an established measuring system as well as measuring for the purpose of frequency planning with a view to preventing unauthorised use of the RF spectrum and protection of users from interference.

3 Postal services

The postal services market in the EU is in the final stages of liberalisation. The Third Postal Directive envisages the completion of this process by the end of 2012 which should result in completely opened postal services markets in all Member States of the EU. The EU Member States with a developed postal market must complete this process by the end of 2010. Under such circumstances, postal service providers have been increasingly preparing for liberalisation and competition and have been modernising their offer of services on the market.

The liberalisation of the postal services market in the Republic of Croatia has been in progress for several years and the adoption of the new Postal Services Act represents a strong incentive for the completion of this process. The new Postal Services Act made completely legal the transport of direct mail and printed matter and it reduced the weight limit for the reserved area from 100 to 50g. Full liberalisation is envisaged by the end of 2013 and this date was accepted by the European Commission during Croatian accession negotiations. These circumstances have contributed to the increase in the number of alternative providers of postal services to over 20.

The key issues that HAKOM will focus on in the upcoming period are the following:

- drafting and implementation of implementing regulations under HAKOM's competence;
- ensure compliance of providers of postal services to the provisions of the Postal Services Act;
- working more intensively on the fulfilment of all obligations of the public operator;
- collection and analysis of data on the situation on the postal services market.

4 Consumer Protection

The new legal framework for dispute resolution entitles HAKOM to adopt decisions which are binding for operators and which allow only the instigation of an administrative dispute. Decisions on the resolution of disputes for public communications services are adopted by the HAKOM's director thus satisfying the principle of cost-effectiveness of proceedings since, as opposed to disputes between operators, these are small claims disputes, the resolution of which is under the competence of the Council of HAKOM.

Bearing in mind the manner of dealing with disputes between consumers and operators in the EU, we may conclude that HAKOM has taken upon itself a big responsibility and obligation when it took over the resolution of these out-of-court proceedings. However, at this stage of market development and of the overall society development, this is a contribution to legal security of all participants.

As opposed to the previous period when it was obliged only to control SMP operators for the purpose of issuing appropriate approvals, HAKOM has determined, in accordance with new regulations, that it is necessary to, in order to promote consumer interests, control bylaws of all operators and their pricing systems before publication. Surveys are carried out for users of postal and public communications services in order to establish their needs and to raise the level of their protection, and the results of such surveys and of market analyses are used to determine the necessary activities.

European regulations establish the obligation to provide universal services in order to encourage the development of market and services and to ensure equal use of all services to all citizens regardless of their residence. Basic regulatory principles and objectives also include the protection of end users.

A current project implemented as a part ERG/IRG activities is entitled "End user PT" which should, through its 4 project tasks, discover the direction in which the European Commission will regulate markets and relations for the purpose of promoting interests of users and for their protection. HAKOM has been actively participating in all of their activities.

In addition to the above-mentioned regulatory procedures, EU Member States have organised different ways of direct protection of users in case of a dispute between users and operators:

- establishing a special, national body independent of the regulatory authority;
- resolving disputes within the regulatory authority – not as an individual complaint but by adopting new regulatory obligations;
- establishing special bodies of individual groups of providers of services which act on the basis of various documents of the "Code of practice" type.

HAKOM's activities in 2010 will be focused on:

- initiated activities related to the promotion of consumer interests;

- introducing additional preventive activities and procedures bearing in mind, in particular, the education of consumers in all operationally and financially feasible forms;
- organising adequate workshops with operators, which might develop into permanent – monthly processing of current topics;
- analysing services on the market both in relation to their provision and in relation to pricing systems, that is, by controlling operators' bylaws;
- adopting prescribed bylaws and introducing procedures and processes for user protection, which have proven to be efficient for users of public communications services.

5 Increasing HAKOM's Capacity

HAKOM has been continuously trying to adjust its regulatory capacity to market needs and to increase the efficiency and transparency of its work by means of better organisation, definition and IT introduction into work processes, by creating a strong and integrated information system oriented towards e-government, by establishing active international cooperation and especially by enhancing the knowledge and skills of its employees.

5.1 Cooperation with international organisations

The EU and the world have been trying, on one hand, to standardise, ensure interoperability and coordinate future development of the electronic communications and postal services market, and, on the other, to ensure innovations and investments, as well as competition in these markets. This process has been developing within the framework of international authorities, working groups, different associations, forums, as well as through bilateral and multilateral cooperation between countries. Furthermore, the EU Member States are currently applying the existing regulatory framework and preparing for the implementation of the new regulatory framework after its adoption.

HAKOM has regularly participated in the activities of these authorities in order to monitor market development, to secure the interests of the Republic of Croatia, to exchange information and experiences, to acquire new knowledge, to achieve a timely recognition of the regulatory, technological and market challenges, and to observe and apply best practices. A further proof of that is the successful closing of Chapter 10 „Information Society and Media“ in the process of the Republic of Croatia's accession to the EU, where HAKOM has proven the alignment with the *acquis communautaire* and has shown that it keeps step with the application of the best regulatory practice in the EU. This was further strengthened by continuous cooperation with the European regulators, as well as with other interest groups and organisations in the sector on an international level.

Furthermore, documents for the closing of Chapter 3 "Right of Establishment and Freedom to Provider Services" (without Annex to Negotiating Position for Chapter 3 which refers to requirements concerning the recognition of qualifications, which will be submitted later on).

In relation to cooperation with international institutions, HAKOM will focus, in particular, on the following:

- consolidating, harmonising and a more efficiently applying the electronic communications market regulation;
- understanding the EU's new regulatory framework;
- experiences in the regulation of Next Generation Networks;
- efficient management and harmonisation of the radio frequency spectrum use;

- adjusting the postal system to the one existing in the EU;
- using of the funding from the pre-accession funds.

5.2 *Development of competences and modernisation*

HAKOM adopted a strategic and operative development plan until the year 2012 which is being implemented through two improvement programmes:

- a) convergence – oriented towards competition and market regulation aimed at improving competition and increasing investments and innovations in the electronic communications market,
- b) modernisation – oriented towards the development of its own capacity to regulate and develop electronic communications markets with the priority strategic goal being the development of regulatory competences.

5.2.1 Development of competences

Although telecommunications traffic and revenue have been continuously growing and will continue to do so, this is not happening in the same manner and with the same intensity as it used to. The possibilities for growth based on increased capacity or the number of connections still exist only in undeveloped countries, whereas in developed countries further growth is possible only by introducing a broadband network and new applications and services. More and more traffic has been arriving from network borders, that is, from new applications and services which have been offered by some new players in the chain. This presents new challenges before the participants in electronic communications market and requires new business models, new knowledge and skills as well as new relations on the market.

Next Generation Networking, NGN, is a term describing an architectural evolution in telecommunications core and access networks. The general idea behind NGN is single transport of all information and services (voice, data, and video) by using packet-switching, as in the case of the Internet. NGN will pave the way for new multi-media applications and services. Examples of such applications include VoIP, IPTV, LBS etc. A process that will mark the development of electronic communications in the next 5 to 10 years has to a large scale already started in developed countries, whereas in the Republic of Croatia this process is only starting. NGN asks for new multi-disciplinary (communication, economy and law) knowledge and skills from all of the participants on the electronic communications market. Taking into consideration that the participants on the Croatian market are not organised in such a way as to initiate research and gathering of all necessary knowledge, HAKOM has decided to begin with such an initiative by asking all participants on the electronic communications market to participate in those efforts. To that purpose HAKOM shall launch multidisciplinary studies in electronic communications market regulation and a research project „Looking to the Future“. The initiative should result in increasing the capacity of all of the participants in the electronic communications market regulation and development in the Republic of Croatia.

In the following year HAKOM shall focus on:

- promoting a multidisciplinary (communications, economy and law) approach to solving regulatory problems,
- monitoring the development of incoming technologies and their influence on network and services development with a special emphasis on regulatory aspects,
- problems of a quicker and more balanced development of broadband Internet access and introduction of broadband applications and services into the network of the Republic of Croatia.

5.2.2 e-Agency

The vision of public services in the 21st century in developed countries is based on the concept of e-governments. An e-government can be defined as a process of applying information and communication technology to the exchange of information between government authorities on one side, and citizens and businesses on the other. The usual communication channels are the following: Government - citizens, government - buyers, government - businesses, government - government and government - employees. The objectives of e-governments include the improvement of public services, democratisation processes, internal efficiency and productivity.

The Government of the Republic of Croatia, first and foremost with the e-Croatia programme, has been undertaking pervasive action in order to enhance the development of information society in the Republic of Croatia. The aim of the programme is to provide to citizens and businesses in the Republic of Croatia a high level of information services, the possibility for wide application and exchange of all kinds of information in such a manner as to enable their active participation in global development. HAKOM's previous information system was up to its task, but it had very limited possibilities. The physical and logical architecture of the system did not allow the implementation of e-government applications and services, it had difficulties in adjusting itself to technological changes and the introduction of new applications was relatively expensive. For that reason, HAKOM initiated the creation of e-Agencies - a modern, integrated information system with a series of applications from the area of e-governments. Until this moment, the building of the so-called *Back office* has been created (infrastructure, DMS, ERP and HRM) and the creation of the so-called *Front office* has started. The *Front Office* includes several applications from the area of e-government, and the development of new applications and services will be continued in the following year.

In the year 2010 HAKOM will focus the e-Agencies programme on:

- further automation of the process according to the abilities of the *Document Management System, DMS, into Back office,*
- increasing information security by introducing a mediation/agent layer tasked with preventing unauthorised access to HAKOM 's information system,
- development and installing the set of new, web-based and consumer-oriented applications from the area of e-governments.

5.3 Goods, human resources and monitoring

HAKOM will try to ensure the necessary human resources for the carrying out of the necessary tasks by: a) increase of efficiency by improving processes and training of employees and b) new employment. Namely, a project concerning modelling and optimising of HAKOM's business processes has been initiated and the analysis of the necessary human resources has been performed. In the majority of cases, HAKOM has at its disposal a sufficient number of trained employees for performing the tasks, but certain activities require the strengthening of human resources. In this sense it is necessary to focus on:

- modelling and redefining business processes,
- strengthening market analysis,
- strengthening of communications (in particular broadband) networks with the development of competences,
- ensuring the implementation of the project of cost accounting models,
- strengthening the regulation of the postal services market,
- strengthening HAKOM 's IT components linked to the e-Agency project.

Annex B List of abbreviations

ADSL - Asymmetric Digital Subscriber Line

AEM - Agency for Electronic Media

ATV - Analogue television

BEREC - Body of European Regulators for Electronic Communications

BRIFIC - Bureau Radio International Frequency Information Circular

CABP - Central Administrative Base of Portability

CARDS - Community Assistance for Reconstruction, Development and Stabilization

CCA - Current Cost Accounting - an approach according to which every accounting expense is assessed on the basis of its current market value

CEPT - European Conference of Postal and Telecommunications Administrations

CERP - European Committee for Postal Regulation

CO - Control Office

COCOM - Communications Committee

CPS - Carrier Pre-Selection

DAB - Digital Audio Broadcasting

DAB+ - Digital Audio Broadcasting – an upgraded version of DAB system

DCS - Distributed Control System

DLM - Dynamic Line Management

DMB - Digital Multimedia Broadcasting

DMS - Document Management System

DRM - Digital Radio Mondiale – Short, medium and long wave digital radio

DSL - Digital Subscriber Line

DLM - Dynamic Line Management

DTD – Distribution telecommunications ducts

DTV – Digital television

DVB-H - Digital Video Broadcasting – Handheld

DVB-T - Digital Video Broadcasting – Terrestrial

ECTS - European Credit Transfer System

EC – European Commission

EMC - Electromagnetic Compatibility

ERG - European Regulators Group

ERGP - European Regulators Group for Postal Services

ERP - Enterprise Resource Planning

EU - European Union

EUROSTAT - Statistical Office of the European Union

FAC - Fully Allocated Costs

FM - Frequency Modulation

FTTH- Fiber to the Home

GSM - Global System for Mobile Communications

HAKOM – Croatian Post and Electronic Communications Agency

HCA - Historical Cost Accounting

HCM – Harmonised Calculation Method – International agreement for the harmonisation of frequencies for mobile and fixed terrestrial systems

HDTV - High Definition Television

HP - Croatian Post

HRM - Human Resource Management

HRN - Croatian Standard

HT - Hrvatski Telekom d.d. (Croatian Telecom)

ICT - Information and Communication technologies

IMS - Internet Protocol Multimedial Subsystem– IP multimedial subsystem

IP - Internet Protocol - Network protocol for data transfer which is used for source and destination computers for data communication over computer network

IPA - Instrument for Pre-Accession Assistance in the process of accession to the EU - one of the EU pre-accession cooperation and assistance

IPC - International Postal Cooperation - International corporation dealing with international quality control

IPTV - Internet Protocol Television

IPv4 - Internet Protocol - Network protocol for data transfer which is used for source and destination computers for data communication over computer network version 4

IPv6 - Internet Protocol - Network protocol for data transfer which is used for source and destination computers for data communication over computer network version 6

IRG - Independent Regulators Group

ISO - International Standards Organization

ITU - International Telecommunication Union

CMS – Control and measurement station

CMC – Control and measurement centre

L0 (Level 0) – Normal transfer speed

L0 (Level 2) – Reduced transfer speed

LBS - Location Based Service

LLU - Local Loop Unbundling

LRIC - Long Run Incremental Costs

LTE - Long-Term Evolution - A technology which enables high transfer speed over 4th generation mobile communications systems

MSTI- Ministry of the Sea, Transport and Infrastructure

MUX – Multiplex – In digital television: a series of digital signals containing several radio or television programmes and/or other data that are being transferred simultaneously in one RF channel

NGA - Next Generation Access

NGN - New Generation Network

OG – Official Gazette

OECD - Organisation for Economic Co-operation and Development

OiV - Odašiljači i veze d.o.o.

PCM - Pulse Code Modulation

POTS - Plain Old Telephone Services

PSTN - Public Switched Telephone Network

RF - radiofrequency

RoC – Republic of Croatia

R&TT – Radio and telecommunications terminal equipment

RSPG - Radio Spectrum Policy Group

RT - remote terminal

RTR (Die Rundfunk und Telekom Regulierungs) - the Austrian regulator RTR

SIM - Subscriber Identity Module

SMS - Short Message Service

SNRM - Signal to Noise Ratio Margin

BIA - Broadband Internet Access

TAIB - Transition Assistance and Institution Building - Component I of IPA programme
Continuation of the PHARE programme

TAIEX - Technical Assistance and Information Exchange Office

T - DAB - Terrestrial Digital Audio Broadcasting

TV – Television

UMTS - Universal Mobile Telecommunications System (3rd generation mobile network)

UNEX - International Postal Survey according to IPC

UPU - Universal Postal Union

VAS - Value Added Service

VDSL or VHDSL -Very High Bitrate Digital Subscriber Line

VHF - Very High Frequency) – electromagnetic waves in the radiofrequency band from 30 MHz to 300MHz

VoIP - Voice over Internet Protocol

VPN - Virtual Private Network - service intended for networking and connecting of several different locations within one user network

xDSL - x Digital Subscriber Line

ECA – Electronic Communications Act

TA – Telecommunications Act

PSA – Postal Services Act

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