Croatian Regulatory Authority for Network Industries

Annual Activity Report for 2014

Zagreb, June 2015

Contents

INTRODUCTION

Pursuant to its legal obligation, the Croatian Regulatory Authority for Network Industries (hereinafter: HAKOM) submits its Annual Activity Report for 2014. The report includes all the requested data referring to the electronic communications, postal and railway services.

The year 2014 was characterised by the entry into force of the Act on Amendments to the Electronic Communications Act. The above-mentioned Act merged the Rail Market Regulatory Agency (hereinafter: RMRA) with the Croatian Post and Electronic Communications Agency thus creating a single national regulatory authority for the regulation of electronic communications, postal services and rail services markets - the Croatian Regulatory Authority for Network Industries, which kept its abbreviated name HAKOM for reasons of recognisability.

Regulatory objectives and principles on the markets under HAKOM's competence have been completely fulfilled. The objectives and principles of HAKOM's work were laid down in HAKOM's 2014 Annual Activity Plan[1] and they include promotion of competition, ensuring the protection of users of services and efficient management of limited natural resources, such as the radiofrequency (hereinafter: RF) spectrum and the addressing and numbering space. Special emphasis was placed on the protection of competition, promotion of efficient investments and innovation while ensuring the protection of competition and respect for the principle of non-discrimination, promotion of regulatory predictability, prevention of discrimination in relations with operators, providers of postal services or railway undertakings, ensuring a high level of user/passenger protection and efficient management of limited natural resources.

HAKOM fulfilled the set objectives through its regulatory activities and ensured the preconditions for stable business activities on electronic communications and postal services markets. Special emphasis was placed on user protection. In addition to regular regulatory activities, HAKOM's activities also included the fulfilment of tasks laid down in the Strategy for Broadband Development in the Republic of Croatia and the Implementing Programme for the Strategy for Broadband Development in the Republic of Croatia for 2014 – 2013. The Programme for the development of the Internet and broadband access in the areas of special state concern, hilly and mountainous areas and on islands is also implemented within the framework of the Strategy. The purpose of the programme is to assist in the development of rural areas of the Republic of Croatia (hereinafter: RC) and to support a balanced regional development of information and communication technology, Strengthening of HAKOM's own capacities continued through further development of e-Agency, professional training and use of funds from pre-accession funds of the European Union (hereinafter: the EU).

The report is divided into ten chapters preceded by the summary of the Annual Report. The statement of financial responsibility, a list of abbreviations, figures and tables are provided at the end of the report.

Chapter 1 covers electronic communications market divided into four parts – market overview, overview of regulatory measures, building, access to and use of the electronic communications infrastructure and inspection supervision in electronic communications. The following services are covered by the market overview: telephone services in the fixed network, Internet access services, telephone services in the mobile network, television (hereinafter: TV) services, network and line leasing services and other services. This part also contains information about market investments and innovations in 2014. The overview of regulatory measures includes the most important HAKOM's regulatory decisions on markets susceptible to ex ante regulation. Special attention is given to decisions concerning provisional decision on the designation of Optima telekom as SMP operator, amendments to Hrvatski Telekom (hereinafter: HT) Reference Offer, the margin-squeeze test, the

[1] http://www.hakom.hr/default.aspx?id=512

determination of fees within the framework of the HT's Reference Offer for communications lines, the carrying out of the three criteria test for publicly available telephone networks and market analysis of the market of access to the public communications network. The part on the electronic communications infrastructure covers the overview of information on the use of infrastructure, including the right of way and adoption of spatial plans, and the quality of Internet access and network neutrality.

Chapter 2 covers management of limited resources - the RF spectrum and the addressing and numbering space. The management of the RF spectrum is presented in general and for individual radiocommunications networks. In includes, in particular, an overview of the RF spectrum and R&TT equipment. The part on the addressing and numbering space management includes information on numbering and number portability plans.

Chapter 3 gives an overview of the situation on the postal services market which comprises providers on the postal services market and individual types of postal services. It includes an overview of regulatory measures on the postal services market and information on the carrying out of inspection supervision and on the monitoring of the situation on the market and of the development of the market. A special emphasis is placed on the monitoring of quality of provision of universal services and decisions on accounting separation.

Chapter 4 contains a description of the railways services market. The first part of the chapter deals with market overview and the second part with regulatory measures. The chapter also includes a description of the state of railway infrastructure in the Republic of Croatia.

Chapter 5 covers implementation tasks concerning consumer protection on the market of electronic communications and postal services. A special emphasis was placed on the protection of children and access to services for disabled persons.

Chapter 6 concerns the publicity of work. It includes the imposed obligations and activities implemented for the purpose of transparent business and facilitating communication with the public.

Chapter 7 deals with court proceedings initiated against HAKOM's decisions at the High Administrative Court of the RoC or proceedings initiated by HAKOM.

Chapter 8 covers HAKOM's cooperation abroad and at home and presents important activities conducted for the purpose of making HAKOM as a relevant factor in the area of regulation of markets under its competence.

Chapter 9 describes 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, improvement of regulatory competences, increase of productivity and efficiency and by facilitating access to HAKOM's regulatory activities.

Chapter 10 includes the financial statement and final statement for 2013. The Chapter contains the income statement, expenditure statement, overview of revenue surplus (deficit), investments statement, and statement on revenue from the state budget and findings of an independent external audit.

SUMMARY

The HAKOM's Annual Activity Report is a report on activities carried out on the electronic communications, postal and railway services markets, that is, on activities on those three areas regulated by HAKOM and HAKOM's financial report for 2014.

In the middle of 2014 HAKOM changed its name to Croatian Regulatory Authority for Network Industries. Pursuant to the Amendments to the Electronic Communications Act and the new Act on the Regulation of the Rail Services Market, which entered into force on 19 July 2014, the Rail Market Regulatory Agency was merged with the Croatian Post and Electronic Communications Agency to create a new Croatian Regulatory Authority for Network Industries. Since the Rail Market Regulatory Agency was merged with HAKOM in the middle of the year, this report includes the activities of the Rail Market Regulatory Agency and HAKOM's activities on this market. The abbreviated name HAKOM was kept for the purpose of recognisability in the country and abroad.

Financial activities

HAKOM is not financed from the Croatian Budget but from the collection of fees on the markets it regulates and its accounting is kept in accordance with the Regulation on accounting of non-profit organizations, the Electronic Communications Act, the Postal Services Act and the Act on the Regulation of the Rail Services Market. Revenue and expenditure is shown according to the principle of occurrence of events regardless of collection or payment.

HAKOM conducted its transactions in 2014 is a diligent and responsible manner and did not incur any losses. HAKOM's expenditure is fully covered by regular revenue collected by HAKOM, with consent of the Republic of Croatia, on the markets under its competence. HAKOM's material expenditure on HAKOM's staff in 2014 was lower than in 2013, although HAKOM was merged with RMRA during the year but this did not result in increase in the total number of HAKOM's employees.

HAKOM realized certain surplus of funds in the past year. Surplus on the revenue side resulted from additional unplanned allocations of the available RF spectrum, and on the expenditure side from savings on public procurement and realization of projects. In other words, the surplus on the revenue side occurred because operators needed additional RF spectrum to be able to develop and offer new services and products to end users, which was not envisaged, while the surplus of funds on the expenditure side resulted from HAKOM's responsible business management and public procurement processes and realization of projects often with less funds than planned for individual activities. Furthermore, HAKOM did not use the surplus of funds from previous years for its own employees but it reinvested the surplus through socially responsible regulation thus contributing to the development of the entire national economy. By implementing socially responsible regulation, HAKOM reinvested HRK 30 046,897 on the market in 2014 by investing into networks, applications and services and into software and hardware. Investments are part of HAKOM's *Programme for the development of the Internet and broadband access in the areas of special state concern, hilly and mountainous areas and on islands*.

Furthermore, in addition to the expansion of high-speed internet availability in Croatia to areas where it did not exist, an additional value of the above-mentioned projects was a positive impact on the economic development in the Republic of Croatia and outside of the area of electronic communications. Croatian companies that were successful in tenders for the implementation of this Programme employed new people and secured references for jobs carried out in an EU Member State.

HAKOM's total revenue in 2014 amounted to HRK 87,335,200 and it was higher than planned by around 5 percent, in the first place due to the allocation of the second part of the „digital dividend" and additional available spectrum at 1800 MHz, HAKOM's total expenditure in 2014 amounted to HRK 119,822,415, which is 16% lower than planned. Out of the HRK 44, 092,481 earmarked in the financial plan for capital donations to the Programme for the development of the Internet and broadband access in the areas of special state concern, hilly and mountainous areas and on islands and to the Project for the Elimination of Interferences and improvement of TV reception, a total of HRK 30,046,897 was spent. The rest of the savings resulted from HAKOM's good management, in particular because after the merger of RMRA with HAKOM, the total number of employees did not increase and the total cost of merger was minimum. The negative accounting result derives from the fact that the financial plan for 2014 envisaged the transfer of capital donations and part of investments and revenue financed from collected funds in 2013, which was, in compliance with the ECA, transferred to 2014 and was not financed from regular revenue in 2014.

HAKOM's total investments in 2014 amounted to HRK 13,370,851 and are at the 2013 investment level. The surplus of funds that will be transferred to 2015 according to the Financial Plan amounts to HRK 40,014,943. Funds will be primarily used for the aid programme for the development of broadband access in rural and underdeveloped areas.

In compliance with the applicable legislative provisions, HAKOM collected in 2014 a total of HRK 646,793,875 of State Budged funds on the basis of fees for use of the RF spectrum, addresses and numbers and fees for authorities and licenses. Collection process was difficult because of many bankruptcy settlements of subjects on the electronic communications market. A total of 68 enforcement proceedings were initiated in 2014 the total value of which was HRK 699,676, out of which HRK 802,816 was collected.

Activities on the markets regulated by HAKOM

In 2014 HAKOM continued with its work on the achievement of regulatory objectives and principles on the electronic communications and postal services market, and, from mid-2014, on the rail services market as well. Objectives and principles include competition protection, protection of users of services and efficient management of national resources, such as the RF spectrum and the addressing and numbering space and they have been established in the HAKOM's 2014 Annual Work Programme. HAKOM focuses in its work on the promotion of efficient investments and innovation while ensuring the protection of competition and respect for the principle of non-discrimination, the promotion of regulatory predictability, the prevention of discrimination in relationships towards operators, ensuring a high level of user protection and efficient management of limited natural resources. A special emphasis was placed on the development of broadband and increased investments in infrastructure and new technologies on the electronic communications market, and on consistent implementation of the Postal Services Act and the Act on the Regulation of the Rail Services Market with a view to achieving complete liberalization of these markets as part of the EU single market as soon as possible.

Electronic communications market

Total revenue on the electronic communications market in 2014 amounted to HRK 11,333,000,000 and investments amounted to HRK 1,879,000,000, which is, respectively, around 6 percent and 22 percent less than the previous year. There are several causes of the continued drop in total revenue on this market. In HAKOM's opinion, which is based on similar examples in the world, the key cause of total revenue decrease is, in the first place, increased competition resulting in users using services more than ever but paying lower amounts because of lower unit prices of services. Another cause is the economic crisis in the country and its surroundings and many years of savings of operators in terms of investments and innovations in networks. The electronic communications market was fully and timely prepared for Croatia's accession to the EU but operators' revenue in Croatia dropped, among other things, due to automatic application of lower roaming and wholesale prices regulated at the EU level, whose negative impact is for the first time reflected on the entire year. Users have also been increasingly using free internet-based communications services, such as Skype, Viber, WhatsApp and other similar services, thus resulting in lower revenue of traditional services, such as the public voice service, SMS and MMS. Furthermore, negative indicators for 2014 are also a direct consequence of pre-bankruptcy settlements of fixed communications operators and multiple times higher RF usage fees that operators of mobile communications had to pay in 2014. However, in spite of all the business difficulties in 2014, no operators stopped their operations, jobs of the majority of employees in this sector were saved and the entire market remained stable, offering high protection of end users.

The above-mentioned claim is confirmed by the fact that the electronic communications market in the Republic of Croatia was characterized in 2014 by further development of broadband services and increased revenue from Internet access services. Revenue from Internet access service increased by 28 percent compared to 2013, and its share in total revenue of the electronic communications market grew from 21 percent to more than 28 percent. However, due to the above-mentioned cause, the growth was insufficient to compensate for the fall in revenue from other services.

It is encouraging that in 2014 operators showed increased interest in innovations, that is, in the implementation of new technologies, which is why a series of pilot projects for testing the possibilities of these technologies was initiated. Furthermore, operators of mobile communications network purchased additional RF spectrum due to the need for more capacity, which, in addition to creating preconditions for growth, resulted in new, significant revenue in the state budget.

In relation to the broadband penetration rate over the fixed network, the RoC is among less developed countries compared to the EU Member States, while its mobile network penetration rate places it among more developed countries. Regardless of the increase in the number of users, there is still room for a stronger growth in this segment, in particular in the area of the fibre access network. This growth in the RoC is necessary, among other things, because of the possible widening of the digital divide between the Roc and Member States.

There are significant regional differences in the RoC in relation to the number and penetration of broadband connections in the fixed network and this currently represents an even greater challenge than increased broadband penetration at the national level. Regional differences were somewhat mitigated in 2014 by investments into rural areas and islands through HAKOM's aid programme, and by means of regulatory measures and allocation of the digital dividend and the introduction of the LTE technology into mobile networks.

HAKOM's Programme for the development of a broadband ecosystem in rural areas and HAKOM's "Programme for Internet and Broadband Development in Areas of Special State Concern, Hilly and Mountainous Areas and on the Islands" was included in the Implementation Programme (measure 4) for the *Strategy for Broadband Development in Croatia for the period 2014-2013.* The objective and purpose of those aid programmes is to achieve balanced regional development, to connect the target groups such as educational, health and public institutions to the broadband network and to introduce of applications and services that make the economy more dynamic and improve the quality of life in the abovementioned areas.

Part of the funds from the Programme for the development of a broadband ecosystem was allocated by HAKOM through public tenders for the development of broadband Internet access in South-Eastern Slavonia („Cvelferia”) affected by catastrophic floods in May of 2014. Electronic communications infrastructure was reconstructed by the end of the year, broadband access had improved significantly and some of the e-applications had been developed which were, together with the donated end-user equipment, applied for the first time in this area as part of the pilot project.

The number of broadband connections over fixed communications networks slightly increased in 2014 together with significant increase of data traffic. The number of such connections in mobile communications networks decreased in statistical terms, in the first place because foreign tourists have been taking advantage of low EU roaming prices and have, therefore, stopped buying pre-paid cards of Croatian operators. Another reason is that almost two out of three end users in mobile communications networks own a „smart phone” and tariffs including significant data traffic, which is why their needs for a special broadband connection have decreased.

Among positive market indicators it is important to single out the increased number of users of packages of services, more than 20 percent, and the increased share of other operators offering internet access over fixed communications networks, besides the HT. The share of Tele2, as the smallest of the three mobile communications operators, is close to 20 percent. Revenue from leased networks and lines also increased by 10 percent. All this is proof of efficient competition and good regulatory decisions adopted by HAKOM.

Overall digitalisation of TV broadcasting resulted in a significant growth of the market of transmission of pay-per-view channels. At the end of 2014, almost one half of households were using pay-tv services. This shows that citizens are willing to pay for TV content in spite of their decreased purchasing power and regardless of the fact that they are already paying for one TV subscription to HRT.

Although communication between machines, M2M, as part of the "internet of things" is an area which is currently in initial stages of development, and which is estimated to cover even up to 10 billion of devices by 2020, HAKOM already defined the appropriate numbering for these services in its *Numbering Plan.* Among these new services, special attention in the preparation of the regulatory framework was given to cloud computing, as one of the fastest growing areas of today's word of IT technology.

The majority of activities concerning spectrum management focused on the measuring of the RF spectrum owned by the Republic of Croatia which is being unlawfully used by Italy thus interfering with Croatian signals not only in some areas of Istria but also in the entire coastal Croatia. All planned measuring campaigns and other measurements in the RF spectrum were successfully carried out in accordance with the measuring plan, with a special emphasis on the protection against unlawful use of Croatian radio frequencies by Italy. Extensive measurements were carried out along the coast and on the islands in 2014 with the objective of monitoring and identifying interferences from Italy. As a result of this measuring exercise, 669 new international reports were sent to Italian administration but Italy did not eliminate or resolve any of the interferences reported in 2014. HAKOM notified both the EC and the ITU of this problem, independently, and in cooperation with competent Croatian ministries. The first concrete results of the elimination of interferences from Italy may be expected in the second half of 2015.

In addition to the measuring of Italian interferences, HAKOM also carried out systematic measuring aimed at protecting the RF spectrum as a naturally limited resource of interest for the RoC. Daily measuring was carried out from all four CMCs and seven remotely managed CMSs, while measuring vehicles conducted periodic measuring. A new mobile CMS was built and put into operation near Čilipi. Land was purchased in Split for the building of a new control and measuring centre. The RF spectrum monitoring also included measuring the level of electromagnetic fields for the purpose of efficient protection of human health from the influence of the electromagnetic field. Measuring results submitted by legal persons authorized for the activities of measuring electromagnetic radiation were checked on a regular basis.

Upgrading, introduction of new functionalities and regular maintenance of a database of ported numbers, management of the addressing and numbering space, inspection supervision in the area of electronic communications networks and services and radio and telecommunications networks and services and the radio and telecommunications terminal equipment are some of the activities under HAKOM's competences that have contributed to successful market development in 2014.

HAKOM's regulatory measures in 2014 focused on the definition of wholesale conditions in compliance with market interests in the Republic of Croatia and further development of competition. They were all readily approved by the European Commission (hereinafter: EC) and successfully implemented on the market, which is a great success and another confirmation that Croatia was prepared for entry on the EU single market in this respect.

Other HAKOM's activities during 2014 included, among other things, the issuing of certificates of the right of way, preliminary opinions on spatial planning documents and special building conditions and confirmation of main designs, which, in addition to the building of the base electronic communications infrastructure, contributes to the regulation of this area. In cooperation with operators and local and regional self-government units, it prepares projects for building, access to and use of electronic communications infrastructure and networks, which will contribute directly to faster and more efficient use of EU funds and projects of public private partnerships.

Postal services market

Complete liberalization of the market reversed the multiannual fall in total revenue on the postal services market, and the entry of new postal services providers enriched the offer with new services. In addition to reduced prices of individual segments of postal services, the number of packages and value added services increased accompanied by a simultaneous drop in traditional postal services, which is a continuation of a current trend in the EU and in the developed EU countries.

Revenue reported by providers of postal services in 2014 amounted to HRK 1,430,810,000, which is a slightly more than in 2013. The number of services on the postal services market was by 1 percent higher compared to the previous year. Out of the total number of services on the market, HP's share fell by 1 percent to slightly under 70 percent. Universal service made almost 53 percent of all services provided postal services, other postal services almost 26 percent and interchangeable postal services around 21 percent. The main reasons for increased revenue and number of services include the increased share of value added services and development of e-trade, which includes the delivery of packages.

At the end of 2014, there were 21 registered postal service providers in the Republic of Croatia who provided postal services on the basis of an application. HP is the only provider of universal postal services and it acquired its right and obligation to provide universal services on the entire territory of the Republic of Croatia on the basis of the PSA for 15 years. The most important regulatory activities include accounting separation with revision of the regulatory report and cost model of HP and the calculation of net cost of providers of universal services. The above-mentioned activity was very important since sustainable universal service is one of the main preconditions for the improvement of living conditions in rural areas of the Republic of Croatia.

HAKOM's activities on the postal services market were proactive including the implementation of measures for the preservation of the universal service and organization of round tables with all market stakeholders and corrective consisting of the carrying out of inspection supervision, thus being oriented towards the regulation of a completely open market with a view to creating equal conditions for all providers, in particular to sustainable provision of the universal service. In relation to the universal service, the emphasis is on their quality, affordability and availability thus offering to all users equal rights and possibility to use the universal postal service the continuous provision of which is guaranteed by the RoC on its entire territory. Bearing in mind the importance of post offices for the quality of life in rural areas, HP kept 300 post offices more than the minimum prescribed in the Act and the Ordinance. Thus, at the end of 2014, there were a total of 1016 offices, which is only two less than in 2013. This practically stopped the closing of post offices.

Rail services market

After the entry into force of the Act on the Regulation of the Rail Services Market and amendments to the ECA, HAKOM took over the competence of the rail services market in mid-2014 and started taking proactive and corrective regulatory measures aimed at promoting competition and interests of uses of rail services. It mediated between the infrastructure manager, HŽ infrastrukture d.o.o. and railway undertakings and operators of service facilities, in the first place in relation to the network report.

The liberalization of the freight rail transport market resulted in the entry of new railway undertakings. However, more competition did not result in increased amounts of carried cargo in 2014 or in the increased usage of rail services. The rail traffic did not become more competitive compared to other types of transport of goods. In 2014, HŽ Infrastruktura d..o.o reported revenue amounting to a total of HRK 155,709,000, which is a 24 % drop compared to the previous year. Passenger traffic recorded a continuous decrease in the number of carried passengers. Reasons for that include, among other things, multiple repairs of railway tracks and the old rolling stock.

Nearly a billion kunas has been invested into the reconstruction and modernization of railways in 2014. A positive sign is an increase in the average speed of transport and length of railways allowing speeds greater than 100km/h. This must be supplemented by increased competition on the part of the rail services market related to cargo traffic and HAKOM's efforts aimed at eliminating the obstacles for access to service railway facilities. There were 27 service operators, 1 passenger carrier and 4 freight carriers at the end of 2014. Plans for 2015 include the entry of new cargo carriers, new rolling stock of HŽ putnički prijevoz d.o.o. and further upgrading of rail infrastructure, which is an indication of the improvement of situation on the rail services market.

Consumer Protection

A special emphasis was placed on ensuring a high level of protection of users of services in their relations with operators/service providers/carriers, in particular by making available simple and inexpensive dispute resolution procedures.

Protection of users of electronic communications services - In 2014 HAKOM focused preventive activities, instructions and advice to end users on how to protect themselves and avoid the problem and to open and simple communication with the users. A quick and simple way of resolving a possible problem and dissatisfaction of end users is Ask us". HAKOM answers questions of end users and journalists within the shortest possible time. In the majority of cases, users are instructed about further action and registration of users for initiating dispute resolution proceedings before HAKOM via the Internet application "e-Complaints": Registered uses are able to follow the status of their complaint and to receive additional information and send supplementary information by means of the abovementioned application. Furthermore, HAKOM continued with the implementation of a programme simulator entitled Cost Estimator". The simulator will provide to users the necessary information about the prices of public communications services and their changes without delay, in relation to the offer on the market. In order to achieve high level of user protection, HAKOM prepared and put at the users disposal the tool for measuring the speed of Internet access, the so-called "HAKOMetar". The purpose of the tool is to prove the non-fulfilment of contractual obligations of operators if Internet access speed is too slow.

On the basis of the analysis of the total number of received complaints, questions, appeals and requests for dispute resolution made by end users in 2014, it may be concluded that users are increasingly aware of the possibility for objective realization of their rights through dispute resolution before HAKOM. A decreasing trend in the number of initiated disputes, which amounted to 1350 in 2014 compared to 1696 in 2013, shows that the operators have adopted the new regulatory framework and that they have consistently applied the provisions of new ordinances adopted by HAKOM. The share of HAKOM's negative decisions in disputes initiated by users increased compared to the previous years, which is a sign of better cooperation and communication between HAKOM and operators. This shows that operators abide by the law, ordinances and HAKOM's instructions, that is, that disputes initiated by users before HAKOM are more frequently based on correct decisions adopted by operators in previous stages of the appeal procedure.

Protection of users of postal services – The majority of complaints were resolved by providers of postal services themselves, among which HP was the most efficient. HAKOM received 58 requests, and a total of 60 were resolved in 2014. On the basis of the opinion of the User Protection

Commission only 13 disputes were accepted or partially accepted. No administrative disputes were initiated against HAKOM's decisions in 2014.

Protection of passengers - Pursuant to the provisions of the Act on the Regulation of the Rail Services Market, in mid-2014 HAKOM took over the competence for passenger protection and resolution of complaints of passengers against decisions of railway undertakings, but no complaints were received by the end of 2014. Objections addressed to the railway undertaking mostly concerned the work of staff, schedule and train delays. The provisions of the Act on the Regulation of the Rail Services Market on inspection supervision in the area of passenger protection entered into force on 1 January 2015 and complaints are expected in 2015. Potential disputes will be resolved by HAKOM on the basis of an opinion issued by the User Protection Commission with HAKOM.

Protection of children – HAKOM intensified activities aimed at promoting the protection of children during Internet and electronic communications services use. Special attention was dedicated to the promotion of parents responsibility and laying down the obligations of operators of electronic communications networks on the basis of which parents may request from their operators to ban access to certain content which is inappropriate for children, to restrict the use of special tariff services and to limit spending. Operators are requested to behave in a socially responsible manner in relation to children, beyond what is prescribed by the law.

Protection of persons with disabilities - HAKOM continued its participation in the advisory mechanism of associations of persons with disabilities, operators and HAKOM in 2014. In addition to its regular activities, HAKOM also financed the development of three applications intended for persons with disabilities that were completed in 2014: personal therapist programme, adjustment of the website of the Croatian Institute of Public Health for disabled persons and Internet advertising for disabled persons. Applications „E-physical therapy at home/E-home care" and „E-diagnostics and support for children with communications difficulties (eDD)" are being developed.

HAKOM

Cooperation - With the framework of international cooperation, HAKOM actively participated in the work of international working groups in EC (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 on the postal services market and ENRBB and IRG Rail in the rail services market. HAKOM's excellent performance and important role in the region were confirmed by an invitation for participation in several regional and international conferences where HAKOM's experts lectured.

Cooperation at the national level includes excellent cooperation with all ministries, state administration bodies, regional and local self-government units and other regulatory authorities and state agencies. HAKOM's experts represented Croatia at numerous international gatherings and meetings and participated in the development of strategic and operational documents adopted by the Government of the Republic of Croatia, and those related to the use of the EU funds. Cooperation with faculties of the Universities of Zagreb, Split and Osijek must also be mentioned.

E-Agency - in 2014, HAKOM implemented several applications focused on improving business processes by using web-based technologies. In addition to e-applications intended for external users, HAKOM has also sped up the internal processes by introducing new IT solutions and platforms. The introduced tools enable efficient cooperation in everyday processes of regulators, and communication with end users, which is why they are accepted by employees and users.

Development of competences - The most important programmes aimed at improving organization and individual and group regulatory capacities were the following: "Interdisciplinary postgraduate course in regulation of electronic communications market" at the University of Zagreb, "Looking to the Future" project in cooperation with the faculties in Zagreb, Split and Osijek and language training, in particular English. The quality control system ISO 9001 is constantly being upgraded, which was confirmed by second supervision by the certification authority "Bureau Veritas Croatia".

Employees -At the end of 2014, HAKOM employed 174 people. Regardless of the merger of RMRA with HAKOM, the total number of employees did not increase. Approximately 83 percent of employees have university or college degree, and the majority are electrical engineers who make 35 percent of all of HAKOM's employees. They are followed by economists who make up 24 percent of employees, lawyers and engineers make up 13 percent and 16 percent are employees of other professions. More than 60 percent of all employees are under 40 years old, and the average years of work experience amount to more than 10 years. The gender composition is almost equivalent.

1 ELECTRONIC COMMUNICATIONS MARKET

The electronic communications market is one of the strongest branches of the Croatian economy and it represents one of the pillars of development and progress in a modern society.

1.1 Market overview

In addition to total investments, the Chapter will cover the main features of key market segments, such as internet access and the market of mobile and fixed networks. Like in the previous years, the most significant growth happened on the Internet access market.

1.1.1 Investments and revenue

Croatian economy was marked by negative trends last year. The electronic communications market also felt the impact of the crisis and leading operators, in spite of the economic crisis in the Croatian economy, continued with their investments into new technologies and managed to earn revenue at the level that allowed them to continue relatively stable business operators or successful completion of the pre-bankruptcy settlement procedures. The lack of investments in this sector is unacceptable in times of crisis because that might have a negative impact on future business operators. Frequent changes and technological innovations on the electronic communications market impose the need for investments into research and development, development of infrastructure and introduction of new technologies. Because of that, operators must follow technology trends and invest into new technologies and into the structuring of the offer of services to enable successful business operations. Operators on the Croatian market are aware of this fact and they have invested HRK 1,879 billion in 204. Investments will ensure increased revenue in the future, that is, profitable operations and continuous growth.

Figure 1.1. Total investments of electronic communications operators in the RoC (in HRK million)

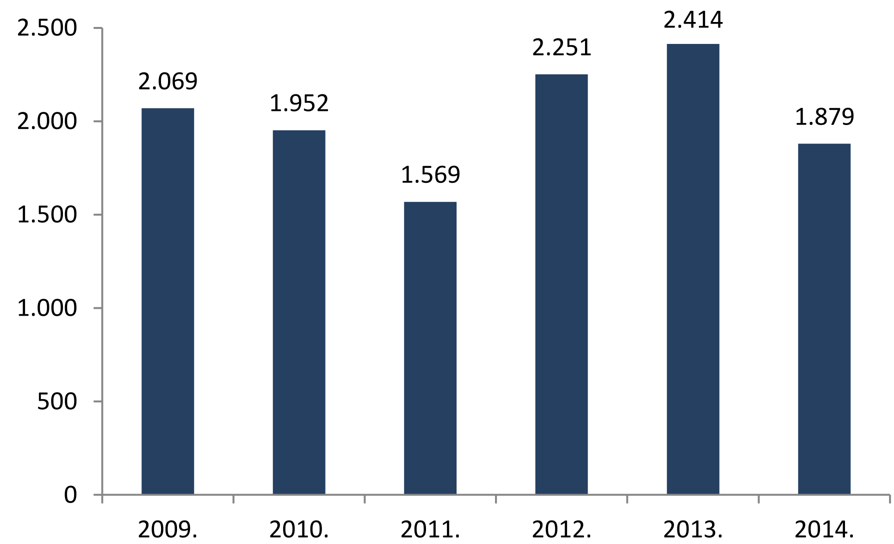


Figure 1.2. Total fall in revenue on the electronic communications market (in millions HRK)

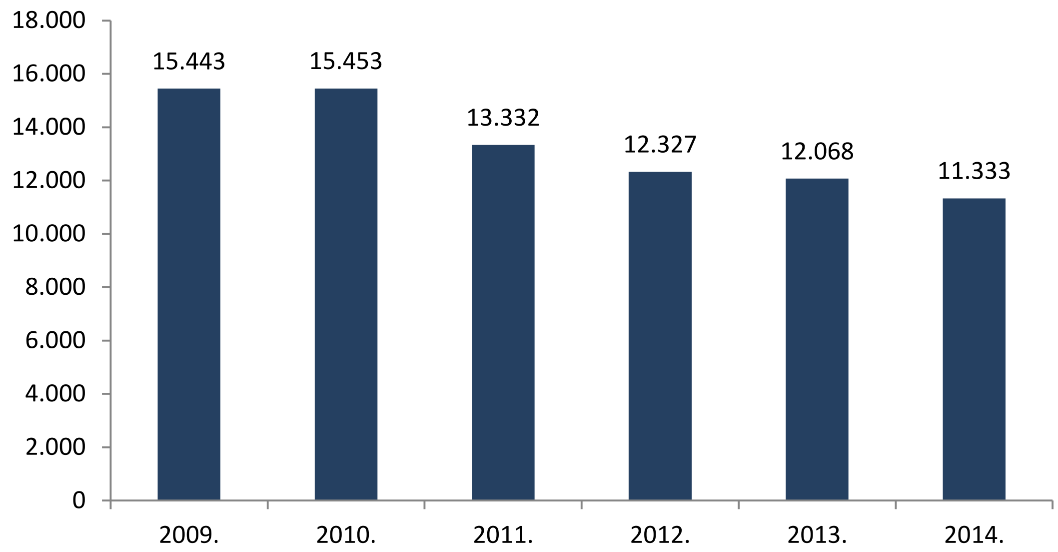
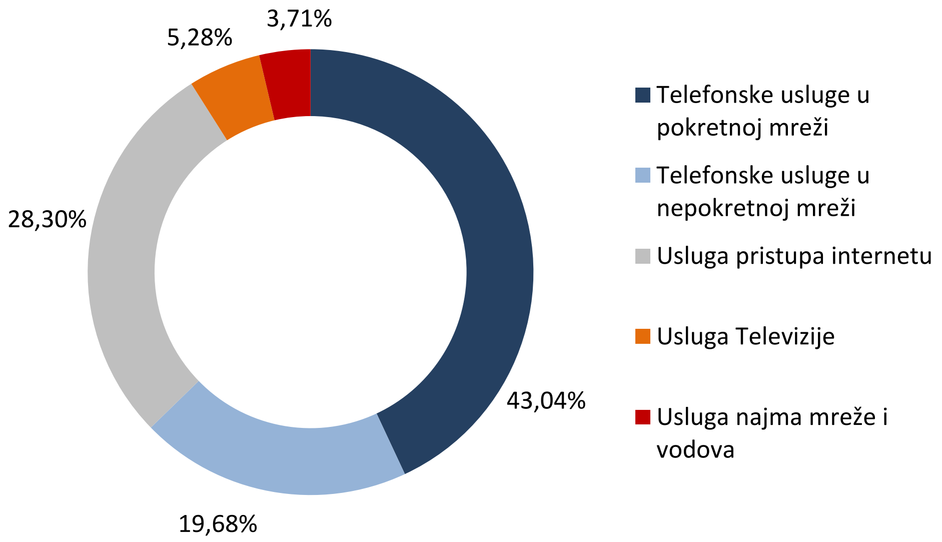


Figure 1.3. Shares of services in total revenue on the electronic communications market



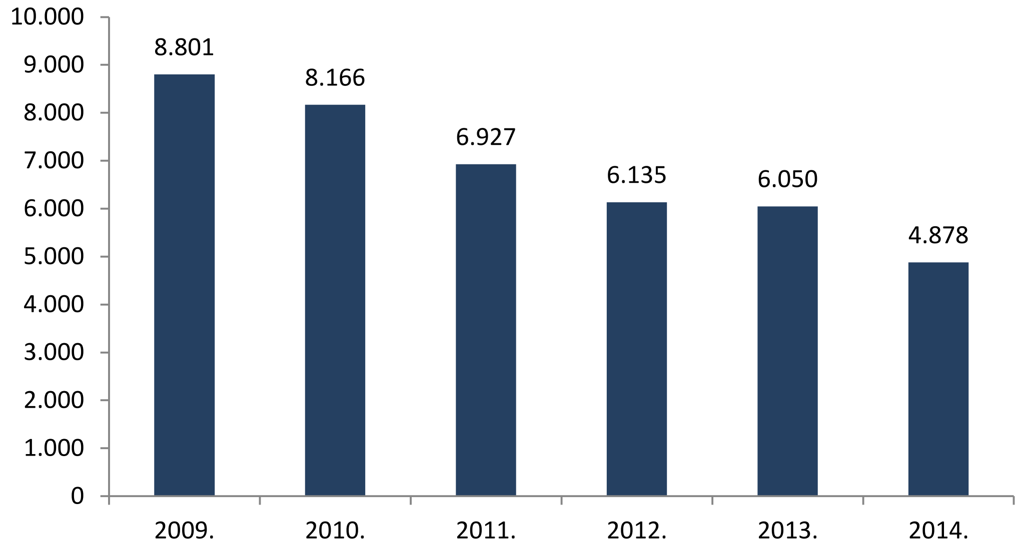
The overview of revenue on the electronic communications market per segments shows the prevailing revenue from telephone services in the mobile public communications network followed by revenue from internet access services. At the same time, revenue decreased in the segment of telephone services, both in mobile and fixed networks. Less revenue results, among other things, from continuous economic crisis that influenced the purchasing power of users of electronic communications services and, consequently, their usage.

Voice services in the fixed network are increasingly losing their importance and it is expected that revenue from this type of services will continue to fall in the future, although it is hard to predict the dynamics. While trying to attract and keep users, operators are forced to maintain high quality of service and to offer those services at favourable prices. Due to increased competition and more intense struggle for market shares, it is expected that the importance of bundled services will grow, as well as of tariff models with unlimited traffic.

1.1.2 Telephone services in the mobile network

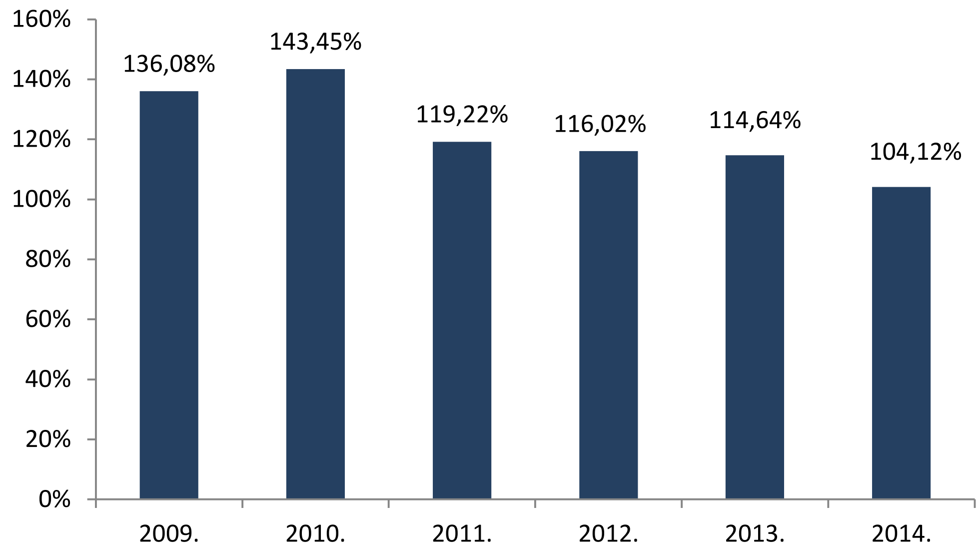
In addition to the telephone services in the mobile network which have the biggest share, data transfer services (documents, sound, image and other content) and internet access services are being more frequently offered. Users have been using mobile Internet access more than ever due to increased usage of smart phones and of the so-called OTT (*Over the Top*) services As a result, a total number of minutes realized in the mobile network grew slower (around 3 percent annually), and the number of sent SMS messages fell by 8 percent at the annual level as well. Revenue was around 20 percent lower than the previous year which was to be expected since operators lost part of their revenue due to new roaming regulation that imposed on operators of mobile network since the accession of Croatia into the EU:

Figure 1.4. Total revenue from telephone services in the mobile network (in HRK millions)



User penetration and the number of users of telephone services in the mobile network were 9 percent lower in 2014 compared to 2013 as a consequence of the introduction of tariff packages for end users, that is, of the introduction of tariff packages that do not differentiate between calls within the network or towards other networks.

Figure 1.5. User penetration in public mobile communications network in the RoC



The number of subscribers is constantly on the rise. According to the gathered data, the share of subscribers in the total number of users at the end of 2014 amounted to 45 percent. In addition to the offer of various tariff packages with attractive offers of devices/tablets, the increased number subscribers resulted from the increased popularity of smart phones. Because of the increased importance of broadband Internet access, which is closely linked to greater use of smart phones, it is expected that the number of subscribers will continue to grow in the upcoming years.

Figure 1.6. Division of the total number of users of telephone services in the public mobile communications network in the RoC

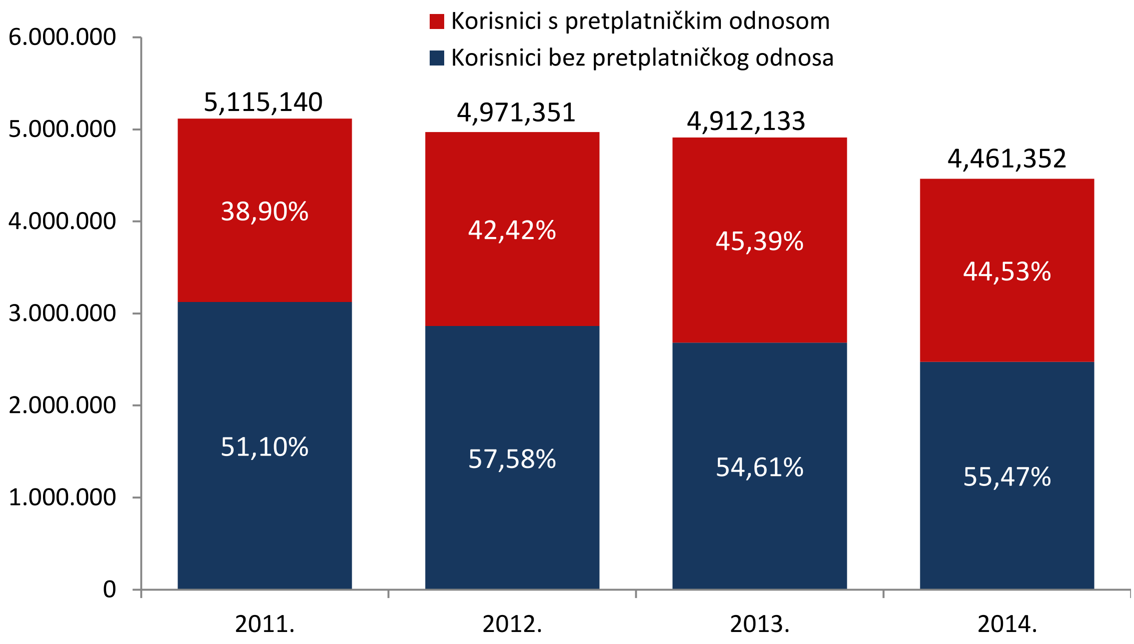
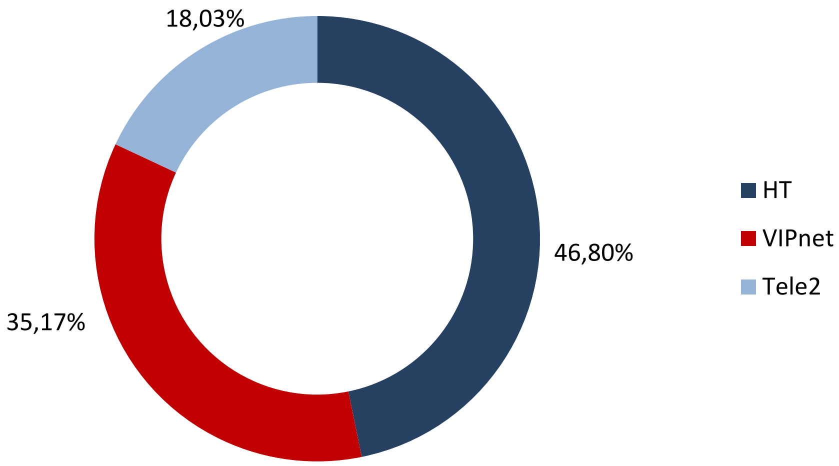


Figure 1.7. Market shares of operators in relation to number of users



In 2014 Tele2 continued to strengthen its position on the market of mobile telephone services with 18.03 percent of users. At the same time, the impact of the roaming prices since the accession to the EU continued in 2014 with the simultaneous increase of traffic of own users in roaming by more than 55 percent compared to 2015. On the date of accession to the EU, mobile network operators must apply obligations arising from the Roaming III Regulation. In addition to the measures for restricting the prices of roaming and transparency obligations, EU Roaming Regulation III introduces structural measures aimed at increasing competition on the roaming market. HAKOM will also, in the following period, follow the implementation of obligations that the EC is planning to adopt through its decisions and that prescribe, among other things, that mobile network operators will have to offer roaming services at the prices of domestic services on the basis of the reasonable use criterion.

Figure 1.8. Revenue and duration of calls of own users in roaming in international networks

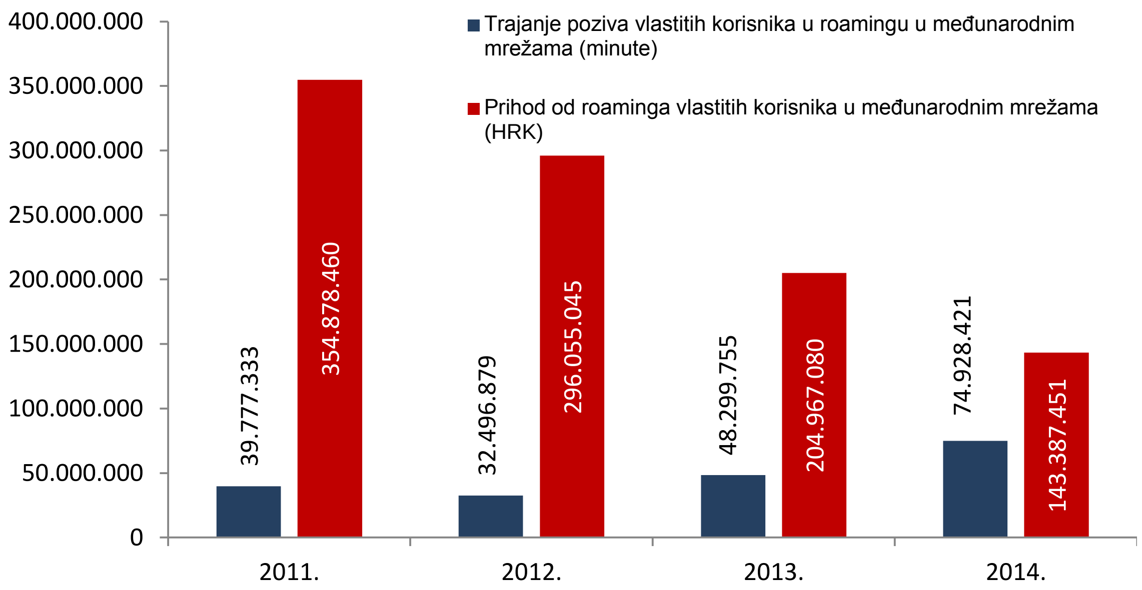
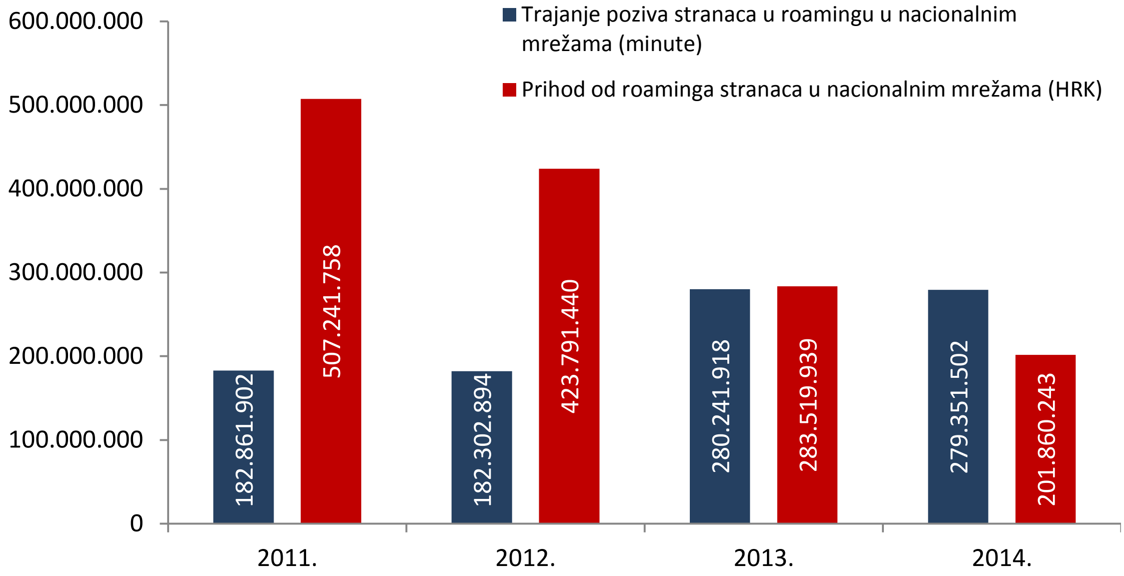


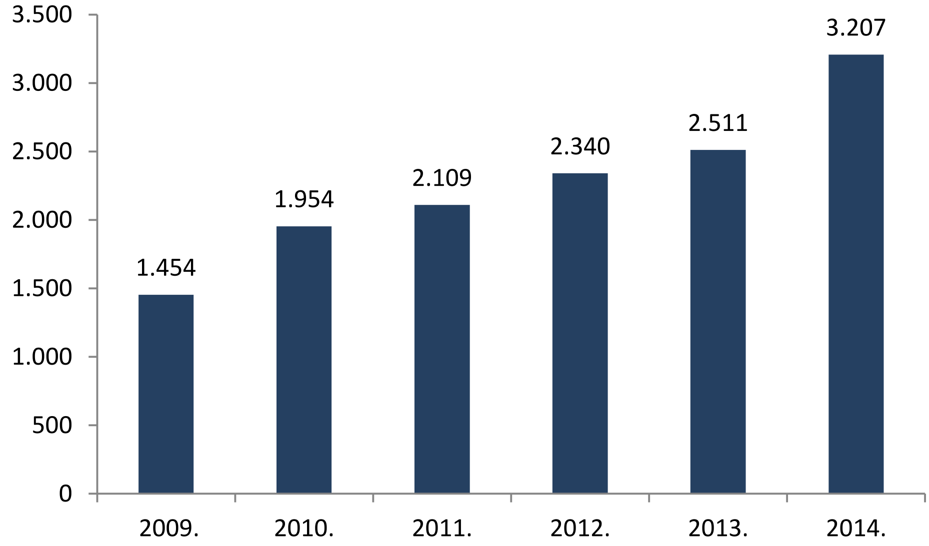
Figure 1.9. Revenue and duration of calls of own users in roaming in national networks


Trajanje poziva stranaca u roamingu u nacionalnim mrežama (minute)
Prihod od roaminga stranaca u nacionalnim mrežama (HRK)
600.000.000
500.000.000
400.000.000
300.000.000
200.000.000
100.000.000
0
182.861.902
507.241.758
182.302.894
423.791.440
280.241.918
283.519.939
279.351.502
201.860.243
2011.
2012.
2013.
2014.

1.1.3 Internet access service

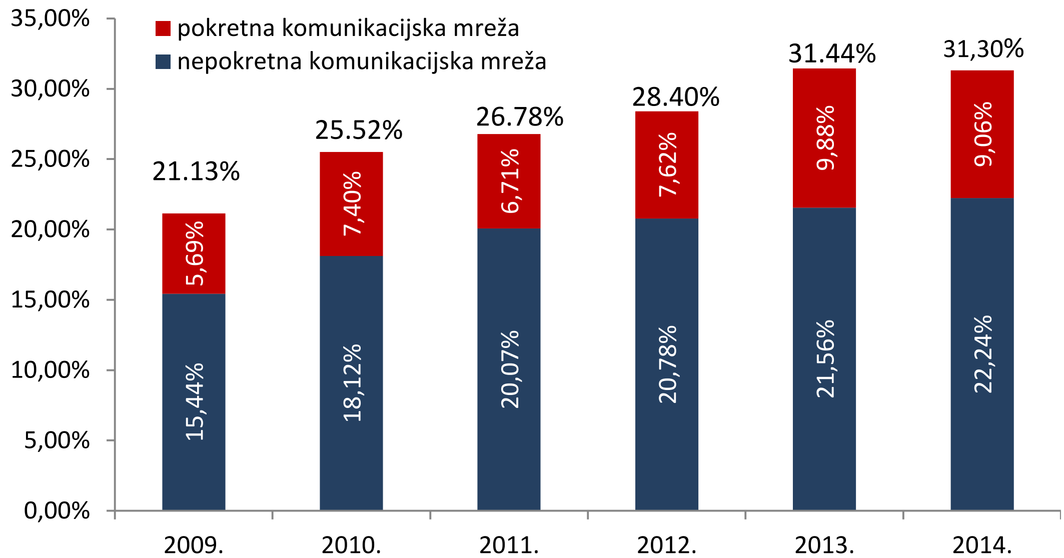
Broadband access services are one of the fastest growing segments of the electronic communications market in the Republic of Croatia, which is demonstrated by the number of broadband connections and the amount of revenue earned in this market segment. Revenue has particularly grown in the segment of broadband access over mobile communications networks. Internet access market in Croatia continues to grow but more slowly than in the previous period, which is to a certain extent a consequence of a saturated market, and general economic situation.

Figure 1.10. Total revenue from Internet access services (in millions of EUR)



According to the gathered data, fixed broadband penetration at the end of 2014 amounted to 22, 24 percent. If mobile broadband connections, whose penetration rate amounts to 9.06 percent[2], are added to this number, the total penetration rate of broadband connections in mobile and fixed networks reached 31.44 percent at the end of 2014. 31.30 percent

Figure 1.11. Broadband Internet penetration

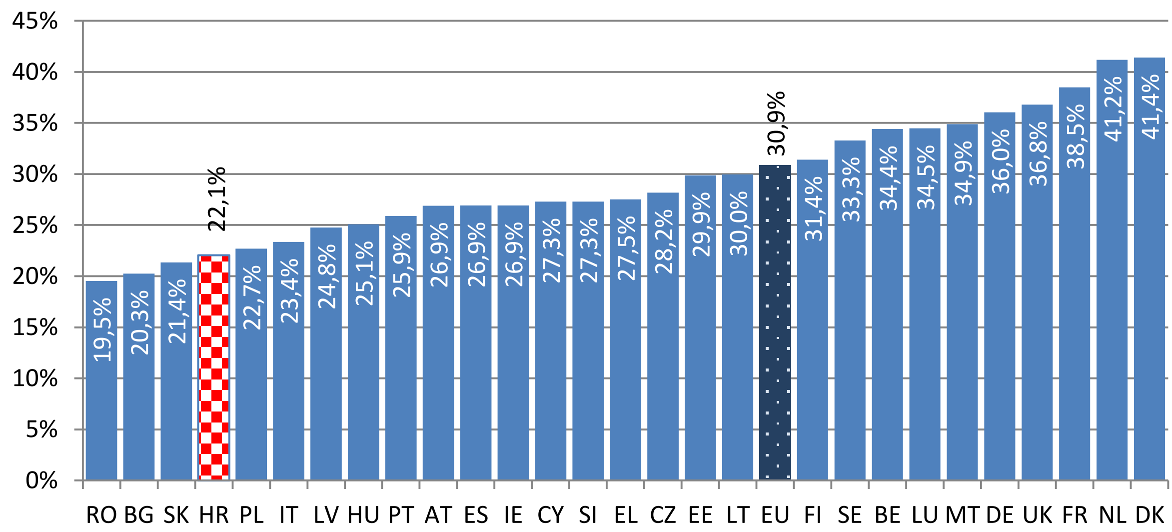


Such distribution of connections is to be expected considering the increase in data traffic and demands of end users for 24 hour Internet access, regardless of time and place. Considering the

[2] refers to data cards and M2M users penetration

importance of this service for the development of economy in the upcoming years, it is expected that its penetration will increase both in fixed and mobile networks. The Republic of Croatia is among less developed European countries in relation to penetration of broadband connections over the fixed network. Despite a significant increase in the number of users in the RoC, there are still significant possibilities for growth considering the 22.1 percent penetration of broadband connections in the fixed public communications network compared to the average 30 percent in the EU Member States (June 2014). Taking into account all active users, that is, those that access the Internet over mobile phones and data cards, the penetration of broadband Internet access over the mobile network in the Republic of Croatia is above the EU average. However, access over the mobile network is still not regarded by users as a substitution for access over the fixed network.

Figure 1.12. Broadband penetration rate over the fixed network in the EU[3] and RoC



[3] Source: *Digital Agenda Scoreboard, June 2014.*

Figure 1.13. Mobile broadband penetration rate (all active users)[4] in the EU[5] and RoC

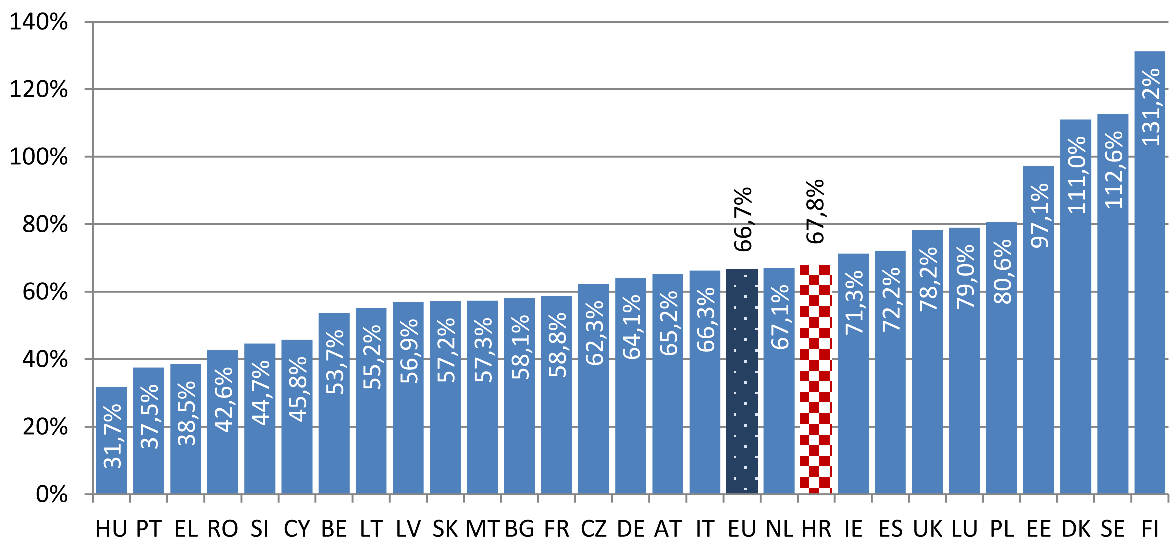
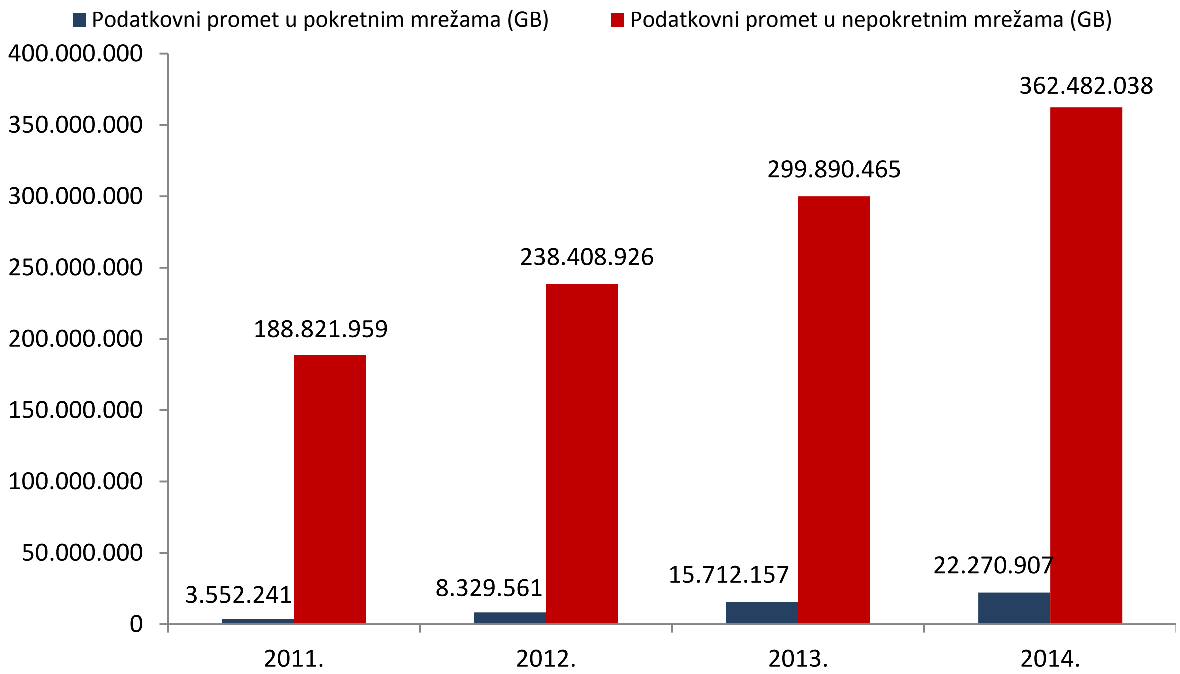


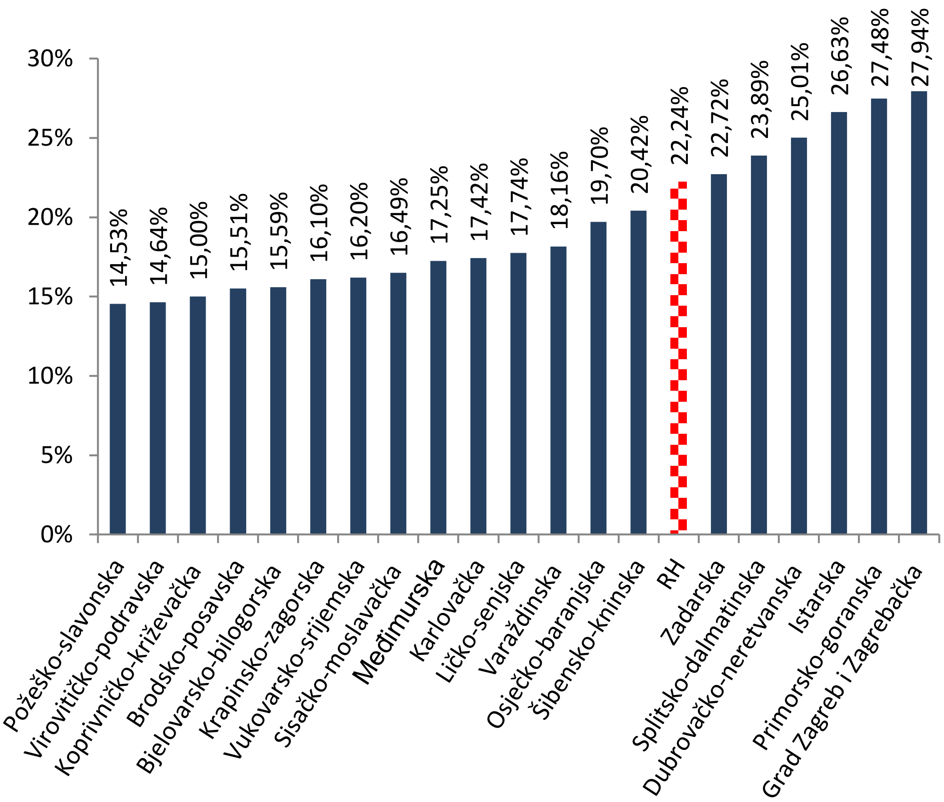
Figure 1.14. Data traffic (GB)



[4] by means of data SIM cards (USB, PC card), mobile phones (various tariffs that include broadband access in addition to voice services), M2M

[5] Source: *Digital Agenda Scoreboard, June 2014.*

Figure 1.15. Fixed broadband penetration rate in the RoC per counties



The availability of broadband Internet access increases on a daily basis. However, broadband penetration is uneven and it the balancing of broadband access availability between the regions cannot be expected. The biggest penetration was recorded in the City of Zagreb and in the County of Zagreb, while Požeško-Slavonska County has the lowest penetration rate. For that reason it is of particular importance to promote broadband development in rural and less developed areas in order to reduce the digital divide between Croatian citizens in different reasons and to promote economic development and growth of society in general.

Broadband access over xDSL technology provided by the majority of operators is prevalent in the RoC. The above-mentioned technology for the most part satisfies current user needs. However, considering the defined objectives of the Digital Agenda which are followed by the Strategy for Broadband Development in the Republic of Croatia, operators will have to continue with their investments into next generation access, that is, into fourth generation mobile networks (LTE). Furthermore, investments into technology contribute to improvement of the quality of service which contributes to user satisfaction.

Figure 1.16. Distribution of fixed broadband connections per operators

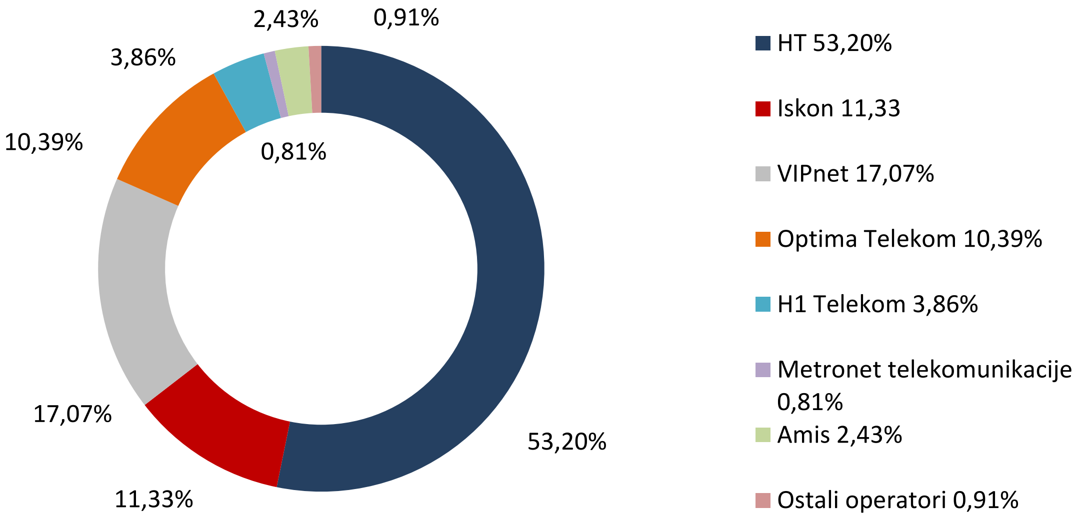
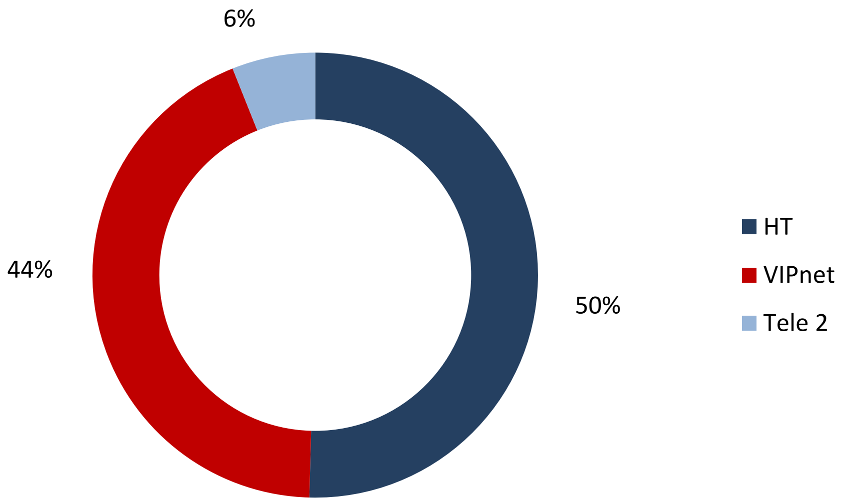


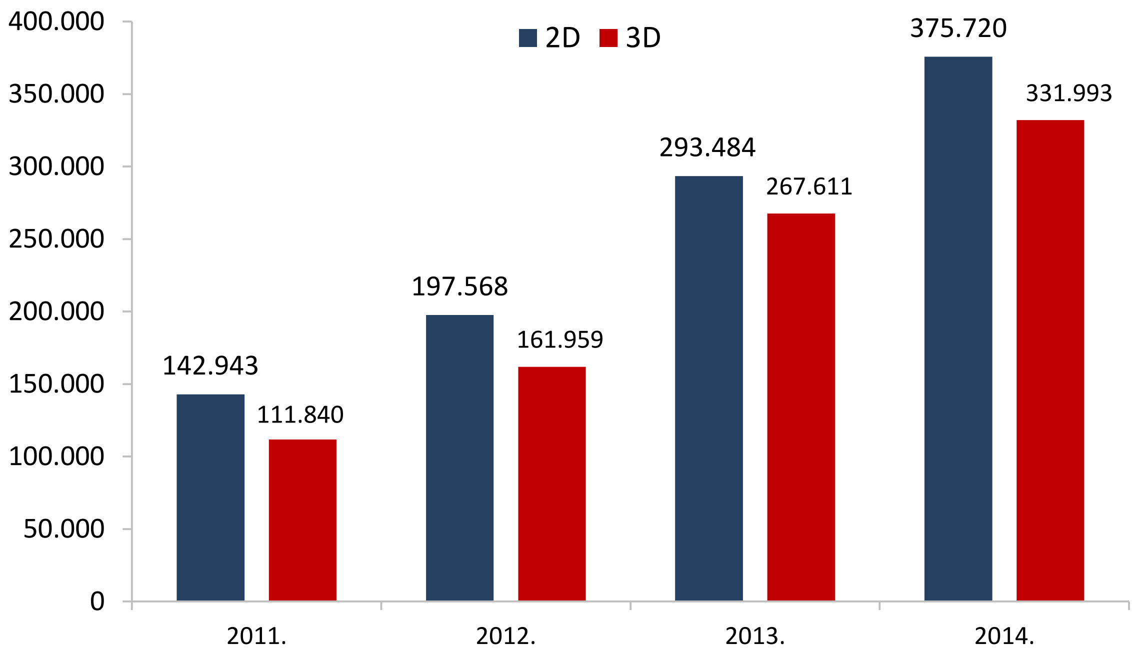
Figure 1.17. Distribution of mobile broadband connections[6] per operators



According to the most recent available data, a total number of users of packages of services increased by 26 percent. Since they are more favourable from the point of view of users, it is to be expected that the number of users of packages and the offer of operators will be increased.

[6] Data cards, M2M users

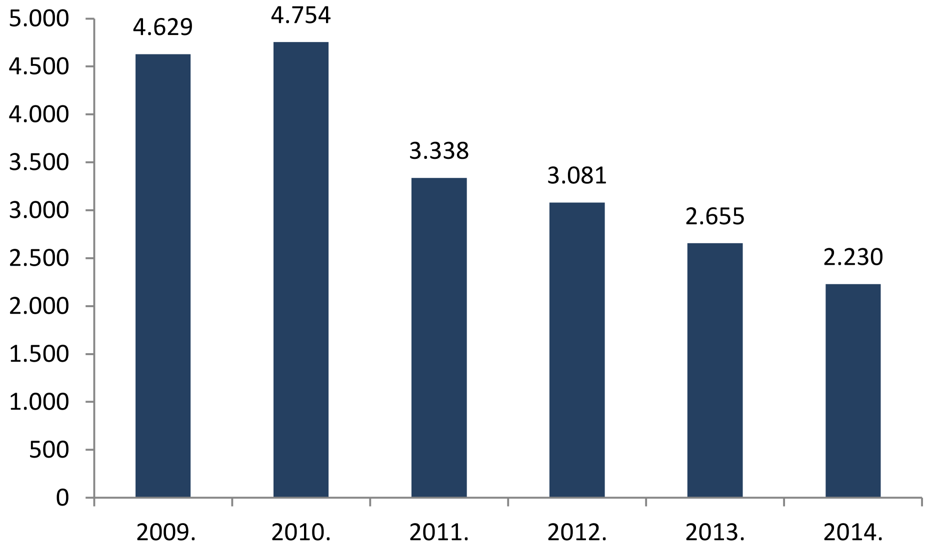
Figure 1.18. Number of users of packages of services



1.1.4 Telephone services in the fixed network

National operators recorded a drop in revenue in the segment of telephone services in the fixed network in 2014. In the past six years, from 2008 to last year, revenue on this market decreased from HRK 4,629 billion to the above-mentioned HRK 2,230 billion, which contributes to the total drop in value on this part of market by around 50 percent.

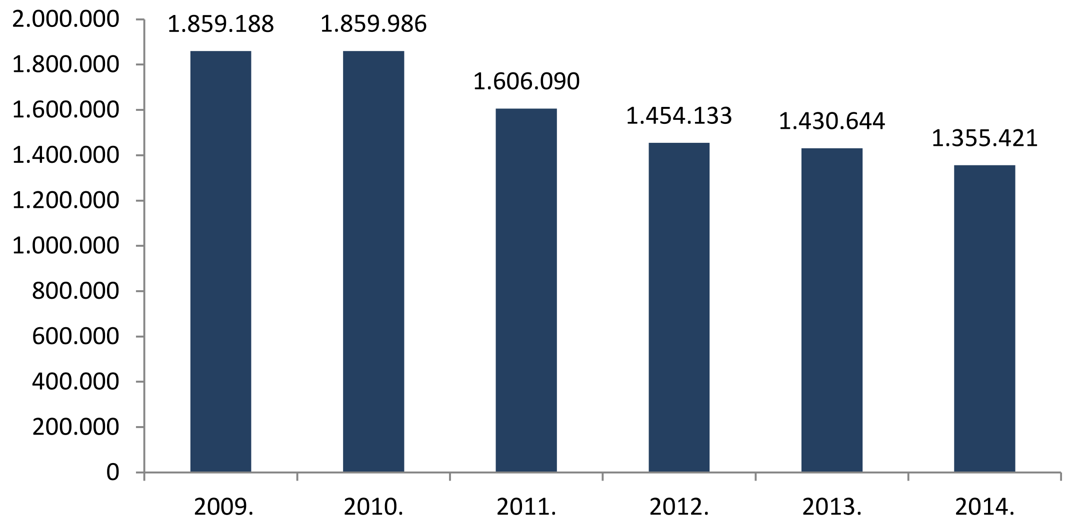
Figure 1.19. Total revenue from telephone services in the fixed network (in HRK millions)



Broadband is the prevailing way of service provision in fixed networks. Due to increased competition and more intense struggle for market shares, operators are forced to maintain high quality of their services and offer those services at more favourable prices, which contributes to the increasing importance of bundled services (packages) and tariff models with unlimited traffic. The number of users is expected to remain stable and operators will begin to look at the telephone service less as a profitable service and more as a service to be offered to users as part of a package at small fee or without a fee.

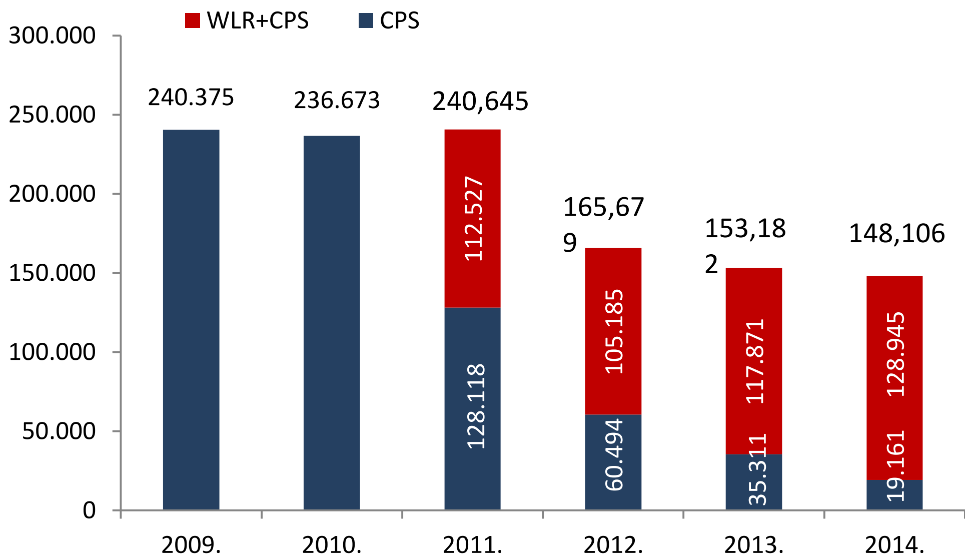
Figure 1.20. Total number of users of telephone services in the fixed public communications network[7]

[7] For years before 2011 HAKOM only gathered information on the number of connections (number of B channels) Since one user may have several phone connections, HAKOM has been collecting and presenting the number of users of telephone services in the telephone network since 2011.



More intense competition and user willingness to change operators create pressure on telephone service providers to improve their services and reduce prices. The number of users of carrier pre-selection service (CPS) has been continuously decreasing in the observed period. New operators have been increasingly transferring users to their own infrastructure, which is obvious from the increase of LLU users) There has been a positive growth trend in the number of WLR users compared to 2013, which shows that operators have been transferring more users to a single billing system and this trend is expected to continue in the following year

Figure 1.21. Total number of users of CPS service



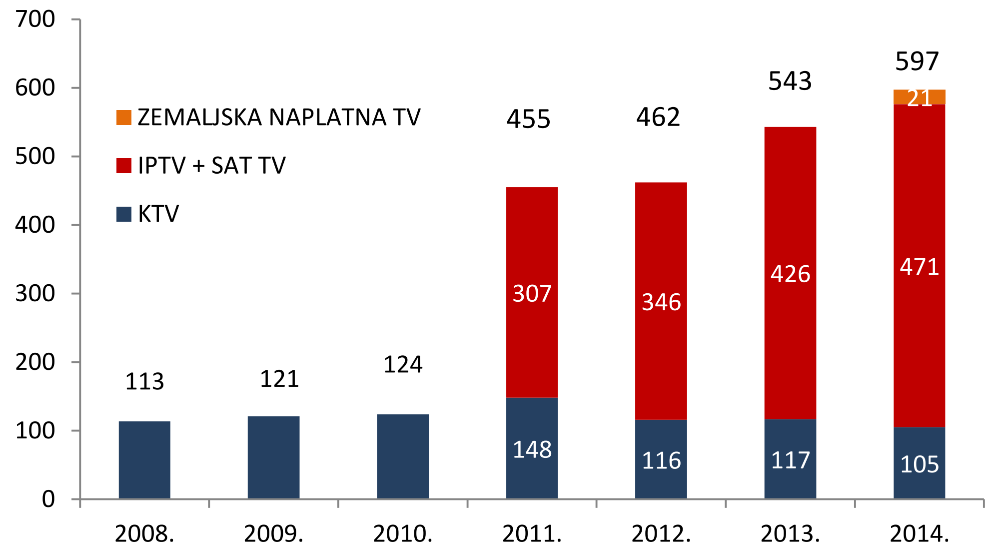
HT continues to have the dominant share among mobile network operators. In relation to the total number of users of telephone services in the fixed network, the market share of HT amounts to 60.67 percent while the market share of Iskon, which is 100% owned by HT, amounts to 7.30 percent. New operators, such as Optima Telekoma, Metronet or H1 Telekom, jointly have 32.03 percent of the total number of users.

A certain number of Croatian alternative operators initiated (and completed) pre-bankruptcy proceedings. HT and Optima Telekom have completed their concentration notification procedure before the Competition Protection Agency in April 2014. On 19 March 2014 the Competition Protection Agency conditionally approved the concentration of HT and Optima Telekom for the duration of a maximum of four years. HT must comply with a series of measures ensuring independent business operations of Optima in accordance with the principle of impartiality and, after the expiry of a three year period, it is obliged to initiate the sale of all shares in Optima. As a result of measures that are undertaken by HAKOM with a view to further developing competition, the share of new operators is expected to continue its growth the years to come. The transition to IP telephony and the building of infrastructure, in the first place of the optical network, will stimulate the development of this segment after many years of stagnation.

1.1.5 Television services

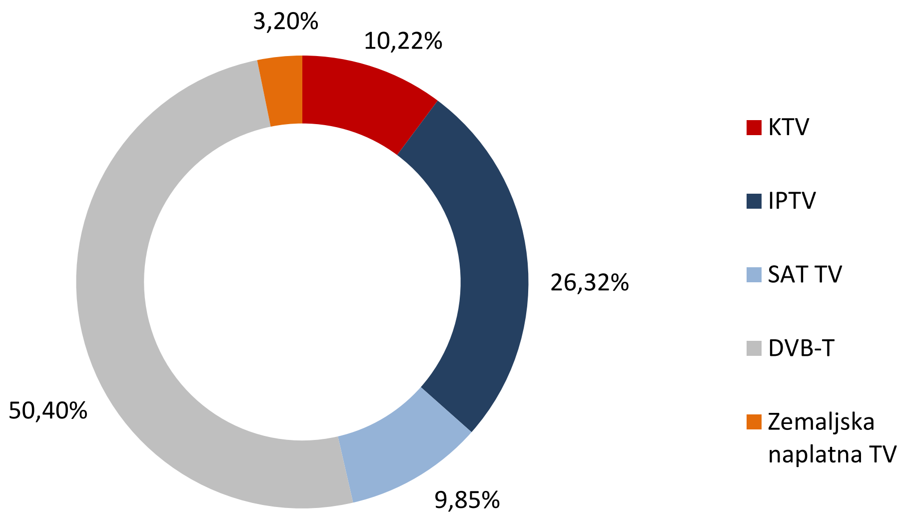
According to 2014 data, revenue from the television service increased by about 9.7 percent compared to 2013. Before 2011, data were collected only for KTV which is why revenue illustrated in Figure 1.22 for the period between 2008 and 2011 refers only to revenue from KTV.

Figure 1.22. Total revenue from TV service



The market of pay-tv services is underdeveloped and therefore has great growth potential. This particularly refers to the IPTV platform which, with 393,724 connections, represents the largest share of TV services with 26.32 percent share in the total offer of alternative platforms. Excluding the digital terrestrial pay-tv, the most significant individual annual growth was recorded in the segment of SAT TV connections amounting to more than 12 percent. Almost all operators of electronic communications services offering IPTV services also offer SAT TV services in places of insufficient internet bandwidth, which is one of the reasons behind the increase in the number of SAT TV connections. The digital terrestrial platform is represented in 50.40 percent of households, which is an indication of the potential of this market. However, due to an increasing demand for packages of services it is expected that, in accordance with the existing trends, the number of connections over other technologies will continue to rise in the future.

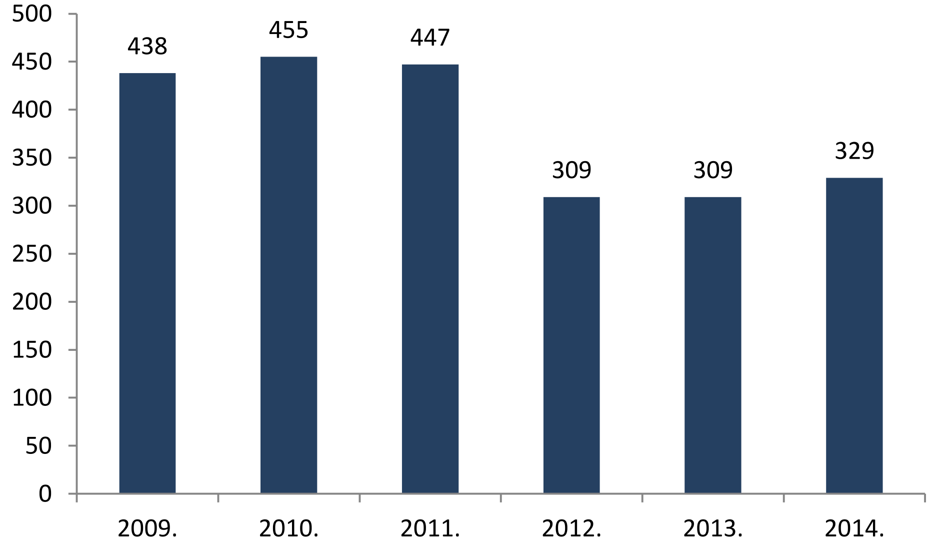
Figure 1.23. Share of households according to technologies used for receiving TV contents



1.1.6 Network and line leasing

Network and line leasing continues to be the smallest market segment on the electronic communications market in terms of total revenue. Thus total revenue at the end of 2014 amounted to HRK 420 million which is 3.7 percent of the total revenue on the electronic communications market.

Figure 1.24. Total revenue from the service of network and line rental



1.1.7 Other services

1.1.7.1 Special tariff services

In 2014 HAKOM conducted checks over the provision of special tariff services and timely took actions to prevent possible financial damage for users. Furthermore, HAKOM received, to its e-mail address for reporting unsolicited SMS messages, reports on actions of operators that are unlawful in accordance with the ECA and inspection supervision has been conducted to stop the sending of unsolicited electronic communications. Since the new Numbering Plan was adopted in 2013, the application of the new numbering has been verified, that is, the transfer process from the old to new numbering clearly indicating the type of services involved.

1.1.7.2 Universal services

Ensuring access to universal services for all users of electronic communications services is one of the main principles and objectives of regulation of the electronic communications market in the Republic of Croatia. HAKOM regularly conducted checks of universal service operators in 2014 related to the provision of the above-mentioned services to end users. The offer of universal service operators included in 2014 the MAXnet mini service which enabled the users to use the Internet access service at data transfer speed of a minimum of 144 kbit/s. From 1 January 2015 HAKOM is obliged to ensure data transfer speed of at least 1 Mbit/s for the above-mentioned service.

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. In 2014, there were two operators of universal services in the Republic of Croatia. Imenik d.o.o. is a universal operator of the service of 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. HT was designated as the universal operator for the following services:

1. access to public telephone network and publicly available telephone services at a fixed location,
2. access of end-users, including users of public pay telephones, to a telephone directory enquiry service, installation of new public pay phones in public places available at any time;
3. special measures for disabled users including access to emergency services, directory enquiry services and directories, equivalent to that enjoyed by other end-users,
4. special tariff systems adjusted to needs of socially disadvantaged groups of end users of services.

Through HT's annual reports HAKOM has been following the fulfilment of obligations concerning the provision of universal services and the quality of provided universal services in the previous year, which is published on HAKOM's official websites.

1.1.7.3 New services

M2M/IoT

Machine-to-machine (M2M) communication comprises automated communication (data transfer) between two or more communications (ICT) entities. In order to be able to follow the dynamics and trends on the M2M market, HAKOM conducted a public consultation[8] in 2014 enabling interested parties (stakeholders) to express their views and opinions on future development of M2M services.

HAKOM has been actively participating in the work of BEREC's M2M project team and CEPTS working group, WGNaN, dealing with M2M topics. Furthermore, "M2M communications" are a constituent part of the „Looking to the Future -2020“ project.

HAKOM has been following the developments in IoT *Internet of Things*) concept. IoT refers to the networking of different things and objects from everyday life and their everyday communication over the Internet, without human interaction, with a view to improving the conditions and way of life. With the development of IoT technology, every device in our surroundings will be able to communicate with another device and send information to that device or control it, depending on the collected information. There are various applications of IoT services, from user applications offering added value only to the user to different branches of science for which it enables simpler sharing of resources.

Cloud computing

Cloud computing continues to be one of the fastest growing branches of information and communication technology. HAKOM has been continuously following the development of cloud computing services in the RoC and on the international market.

The Croatian market has been following international trends on this market resulting in many domestic telecommunications operators offering various cloud services and solutions to its users, in addition to many foreign companies offering cloud computing services. The service may consist of a software, platform or the entire infrastructure.

The cloud computing market is not regulated, in the first place because this is an emerging market where no problems have been recorded. The same situation exists in the rest of the EU. In spite of that, the cloud computing market will continue to be under continuous supervision to allow for timely reaction in case of problems.

[8] http://www.hakom.hr/default.aspx?id=116&subID=3366

1.2 Overview of regulatory measures

HAKOM has continued the activities aimed at the definition of relevant markets susceptible to *ex ante* regulation, in accordance with provisions of the ECA and objectives defined in the 2014 Annual Work Programme. As part of regular market analysis procedures, HAKOM carried out in 2014 the market analysis on the relevant market of access to the public communications network at a fixed location for private and business users and on the market of the publicly available telephone service in local and/or national traffic provided at a fixed location for private and business users. The definition of the relevant market is a basis for conducting market analysis which consists of the definition of the relevant market and assessment of the existence of one or more operators with significant market power on that market and of the imposition of regulatory obligations on operators with significant market power. For that reason, HAKOM's work in 2014 was primarily focused on the achievement of established principles and market regulation objectives with a special emphasis on the definition of wholesale conditions and their amendments in accordance with market interests and further development of competition.

Also, considering the accession of Croatia to the EU, and in order to ensure that decisions adopted on the national level do not have a negative effect on the EU common market and objectives to be achieved in accordance with the existing regulatory framework, the national regulatory bodies are obliged to submit draft decisions to the EC for approval, in accordance with regulations of the Framework Directive. Therefore, HAKOM has implemented activities concerning the notification process for all decisions arising from the market analysis procedure.

Below is an overview of the most important HAKOM's decisions adopted in the previous year on markets susceptible to ex ante regulation with a view to preserving efficient competition.

Table 1.1. Overview of the most important decisions in 2014

Regulatory decisions
Preliminary decision designating the company OT-Optima Telekom d.d. as the SMP operator on the M1 market and on the retail broadband access market
Decision on amendments to Reference Offer by Hrvatski Telekom d.d. for the wholesale broadband access service in part of FTTH processes
Establishment of methodology for the margin squeeze test
Decision in the process for the determination of fees within the Reference Offer by Hrvatski Telekom d.d. for the wholesale broadband access service
Decision in the process for the determination of fees within the Reference Offer by Hrvatski Telekom d.d. for leased electronic communications lines
Decision in the procedure for the carrying out of the Three Criteria Test on the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for private users
Decision in the procedure for the carrying out of the Three Criteria Test on the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for
Decision in the process of market analysis of the market of access to a public communications network at a fixed location for private and business users

1.2.1 Preliminary decision designating the company OT-Optima Telekom d.d. as the SMP operator

With this preliminary decision HAKOM extended regulatory obligations imposed on Iskon Internet to OT-Optima Telekom on the relevant markets[9]. The procedure for the adoption of a preliminary decision was initiated on the basis of Financial Agency's decision of 6 November 2013 establishing that, in the pre-bankruptcy procedure against the debtor, Optima, creditors of Optima whose claims are exceeding half of the value of the established claims for each group of creditors, that is creditors whose claims are exceeding 2/3 of value of all established claims voted for the amended Financial Restructuring Plan and that proceedings against Optima have been conducted in compliance with the provisions of the Act on Financial Operations and Pre-Bankruptcy Settlements (OG No. 108/12, 144/12 81/13) and with the decision of the Croatian Competition Agency of 19 march 2014 provisionally allowing the concentration on the basis of which HT will gain control over Optima in pre-bankruptcy proceedings. The preliminary decision was adopted in order to prevent distortions of competition that might result due to the concentration in question pending the completion of the second round of analyses of the above-mentioned markets that is, pending the adoption of final decisions on the markets in question.

1.2.2 Decision on amendments to Reference Offer by Hrvatski Telekom d.d. for the wholesale broadband access service in part of FTTH processes

HAKOM's decisions concerning the definition of HT's prices for wholesale services over the FTTH network refer to the already built GPON FTTH network and to the new infrastructure that will be built by HAKOM in accordance with the current building rules. In the definition of prices for HT's wholesale service over the FTTH network HAKOM took into account the conditions of efficient competition thus trying to promote investments by HT and other operators. According to HAKOM, it is very important for the economic development of the Republic of Croatia that end users start using services offered over the optical infrastructure. HAKOM is convinced that this decision will ensure significant growth in the number of users using the services over the optical infrastructure and that the service will not be offered only by HT but also by other operators active on the market by means of HT's wholesale service.

1.2.3 Establishment of methodology for the margin squeeze test

The margin squeeze test is a key regulatory tool ensuring the appropriate conditions for the development of alternative operators and profitable competition with SMP operators. For that reason, HAKOM found it necessary to revise and publish a new methodology for the margin squeeze test since, until that moment, HAKOM had been using rules agreed with SMP operators when conducting individual margin squeeze tests, without publishing them. Therefore, the purpose of the methodology defined and published in May of 2014 was to revise the existing rules applied to the margin squeeze test and to define the transparent methodology that will be used by HAKOM in all future margin squeeze tests. The ex-ante margin squeeze test will be applied every time when the MSP operator is planning to offer a new product on the relevant markets. This include the access service, the publicly available telephone service, packages of bundled services consisting of the publicly available telephone service and the broadband service (dual play) or packages of bundled services consisting of the publicly available telephone service, the broadband services and the pay-tv service (triple-play service). HAKOM will include in the margin squeeze test the costs of promotional

[9] the market of access to a publicly available telephone service at a fixed location for private and business users, 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 business users and market of retail broadband access.

offers in order to assess the profitability of individual offers. The rules for promotional offers of SMP operators are currently defined through regulatory obligations imposed on the relevant retail markets and they enable the SMP operator to provide certain retail services below cost during a certain promotional period of time.

1.2.4 Decision in the process of determination of fees within the Reference Offer of Hrvatski Telekom d.d. for wholesale broadband service and Reference Offer of Hrvatski Telekom d.d. for leased electronic communications lines.

HAKOM initiated the procedure for the determination of fees in compliance with the regulatory obligation of price control and cost accounting which was imposed on HT for the relevant markets by HAKOM's decision from June 2013. According to the above-mentioned decision, it was defined that HAKOM will impose fees for services that are a subject of the above-mentioned relevant markets in a separate procedure, on the basis of results of the cost model. Consequently, it is expected that HAKOM will continue its market analysis procedures and the definition of wholesale conditions by applying the principle of cost orientation of prices and cost models.

1.2.5 Decision in the procedure for the carrying out of the Three Criteria Test on the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for private and business users

In relation to the conducted Three Criteria Test, HAKOM decided that there is effective competition on the market of publicly available telephone service in local and/or long-distance traffic provided at a fixed location for private and business users. The proposal for decisions referring to markets of telephone services on the fixed network formally deregulated retail services provided by HT and its associated companies since HAKOM established that there are no obstacles on this market that would require prior regulation. Furthermore, the markets in question are not part of the 2007 Recommendation on relevant markets susceptible to ex-ante regulation, which means that since 2007 there was no need to regulate these markets at the EU level (unless there are some specific national circumstances).

1.2.6 Decision in the process of market analysis on the market of access to a public communications network at a fixed location for private and business users

By adopting a decision on the process of market analysis on the market of access to a public communications network at a fixed location for private and business users, HAKOM maintained HT's regulation at the wholesale level in the sense of provision of the WLR service at regulated prices. Furthermore, the above-mentioned decision imposed an obligation on HT and its associated companies Iskon and Optima requiring that all of their services containing an access service, including the access service as an individual service, have to satisfy the margin squeeze test. This test ensures that HT and its associated companies cannot set prices of their retail services at a level that would prevent alternative operators from efficiently competing with them. Therefore, HT and its associated companies are obliged to submit to HAKOM retail packages containing the access service in order for HAKOM to check whether they satisfy the margin squeeze test, which was the case in the previous years. This market is not a constituent part of the EC Recommendation on relevant markets that was adopted in October of 2014 meaning that this market is no longer on the list of markets susceptible to ex-ante regulation. On the contrary, since it established that market failures still exist on this market, HAKOM is against the deregulation of this market.

1.3 Building, access to and use of electronic communications infrastructure and network

During 2014 special emphasis was placed on monitoring the sharing of existing cable ducts. Activities were aimed at collecting data about infrastructure and associated facilities of the infrastructure operators, at the regulation of the situation with the existing cables that had been pulled without prior conclusion of the agreement on access and sharing of cable ducts, and at regulating the documents on the position of lines in space.

Table 1.2. Electronic communications infrastructure and network in the RoC

Type of electronic communications infrastructure	quantity
Cable route (km)	21,800
Underground cable route (km)	26,300
Surface electronic communications network route (km)	33,000
Surface electronic communications network poles (km)	210,000

Surveying of electronic communications infrastructure

It was concluded on the basis of analysis of the collected data that the following has not been surveyed and migrated into the integral on-line database:

- 6,346 km of cable ducts
- 9,923 km of underground cables without ducts
- 33,000 km of surface cables with 210,000 poles.

With a view of establishing an integral database, HAKOM initiated a pilot project of surveying, preparing of geodetic surveys for the cadastre of lines and entry of data into a single online database. The project was implemented from 30 April to 1 December 2014. The pilot project covered 8 counties, out of which the Požeško-slavonska, Brodsko-posavska, Virovitičko-podravska i Vukovarsko-srijemska counties were completely surveyed, while only certain networks in individual local self-government units were surveyed in the City of Zagreb and the Osječko-baranjska, Splitsko-dalmatinska i Primorsko-goranska County. The following was surveyed during the implementation of the project:

- 547 km of cable ducts
- 773 km of underground cables without ducts
- 4,727 km of surface cables with the associated poles.

In the new Act on the National Infrastructure of Physical Data (NIPP), the State Geodetic Administration (DGU) was defined as a National Contact Point for NIPP. The above-mentioned act will contribute to the alignment of the EU acquis in the area of establishment o physical data infrastructure. The NIPP creates a basis for discovery, overview and usage of spatial data in public authorities, economy, non-commercial and public sector, the academic community and citizens, in general. Centralized searching of spatial data under the competence of NIPP subjects will enable simpler browsing and downloading of data. The development of the same or similar set of spatial data will not be financed by several institutions but only in one which will share data with other institutions due to the establishment, maintaining and supervision of the work of the NIPP portal.

The State Geodetic Administration is responsible for establishing the National Integrated Utility Geoinformation System with a module of a geographic information system of electronic communications infrastructure and other associated facilities (GIS EKI), that is, of a single database of GIS EKI that must ensure access to data on the constructed electronic communications infrastructure and available electronic communications capacity.

1.3.1 Right of way

Pursuant to the Electronic Communications Act and to the Ordinance on the certificate and the fee for the right of way, HAKOM grants certificates on the right of way.

Amendments to the *Ordinance on the certificate and the fee for the right of way (OG 151/14)* were adopted in 2014 with a view to simplifying the procedure for the issuing of certificates for the right of way in such a manner that a manager of public good or an owner of real estate may initiate the procedure for the determination of an infrastructure operator for the electronic communications infrastructure and other associated facilities on his property for that purpose. The objective is to speed up the existing procedures for the conclusion of contracts and initiation of new procedures concerning the fee for the use of property containing the electronic communications infrastructure owned by local and regional self-government units.

On the basis of requests submitted by infrastructure operators, HAKOM issued in 2014 a total of 1050 certificates of the right of way for the total length of the path amounting to 77,480.15

Table 1.3. Developments in the number of issued certificates on the right of way

	2010	2011	2012	2013	2014
Number of issued	2654	1254	255	1700	1050
Total length of route	153,394.36	95,548.69	24,008.25	114,395.1	77,480.15

Removal of electronic communications infrastructure and other associated facilities

During 2014, a total of 77 requests for removal of ECI were submitted to HAKOM on the basis of which procedures were conducted for establishing the infrastructure operator, the type of amount of the ECI, the check of justification and credibility of requests and priorities of submitted requests. The requests were submitted to the infrastructure operator for resolution and the dynamics of resolution was monitored. A total of 44 requests was resolved

Relocation of connections, repairs of faults and damage caused to the network by third persons and regular maintenance of the network and equipment

Within the framework of its authority and obligations, HAKOM has been continuously monitoring and checking procedures and deadlines related to physical relocation of fixed connections, removal of faults arising as a consequence of various types of damage on the network and it took timely action to shorten the deadlines as much as possible and prevent possible financial damage for users who are unable to use the electronic communications services. During the carrying out of its activities, HAKOM paid special attention to network maintenance.

Designation of infrastructure operator and of the amount of the fee for the use of real estate containing the electronic communications infrastructure and other associated facilities

During 2014, HAKOM received a total of 688 requests for designation of the infrastructure operator and the amount of the fee for use of real estate on which the ECI had been installed. A total of 299 requests were solved in 2014. It must be mentioned that the resolution of these requests depends on the existence of proper investment and ownership documents.

Regulation of property law relations between the local self-government units and infrastructure operator

Local self-government units are entitled to independently regulate, on the basis of the usufruct right or under HAKOM's authority, property-law relations with infrastructure operators who have their ECI on their real estate with a view to getting monetary compensation for use of their real estate. In the course of 2014, HAKOM received a total of 14 requests for mediation in the regulation of property-law relations between local self-government units and the infrastructure operator.

Activities related to building and physical planning were carried out within the prescribed deadlines. Within the framework of development and implementation of Internet services under its own programme entitled "e-Agency", HAKOM developed two new applications "e-Conditions" and "e-Guidelines". This is a continuation of the business policy aimed at getting closer to users and enabling faster and cheaper ways of obtaining certain documents. By supporting and actively implementing the general need for further and continuous IT introduction into society in general, HAKOM will enable its users to submit electronic requests for the following:

- procuring special conditions in the procedure for the issuing of location and/or building permit
- procuring guidelines – requests in the procedure for the development and adoption of physical plans.

HAKOM's intention is to further improve business operations by making available all of its services electronically and not only on paper. All e-services may be accessed via HAKOM's web portal www.hakom.hr.

1.3.2 Preliminary opinions on physical planning documents

The new Physical Planning Act (OG 153/13) entered into force in early 2014 and it envisages a different role for public authorities in the adoption of physical planning documents. Pursuant to the new Act, the role of HAKOM, as a public authority in the sector of electronic communications infrastructure and other associated facilities has been simplified to a certain extent, that is, the entire procedure has been shortened. The new Act no longer envisages preliminary discussions held for the purpose of collecting requests and/or guidelines for the development of physical plans and the provision of opinions on the final draft of the proposal for the plan. HAKOM's obligation in the process of adoption of a new physical plans is to publish its requests and/or guidelines and to provide the opinion on the proposal of the physical plan for public consultation. In 2014 HAKOM issued 232 opinions on physical planning documents.

1.3.3 Special building conditions and approval of main projects

HAKOM establishes and publishes special conditions and approvals of main project for all interventions into space, within the zone of electronic communications infrastructure and in the safety zone and the radio corridor of certain radio stations in compliance with the Physical Planning Act (OG 153/13) and the Building Act (OG No. 153/13). In the course of 2014, HAKOM issued special conditions in 5,832 cases. HAKOM started issuing approvals for main projects in 2014 and it solved a total of 2304 cases.

Table 1.4. Special building conditions and decisions on building conditions

Year	2012	2013	2014
Number of cases concerning special conditions	5667	4731	5832
Number of cases concerning approvals of main projects	-	-	2304

1.3.4 Quality of broadband access in the RoC

Systematic measuring of transmission parameters in subscriber loop systems of a large number of access networks in the RoC continued, which is a basic precondition for achieving a satisfactory degree of quality of services provided over those subscriber loop systems. The resulting values were compared to values defined in the relevant Reference Offer (Chapter 4.1 of RUO). Furthermore, detailed measuring of transmission parameters of the majority of subscriber loops of users who complained about the quality of services was also conducted. The analysis of the quality of services on the basis of DSLAM measuring for VDSL2 transfer technology was initiated (profile 8b and 17a). A prediction algorithm for upload/download transfer speed for ADSL2 plus technology was created and tested and it will enable better usage of the existing access network, that is, it will reduce the number of requests for the broadband access service that have been rejected without any foundation. The first FTTB pilot project (Zagreb) was implemented in our unbundled environment and the DPBO method was once again confirmed as an efficient manner for ensuring the quality of services that continue to be provided from the existing location (CO). This pilot project confirmed that in FTTB installations by using standardized VDSL2 transfer technology download transfer speed of about 70 Mbit/s can be achieved. The existing software for calculation of transfer speed in an unbundled environment with the introduction of the NGN FTTC concept was upgraded to support the introduction of vectorised transfer technology (ITU Recommendation G.993.5). First calculations show that the transfer speed range significantly increases under such conditions. All preparations (specification of the necessary software and hardware) for systematic monitoring of the quality of service at higher network levels have been completed. HAKOM has so far dealt mostly with quality of service at the physical layer of the network.

1.3.5 Network neutrality and quality of Internet access service

HAKOM dedicates a lot of attention to and follows issues of network neutrality under 2010. Also, it actively participates in the work of BEREC as part of a working group dealing with this issue. HAKOM's activities in 2014 included cooperation with BEREC and participation in the preparation of BEREC's recommendation for monitoring the minimum quality of service in the context of network neutrality. HAKOM's experts were active members of a working group that prepared the recommendation. In 2014 HAKOM did not receive any user complaints concerning the difficulties with Internet access service **concerning** the blocking or slowing down of use of certain OTT services or concerning price discrimination thereof. In accordance with the *Implementing Programme for the Broadband Development Strategy in the Republic of Croatia for 2012 - 2015*[10] HAKOM set up the continuous monitoring of possible difficulties related to network neutrality as a precondition for undisturbed development of applications and information society, and in March of 2014, the first public consultation on the topic of Internet management took place on HAKOM's website.

With a view to achieving better monitoring of the quality of service (speed) of broadband Internet access, HAKOM has provided, since 2012 to end users and operators a free certified tool for measuring access speed **HAKOMetar**[11].

HAKOMetar is available to end users who may use it to test the speed of broadband Internet access and compare it to the speed agreed with the service provider. Furthermore, the speed testing results also serve as a basis for complaints to operators in case of speed that is slower than the agreed speed, that is, than the minimum speed the value of which depends on the agreed maximum speed. The statistics from 2014, and from the previous years, show that the tool justified its purpose because more than 18000 individual measuring were carried out and almost 13000 cycles were completed (one cycle means that three measurings necessary for the complaint procedure have been conducted) in 2014. Out of the above-mentioned 13000 cycles, 150 users had grounds for filing a complaint to the operator (real speed was less than the agreed speed), and 67 of them complained to the operator by electronic means. All of these data show that the majority of operators provide Internet access speed that has been agreed in subscription agreements.

[10] http://www.mmpi.hr/UserDocsImages/Strategija-DTV-novo%2010.pdf
[11] http://www.hakom.hr/default.aspx?id=1144

1.4 Inspection supervision in electronic communications networks and services

Inspection supervision in the area of electronic communications and services during 2014 was carried out with a view to solving systematic problems occurring on the market while using electronic communications networks and providing electronic communications services, providing universal services and protecting the rights of users of services, building, installation, maintenance and use of electronic communications infrastructure and associated facilities, conditions of fair competition and rights and obligations of participants on the market of electronic communications networks and services, data protection and safety of electronic communications, protection of security and integrity of networks and the similar.

This also includes inspection supervision of the fulfilment of regulatory obligations and obligations laid down in the ECA concerning the functioning of emergency service numbers and number portability service, and in order to achieve harmonized provision of electronic communications services in compliance with the provisions of the ECA and implementing legislation. One of the strategic activities included supervision over providers of universal services aimed at ensuring the prescribed quality of universal services in the entire territory of the Republic of Croatia in terms of quality of services and network accessibility.

In addition to regular activities, activities carried out in 2014 included inspection supervision of implementation of B2B functionality, the functioning of routing of emergency services numbers, quality of Internet access, handling of traffic data from a publicly available telephone service, actions undertaken by operators to resolve user complaints concerning bills or quality of provided service in order to assess the compliance with deadlines for the resolution of bill complaints or quality complaints, complaints against fees for delayed number porting, updating of the directory of subscribers, verification of the directory of a publicly available telephone service and director of special tariff services, proper functioning of pay phones, advertising of services, manner of providing special tariff services and other..

Other activities conducted in 2014 included inspection supervision related to the participation in the work of the Commission for Communication and Coordination of Inspections Competent for Market Supervision in the Republic of Croatia, participation in court proceedings on the basis of summons or as expert witnesses, other organizational and technical activities aimed at achieving functional unity and the necessary cooperation and coordination with other authorities competent for supervision in the Republic of Croatia (AZTN, MINGO, MUP, MPPI, etc.).

2 MANAGEMENT OF LIMITED RESOURCES

The RF spectrum and the addressing and numbering space are naturally limited resources and HAKOM has been entrusted with their management. Efficient management of these resources enables the introduction of new technologies and services and the development of the economy as a whole.

2.1 Radio Frequency Spectrum Management

Efficient RF spectrum management is one of HAKOM's main tasks. On the territory of the RoC, RF spectrum management refers to the planning and preparation of technical parameters, the granting of licences for use of the RF spectrum and control of the spectrum. In international terms, this refers to the alignment of the use of the RF spectrum in accordance with the valid ITU and CEPT decisions and recommendations and the valid international agreements. Through its activities in the area of RF spectrum management, HAKOM ensures undisturbed functioning of radiocommunications services and protects health of users and other persons.

2.1.1 Efficient use of the radio frequency spectrum

During 2012 and 2013 HAKOM allocated the frequency band of the digital dividend (790-862 MHz) to mobile communications operators. By using the neighbouring digital television band and receivers adjusted for reception in the entire 470-862 MHz band, the use of LTE may cause interferences with the reception of television channels by end users. Therefore, and in accordance with obligations arising from licences for use of the digital divided, HAKOM adopted a decision on the procedure for the elimination of such interferences. Interferences resulting from the installation of base stations are resolved by mobile communications operators. For 2014, HAKOM envisaged in its financial plan funds to finance the purchase and installation of filters for the elimination of interferences caused by old television receivers to end users (TV viewers). On the basis of a public tender for the provision of services of purchase and installation of filters, the company Centar za mjerenja u okolišu d.o.o. was selected for the Zagreb, Osijek, Rijeka and Split regions and the company Odašiljači i veze d.o.o. was selected for the Dubrovnik region. No requests for the elimination of interferences in this manner were received in 2014, which is a consequence of operators installing base stations in locations where interferences are not expected but also of their decreased investments and slower development and building of next generation mobile communications networks.

In May of 2014 HAKOM organized a "Forum on the Future of the UHF Band ("second digital dividend" and "digital terrestrial television")." This event gathered representatives of participants on the electronic communications and media markets, of state administration bodies, of the economic community and of the scientific community with a view to informing and stimulating the discussion on the future of use of the UHF frequency band, "the second digital dividend" and on the needs, perspectives and possibilities for the development of television, that is, of mobile communications and other services in the 470–790 MHz frequency band. The Forum was divided into two thematic parts. In the first part HAKOM presented basic information on the "second digital dividend" and representatives of the network operator of the terrestrial digital television, Odašiljači i veze d.o.o. gave their opinion on the use of the UHF band as well as representatives of operators of mobile communications networks gathered into the Croatian Mobile Communication Association. The second part, which was moderated by the Electronic Media Agency, included a round table on the development of television, the role of digital television and future o the UHF band.

The seventh plenary session of signatories of the HCM Agreement, including Croatia, took place in November 2014. The Agreement regulates the rules of coordination of frequencies and radio stations between neighbouring countries which are used for the operation of mobile and fixed radio communications networks. Amendments were agreed upon and a new version of the agreement was signed, thus aligning the coordination process with the current and future technological development and new needs in the provision of services using the frequency bands covered by the Agreement. The HCM methodology was established in Europe and its principles are now being spilled over to Africa via the ITU and the HCM4A project.

As a continuation of its activities in 2013, HAKOM participated in 2014 in the work of the Commission on Amendments to the Ordinance on protection against electromagnetic fields where it emphasised the possible impact of amendments on the electronic communications market, in compliance with its competence and former experiences with the resolution of similar issues. The Ministry of Health adopted the mentioned Ordinance in December 2014.

As a regulatory authority charging for the right of use of the RF spectrum (laid down in the Ordinance on the payment of fees for the right of use of addresses, numbers and the RF spectrum under the competence of the MMTI) and determining the minimum fees in cases when RF spectrum is allocated on the basis of a public auction, HAKOM carried out a comprehensive analysis of prices of the RF spectrum for public networks of mobile communications in the EU.

Within the framework of the coordination of use of the RF spectrum at the EU level, HAKOM carried out a review and updating of all issued general licenses on the basis of which the appropriate devices may be used in the entire territory of the Republic of Croatia, without the need to issue individual licences. The coordination was carried out on the basis of the existing ITU and CEPT decisions and recommendations and 151 general licenses were issued (new and amended existing licenses). All issued general licenses have been published on HAKOM's website.

In order to align the new title of HAKOM and to improve the existing procedures laid down in the valid regulations, HAKOM organized public consultation and adopted the amendments to the Ordinance on amateur communications and amendments to the Ordinance on the conditions for allocation and use of the RF spectrum.

Fiscalization in cash transactions is a measure aimed at enabling efficient monitoring of cash transactions. HAKOM successfully implemented direct obligations arising from the Ordinance on fiscalization in cash transactions in 2014 and issued 10 certificates of inability to establish an internet connection for the exchange of data with the Ministry of Finance and the Tax Administration.

As part of its regular activities of issuing licences for use of the RF spectrum, HAKOM issued 4035 licenses in 2014.

2.1.2 Public mobile communications networks

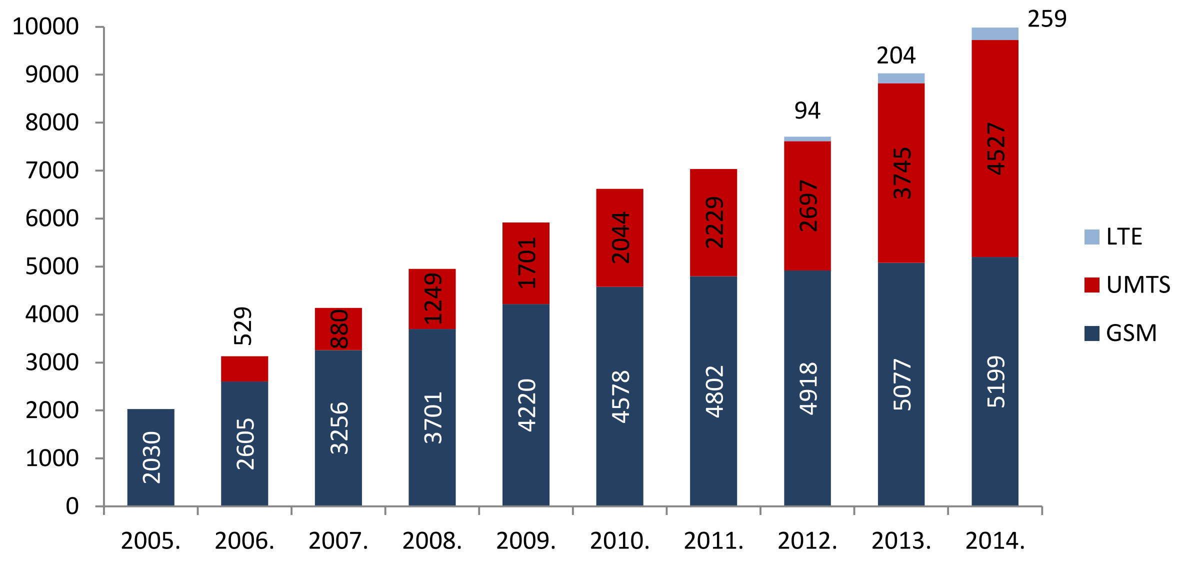
In late 2014 HAKOM allocated the majority of the remaining RF spectrum in the frequency band for mobile communications networks 1805-1880/1710-1785. A public invitation was published in early November. Since it was not possible to satisfy all the requests submitted to the invitation, a decision was adopted in December 2014. The company Tele2 was allocated a frequency block of 2x15 MHz, and HT was given the block of 2x10 MHz. This resulted in additional revenue for the State Budget amounting to HRK 60 million per year until 2024.

The valid licenses for use of the RF spectrum issued to mobile communications operators are technologically neutral and the corresponding plans permitted a flexible implementation technology, which means that operators are free to use all existing technologies permitted for mobile communications (GSM, UMTS or LTE) even in the previously allocated bands.

Agreements on the coordination of broadband systems (UMTS/LTE/WiMAX) in frequency bands 880 – 915/925 – 960 MHz and 1710 – 1785/1805 – 1880 MHz were agreed and signed at the multilateral meeting of representatives of Austria, Hungary, Romania, Serbia, Slovakia, Slovenia and Croatia in May of 2014. The above-mentioned agreements are based on European decisions and recommendations and on the currently valid Agreement on Coordination of IMT/UMTS systems in GSM bands. This additionally regulates the use of the LTE system in border areas thus enabling a more efficient use and simpler planning of the spectrum in those areas.

In the course of 2014, as part of its regular activities, HAKOM issued certificates of compliance for radio stations complying with restrictions laid down in the Ordinance on protection against electromagnetic fields. Special attention in the verification is dedicated to areas of increased sensitivity (residential areas, schools, pre-school facilities, hospitals and the similar). HAKOM also carried out additional measuring in order to verify the compliance with regulations, that is, in order to make the entire verification procedure more transparent. Figure 2.1. shows an increase in the number of notified base stations according to technology in the RoC.

Figure 2.1. Number of base stations



2.1.3 Private mobile communications networks

The number of issued licences for private mobile networks (PMR) in 2014 was identical to the number of licences issued in the previous years. For the purpose of ensuring efficient and economical use of the RF spectrum intended for private mobile communications networks (PMR), HAKOM takes into account other uses at the national and international level.

The upward trend in the use of digital technologies continued and more significant growth is expected in 2015. In order to enable successful implementation, activities carried out in 2014 included the measuring of the RF spectrum, the signature of the necessary agreements with the neighbouring countries and agreements and preparations at the national level for an increasing number of private mobile networks. As a result of these activities preconditions for the realization of PMR networks of companies OiV and DUZS were fulfilled in the entire territory of the Republic of Croatia.

It is also expected that GSM-R networks of Croatian Railways and the local TETRA network of HEP will be put into operation.

An agreement was signed with Hungary, Austria and Slovenia for the 440-470 MHz frequency band thus enabling more efficient use of the above-mentioned spectrum. Mutual recognition of registers of coordinated frequencies with the Republic of Slovenia was for the most part agreed during 2014 and the final answer is expected in early 2015.

2.1.4 Microwave and satellite networks

The activities of frequency planning and international coordination of microwave links were carried out as part of regular HAKOM's activities in 2014. The frequency planning of microwave links is a procedure including the technical analysis of the received requests and allocation of parameters to the planned microwave links with a view to avoiding the occurrence of unwanted interferences in accordance with the principle of efficient use of the RF spectrum. A part of microwave links, located in the vicinity of international borders of the Republic of Croatia, were subject to international coordination laid down in the HCM agreement. Microwave links between the Republic of Croatia and the neighbouring countries have been aligned on the basis of a mutual agreement with competent authorities of neighbouring countries.

Figure 2.2. Number of connections per frequency bands

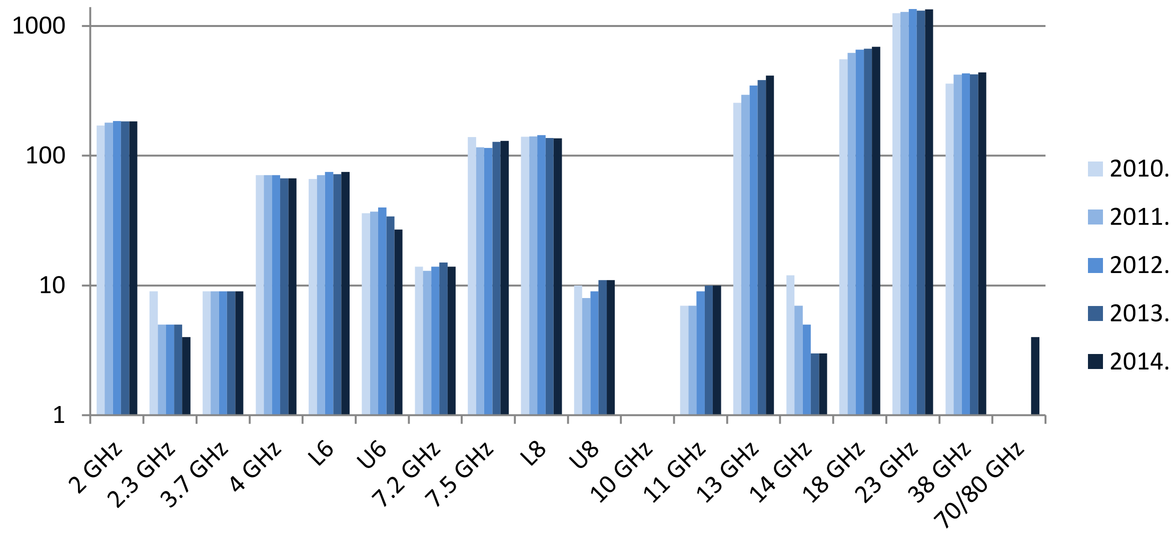


Figure 2.2. provides an overview of the number of microwave links per valid licences throughout the years and per frequency bands There is noticeable continuous growth of microwave links in frequency band 13, 18 and 23 GHz caused, in the first place, by increased demands for transmission capacity of mobile communications operators. Furthermore, compared to the year before, a total number of microwave links increased. One reason for the increase is the reduction of fees for use of the RF spectrum for microwave links in early 2014.

In the course of 2014, HAKOM received and processed the first requests for microwave links in the 71-76/81-86 GHz frequency band. This frequency band is different because the allocation of the RF spectrum is carried out in a simplified procedure for the granting of licences.

Concerning the satellite networks, requests for the granting of licences of ruse of the RF spectrum in the satellite services were received and processed, as well as notifications of installation of radio stations in the satellite service operating on the basis of granted general licences, which in the first place refers to SNG transmission. Coordination requests for satellite networks have been analysed and processed within the framework of international activities in accordance with ITU procedures.

HAKOM kept and regularly maintained a list of notified installed radio stations for fixed and satellite systems operating on the basis of granted general licences.

2.1.5 Radio networks

In compliance with obligations laid down in the ECA, the activities of planning and optimization of FM radio networks in the 87,6 MHz – 107,9 MHz frequency band continued in 2014, as well as the activities of international coordination of radio stations, of ensuring of technical conditions for new concessions for the provision of media radio services and improvement of coverage of the existing broadcasters.

The closing of radio stations continued in 2014 and the number of broadcasters decreased by six broadcasters compared to 2013. The broadcasting of the programme of Croatian Radio on the medium wave also stopped. Interest for starting new radio stations for all levels of concessions, in particular in urban areas, still exists and, on the basis of a request of the Electronic Media Agency (AEM), HAKOM initiated a procedure for the international coordination of technical parameters of radio stations in order to ensure the fulfilment of conditions for a concession in areas where this was possible due to the density of the radio spectrum. Therefore, decisions on the granting of concessions to three new broadcasters were adopted in 2014. As part of international activities related to the coordination of technical parameters of radio stations, HAKOM participated in a bilateral coordination meeting with Serbia's administration.

Data on free frequencies for new networks have been published in the database for the RF spectrum for radio which is publicly available at HAKOM's website. Data on radio stations were regularly updated in 2014 on the basis of results of international coordination, planning and optimization, that is, on the basis of cooperation with the AEM.

As part of its regular activities, HAKOM replied to AEM's questions concerning the existence of conditions for the offering of concessions in individual areas and delivered notifications about amendments of technical parameters of existing broadcasters. As a precondition for the signature of the concession agreement, HAKOM carried out technical evaluations of fulfilment of minimum conditions for the carrying out of media activities.

In addition to the above-mentioned coordination meetings, international cooperation continued through the coordination of radio frequencies by means of correspondence in accordance with international agreements. In accordance with obligations undertaken in international agreements, HAKOM initiated a procedure for the coordination of technical parameters of radio stations and received and replied to a number of requests from the neighbouring countries (Austria, Bosnia and Herzegovina, Germany, Italy, Hungary, Slovenia and Serbia).

FM/T-DAB radio stations published in the BRIFIC (Radiocommunication Bureau International Frequency Information Circular) notification were analysed on a regular basis. HAKOM notified the registration of coordinated FM radio stations into the international frequency plan GE84, and into the main international register of radio frequencies (Master International Frequency Register). MIFR contains a list of internationally coordinated radio frequencies that are currently being prepared and the publication in this register will ensure the highest level of rights under an international agreement. This primarily refers to the protection from interferences and publication in MIFR is of extreme importance for ensuring the operation of radio frequencies at the international level.

2.1.6 Television networks

The Republic of Croatia has built 6 networks of terrestrial digital television so far. Four out of those networks transmit DVB-T signals of the MUX A, B and D (national-regional and local network) that may be received in public and coordinated in accordance with the MPEG-2 standard, while two networks are transmitting DVB-T2 signal of MUX C and F encoded in MPEG-4 standard. The pay TV programmes of the EVO TV platform are broadcasted within the MUX C and E.

In accordance with the issued licences for use of the RF spectrum for digital television, the operator of digital television networks may optimize the network by putting into operation new transmitters or by changing the parameters of the existing networks. HAKOM issued in 2014 the necessary parameters and certificates of compliance of the radio station for all transmitters put into operation.

Considering all the discussions in Europe, the second digital dividend spectrum will most probably be used in the 694-790 MHz frequency band for mobile communications services. In 2014 HAKOM initiated preparatory activities so that the digital television may free the 694-790 MHz spectrum. This complex procedure requires many adjustments, and HAKOM identified measures that will ensure further development and competition on the television market. HAKOM started developing the international frequency plan for digital television in the 470-694 MHz band, which is based on the DVB-T2 standard. International harmonization of Croatian DVB-T stations with neighbouring countries has continued and the coordination requests from administrations of Austria, Bosnia and Herzegovina, Germany, Hungary, Montenegro, the Czech Republic and Slovakia were analysed.

The database of the RF spectrum for TV was updated on the basis of the results of the planning and optimization of FM networks and international coordination of frequencies.

The public invitation procedure was also conducted and as a result, the company Odašiljači i veze d.o.o. was issued a licence for use of the radiofrequency spectrum for digital television in the territory of the digital region L-ZA (municipalities Zaprešić, Bistra, Luka, Jakovlje, Dubravica, Pušća, Marija Gorica and Brdovec)

2.1.7 Control and supervision of the spectrum

With a view achieving the alignment of the use of radio frequencies at the national and international level, carrying out of control of the RF spectrum, measuring, testing, establishing and removing causes of interferences as well as other technical tasks within the framework of efficient management of the RF spectrum, HAKOM has developed a control and measuring system in the territory of the RoC.

Four control and measuring centres were established in the territory of the Republic of Croatia, in HAKOM's headquarters in Zagreb, and a stations were established in Osijek, Rijeka and Split, represent an optimum basis for HAKOM's control and measuring system for everyday efficient control of the RF spectrum and the carrying out of other technical activities.

CMS are supplemented by ten remotely controlled control and measuring stations. Following the putting into operation of the first mobile control and measuring station (hereinafter: MCMS) in the coastal area of Istria in 2013, the second control and measuring station of this type was built in 2014. The MCMS in question is located in the territory of Southern Dalmatia and enables quality measuring of RF signals in Southern Adriatic, thus additionally increasing coverage end efficiency of the entire control and measuring system, including the quality and possibility for the protection of the RF spectrum, a limited public resource of interest for the Republic of Croatia.

Everyday control of the RF spectrum and other technical tasks under HAKOM's competence are carried out with the assistance of five measuring vehicles equipped with the measuring equipment.

Like in the previous year, a large part of tasks concerning RF spectrum control during 2014 concerned the measuring of interferences from Italy that have been interfering with the reception of radio and television programmes in the coastal area of Croatia, from Savudria in the north of Istria to Prevlaka in the South.

Measuring aimed at the protection of the RF spectrum was also carried out as part of everyday supervision and control of the RF spectrum. Everyday measuring was carried out from all four control and measuring centres and ten remotely controlled control and measuring stations, including the two PCMSs, while the measuring vehicles carried out periodic measurements in areas where the immobile part of the measuring system does not provide satisfactory control.

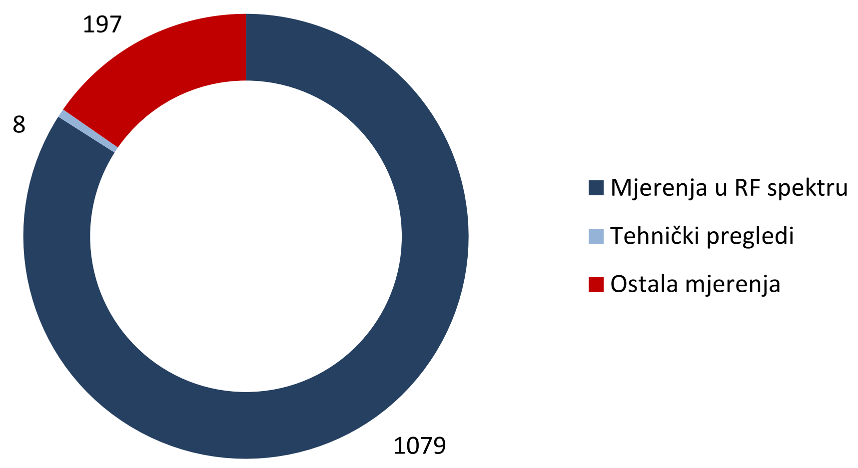
In addition to measuring aimed at the protection or monitoring the RF spectrum, measurements for frequency planning and international coordination were also carried out.

In compliance with the 2014 Measuring Plan, all planned measuring campaigns and other measurements in the RF spectrum were successfully carried out, with a special emphasis on the protection against interference. The operation of radio stations in microwave links and radio stations in broadcasting was tested in accordance with the prescribed licences. Figure 2.3 shows the distribution of measuring not covered by every day and periodic measuring from control and measuring stations.

As part of everyday and periodic measuring from control and measuring station, more than 3800 measuring activities were carried out in 2014 for the purposes of control of the RF spectrum.

In general, the results of the conducted measuring indicate further increase in the number of interferences from internationally uncoordinated radio and television transmitters from the Italian Republic. The number of interferences from other neighbouring countries was similar to previous years and it was accompanied by appropriate cooperation on their removal.

Figure 2.3. Measuring



Due to non-compliance with laws and subordinate legislation on conditions and manner of use of the RF spectrum, three inspection supervision procedures were initiated resulting in the prohibition of operation of illegal radio stations and in ordering them to comply with the law.

Measuring of electromagnetic fields

The RF spectrum control also included the measuring of the size of electromagnetic fields in areas of increased sensitivity for the purpose of efficient protection of human health from the influence of the electromagnetic field. Measuring results submitted by legal persons authorized for the activities of measuring electromagnetic radiation were checked on a regular basis. It was established during the conducted measuring that level of electromagnetic fields are significantly lower than the maximum permitted levels. All the measuring results are published and are available at HAKOM's website [12](link http://www.hakom.hr/default.aspx?id=1119).

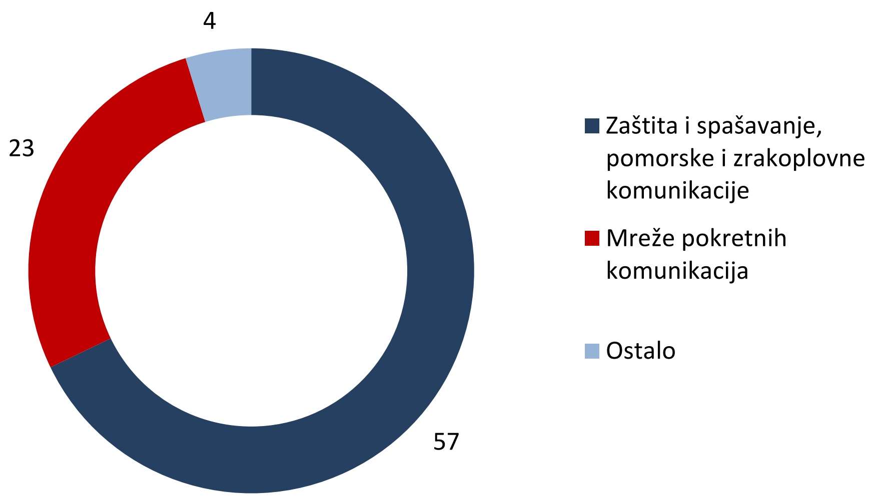
Interferences

Protection from interferences in radio communications is one of HAKOM's important tasks ensuring undisturbed performance of electronic communications systems and the provision of services in the territory of the RoC. Special attention is given to state administration bodies in charge of search and rescue, emergency services, maritime and air traffic control radio communications which are important for the safety of human lives and protection of property and operators of electronic communications.

The number reported and eliminated domestic interferences slightly decreased in 2014 compared to 2013. A slight decrease in interferences was recorded in mobile communications networks, while other frequency bands recorded a slight growth.

[12] http://www.hakom.hr/default.aspx?id=1119

Figure 2.4. Domestic interference



In addition to domestic interferences, during 2014 HAKOM also worked on the detection and identification of domestic interferences through everyday control and monitoring of the RF spectrum in Croatia and it initiated procedures for their elimination in accordance with international regulations. Figure 2.5. shows a total number of recorded foreign interferences The number of recorded interferences in 2014 was somewhat higher than in 2013, in the first place due to more recorded interferences in the area of radio and television frequencies originating from Italy, while a smaller number of interferences was recorded in relation to other radio communications services.

A regular signal measuring campaign for FM radio and TV is envisaged in summer months in the coastal area in order to get a clear picture of the situation and existence of interference at frequencies allocated to Croatia in accordance with international agreements and plans (GE84 and GE06). Measuring conducted in 2014 showed that significant interferences still originate from the Italian Republic and in summer months prevents quality reception of radio and television channels in majority of Istria and along the coast. The comparison of the number of reported interferences submitted to the Italian Government during 2014 compared to the previous years is illustrated in Figure 2.6. The figures show slightly more interference reports for FM radio and DTV compared to 2013.

Figure 2.5. Foreign interference

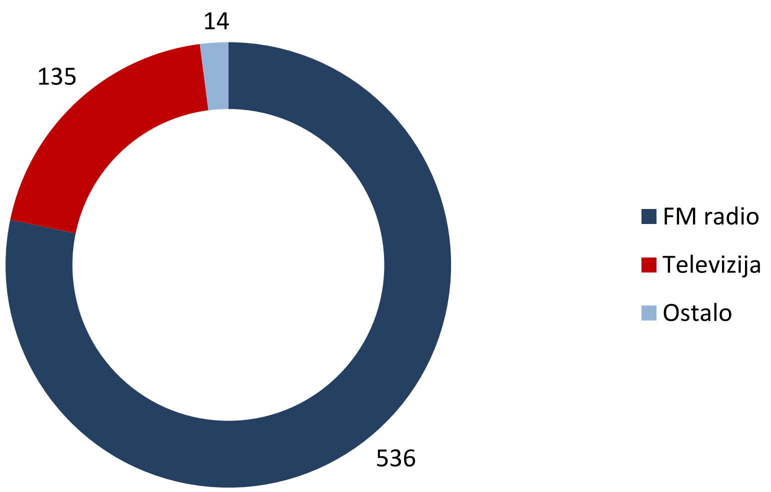
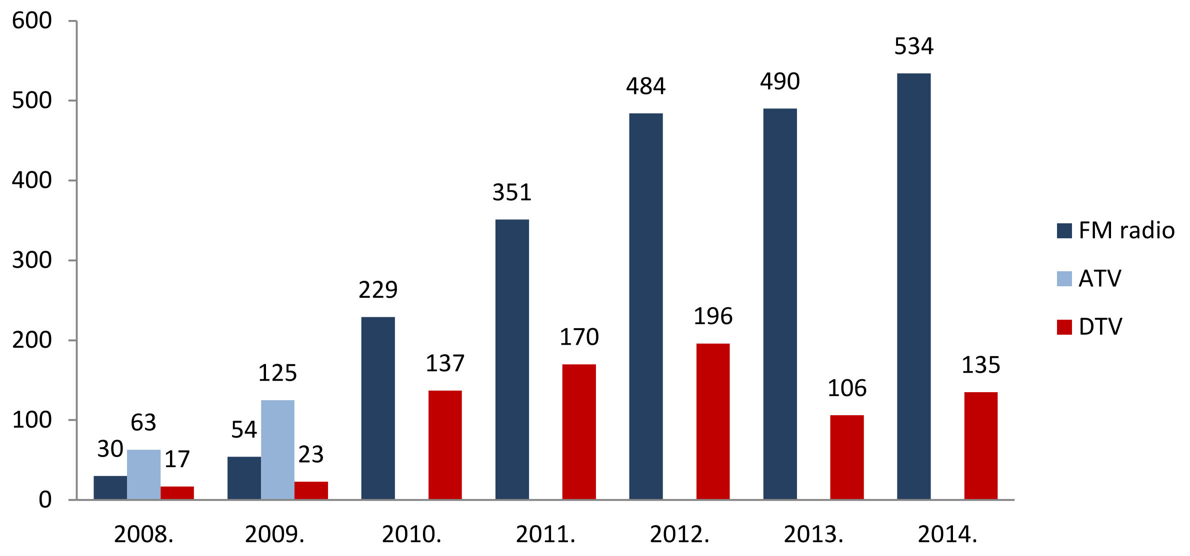


Figure 2.6. Interferences from Italy



Interferences from Italy with radio and television reception in Croatia

Although the problem of interference from Italy with radio and television reception along the Adriatic coast of Croatia has existed for several decades, further deterioration of the quality of reception of digital television started in the coastal part of Istria in December 2010 with the start of the digital switchover. With further digitalization in Italy, interferences spread to the rest of the Croatian coast up to Prevlaka by the end of 2012, and the same level of interferences, with slight oscillations, continued in 2013 and 2014.

FM radio interferences from Italy have also increased after year and every year, the level and number of interferences culminate in summer months when it is practically impossible to listen to Croatian FM radio stations in the coastal area.

In 2014, and in the years before, HAKOM invested significant efforts into elimination of the existing interferences with TV channels in the coastal area and into avoidance of further interferences from the Italian Republic.

As a result of an extensive media campaign conducted in the coastal area and on the islands with a view to monitoring and identifying interferences from Italy, 669 international interference reports were sent to Italy and ITU, who is responsible for the implementation of international agreements in the electronic communications sector, was informed thereof.

HAKOM also continued with the practice of regular reporting on the status of interferences and requested assistance in the resolution of this issue from competent ITU bodies, the Radio Regulations Board (RBB), the Director of the Radiocommunications Bureau (RB).

HAKOM also actively participated in the work of the Working Group for Cross border Coordination ("Good Office") established by the Radio Spectrum Policy Group (hereinafter: RSPG) with the European Commission. The working group deals with issues of cross-border interferences from the Italian Republic towards the neighbouring countries and, as a result of activities of interested countries, in the first place of Croatia, Slovenia, France and Malta, the Italian administration adopted a new frequency plan the application of which should contribute to significant reduction of interferences to DTV networks in the Republic of Croatia. Funds amounting to EUR 51 million have been earmarked for the implementation of the measure of switching off and/or replacement of frequencies in Italy as a compensation measure for broadcasters, and the envisaged deadline for their implementation is 30 April 2015.

2.1.8 R&TT equipment

During 2014, HAKOM actively participated in the drafting of a new Directive of the European Parliament and the Council on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC. The new Directive entered into force in June 2014 and Directive 1999/5/EC is repealed with effect from 13 June 2016. Radio equipment includes products such as mobile radio phones, GPS/Galileo receivers and wireless key for opening automobile cards. The Directive enables a growing number of users to use the radio equipment without causing interferences. It represents a base for further innovations and developments in the area of mobile communications. Reliable and fast wireless communications are of key importance for the development in industry, services, education, fun and other aspects of life. The new Directive introduces the possibility of common chargers for mobile phones and other portable devices. It also introduces rules aimed at simplified application of the Directive, improvement of compliance and instruments for market control, such as monitoring of the responsibility of subjects and the possibility to require the registration of radio equipment of low level of compliance. In 2015 HAKOM will participate in the work of a working group for the incorporation of the acquis in the area of electromagnetic compatibility and radio equipment.

In 2014, electronic communications inspectors carried out 42 inspections of R&TT equipment that was placed on that market. Furthermore, 2 decisions were adopted on the removal of the R&TT equipment from the market due to non-compliance. Electronic communications inspectors implemented and started market control procedures in cooperation with the Directorate for Economic Inspection of the Ministry of the Economy on the basis of reports from the RAPEX system, The ICSMS system was successfully implemented and it became obligatory after the accession of the Republic of Croatia to the EU. Furthermore, in 2014 inspectors actively participate in the work of the Commission for coordination and communication between inspections competent for supervising products placed on the market and/or at disposal on the market in the Republic of Croatia.

2.2 Management of the addressing and numbering space

One of HAKOM's tasks is to ensure efficient use of addresses and numbers. HAKOM is therefore carrying out the following activities:

- amendments to the Addressing and Numbering Plan in accordance with the requirements on the market,
- assignment of addresses and numbers to operators on the basis of the Addressing Plan and the Numbering Plan and the supervision thereof,
- supervision of the number portability process in particular of the work of the central administrative database of ported numbers (CABP) and is in charge of the necessary changes in the CABP in order to improve its functionality.

2.2.1 Addressing and numbering space

The amendments to the Numbering Plan which entered into force in May 2014 enabled access to short codes for voice services and the definition of machine-to-machine communication. It was necessary to impose an obligation on all operators to enable access to short codes from all public electronic communications networks (in particular for the emergency service and services of public interest), which was not justified to ask from operators in relation to payment operations since these services are different from electronic communications services and the communications network is only a channel for the carrying out of the transaction of the provided service. Since the concept of machine-to-machine communication was not defined in the current Numbering Plan, this amendments to the Numbering Plan clearly describe the M2M service.

Accelerated diversification of services on the EC market results in the increased demand for resources in the addressing and numbering space. This requires continuous training of employees in the department to be able to keep up to date with international 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.

2.2.2 Number portability

In order to remove barriers to entry of new participants in the market, HAKOM introduced the number portability service on time (2005). Currently, HAKOM must ensure timely upgrading, introduction of new functionalities and regular maintenance of a central database of ported numbers in order to achieve more competition and more attractive services for end user, which must be accompanied by the appropriate number portability procedure. In other words, more quality administrative and technical procedure of the number portability service is an important factor for end-user satisfaction.

Figure 2.7. Number of ported numbers in the mobile network

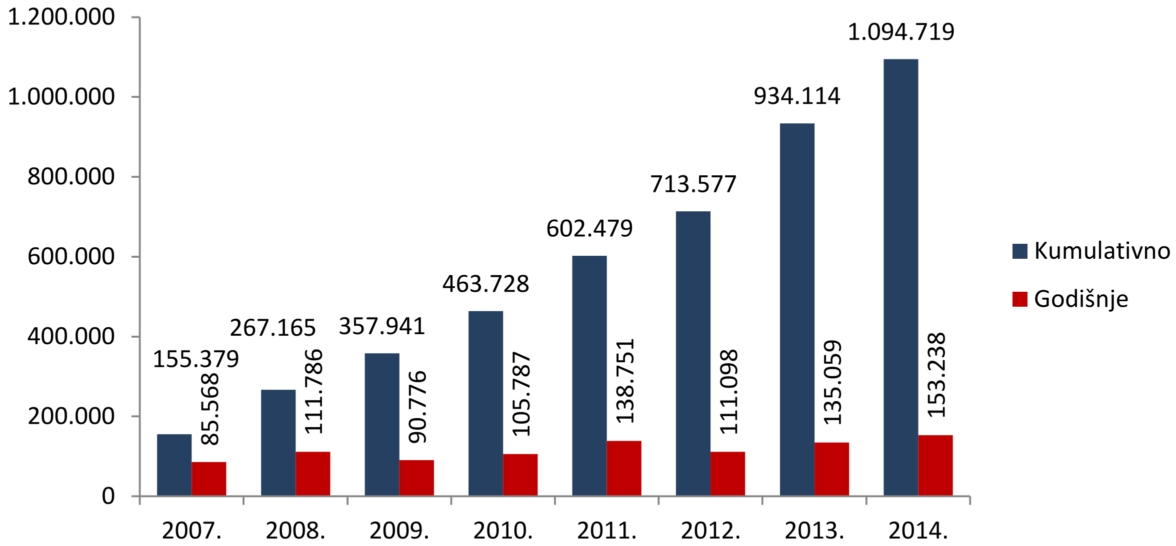
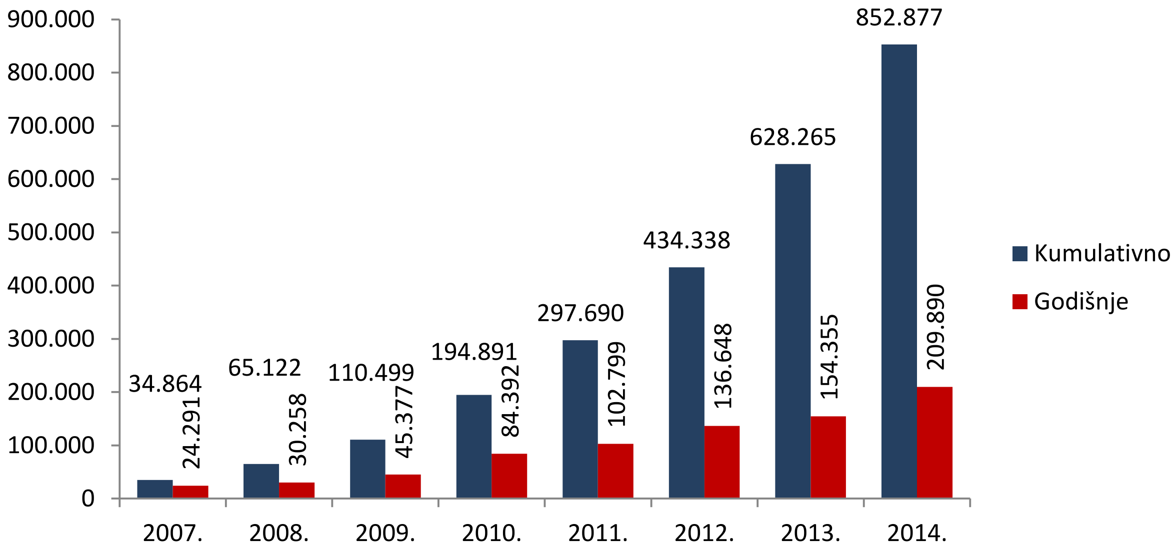


Figure 2.8. Number of ported numbers in the fixed network



e-Portability, the application on HAKOM's portal which is most used and it is used by users to follow the status of number porting and receive information about the current network, all in real time, all synchronized with the central number portability database.

3 THE POSTAL SERVICES MARKET

The role and importance of postal services, that is, of the postal services market on the global communications market has changed significantly. However, postal services continue to be an important factor in economic development.

3.1 Overview of the postal services market

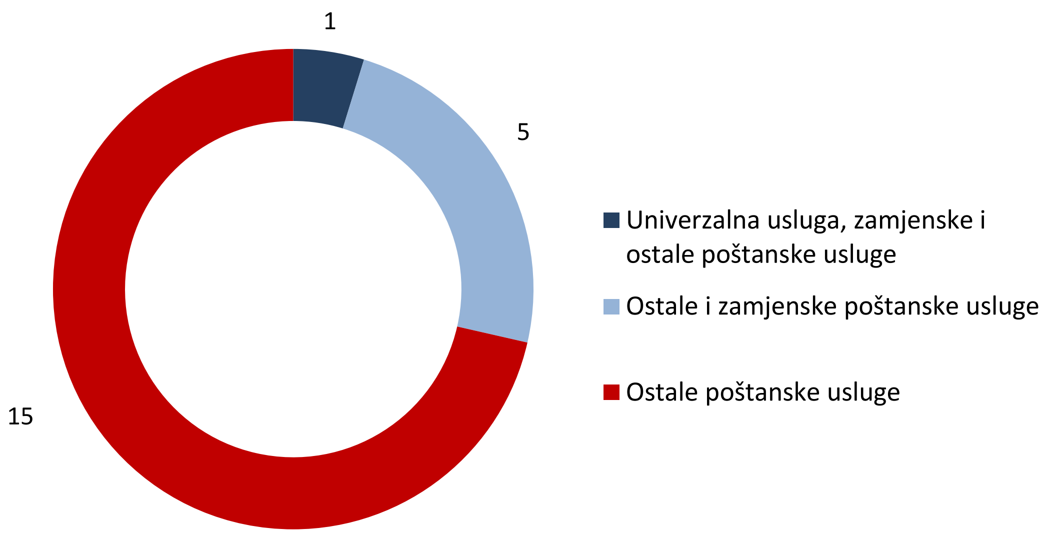
The postal services market is regulated by the Postal Services Act (hereinafter: PSA) which was adopted in late 2012 and entered into force in early 2013. This market is completely liberalized and is part of the EU common market and certain trends from that market are present on our market as well. However, as a result of the general economic crisis, positive effects of liberalization on certain trends and market development are less obvious than in the EU, which does not mean that they are not there. Furthermore, traditional postal services are feeling the pressure of other, modern means of communication, which also influences market growth and development. In spite of everything, in terms of the total number of provided services, the postal services market in the Republic of Croatia slightly grew in 2014, which stopped a negative trend that was present on the market in the recent years. The above-mentioned indicator shows a change of trend in the future, which is to be expected considering certain movements in the surroundings. The open market has had a positive impact on international traffic and the number of services in international traffic has been growing continuously since the beginning of liberalization of services. This resulted in greater fluctuation of providers on the market, and in more competition. This, in turn, resulted in the appearance of new services, improvement of quality, reduction of prices of individual segments of services and increased number of packages and value added services. The growing numbers of services partially influenced the increase in revenue resulting in slightly higher revenue than the year before, which interrupted the multiannual fall in revenue on the postal market. It is possible that positive trends will continue in the future because it is expected that providers will take advantage of possibilities offered on the market and this increase their revenue. This primarily refers to possibilities related to e-trade, the service with the greatest potential for growth, which is underutilized in Croatia.

3.1.1 Providers on the postal services market

Liberalization enabled dynamic changes to the postal services market, that is, changes that occurred in the provision of postal services by providers. The liberalized marked brought new possibilities and challenges to existing and potential service providers which is why the number of postal service providers was continuously changing in 2014. Some providers who did not find interest or their place on the market stopped providing services, while, on the other hand, new operators appeared whose business operations are based on postal services either as a basic activity or as an expansion of the existing business operations with the postal services activity. Therefore, at the end of 2014 there was a total of 21 providers of postal services, which is two less than at the end of 2013. During 2014, five existing providers stopped their operations, and three new providers were registered. It is envisaged that in the future as well, a small number of providers, who will not be able to adapt to the market, will stop their operation but new providers will appear who will try to do business on the postal market. Furthermore, cooperation between operators is possible, that is, some international postal companies will look for a potential partner for the provision of postal services on the market of the RoC.

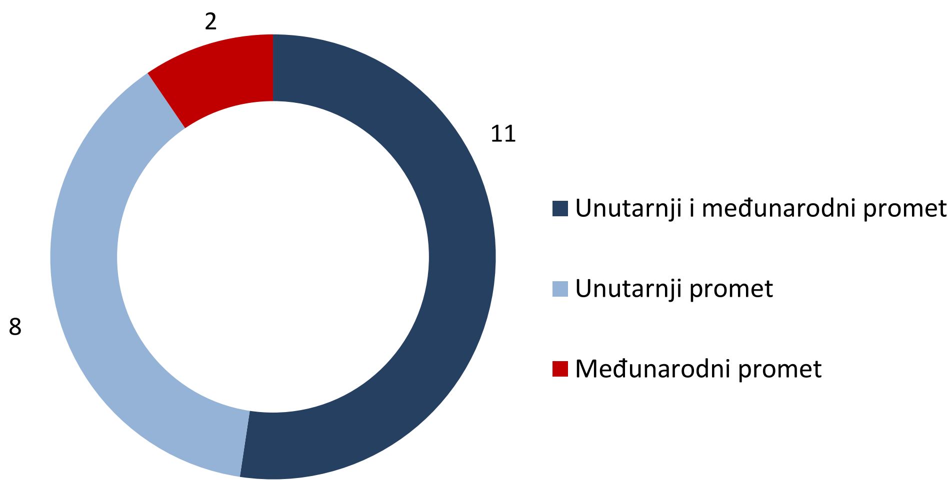
Universal service is provided by HP, as a single operator who acquired that obligation on the basis of the PSA for the duration of 15 years. All providers registered with HAKOM, a total of 21, were registered for the provision of other postal services out of which six providers provide interchangeable postal services, which is almost half the number than the year before (Figure 3.1.). On the basis of the existing data HAKOM established that a certain number of providers, although they registered interchangeable postal services and acquired the right to provide those service, failed to provide these services for more than one year and, in accordance with the PSA, have been deleted from the register of providers of postal services and one decision was adopted on the withdrawal of the decision for the provision of interchangeable postal services.

Figure 3.1. Number of providers according to area



The majority of providers, 11 of them, are providing services in internal and international traffic, while eight are providing services in domestic traffic, and two only in international traffic (Figure 3.2.).

Figure 3.2. Number of providers according to area



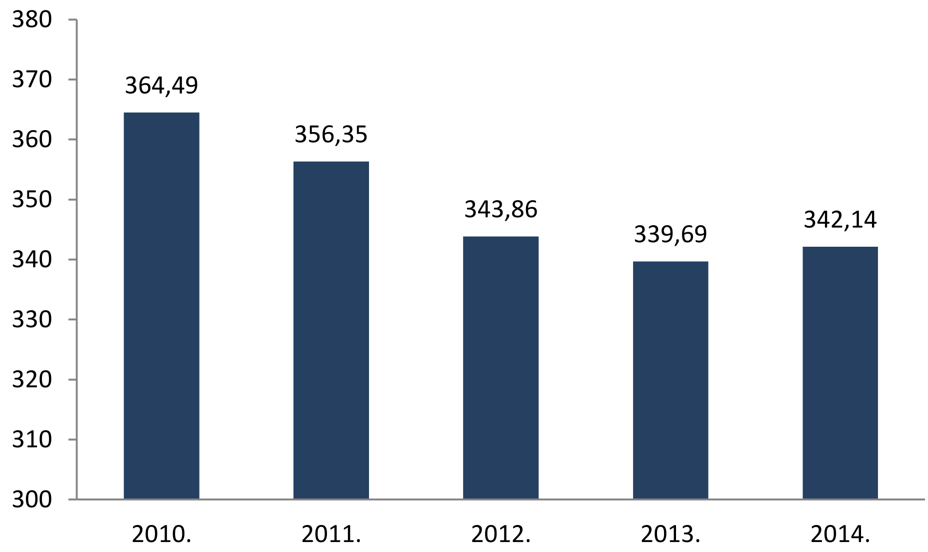
Along with HP, which is the biggest provider, there are on the postal services market several global providers (DHL and DPD, Fedex, USP, TNT, GLS...) who are providing services through their network or through representative offices. List of all authorized providers o postal services is available at the following linkhttp://www.hakom.hr/default.aspx?id=2637.

At the end of 2014, the postal services market employed a total of 9,454 people providing postal services, which is approximately 0.7 percent of all employed persons in Croatia. The number of employees is by approximately four percent lower than in the year before which is a consequence of further adjustment of providers to market conditions with a view to rationalizing their business operations.

3.1.2 Postal services

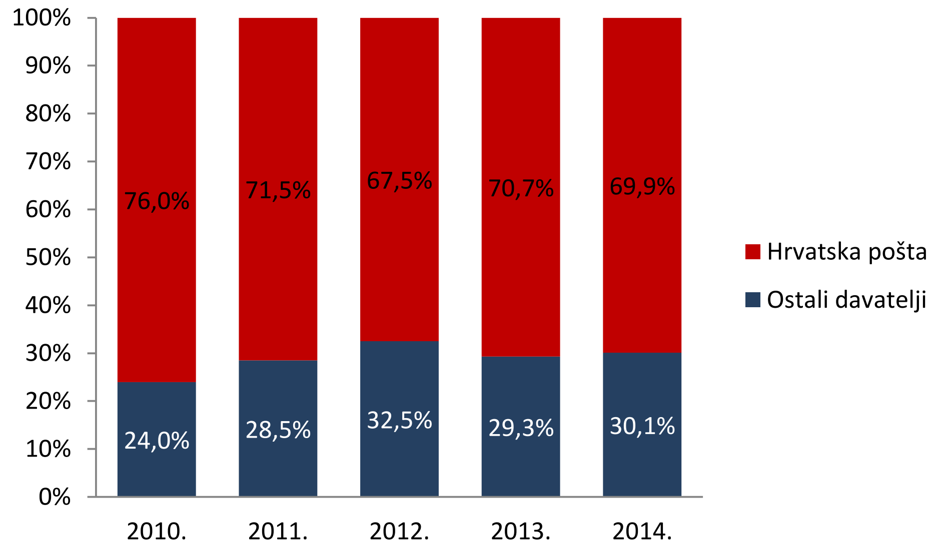
A total of 342,137,206 services were provided on the postal services market in 2014, which is 0.7 percent more than in the year before thus reversing the decrease in the number of services present on the market for several years, which is partially related to liberalization processes (Figure 3.3.)

Figure 3.3. Total number of postal services (in millions)



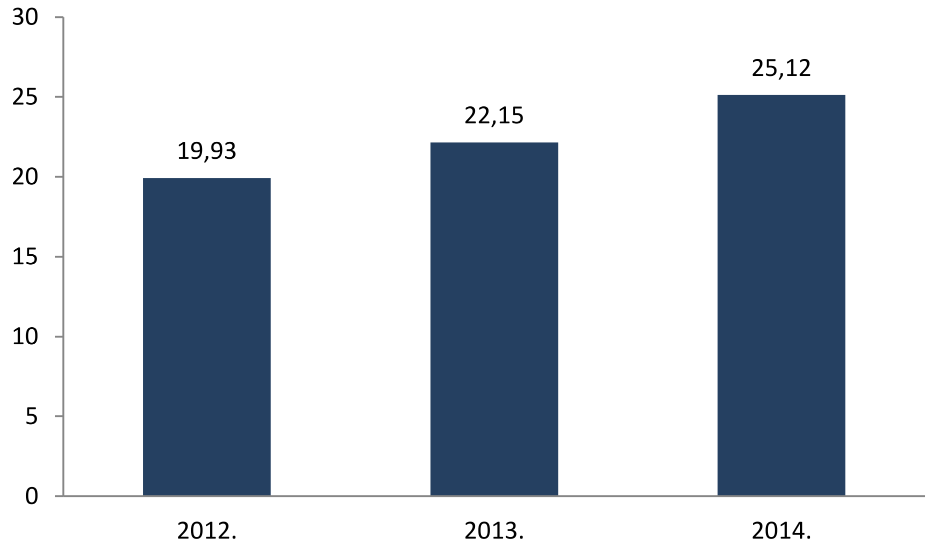
HP continues to the leading postal service provider with 239,146, 065 provided services, that is, with a market share of approximately 70 percent, and other providers provided a total of 102,991,141 services. Compared to the year before, the market share of other providers increased slightly, and the total growth of services was about three percent, while HP kept the same level (Figure 3.4.).

Figure 3.4. Market shares of providers according to the number of provided services



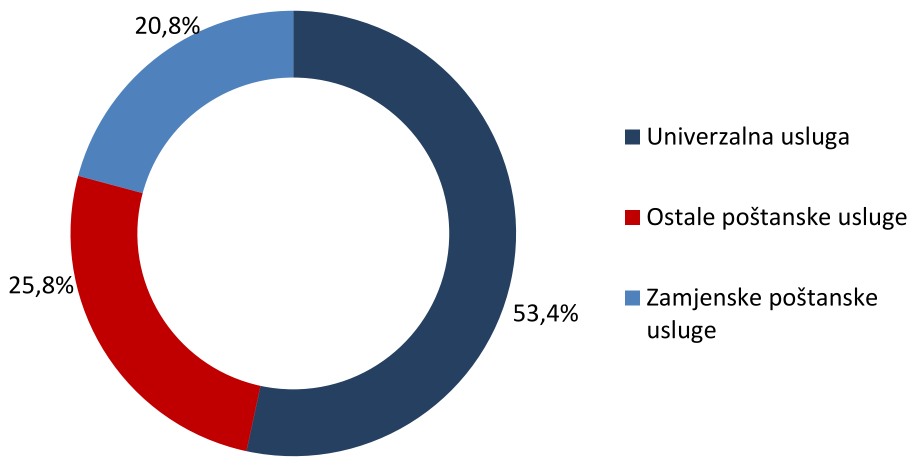
Positive effects of liberalization, that is, of the open market are the most obvious in international traffic. The number of services in international traffic grew in 2014 by about 13 percent, which resulted in the increased share of international traffic in total services by a little less than one percent (Figure 3.5.). The noticeable growth of international traffic was mostly influenced by inbound international traffic, for the most part due to greater number of parcels in the framework of e-trade. It may be concluded from the developments in the number of services by trimesters that international traffic will continue to grow.

Figure 3.5. Total number of postal services in international traffic (in millions)



In the total number of provide postal services in 2014, the biggest share belongs to universal service amounting to approximately 53 percent, followed by other postal services[13] with 26 percent, and the rest are interchangeable postal services.

Figure 3.6. Share of types of services

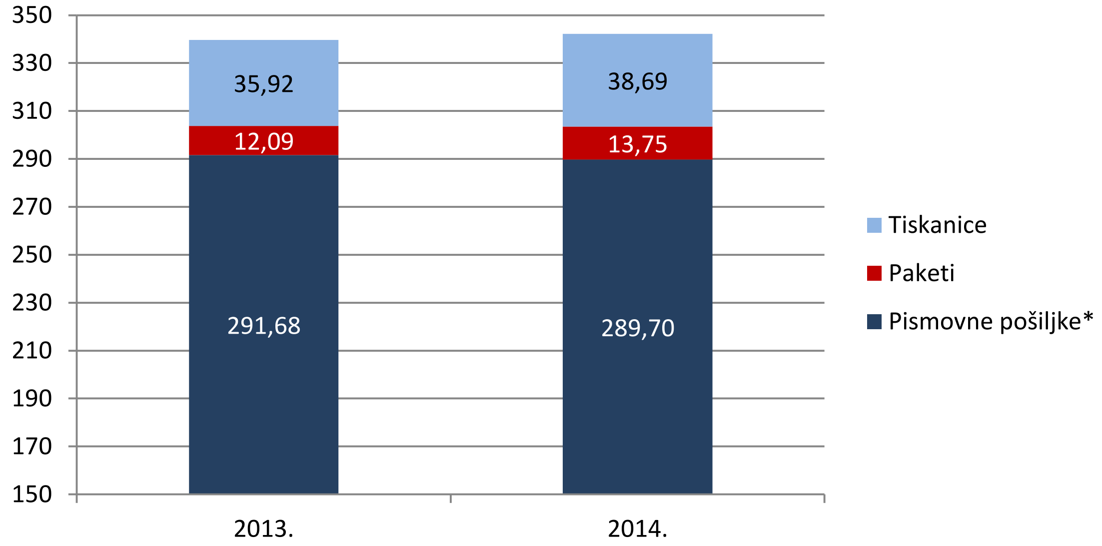


In accordance with trends on other markets, the share of letters has decreased[14], the number of parcels and printed matter increased, with the share of parcels increased by almost 14 percent

[13] According to the PSA, other postal services include reception, sorting, transport and delivery of postal services, in domestic and international traffic, which are not covered by the universal service or by the intechangable postal services.
[14] letters + registered letters + insured letters + cecograms + direct mail

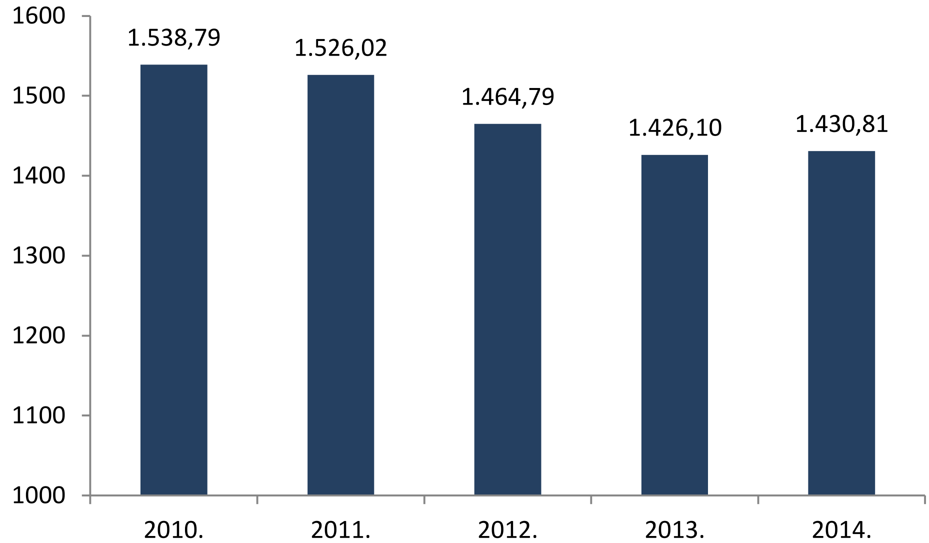
(Figure 3.7.). Those are the expected developments and it is predicted that in the future the share of letters will continue fall because they are being replaced by other forms of communication, while the parcel traffic will continue to grow due to the expected economic recovery and due to the increased volume of3-trade.

Figure 3.7. Number of postal services per type (in million)



The total increase in the number of services, including the value added service, together with the increased international traffic, had a positive impact on postal revenue. For that reason, postal service providers earned in 2014 a total of HRK 1,430,812,158 in revenue, which is 0.3 percent more than in the previous year thus reversing the negative trend that had existed for several years (Figure 3.8.). Since the beginning of liberalization, revenue decreased by a little more than two percent.

Figure 3.8. Total revenue from postal services (millions of EUR)



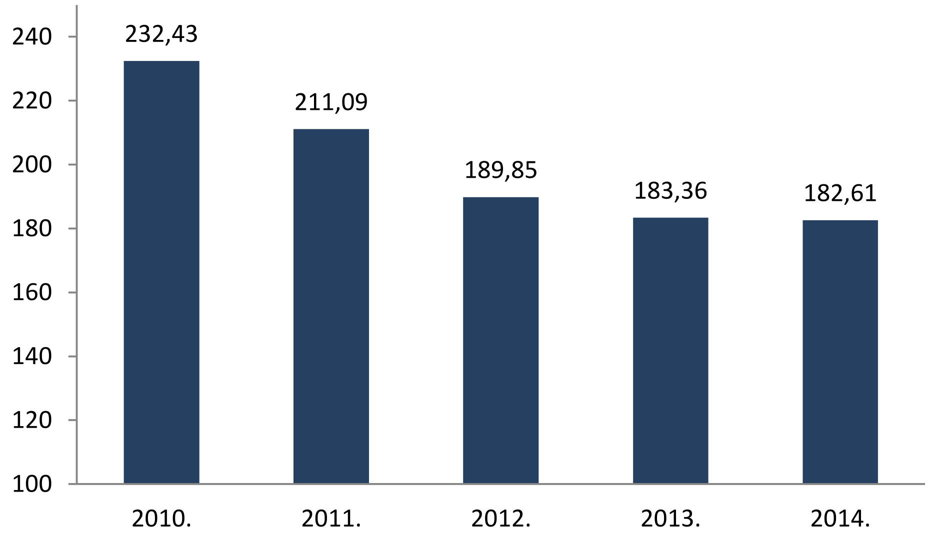
As opposed to HP, whose revenue decreased, other providers increased their revenue because the majority of them are focused on services with some added value, that is, on express postal services that have been on the increase. In this manner the providers increased their share in total revenue by one percent in 2014, compared with the previous year. According to the existing indicators, it is obvious that the similar situation will exist in the future since HP will, for the most part and due to the imposed obligation, earn revenue from the provision o „traditional" lesser value services, and other providers will earn revenue from „high-value services" that, as a rule, bring more revenue.

3.1.2.1 Universal service

Universal service is a group of postal services that are available to all users in the entire territory of the Republic of Croatia at an affordable price and they also include services in domestic and international traffic.

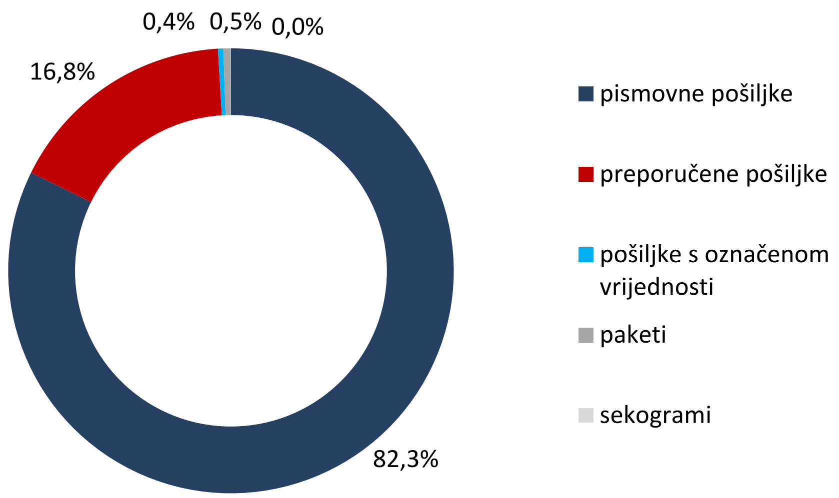
The only provided of the universal service is HP, who provided a total of 182,610,602 services in 2014, which is a negligible decrease compared to the year before, which slowed down the negative trend that has existed for several years (Figure 3.9.). This kinds of services in the EU have shown a continuous negative trend which is why the situation in the Republic of Croatia indicates that this traditional type of communication is still very present in communication in the Republic of Croatia, that is, that users, in the overall economic crisis, have been using services that satisfy their needs at an affordable price. This can also be deduced from the data that the universal service kept almost the same share in total services, which amounts to a little more than 53 percent. The provision of almost the same number of services as in the year before resulted in a slight drop in revenue which amounted to HRK 719.48 in 2014. In this way the fall in revenue, that is, the negative trend has slowed down.

Figure 3.9. Total number of services covered by universal service (in million)



Consequently, it is clear that the demand for universal services will continue in the future and it is to be expected that it will decrease in time, among other things, due to more opportunities to substitute those services with new means of communication and with other postal services, in the first place interchangeable postal services that may be provided by other postal service providers in addition to HP. The described substitution with other means of communication has existed in European countries for many years. Letters, with the share of more than 82 percent, have the biggest share in the universal service, and they are followed by registered letters (Figure 3.10)

Figure 3.10. Shares of provided services covered by universal services per type

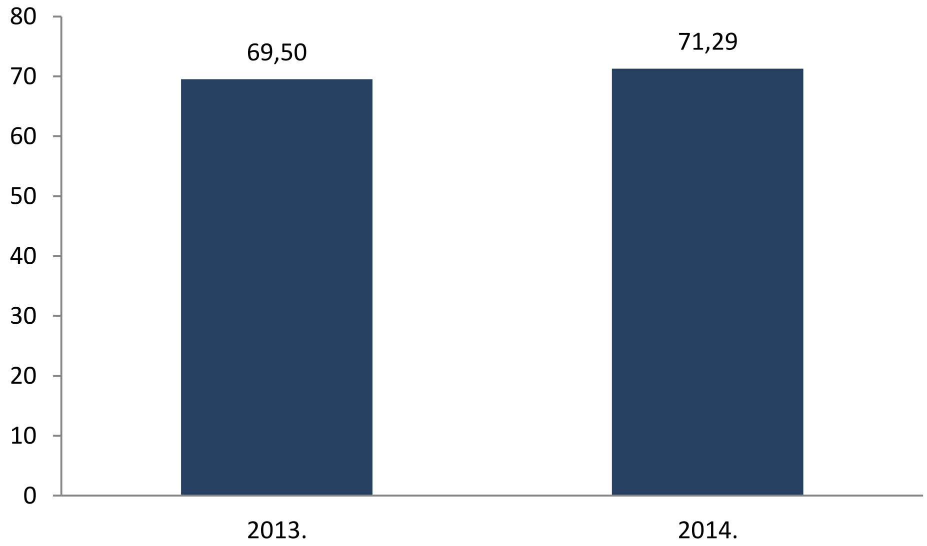


3.1.2.2 Interchangeable postal services

Interchangeable postal services are postal services covered by universal services which may derogate from the conditions of universal service, such as the quality and obligation to provide services in the entire territory of the Republic of Croatia. Regardless of the possibilities of these derogations for the end user, these interchangeable services are regarded as services under the scope of universal services.

Interchangeable postal services were provided in 2014 by six providers who provided a total of 71,285,437 services, which is an increase of approximately 3 percent compared to the year before (Figure 3.11.). The same percentage of growth was recorded in relation to revenue which in 2014 amounted to HRK 136.1 million. The share of interchangeable postal services on the total market of postal services in 2014 was almost 21 percent, which is slightly less than the year before. HP provided a little more than one third of the total number of interchangeable postal services and realized almost the same share of revenue.

Figure 3.11. Total number of interchangeable postal services (in millions)



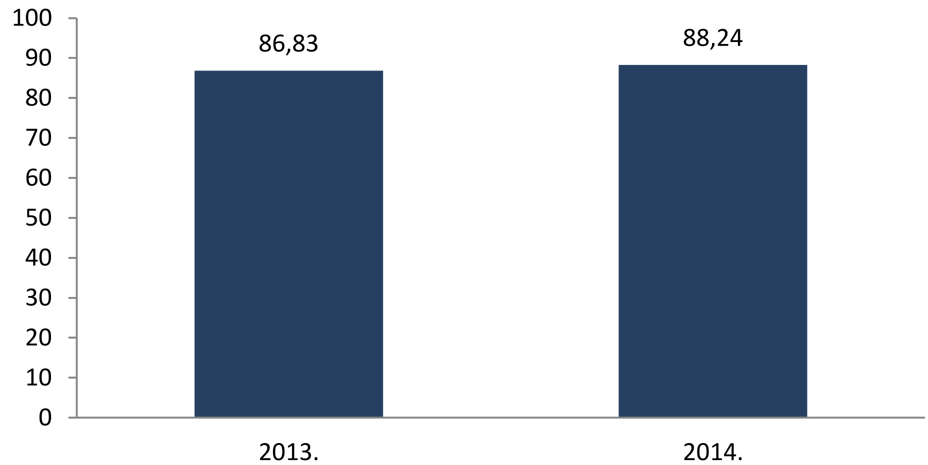
All of the above shows a certain growth in this segment of services and the continuation of this trend is expected in the upcoming period as well. These services are provided on the free market where providers compete with their offers which includes lower prices and in this manner they can attract users who are currently using services under the scope of universal services. Therefore, it is very likely that in the future a part of services under the scope of universal services will become interchangeable postal services, in particular when users are not concerned with quality requirements prescribed for the universal service.

3.1.2.3 Other postal services

Other postal services are all postal services not covered by the universal service or interchangeable universal services, and they include basic postal services (letters and parcels) which have additional value[15], that is, express parcels and printed matter or direct mail[16].

This market segment is marked by greatest competition since all these services are provided by all notified providers, while the majority of them provides only other postal services. Furthermore, this segment offers great possibilities for providing new, market and user-adjusted services enabling the users to increase their revenue because these are services that are in demand and have the greatest potential for growth and development in the future. This is obvious from the data because a total of 88,241,167 of other postal services were provided in 2014, which is 1.6 percent more than the year before (Figure 3.12.), and it is even more obvious that value added services and express services increased by more than 13 percent compared to the previous period.

Figure 3.12. Total number of other postal services (in millions)



The share of other postal services remained the same as the year before amounting to 26 percent. However, market shares of providers changed in 2014 in relation to the provision of other postal services because the share of other providers increased by approximately eight percent compared to the year before bringing their share to approximately 66 percent. This is another consequence of increasing competition, that is, of the fight of competitors to take over a significant part of the market by offering innovative services (Figure 3.13.)

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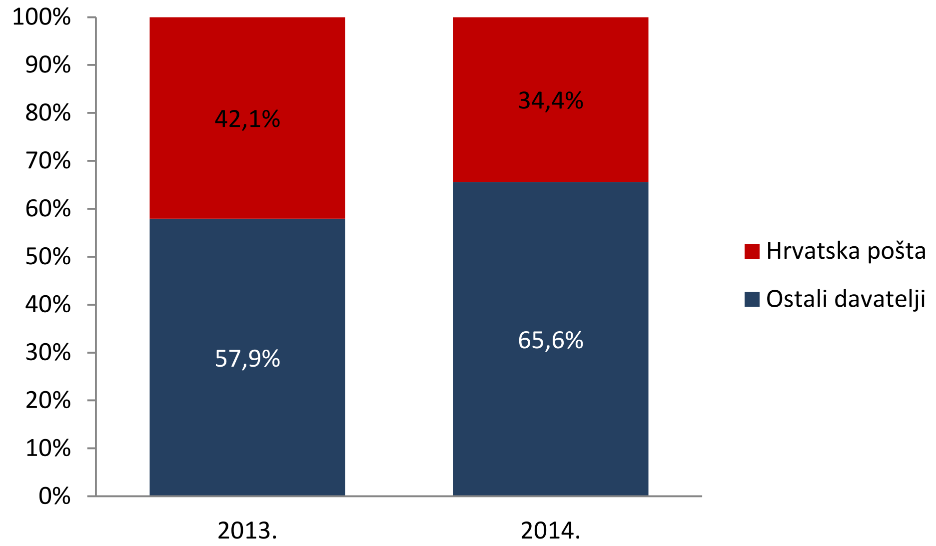
[15] Added value includes parcel pick-up ordering by users, possibility of tracking, scheduled delivery time etc.

[16] Direct mail – a postal item communication consisting solely of advertising, marketing or publicity material and comprising an identical message, except for the addressee's name, address and identifying number as well as other modifications which do not alter the nature of the message, which is sent in at least 500 copies;

Figure 3.13. Market shares of providers according to total number of provided services



Out of the total number of other postal services, approximately one fifth were services with one of the added values, that is, express mail, 44 was printed matter and the rest was direct mail.

Although other postal services make only one fourth of total postal services, the provision of these services resulted in HRK 575.2 million in revenue, which is more than 40 percent of total revenue on the postal services market. This share did not change compared to the year before. This information only confirms previous claims that other postal services contribute to the increase in revenue with a smaller number of services, which is confirmed by the information that five percent of services on the postal services market with some kind of added value realize one third of total revenue of the entire market. Therefore, bearing in mind the existing trends on the world market, providers must exploit the potential offered by these services to promote their further growth, which refers in the first place to potential offered by e-commerce services, which has been underutilized in the Republic of Croatia. The use of e-commerce services has been growing year after year in the rest of the world resulting in the increase of the number of delivered mail. This is an opportunity that needs to be exploited by providers in Croatia and expectations in this respect are very optimistic.

3.2 Overview of regulatory measures on the postal services market

HAKOM, as a national regulatory authority, continued last year with its proactive and corrective actions on the postal services market aimed at all stakeholders on the postal services market, training and enhanced protection of users of postal services and further alignment of the normative framework and supervision over the business operations of the universal service provider in terms of quality of provision of universal service, accounting separation and access to the postal network.

3.2.1 Regulatory activities in the sector of postal services

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

Proactively – by giving initiatives and stimuli for further development of the postal services market;

Correctively – preventive or subsequent reaction to noticed situations and development trends on the postal services market.

HAKOM's activities include collecting, analysis, sorting and publishing of data, information, notifications expert opinions and documents on the provision of postal services and the overall situation and development of postal services in the Republic of Croatia.

Furthermore, HAKOM strengthened and confirmed its role of the market regulator by means of frequent contacts and cooperation with all providers of postal services on the market and by guiding postal services providers towards further development of the postal services market in Croatia, including HAKOM's openness towards all categories of users of postal services.

In early 2014, HAKOM opened a direct phone line for all categories of users where users can request any information related to postal services. This is organized in the same way as for users of electronic communications. Since March 2014, a HAKOM's employee provides information about all categories of users of postal services every working day at the phone number (01) 7007055.

During the reporting period, users of postal services continuously asked various questions and requested information about the manner of provision of individual categories of postal services and very often they also asked questions connected to the provision of postal services that are not directly connected to HAKOM's competence, such as public procurement of postal services, e-commerce, customs procedures in postal traffic, general level of rights and consumer protection and the similar.

Natural persons mostly asked questions about the receipt and delivery of their postal items, while legal persons wanted answers in the area of public procurement of postal services and asked for options for selection of the most favourable provider of postal services. Attorney's offices and potential providers of postal services asked for answers to questions concerning the obligatory notification procedure for the provision of postal services.

Under the corrective component of its activities, HAKOM took appropriate measures to direct the development of the postal services market in compliance with the PSA with a view to ensuring the protection of rights of users of postal services, efficient provision of the universal service and elimination of systematic problems on the market that might distort competition. In relation to that, HAKOM's postal inspector carried out 46 inspections in 2014 over 15 providers of postal services concerning the provision of the universal service and interchangeable and other postal services. Furthermore, a postal inspector adopted five decisions described in the further in the Report and additional three decisions on enforcement and one decision on the rejection of the appeal against an adopted decision.

In the period covered by this report the postal inspector carried out inspection supervision over the following postal service providers: CITY EX d.o.o., WEBER ESCAL d.o.o.,TISAK d.d., VUK–COM d.o.o., IN TIME d.o.o.,., LIDER EXPRESS d.o.o., TRAST LOGISTIKA d.o.o., GENERAL LOGISTICS SYSTEMS d.o.o., SCHENKER d.o.o., NADA, obrt za usluge prijevoza, Zadruga MLADIH DIREKT, MERITUS PLUS d.o.o. and HP–Hrvatska pošta d.d. In the minutes on inspection supervision the postal inspector ordered to individual providers to eliminate the noticed irregularities, while providers, for which it was established that they stopped providing postal services (VUK–COM d.o.o.,., Zadruga MLADIH DIREKT and MERITUS PLUS d.o.o) were deleted from the register and list of postal service providers.

Postal service providers CITY EX d.o.o and WEBER ESCAL d.o.o. were ordered to implement required accounting separation of revenue earned from the provision of interchangeable postal services and revenue earned from the provision of services provided on the basis of an application, according to type of service. The provider CITY EX d.o.o. was ordered to use a stamp with the date and name of the service provider in compliance with the provisions of the PSA, while the provider TISAK d.d. was ordered to ensure the correct manner of using the stamp with the date and name of the provider on all letters and registered mail, direct mail and printed matter, and on parcels.

In the decision adopted by the postal inspector on the manner of dealing with user complaints, postal service providers CITY EX d.o.o. and WEBER ESCAL d.o.o were ordered to solve objections of postal service users in a transparent and objective manner and to deliver to users of postal services written answers with a clear instruction on legal remedies.

Postal service providers IN TIME d.o.o., LIDER EXPRESS d.o.o., TRAST LOGISTIKA d.o.o., GENERAL LOGISTICS SYSTEMS d.o.o. and NADA, small business for the provision of transport services, were ordered to start, by the end of 2014, resolving user complaints in compliance with the provisions of the PSA, which prescribed the manner of resolving complaints of users of postal services, as a result of which some providers established commissions for user complaints. Full verification of compliance of all providers will be carried out in the first half of 2015.

A postal inspection carried out extensive inspection supervision over the provision of universal service in domestic postal traffic by HP, as a universal service provider, which is carried out in the manner and under the conditions laid down in special laws for the delivery of judicial documents and documents in tax proceedings: criminal proceedings, misdemeanour proceedings, civil proceedings, land registration proceedings, enforcement proceedings, tax proceedings and administrative proceedings. It has been established that HP-Hrvatska pošta d.d. fulfils all the obligations prescribed by the law, that is, that it properly delivers all mail thus enabling competent state authorities and legal persons with public authority to lawfully carry out their tasks.

The postal inspector resolved all complaints submitted by natural (3) and legal (3) persons concerning the violations of the provisions of the PSA by postal service providers.

3.2.2 Accounting separation (Regulatory accounting)

The PSA prescribes the obligation of accounting separation for all postal service providers with a special emphasis on the obligation of the universal service provider - HP. Pursuant to the PSA, a universal service provider must keep separate accounting of income and revenue earned by providing universal service and income and revenue earned from interchangeable postal services, and separately from income and revenue earned from other services, per type of service and product. The purpose of such accounting separation is to gain relevant foundation for monitoring and/or executing the prescribed obligations, that is, for the adoption of regulatory decisions, or as a source of information for the calculation of net cost of universal service. Existing regulatory practice has shown that the implementation of a cost accounting system, which must comply with specific regulatory requirements, is a particularly demanding and long process.

Furthermore it is prescribed in the PSA that HAKOM shall adopt a decision on the manner of accounting separation for the universal service provider. On the basis of that, HAKOM adopted a Decision on the manner of accounting separation for universal service provider in March of 2013 (hereinafter: Decision) the constituent part of which is the Instructions for accounting separation and cost accounting (hereinafter. Instructions). The above-mentioned Decision and the Instructions contain a detailed description of the manner of accounting separation, lay down a framework of necessary information for the regulatory report and the frequency of submission of the report, that is, all provisions that must be applied with a view to fulfilling the regulatory obligations. The objective of this document, that is, of the laying down of more detailed and transparent accounting procedures, separation and reporting is to assist HP in the fulfilment of its regulatory obligations supervised by HAKOM.

In 2014 HAKOM carried out the audit of HP's regulatory report and cost model for 2012. HAKOM tasked an independent audit company Ernst&Young d.o.o. (hereinafter: E&Y) with the audit of HP's regulatory report and cost model in order to verify their compliance with the provisions of the Instructions. During the audit, E&Y noticed several instances of non-compliance of the regulatory report with the provisions of the Instructions. Since the established non-compliance does not have an impact on the result of the report, E&Y did not ask for the preparation of a new regulatory report but it sent a letter with recommendations to HP. The independent auditor also gave recommendations to HAKOM concerning changes in the Instructions. As a result of the independent audit procedure, E&Y delivered to HAKOM a final audit report confirming that the regulatory report and HP's cost model for 2012 have been prepared in compliance with the provisions of the Instructions and with the accounting documentation in all the important aspects.

On the basis of the conducted independent audit, in May 2014, in compliance with the recommendations of an independent auditor, HAKOM adopted a decision on amendments to the Instructions. Following the adoption of the above-mentioned decision, HP delivered a regulatory report for 2013. HAKOM tasked an independent audit company BDO Hrvatska d.d. (hereinafter: BDO) to carry out the audit of HP+s regulatory report and cost model for 2013. As a result of the independent audit procedure, this company delivered to HAKOM a final audit report confirming that the regulatory report and HP's cost model for 2013 have been prepared in compliance with the provisions of the Instructions and with the accounting documentation in all the important aspects. On the basis of the independent audit, it may be confirmed that the form, content and methodology of the regulatory report comply with the requirements laid down in the Instructions.

3.2.3 Net cost of the universal service provider

In compliance with the PSA, if the universal service obligation creates net cost, which represents an unfair financial burden on the universal service provider, the universal service provider shall be entitled to a compensation of the unfair financial burden (hereinafter: unfair burden).

Furthermore, the PSA precribes HAKOM's competence for the adoption of a decision establishing net cost representing the unfair burden, founding the compensation fund and establishing contributions that must be paid by the universal service provider and by interchangeable service providers. HAKOM's decision is adopted on the basis of the calculation of net cost. The PSA also prescribes that the universal service provider wishing to obtain a compensation for the unfair damage submits a request to HAKOM at the latest by 30 June for the previous calendar year. HAKOM adopts a decision on the net cost representing unfair burden within 60 days and at the latest within six months from the date when the universal service provider submitted a complete request to the regulator.

Since the PSA and the Ordinance on the provision of universal services do not lay down the procedure for the calculation of net cost and constituent parts of the net cost, in June 2014 HAKOM adopted Instruction on the calculation and compensation of net cost of universal service and on the assessment of unfair financial burden (hereinafter: the Instructions). The above-mentioned Instructions lay down the manner of calculation of net cost of universal service provision and details on the establishment of unfair financial burden of net cost of universal service provision on universal service provider and principles for the compensation of unfair financial burden of net cost of the universal service provider. Consequently, the manner of calculation of net cost of provision of universal service is in compliance with the condition of cost-effectiveness of the provision of such service, and it in particular takes into account direct and parts of indirect costs related to the provision of universal service. The net cost of universal service provision is a cost that any universal service provider would have avoided if there was no provision of universal service. Also, the calculation of the net cost of universal service provision includes all material and non-material benefits of the universal service provider arising from the universal service obligation. For that reason, the net cost of universal service provision is calculated as a difference between business results of universal service provider and business results that would have been achieved by the same provider if it weren't for the obligation to provide the universal service (hereinafter: commercial scenario).

Following the adoption of the above-mentioned Instructions, in June 2014, HP, as a universal service provider, submitted to HAKOM, in compliance with these acts, a request for the compensation of costs of universal service provision representing unfair financial burden in 2013 with the associated annual financial report and report of the independent auditor for 2013 and the calculation of real net cost. As a result, the difference between HP's financial results with the universal service obligation and without that obligation would amount to HRK 149,273,656, which is, according to HP, the amount of net cost of universal service provision in 2013.

In order to verify the grounds for the calculation enclosed with HP's request, HAKOM asked for the opinion on the delivered calculation from an independent auditor, BDO. In addition to that, HAKOM held a series of workshops with representatives of the independent audit company and HP were individual elements of the calculation of net cost were discussed. On the basis of the delivered data and the organized workshops, the independent auditor delivered a report on the Commercial scenario and calculation of HP's net cost for 2013. It may be concluded from the delivered report that HP's calculation is incorrect in certain elements, that is, the independent auditor thinks that the cost is HRK 94,383,17, and not 149,273,656, s illustrated in the enclosed Commercial Scenario and calculation of net cost for 2013., that is, that it is less than HRK 54,890,479.

Consequently, in November 2014 HAKOM adopted a Decision stating that the amount of HRK 94,383,177 represented unfair financial burden on the universal service provider, HP, in 2013. It also established a compensation fund and defined the contributions that must be paid by the universal service provider and providers of interchangeable services.

3.2.4 Quality of provision of universal service

Supervision and monitoring of the quality of provision of universal service was one of HAKOM's important regulatory activities in 2014 in the area of postal services since quality is becoming more and more important, that is, the achievement of the prescribed quality criteria is one of the important objectives on the EU common postal market. The CPA and the Ordinance prescribe the manner of measuring and quality criteria that must be fulfilled by an universal service provider in domestic and international traffic. The universal service provider is obliged to deliver to HAKOM a report on the quality of provision of universal service for the previous year including the measuring results.

In late March 2015, HAKOM received a Report on the quality of universal service in 2014 (hereinafter: the Report) showing that HP, as the universal service provider, participated in 2014 in several quality measuring exercises. The continuous measuring of quality of carriage of priority postal items in international traffic between the RoC and the EU Member States showed that the prescribed quality criteria have not been fulfilled since 57.7 percent of postal items were delivered in the D+3 time frame, that is, 89.3 postal items were delivered in the time frame of D+5. The mentioned shares did not change significantly compared to the year before. It must be stressed that one of the reasons for non-fulfilment of the prescribed criteria is the lack of action by other postal administrations, which cannot be influenced by HP.

Continuous measuring of quality of delivery of priority and non-priority postal items was carried out in domestic traffic. The results of measuring show that all the prescribed criteria have been fulfilled, and that results are better than the year before. This means that 87.6 percent of priority mail was delivered within D+1, 97.9 percent within D+2 and 97.3 percent of non-priority mail items was delivered in D+3.

With a view to verifying the alignment of the measuring methodology with the prescribed standards, including the accuracy and reliability o results, and the undertaking of corrective measures, HAKOM audited the delivered Report in 2014. On the basis of the audit results, several measures and activities have been carried out with a view to improving the quality measuring in the upcoming period.

In accordance with the prescribed standard, HAKOM carried out the measuring of the number of complaints and damages in 2014. A total of 30,574 quality complaints were received 75 % of which referred to complaints in domestic traffic. A total of 98 percent were resolved in the legal deadline, and HP's responsibility was established in eight percent of cases. Complaints mostly referred to the loss of parcels, damage or missing contents and exceeding of the delivery deadline.

It is obvious from the above that the quality of universal services is satisfactory, and in some segments even better than prescribed.

3.2.5 Postal network of the universal service provider (postal offices, postal boxes etc.)

As the universal service provider, HP must establish, maintain and develop a postal network so as to ensure the provision of postal services in the entire territory of the Republic of Croatia in the manner prescribed in the PSA and in the Ordinance. The density of access points network is prescribed in the Ordinance according to which the postal offices network must be established in such a manner that one postal office covers a maximum of 80 km^2 , that is, a total of 6 000 inhabitants, and that there must be a minimum of 700 regular postal offices.

HP fully complies with the prescribed density of network access points resulting in 1,016 postal offices distributed throughout Croatia at the end of 2014, which is two less than in 2013. HAKOM found that HP's procedure for the closing of postal offices is in compliance with the prescribed procedure and that quality of postal services was not jeopardized. Consequently, during 2014 there were no significant reductions in the number of post offices resulting in the number of offices exceeding the prescribed minimum, which may be associated with HP's social sensitivity, in other words, its belief that the closing of non-profitable post offices would additionally deteriorate the quality of live in certain areas. This is particular obvious on our islands where at only five percent of the total surface of the Republic of Croatia there are 122 post offices (12 percent of the total number of post offices), that is, on average one post office for every 1000 people, meaning that the density of post offices is greater than prescribed.

HP, as a universal service provider, is obliged to ensure access of other providers of postal service to its postal network, as well as to consolidators and user of services under the scope of the provision of interchangeable postal services. In the course of 2014, HP received two requests for network access out of which only one was implemented with the postal service provider Weber Escal d.o.o., whereby the number of services through network access grew from one quarter to another. HAKOM also organized several meetings with access provider HP concerning network access and also with potential users of access in order to explain certain doubts concerning HP's reference offer.

With a view to adjusting to organizational changes and rationalization of business operations, working hours of several post offices changes in 2014 resulting in shorter opening times. This did not have a significant impact on the quality of provision of the universal postal service.

3.2.6 Monitoring of the situation and the development of the postal services market

HAKOM continued collecting statistical and other data from postal service providers in 2014 with a view to monitoring the situation and development of the postal services market. The data covered were in compliance with the PSA and it was collected regularly for every quarter and on an annual basis. The received data was used for different analyses that enabled HAKOM to follow the situation and developments on the postal services market in the Republic of Croatia and for the fulfilment of requirements by European bodies (EUROSTAT, EK, ERGP) with a view to reviewing the situation and development of the European postal services market. The most important indicators about the situation on the postal services market were regularly published on HAKOM's website, including the list of postal service providers. HAKOM presented quarterly data and indicators of the situation o the postal services market to the public and by means of press releases.

4 RAIL SERVICES MARKET

After the entry into force of the amendments to the ECA in 2014, the Rail Market Regulatory Agency merged with the Croatian Post and Electronic Communications Agency (hereinafter: HAKOM) to create a single national regulatory authority for the regulation of electronic communications, postal services and rail services markets, that is Croatian Regulatory Authority for Network Industries, which kept its abbreviated name HAKOM. In compliance with the Act on the Regulation of the Rail Services Market (OG NO. 71/14, hereinafter: ARRSM) HAKOM is at the same time the national competent authority for the protection of rights of passengers in railway traffic.

As a national regulatory authority for the carrying out of regulatory tasks on the rail services market, HAKOM undertakes the relevant regulatory measures with a view to promoting competition on the rail services market and interests of users of rail services, thus contributing to the development of a single European rail services market.

4.1 Overview of the rail services market

The rail services market is a market on which the infrastructure manager HŽ Infrastrutura d.o.o. and operators of service facilities (ports and inland waterway ports, commercial terminals, marshalling yards, maintenance facilities, passenger terminals etc.) provide rail services referred to in Article 24 of the Railway Act (OG No. 94/13, 148/13, 120/14, hereinafter: RA). The rail services market should be distinguished from the rail transport market where railway operators carry out the economic activity of passenger or cargo traffic and which includes relations between operators and passengers or senders. The functioning of the transport market requires the existence of an efficient rail services market.

The accession of the Republic of Croatia to the European Union enabled free access of all railway undertakings to the rail infrastructure for the provision of all kinds of rail freight transport services. Concerning the rail passenger transport market, infrastructure access is free to all operators providing services of international passenger transport, while domestic transport services may be carried out only by an railway operator established in the Republic of Croatia (hereinafter: RoC). Free access to railway infrastructure for the provision of services of international passenger transport (when it includes cabotage[17]) may not be used for the opening of the transport market for services of domestic passenger transport.

4.1.1 Operators on the rail services market

The biggest provider of services on the rail services market in the infrastructure manager HŽ Infrastruktura d.o.o. who has been entrusted, on the basis of the Agreement on rail infrastructure management (hereinafter: the Agreement) with the management of rail infrastructure as a public resource in general use owned by the Republic of Croatia. Incumbent railway undertakings are at the same time the providers of individual rail services (manoeuvring service, technical check of trains, services, brake tests etc.), and rail services are provided by other legal persons as well (e.g. the service of washing and cleaning of passenger cars and motor trains, maintenance of rail vehicles, services in goods terminals, ports etc.).

Users of rail services are railway undertakings, and the request for the use of the infrastructure capacity (train path) may be submitted, in addition to the operator, an international group or

[17] According to the RA, cabotage is any carriage of passengers and/or traffic between individual places in the Republic of Croatia carried out by the railway undertaking not established in the Republic of Croatia.

another natural or legal persons, such as competent authorities laid down in the Regulation (EZ) No. 1370/2007 on public passenger transport services by rail and by road, ship operators, shipping companies and combined transport operators with sufficient interest for the provision of the public service and business interest for the allocation of infrastructure capacity, who are jointly referred to as applicants for infrastructure capacity.

Access to rail infrastructure and use of rail services is completely open to new freight rail carriers, regardless of whether operators are registered in the territory of the Republic of Croatia or originating from the countries of the EU. If the freight operator is registered on the territory of the Republic of Croatia, it must obtain from the Ministry of Maritime Affairs, Transport and Infrastructure (hereinafter: MMATI) a license for the provision of rail transport services. The license is valid in the entire territory of the European Union. In order to be granted the license, the operator must fulfil the requirements laid down in Article 52 of the RA, the licence is valid while the railway undertaking fulfils the requirements for the issuing thereof. The MMATI will verify the compliance with requirements for the issuing of licence at least every five years. The Republic of Croatia recognizes licences issued to railway undertakings by competent authorities in other EU Member States. A railway undertaking holding a licence and a safety certificate may carry out transport services in the railway infrastructure provided that it concluded an agreement on access to rail infrastructure with the infrastructure operator. The infrastructure operator must provide access to railway infrastructure only to a railway undertaking holding a certificate of safety with a view to ensuring safe transport of passengers and cargo. The certificate of safety is issued by the Rail Transport Safety Agency (hereinafter: RSA) in compliance with the Act on Safety and Interoperability of the Railway System (OG No. 82/13 and 18/15),

The certificate of safety may apply to the entire network or to parts of railway network and it consists of the following: general part (Part A) - a confirmation of acceptance of the safety management system of the rail carrier in compliance with the Act on Safety and Interoperability of the Railway System and a special part (Part B) - a certificate of acceptance of rules of the railway undertaking satisfying special requirements of the Republic of Croatia necessary for the safe provision of the transport services on the network for which the certificate of safety is granted. The RSA will issue the general and special part of the certificate of safety (parts A and B) to the railway undertaking who is starting with the provision of rail transport services in the Republic of Croatia. The general part (part A) of the certificate of safety applies to the entire territory of the European Union for equivalent rail transport services.

A railway undertaking holding a valid certificate of safety (Part A) issued in an EU Member State, who is planning to provide rail traffic services in the territory of the Republic of Croatia, will be issued the special part (Part B) of the certificate of safety by the RSA). To be issued Part B of the certificate of safety the railway undertaking must fulfil the requirements laid down in Article 28 of the Act on Safety and Interoperability of the Railway System.

Three new freight operators entered the Croatian market in 2014. ADRIA TRANSPORT d.o.o., Zagreb, and Rail Cargo Carrier Kft (RCC), Budapest and Rail Transport Services (RTS), Graz.

4.1.2 Rail services

According to the RA, the rail services market is a market consisting of relations between infrastructure operators, service facility operators and applicants for the allocation of infrastructure capacity, who are mostly railway undertakings. In that sense, the division of rail services is defined in the Railway Act in the following manner:

1. minimum access package
2. access to service facilities and services provided in those facilities, including rail access to service facilities,

3 additional services

4 accompanying services

A minimum access package consists of the following: processing of requests for infrastructure capacity, rights of use of allocated infrastructure capacity, use of infrastructure (including railroad crossovers and hubs), train traffic management (including signals, regulation, handling of trains and communication and provision of information on train movements), use of equipment for the power supply necessary for power engines and all other information necessary for the provision or exercise of the service for which the capacity ways granted.

Service facilities include the following: passenger terminals, terminal buildings and other facilities, including information displays about trains and the appropriate facilities for selling tickets, cargo terminals, marshalling yards and classification yards, including manoeuvring facilities, stabling tracks, maintenance facilities, except for facilities for regular maintenance in particular intended for high-speed trains or other types of rolling stock requiring special facilities, other technical facilities (including cleaning and washing facilities), sea and inland waterway ports connected to the railway network, additional facilities and facilities for fuel supply and fuel supply in those facilities.

Additional services may include the following: electrical energy necessary for pulling the trains, preheating and precooling of passenger cars, special contracts on the following: supervision during transport of dangerous substances in trains with emergency parcels,

Accompanying services may include the following: access to the telecommunications network, provision of additional information, technical check of rolling stock, sales of tickets at passenger terminals, regular maintenance provided in maintenance facilities intended particularly for high-speed trains and other types of railway vehicles requiring special facilities.

Table 4.1. Usage of rail services in the Republic of Croatia

Usage of rail services	TOTAL in 2013	TOTAL in 2014
Minimum access package		
Travelled Vlkm	21,019,458	20,320,062
Use of service facilities		
Number of services used in service facilities	9,850,913	7,238,516
Garage services [vehicle*hours]	8,643,663	6,146,501
Number of assemblies/disassembles	1,193,010	946,617
Use of passenger terminals (number of stops)	0[18]	136,335
Transport of extraordinary postal items (number of trains)	890	729
Amount of weighted cars	14,240	8,334

The number of realized passenger and freight in train kilometres[19] in 2014 is lower by about 3% compared to the year before, while the use of rail services is less by 27%. These are services used by the operators in accordance with the Table 4.1. and they were provided by the infrastructure manager. Although three new railway undertakings were present on Croatian railway infrastructure in 2014, there are no changes in relation to increased cargo traffic.

[18] Service of using passenger terminals has been singled out from the minimum access package VR 2013/2014

[19] Train kilometres is a measure expressing the movement of one train at the distance of on kilometer

4.2 Overview of regulatory measures

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

1. Proactively - by taking initiative in compliance with its basic mission and current market demands,

2. Correctively – action or subsequent action against notice unlawful trends on the postal services market.

As part of the proactive component, HAKOM collects and publishes data, notifications and documents related to the monitoring o the situation on the rail services market. The role of an independent rail market regulator implies cooperation with all stakeholders on the rail services market, in particular with the infrastructure manager, operators of service facilities and applicants for the delivery of infrastructure capacity with a view to ensuring further market development.

As part of the corrective component, appropriate measures are taken (e.g. proposals for amendments to the Network report) which result from requirements of an individual party (objection) or ex officio activities in order to direct the development of the rail services market in compliance with the RA and the ARRMS.

4.2.1 Regulatory activities in the rail service sector

A complaint of a railway undertaking on the 2015 Network Report was solved in the first part of the year and it was partially accepted resulting in annulment of appropriate provisions off the 2015 Network Report referring to fuel supply facilities. The infrastructure manager did not provide this service and it stated in the Network Report that railway undertakings should contact him for the provision of this service. It was stated in the decision that the infrastructure manager has to amend the disputed provisions of the Network Report so that they can reflect the actual situation concerning the provision of the above-mentioned service.

Since no other formal procedures were initiated on the basis of stakeholder's requests, the regulator's activities focused on proactive activities aimed at ensuring transparent and non-discriminatory market access. Within the framework of those activities, HAKOM proposed to the infrastructure manager to introduce 32 amendments to the contents of the 2015 Network Report concerning the harmonization of contents with the RA and of data with the actual situation with a view to ensuring transparent and clear conditions for service provision, that were accepted.

An important event in 2014 was the first meeting of the infrastructure manager with railway undertakings concerning the objections to the draft 2016 Network Report. The meeting was attended by HAKOM as well since this type of meeting in the previous years wasn't a legal obligation. The stakeholders that submitted their objections were given the opportunity to support their objections and the infrastructure manager was able to explain why it accepted some of them but not the others.

Railway undertakings objected to a total of 20 items of the draft 2016 Network Report out of which 5 items were completely accepted by HŽ Infrastrukura d.o.o., and one was partially accepted. HAKOM proposed to the infrastructure manager, who accepted it, to apply the above-mentioned amendments to the 2015 Network Report as well. Since the operator's objections were not completely accepted, operators were able to dispute draft 2016 Network Report and 2015 Network Report, but none of them submitted their objections.

Under its competence, ex officio, HAKOM exercises supervision over the situation on the rail services market and it carried out supervision of the system for the payment of fees for rail services in 2014, that is, of the implementation of the 2014 Network Report in that respect. During one supervision, the use of rail services and transparency of charges used by the operators were analysed. Discrepancies have been noticed with certain services in the records of the number of used services, which influenced the amount of the fee, and this was indicated by HAKOM during supervision and corrected by HŽ Infrastruktura d.o.o. Within the framework of other supervision, HAKOM analysed the application of a new model for the calculation of motive power for hauling trains, the application of which started in December 2013. With a view to ensuring the adequacy of the model, data on traffic have been analysed, the amounts of calculations by HŽ Infrastruktura d.o.o. were compared as well as the charges for power supply from energy suppliers necessary for train haulage. Due to lack of data and as a result of the complexity of the model for charging for electric energy for trains, the analysis continued in 2015.

In the course of 2014, HAKOM adopted two opinions in accordance with its authority laid down in the ARRSM on the impact of the decision of the Government of the Republic of Croatia on the reduction of the amount of the fee for the compensation for rail services on the rail services market. The above-mentioned opinions express a position that the reduction of the price correction coefficient could have a positive impact on the rail services marked due to a lower price of the minimum access package. In compliance with the ARRSM, the Government must compensate the infrastructure manager for the difference up to the amount of cost resulting from the provision of the rail services. The first opinion referred to the price correction coefficient for the Train Schedule 2013/2014, while in late 2014 an opinion was provided on the price correction coefficient for the Train Schedule 2014/2015.

HAKOM replied to all questions received from the participants and potential participants on the market concerning the amendment to the train schedule, requests for ad hoc paths and conditions for the provision of rail freight services within the legal deadline resulting in the easier exercise of rights by participants to who submitted the requests.

A very important market was the publication of the Network Report of service facilities operators that were supposed to be published by operators of inland waterway ports, sea ports and commercial terminals. The reports in question should have been prepared by applying mutatis mutandis the provisions of the RA referring to the Network Report of the infrastructure manager. Since the provisions in this respect are general, with a view to achieving a harmonized Report, HAKOM started drafting a form for the Network Report of the service facility manager. In this respect documents of various professional organizations were used (RNE – RailNetEurope, IRG-Rail) and proposals for an EC implementing act concerning service facilities. Since service facilities contain several operators of the service facility that were supposed to prepare a joint report, HAKOM coordinated their work and helped with the preparation of the final content of the Report of the service facility operator. All reports are available on the website of service facilities operator, which is an important step for the entire market because the important information on the service facility is public and easily accessible.

4.2.2 Infrastructure

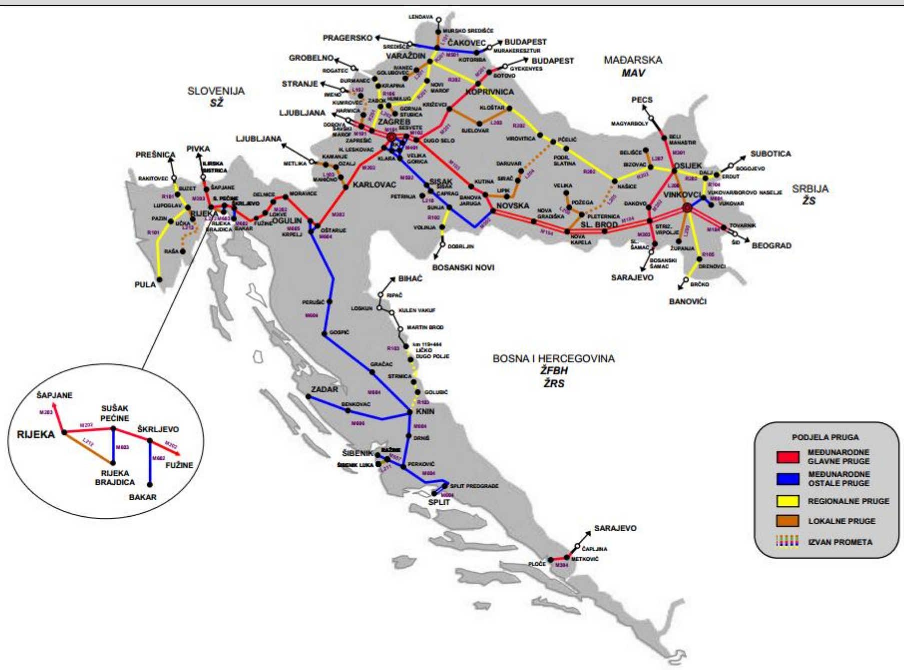
The infrastructure in the sense of the RA is rail infrastructure and industrial tracks, including industrial tracks in sea ports and inland waterways ports. The rail infrastructure in the Republic of Croatia which is a public good is owned by the Republic of Croatia and may be used under equal conditions by all interested railway undertakings. In addition to rail infrastructure which is a public good, industrial railways in sea ports and inland waterway ports are also available to all interested railway undertakings. In case of industrial railways that are not a part of ports or commercial terminals there is an obligation laid down in the RA of the owner of the industrial railway to allow access to its tracks where necessary to achieve access under equal, transparent and non-discriminating conditions if industrial railways are used or could be used by more than one end users. The manner of use of infrastructure has been laid down in the RA, that is, the conditions and manner of use of the rail infrastructure have been prescribed in detail in the Network Report of the infrastructure operator, and for industrial railways in sea ports, inland waterway ports and commercial terminals they have defined in the Network Report of the service facility operator.

The only rail infrastructure operator in the Republic of Croatia is HŽ Infrastruktura d.o.o., which is a legal person responsible for building, management and maintenance of rail infrastructure, including organization and regulation of traffic. In accordance with the RA, HŽ Infrastruktura d.o.o. adopts and publishes a Network Report containing general rules, deadlines, procedures and criteria for the determination of fees and allocation of capacity, including all other information necessary to submit requests for infrastructure capacity. HŽ Infrastruktura d.o.o. is at the same time the largest service facilities operator and service provider. Rail infrastructure and rail services were used in 2014 in compliance with the 2014 Network Report, that is, in compliance with all of its amendments, which totalled 4 the end of the Train Schedule 2013/2014. All amendments to the 2014 Network Report were publicly available to all interested parties on the website of the infrastructure manager together with decisions and consolidated texts.

In the course of 2014, HŽ Infrastruktura d.o.o. received, in the capacity allocation procedure, requests for train paths for the 2014/2015 Train Schedule and prepared a 2016 Network Report which was published on the website on 9 December 2014. Before the publication of the 2016 Network Report, the draft 2016 Network report was published on the website until 31 October 2014 in compliance with the RA in order to be available to all interested parties.

According to the 2014 Network Report, HŽ infrastruktura d.o.o. managed the construction of railway tracks amounting to 2722 km, that is, of the construction length of railway tracks amounting to 2605 km according to the amendments to the 2014 Network Report in which the values of length of railways were aligned with the situation on the field. The railway length was reduced as a result of the deletion from the register of tracks that were registered as railway infrastructure that is no longer used. The overview of railways pursuant of the amendments of the 2014 Network Report is provided in Figure 4.1. Network Reports of service facilities illustrate the equipment of ports and commercial terminals, clearly indicating that managers of the above-mentioned service facilities manage around 56.42 kilometres of track.

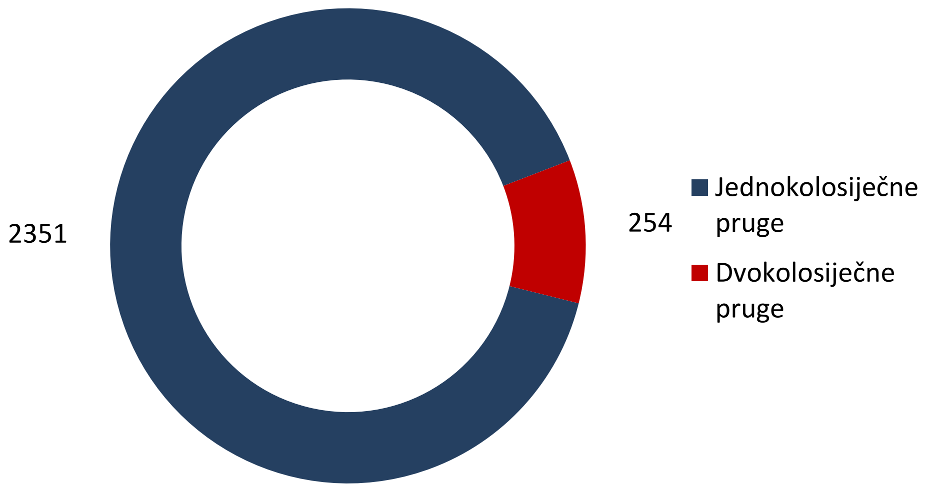
Figure 4.1. Map of rail services in the Republic of Croatia



Source: HŽ Infrastruktura d.o.o., 2014 Network Report

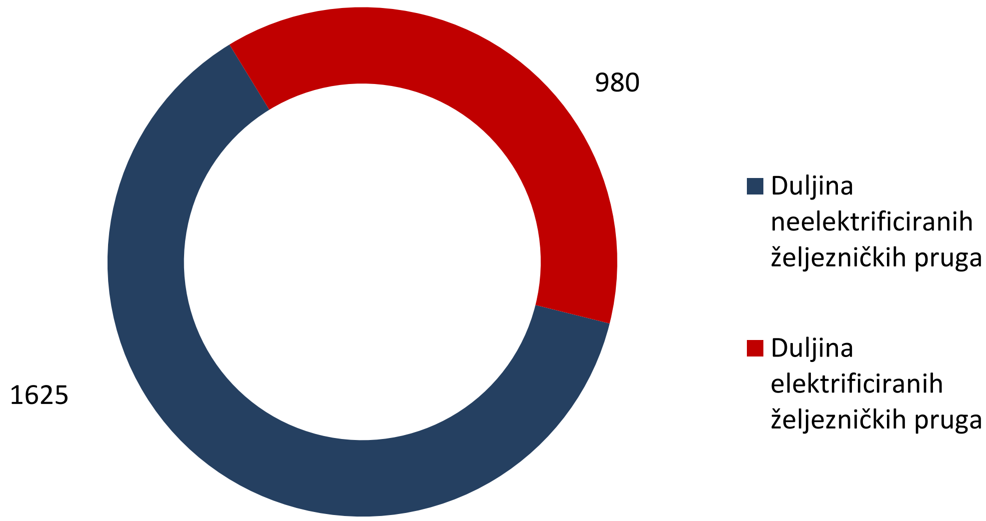
Railways on the territory of the Republic of Croatia and all railway tracks of the total railway network have standard gauge [20]. Out of the total length of railways 2351 km or 90.25 % are single track and 254 km or 9.75% are double track. Double-track railways are important for carriage because a high share of double-track railways enables greater usage of train paths and better transport capacity of the infrastructure (Figure 4.2.)

Figure 4.2. Length of single track and dual track railways in the Republic of Croatia (km)



A total of 980 km of track was electrified (Figure 4.3.), which is 37.62% of the total length of railways.

Figure 4.3. Length of electrified and non-electrified railways in the Republic of Croatia (km)



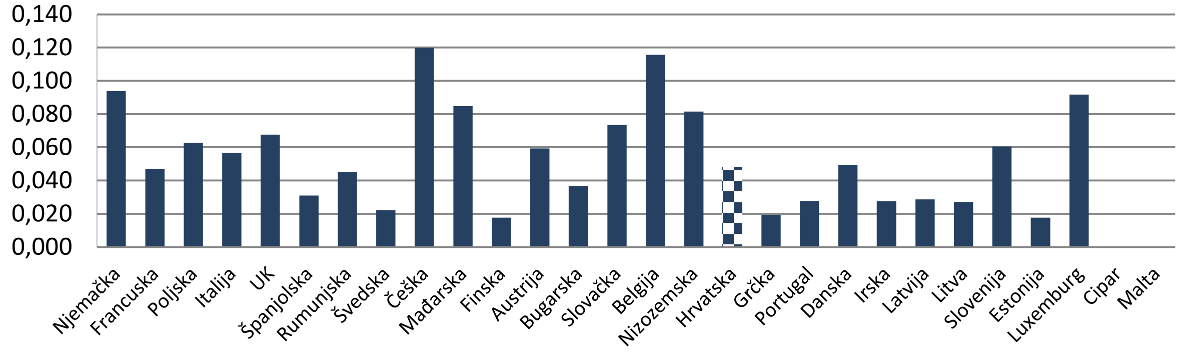
The total length of electrified railways is 980 kilometres out of which 977 kilometres of track were electrified with the alternating current of 25 kV 50 HZ and 3 kilometres of track were electrified with the direct current system of 3kV. The advantages of electrified railway tracks compared to non-electrified ones is in the traction source which is more affordable than diesel fuel and enables the use of electrical locomotives which are stronger than diesel locomotives and at the same time more efficient and ecologically acceptable.

Rail infrastructure of the Republic of Croatia is part of the European rail infrastructure of the total length of about 215 thousand kilometres. Rail infrastructure in the Republic of Croatia has a share of 1.3% in the European infrastructure. The comparison of average track lengths per country surface

[20] Standard gauge track - track of 1435 width

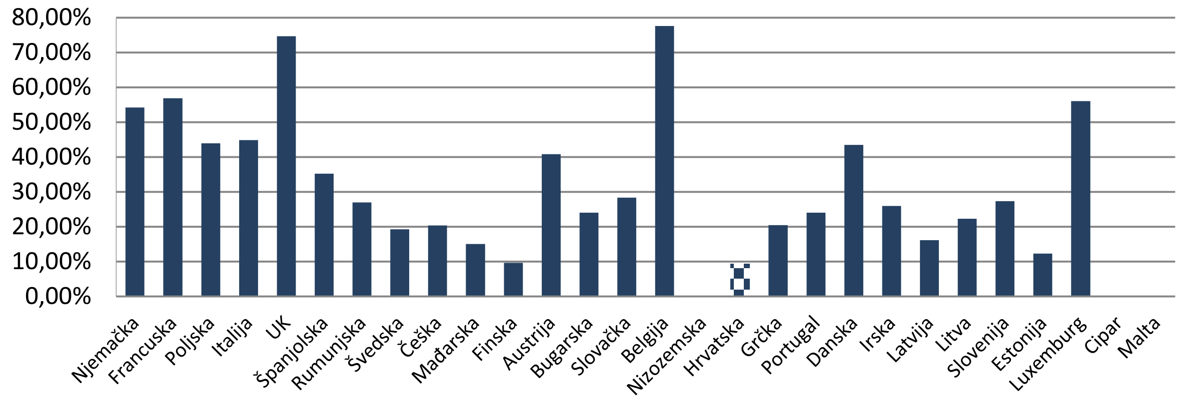
and length of electrified railways shows that Croatia is among the average of the EU Member States (Figure 4.4. to 4.6.)

Figure 4.4. Length of railways per surface of EU Member States (km/km^2)



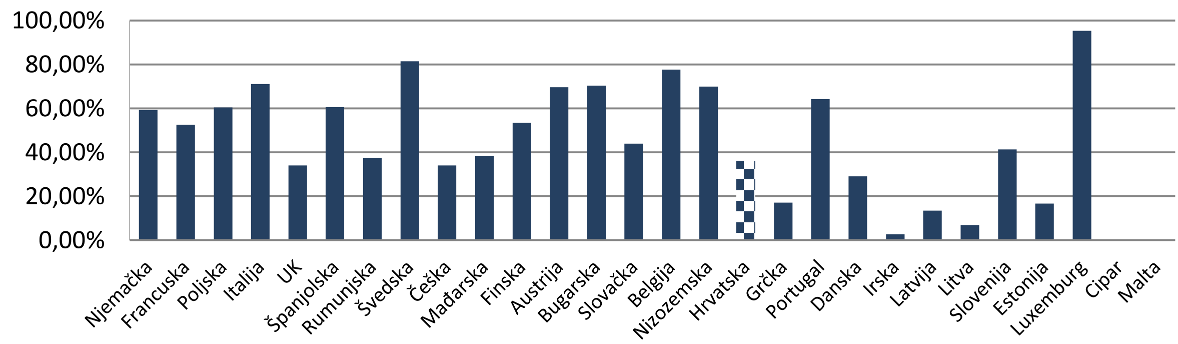
Source: HAKOM prepared the graph on the basis of data from www.uic.org

Figure 4.5. Share of double-track railways in the total length of railways per EU Member States



Source: HAKOM prepared the graph on the basis of data from www.uic.org

Figure 4.6. Share of electrified railways in the total length of railways per EU Member States



Source: HAKOM prepared the graph on the basis of data from www.uic.org

During 2014, a total of HRK 998,470,00[21] was invested into reconstruction and modernization of railways, which is 88.25 % of the plan, out of which the majority of funds were invested into

[21] Preliminary data of HŽ Infrastrukture was a basis of the preparation of HŽ Infrastrukture d.o.o.'s 2014 Corporate Report (deadline for the publication of the Corporate Report is 30 June 2015).

international railways, that is, 71.57 % and the rest was invested into the reconstruction and modernization of railways for regional and local traffic and into reconstruction and modernization of the Zagreb railway hub. Investments into railway infrastructure, greater use of railway infrastructure and railway services are closely connected to the quality of rail infrastructure which may be measured in terms of proper functioning of the rail infrastructure, the number of closures, extraordinary events and speed of traffic. A positive trend is obvious in the increased length of railways upgraded for speeds up to 100 km/h and speeds above 100 km/h.

Table 4.2. The maximum speed of trains according to railway capacity (km/h)

The maximum permissible speed of trains according to railway capacity (km/h)	Length of network in relation to maximum permissible speed of trains (km)			
	2011	2012	2013	2014
from 20 to 60 km/h	1094.4	1107.9	1023.2	996.1
from 61 to 100 km/h	1145.2	1124.3	1157.8	1162.4
from 101 to 60 km/h	393.4	367.7	463.2	485.7
garaged	342.9	324.9	332	213.1

Source: HŽ Infrastruktura d.o.o.

An important fact in the quality of traffic is the commercial speed of trains. Similar commercial speeds remained in 2014 as well. Speed is also influenced by the maintenance of rail infrastructure, numerous slow rides and railway closures. Lower speeds on rail infrastructure increase the duration of travel thus influencing the transport capacity of **railways** and the attractiveness of railway traffic

Table 4.3. Average commercial speed of trains (km/h)

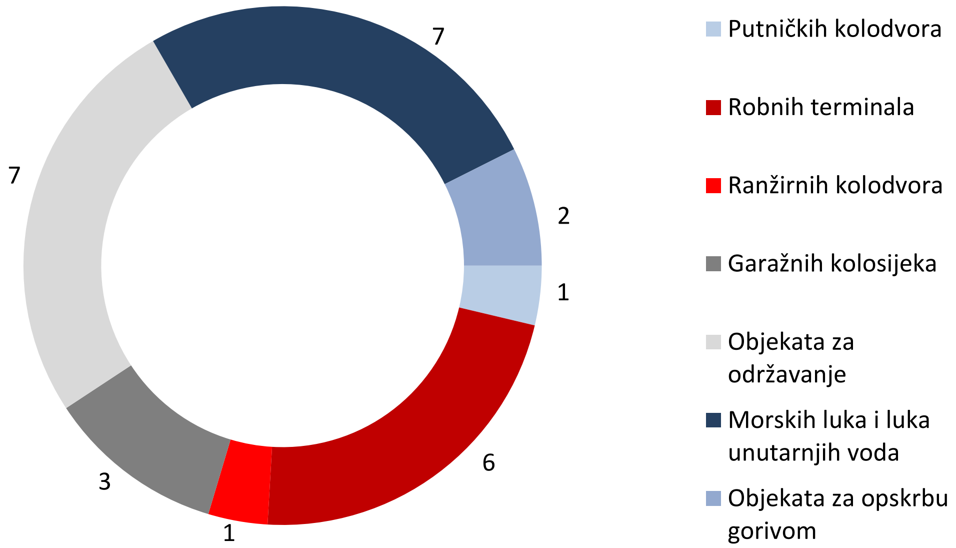
Speed of trains in km/h	2011	2012	2013	2014
Average commercial speed of trains	36.1	33.43	32.76	33.53
passenger trains	46.54	44.81	44.35	46.36
freight trains	21.44	21.04	21.17	20.67

Source: HŽ Infrastruktura d.o.o.

Operators of service facilities are new participants on the rail services market. The appearance of new freight railway undertakings creates the need for services that used to be provided by the incumbent operators for their own needs only. A part of services was provided by the incumbent operators to each other, for the purpose of cost-effectiveness, but now they are obliged by the RA to provide those same services to other interested operators, that is, to possible competitors.

HAKOM has worked on the removal of possible obstacles to market development in relation to access to services facilities and training services for service facility operators by providing guidelines and continuous monitoring of the market situation in relation to 14 service facilities that should have prepared their reports. As a result of the improved market situation and increased transparency in the provision of services, service facilities operators and providers of services in service facilities published in 2014 their first Network Reports or they delivered information to HŽ Infrastructure d.o.o. on the provision of services in service facilities. At HAKOM's initiative, for the purpose of simplicity and availability of data to service providers on the rail services market, HŽ Infrastruktura d.o.o. supplemented its 2016 Network Report with data on service facilities operators in ports and commercial terminals although this is not a legal obligation of the infrastructure manager, and it thus showed its market orientation and good business practice. According to the definition of the operator of a service facility on the rail services market, HŽ Infrastruktura d.o.o. is the operator with the biggest number of service facilities and the greatest number of offered services. In its capacity as the service facility manager and/or service provider, HŽ Infrastruktura d.o.o. is obliged to provide its services to all interested parties under equal conditions from the Network Report.

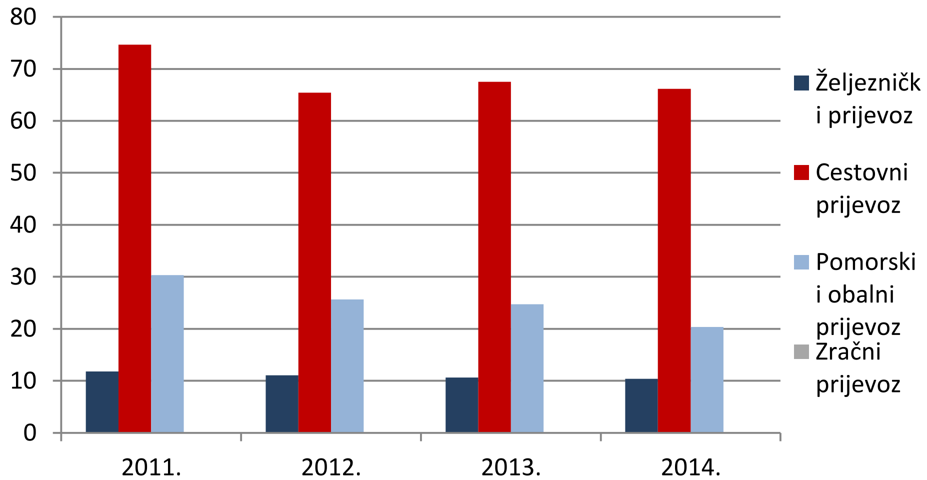
Figure 4.7. Number of operators of service facilities



4.2.3 Transport

The monitoring of situation on the transport market is not under HAKOM's competence but data on the number of carried passengers and carried goods are an important indicator of the situation on the transport market, which is also interrelated with the rail services market. Regardless of the appearance of first market competitors on the rail services market in 2014, so far no significant progress was achieved in market development and competition on the rail transport market was comparable to competition on other transport markets, which is illustrated by transport data showing higher figures for road transport (Figures 4.8. to 4.11.).

Figure 4.8. Amount of carried goods per modes of transport (millions of tons)



Source: www.dzs.hr

Figure 4.9. Share of carried goods per modes of transport in 2014 (tons)

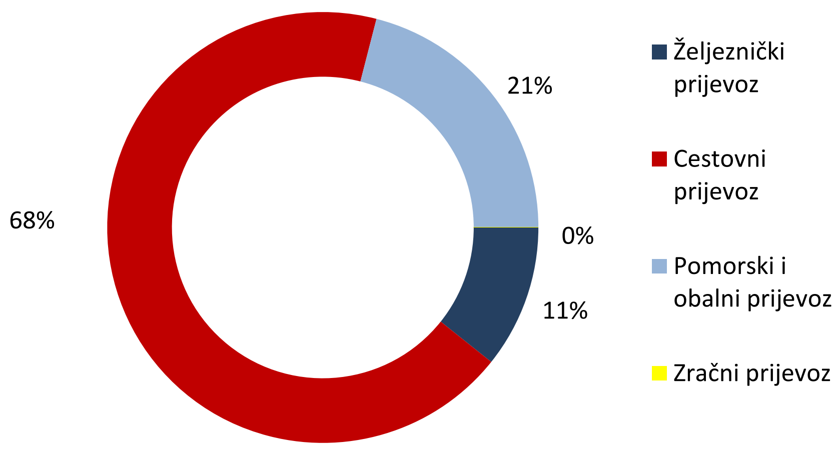
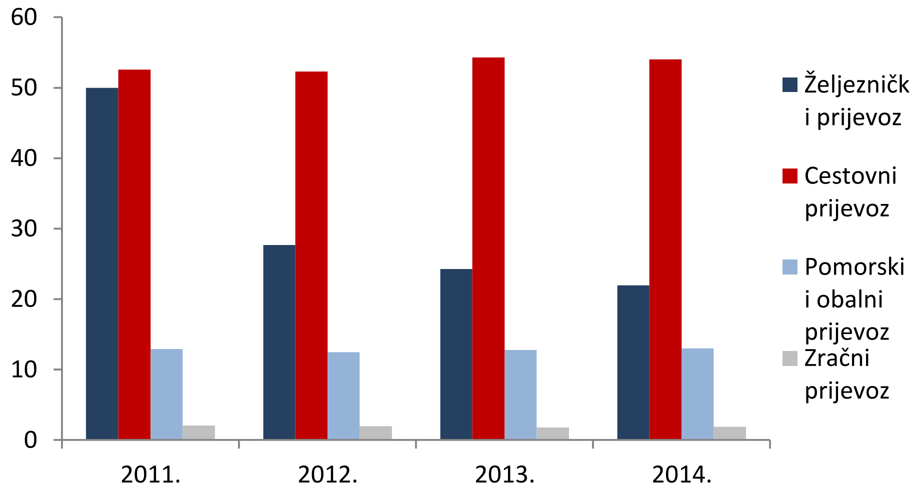


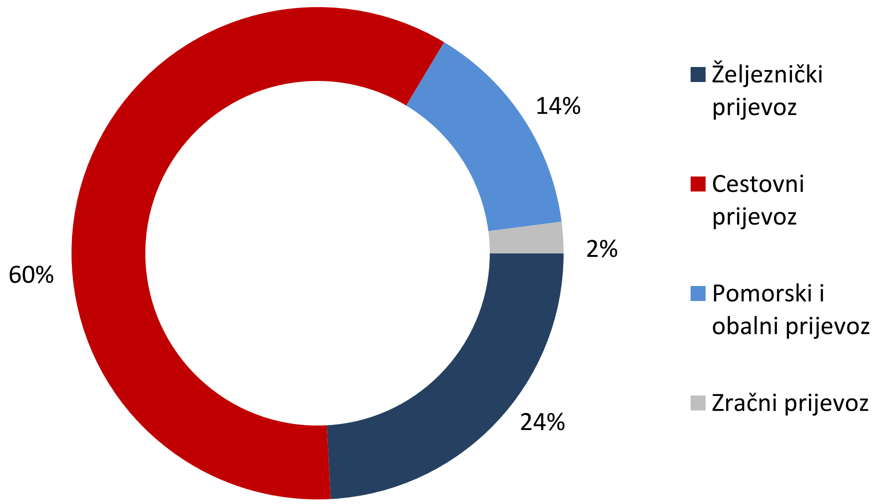
Figure 4.10. Number of carried passengers per modes of transport (millions of passengers)



Source: www.dzs.hr

Passenger traffic recorded a decrease in the number of carried passengers. Reasons for such a trend may be found in numerous traffic problems caused by railway reconstruction because of which transport on parts of railways was substituted by bus transport. Changes in relation to the planned and published train schedule were mostly caused by the old rolling stock due to which passengers chose other modes of transport over rail transport. Since reconstruction leads to better quality of transport services in the long run, it is expect that, after the completion of works on the railways by infrastructure mangers and procurement of the new rolling stock by the incumbent (33 electric and 11 diesel trains), the speed and quality of service which should result in the increased number of passengers.

Figure 4.11. Share of carried passengers per modes of transport in 2014



5 CONSUMER PROTECTION

The implementation of the established principles and objectives of the policy for the development of the electronic communications, postal services and rail services markets laid down in the ECA, PSA and the ARRMS and special laws promotes the provision of clear and transparent information to end users. Users are protected by the principles of objectivity, transparency, non-discrimination and proportionality in the protection of competition. A special emphasis was placed on ensuring a high level of protection of users of services in their relations with operators/service providers/carriers, in particular by making available simple and inexpensive dispute resolution procedures.

5.1 Protection of users of electronic communications services

The area of electronic communications is one of the most dynamic Croatian markets with services that are frequently used by almost all citizens in the Republic of Croatia. There are almost 4.5 million users of mobile communications networks in Croatia, around 1.4 million phone connections in the fixed public communications networks, over 1.3 million connections for broadband internet access, and over half a million of households that may watch TV programmes over cable networks and IPTV. No other services have such a wide base of users/consumers and the pressure on ensuring the protection of users in electronic communications is greater than on any other market. Furthermore, users of electronic communications are often more familiar with the protection of their rights than consumers on other markets, and all operator's mistakes may be easily noticed by users.

The existing legislative framework is optimum and enables satisfactory protection of such a large number of users.

5.1.1 Objections, complaints and user disputes

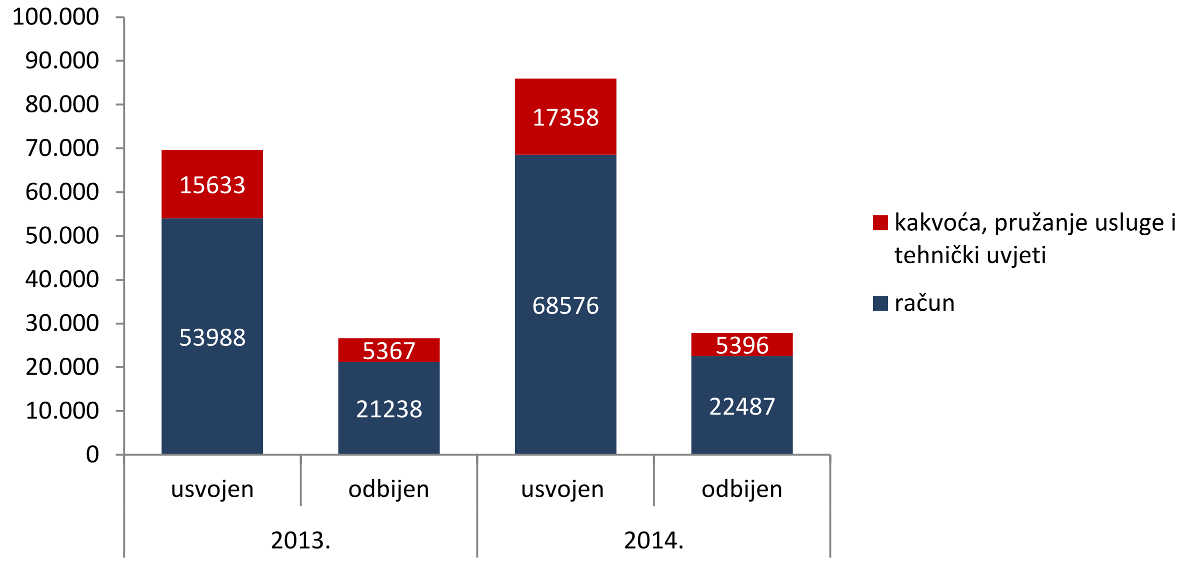
The rights of users of electronic communications to complain to operators are regulated by the ECA as an out-of-court procedure of three instances. If the user is unsatisfied with the amount of the bill, with the quality of the provided service, with the service or with the violation of the provisions of the subscription contract, he must submit a written objection to the operator within 30 days. If a user receives a negative reply from the operator, that is, if the user is unsatisfied with the received reply, he or she may file a complaint to operator's Consumer Protection Commission. If the user is not satisfied with the Commission's reply or if he or she did not receive a reply, he or she may initiate dispute resolution proceedings before HAKOM aimed at examining all the available facts and adopting a binding decision. An administrative claim may be filed against HAKOM's decision.

This manner of out-of-court or alternative dispute resolution procedure between users and operators appears to be an efficient manner of protecting user’s rights because it is much shorter than a regular court proceedings and does not incur costs for the user.

Complaints for operators

As it was already mentioned, complaints are a first instance of in complaint resolution procedure against the operator. Figure 5.1 shows a total number of adopted and rejected complaints submitted to operators by users and the basic classification per type of complaint

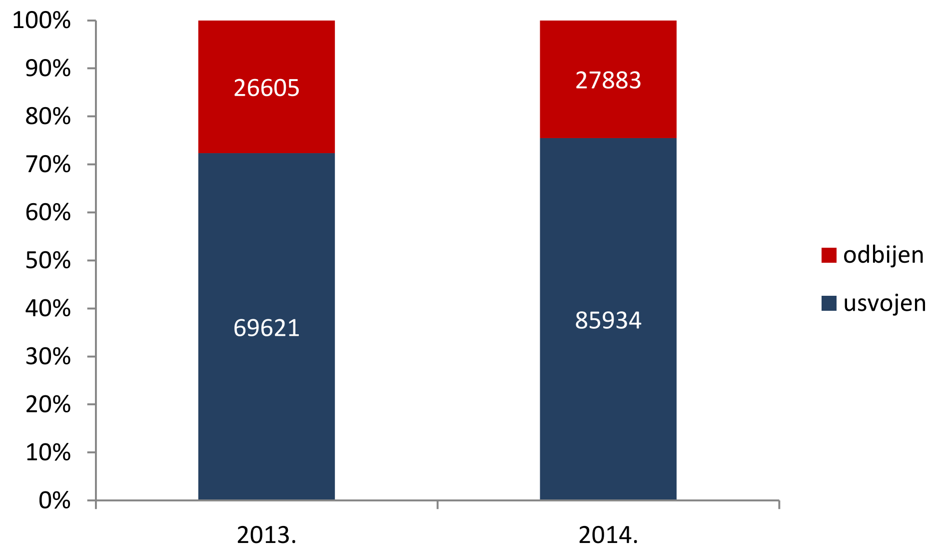
Figure 5.1. Number of accepted and rejected complaints (1st instance)



The percentage of complaints that were accepted by operators is very high. As much as 75.5 percent of all user complaints were accepted in the first instance, which is an increase compared to the year before when the number was 72 percent. This fact shows that operators understand that a satisfied user is the basis of a successful business model and there are more and more cases of operators yielding to the users although users may not have been completely right.

Although it seems that the number of complaints is high, if included in the total number of basic electronic communications services (public voice service, TV and Internet), it seems that complaint is received for every hundredth service once a year. The majority of complaints still refers to debts on accounts.

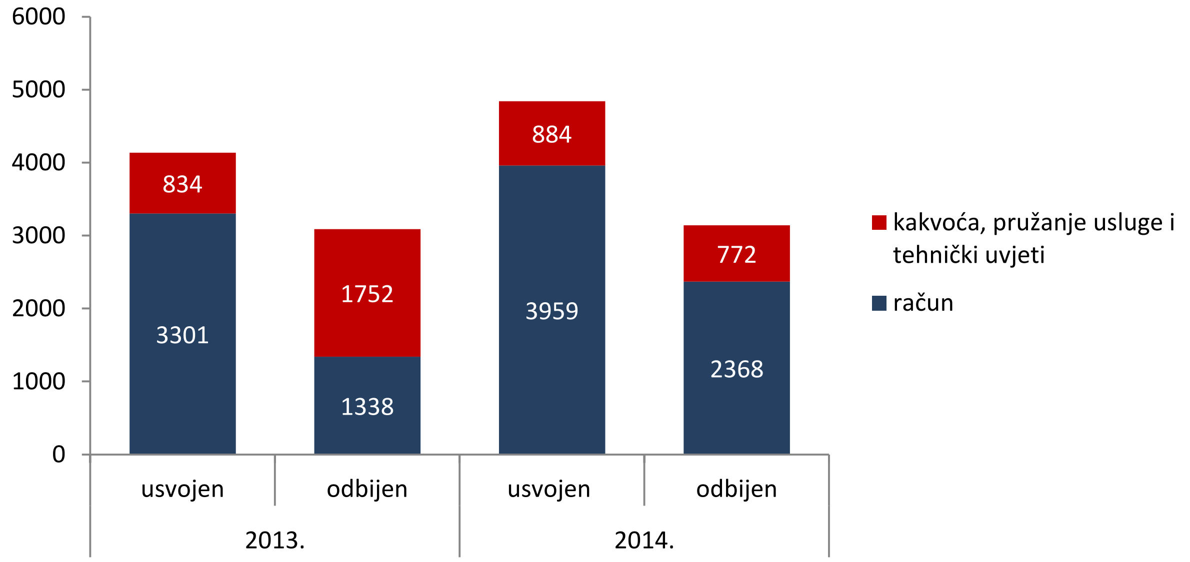
Figure 5.2. Share of complaints in the number of basic services



Objections to operators

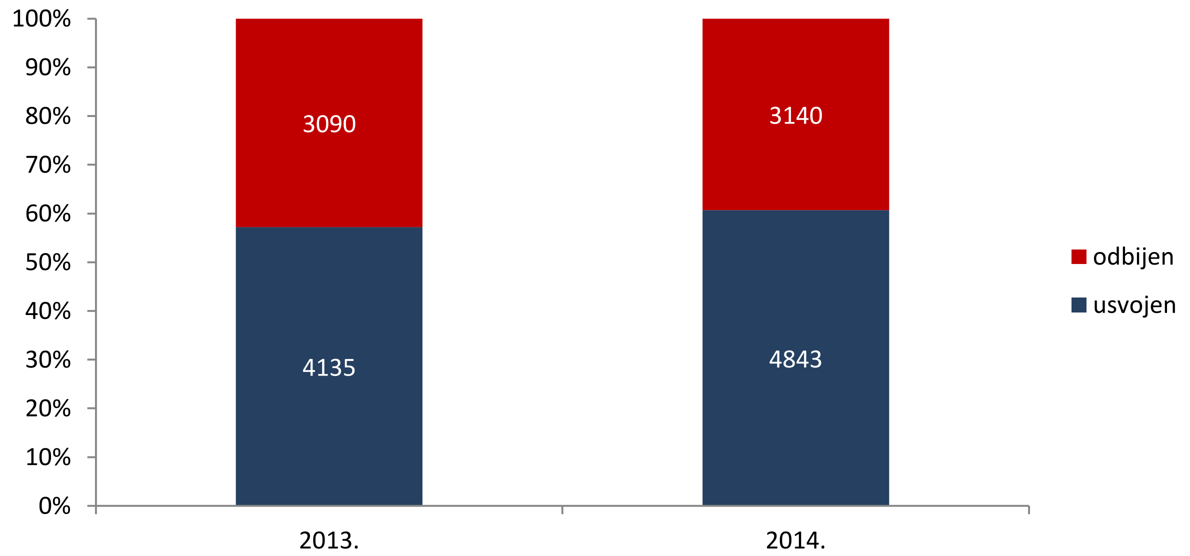
The second instance in the resolution of individual user complaints is submission to the Consumer Protection Commission. Any user that is unsatisfied with the operator's reply to his complaint has a legal obligation to continue with the procedure and complain against the Commission.

Figure 5.3. Number of accepted and rejected complaints (2st instance)



There are significantly less users who continue the complaints procedure in the second instance, that is, who, following a reply to their complaint, still believe that they are right. The percentage of accepted complaints in the second degree has dropped compared to the percentage of accepted first degree complaints. This is an expected situation and the share of accepted complaints has grown compared to the year before and it exceeded 60 percent. The result of an increasing share of adopted and rejected complaints is the acceptance of HAKOM's practice in the adoption of decisions on individual types of disputes in the third degree. Complaints make less than 0.1 percent of all services.

Figure 5.4. Share of complaints in the number of basic services



Disputes before HAKOM

By filing a complaint to its operator, the user fulfils a legal requirement for initiating a dispute before HAKOM. The dispute is the third and last instance in complaint resolution procedure. If the user filed an objection and after that a complaint within the deadline because he is unsatisfied with the amount of the bill, quality, service or due to the violation of the subscription agreement, and believes that his or her rights have been violated, the case may be brought to HAKOM by submitting a dispute resolution request. If is established that all the legal preconditions for dispute resolution have been fulfilled, the case is examined and a binding decision is adopted. HAKOM's Consumer Protection Commission also participates in the adoption of decisions, rulings on suspension or rejection with the proposal for action. The Commission is composed of HAKOM's experts and representatives of the Federation of Consumer Protection Associations. The dispute does not represent a direct cost for the user because it is free, and may be initiated electronically by using HAKOM's web application e-complaints.

Table 5.1. Analysis of disputes solved by the Consumer Protection Commission

Disputes	Positive	Negative	Subsequently positive[22]	Suspension/rejection
1350	202	483	417	248

Table 5.1. presents an analysis of resolution of dispute resolution requests at sessions of HAKOM's Consumer Protection Commission. It is obvious that the ratio between positively and negatively solved disputes is below 30 percent. This means that operators mostly adopt appropriate decisions in complaint and objection procedures and that HAKOM obliges the operators to act differently only in 30 percent of cases. In the previous year that ratio was 1:2, that is, the opinions of HAKOM and the operators differed in about one third of cases. It is worth mentioning that 417 disputes have been solved positively without the need for adopting a decision. During the procedure, when HAKOM underlines the mistake, operators often change the original opinion themselves and accept user's complaint and the procedure is completed by a decision at the user's satisfaction. It is noticeable that 248 disputes had to be rejected because complaints were submitted after the deadline or due to incomplete documentation. One of the reasons for the rejection of disputes the fact that users are unfamiliar with the regulations, that is, with prescribed deadlines for the submission of complaints, objections or for initiation of dispute resolution procedures.

The analysis of initiated disputes per operators is illustrated in Table 5.2. HT has the largest share in disputes, which is to be expected considering its large user base, but it is not sufficient to present this data separately. For that reason, the share of disputes per user base of a single operator is presented as a measure of frequency of requests for the protection of rights at HAKOM. It is obvious that it changes from one to nine users out of 10 000 users, depending on the operator.

Table 5.2. Analysis of initiated disputes per operators

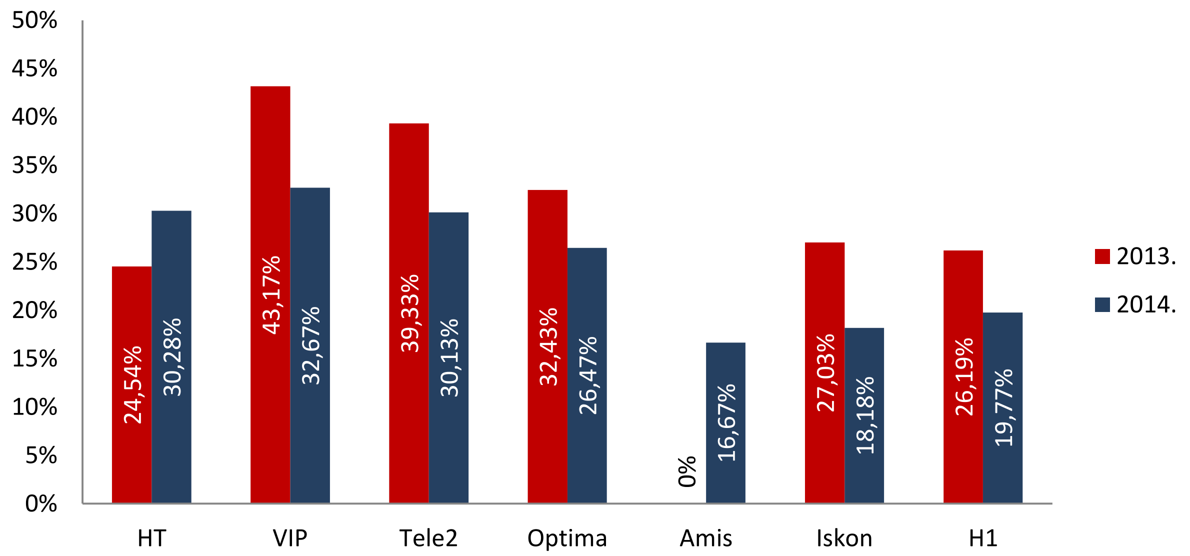
Operator	Number of disputes		Shares of operators in disputes [%]		Share of disputes in relation to number of users [%]		Trend
	2013	2014	2013	2014	2013	2014	
HT	269	218	30.06	**31.78**	**0.01**	**<0.01**	↘
Tele2	239	156	26.70	**22.74**	**0.03**	**0.02**	↘
VIP	227	150	25.36	**21.87**	**0.01**	**<0.01**	↘
Optima	74	34	8.27	**4.96**	**0.04**	**0.02**	↘
H1	42	86	4.69	**12.54**	**0.05**	**0.09**	↗
Iskon	37	22	4.13	**3.21**	**0.04**	**0.02**	↘
Amis	4	6	0.45	**0.87**	**0.02**	**0.03**	↗

[22] Disputes were positively solved by the operator in the dispute resolution procedure, that is, the operator accepted the user's complaint before adopting HAKOM's binding decision.

Other	3	13	0.34	0.73	-	-

An interesting measure that can be used to compare and asses the work of the service for user complaints and objections is illustrated in Figure 5.5.

Figure 5.5. Shares of operator's decisions that that have not been confirmed by HAKOM in disputes



It has already been mentioned that in the 3rd instance of user complaint resolution procedure, that is, in dispute resolution procedure, HAKOM receives only cases rejected by operators as unfounded complaints and objections. If consumer protection services of operators acted in the same way as HAKOM would act in an individual case, than HAKOM's decision is negative for the user. It is obvious that the percentage of negative decisions is more than 70 percent on average, and in the remaining decisions HAKOM concluded that operators were wrong that the user should have been treated differently. Comparison with previous years shows a fall in the number of disputes.

Table 5.3. The structure of resolved disputes at the meetings of HAKOM's Commission per years

Structure of resolved disputes	2010	2011	2012	2013	2014
Positive	408	75	279	306	202
Subsequently positively	185	285	407	589	417
Dismissal of proceedings	171	380	502	393	248
Negative	255	311	421	408	483
Total	**1019**	**1051**	**1609**	**1696**	**1350**

5.1.2 Complaints to HAKOM

Dispute resolution requests are not a representative sample for detection and prevention of certain market problems. A request addressed to HAKOM is a third instance in complaint resolution procedure and it is used, as a rule, only when the user has exhausted all possibilities to solve disputes with the operator. For that reason, some problems may be missed or their importance may not be discovered if users do not submit dispute resolution requests.

Therefore, data from all user cases or inquiries are used in the analysis of complaints in HAKOM's new business system e-complaints. The basic division is illustrated in Table 5.4. and represents types of complaints/questions addressed to HAKOM in the last 5 years.

Table 5.4. Types of complaints

Type of complaint	2010	2011	2012	2013	2014
Bill complaints	764	1129	1392	1217	1267
Quality complaints	124	138	224	229	233
Carrier pre-selection complaints	37	39	32	34	43
Number portability complaints	50	68	205	199	177
Complaints against business procedures	36	71	383	475	619
General questions		338	78	137	147
Total complaints	**1011**	**1783**	**2314**	**2291**	**2486**

A total number of user complaints in 2014 grew to around 2500 cases in which users contacted HAKOM directly. The number of bill complaints is similar to the year before, and the number of complaints against business procedures is 30 percent higher than the year before. The reason for the increase in complaints against business procedures is an increased number of cases where users complain against a contract or a termination of a contract with the operator. In 2014 users were for the first time able to change operator without the obligation to pay off their subscription termination fee as a result of one-sided price increase (introduction of the network access fee by all three operators in mobile communications networks) which increased the dynamics of operator change and contract cancellation.

Bill complaints

Bill complaints are the most frequent category of complaints and their share in the total number is constant at slightly more than 50 percent.

Table 5.5. Structure and number of bill complaints

Type of complaint	2010	2011	2012	2013	2014
Basic services[23]	391	684	1013	939	1073
Other debts[24]	15	29	38	45	54
Internet traffic	192	269	283	199	116
Special tariff services	74	71	36	24	17
SMS services with special tariffs	127	78	23	10	1
Total	**764**	**1129**	**1392**	**1217**	**1267**

Bill complaints have slightly increased compared to the year before.

Quality complaints

Table 5.6. Structure and number of quality complaints

Subject of complaint	2010	2011	2012	2013	2014
Internet access speed	4	11	22	18	10
Accessibility	8	12	14	26	34
IPTV	2	36	7	20	8
user line	69	24	35	23	28
Other technical problems	3	22	106	103	141
Noise, interference, crosstalk and signal interruption	15	26	33	31	5

[23] Monthly fees, tariffs, packages and contracts
[24] Dunning letters, interest rates and late payments

Other	23	7	7	8	7
Total	**124**	**138**	**224**	**229**	**233**

In accordance with the total number of complaints, the number of quality complaints may be compared to the year before, and it amount to slightly over 200 cases. A similar division of complaints according to certain segments of quality confirms the stabilization of the user environment - operators adopted a regulatory framework and are applying t to end users.

Analysis of complaints against operators' business practice

In order to prevent possible omissions in the behaviour of operators, HAKOM dedicates special attention to complaints against business operation of operators because they may indicate system or intentional issues. One of such categories is the operators' advertising, that is, failures that lead the users to draw wrong conclusions.

Table 5.7. Complaints against operators' business practice

Type of complaint	2010	2011	2012	2013	2014
Operator's advertising	36	71	44	136	156
Carrier pre-selection	37	39	32	32	40
Number portability	50	67	205	181	163

Number porting is a second category of complaints in which the decreasing trend from 2013 continue. Operators pay compensation to users for delayed number porting which is why there is less and less of cases of delay. The amount of the fee is HRK 10 for every delayed hour of number porting into another network.

5.1.3 Preventive activities in user protection

With a view to achieving a high level of user protection, HAKOM regularly conducts preventive activities.

The analysis of complaints at the end of the year triggered the amendments to the Ordinance on the manner and conditions for the provision of electronic communications networks and services and the adoption of a New ordinance on number portability, which prescribe in more detail the rights and obligations of operators and users. The most important changes include the obligation of clarity of contracts and prices of services, trial period for services in mobile communications networks, minimum validity of accounts for pre-paid services, unlocking of mobile devices for the duration of the contractual obligation and number portability procedure.

One of the most important activities continued by HAKOM in 2014 was the IT system entitled „Cost Assessor”. The purpose of system is to provide to users the necessary information about the prices of public communications services and their amendments in real time with the offer on the market. For that purpose, HAKOM will offer to end users at its website an independent assessment of charges arising from the prices of public communications services. The system will also enable HAKOM to supervise in a simple and transparent manner the offer of public communications services of operators on the market and to promote the development of competition and greater transparency of prices. It is expected that the system will be completed and put into operation in mid-2015.

What follows is an overview of other preventive activities used by HAKOM in 2014 to increase the efficiency of user protection:

- control and alignment of terms and conditions of operators (terms and conditions of business and pricing systems) defining their business operations and special obligations concerning consumer protection in electronic communications; the terms and conditions of operators were reviewed, aligned with the new law, and approved.

- all requests for existing and new prices, service packages and promotional offers of operators have been subject to investigation and control;
- operators' questions related to the interpretation of regulations and expert opinions were processed,
- questions from the media and consumer protection associations related to changes in terms and conditions of use of tariff models and user protection were processed,
- training users via the web-site and the „Ask us“ section of the website; HAKOM answered 920 questions in the area of consumer protection within the shortest possible time;
- training of users through Facebook; publication of rights of users and obligations of operators and replies to users' questions;
- preparation and distribution of leaflets for users; more than 4000 leaflets[25] with useful information, investments into national editions of daily newspapers, a direct telephone line for contacting HAKOM's experts during regular business hours 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,
- a direct telephone line was introduced for counselling centres for consumers so that employees in counselling centres would be able to get information from HAKOM faster and easier
- HAKOM's experts answer users' questions about protection and about their rights and they also participate in TV shows about user protection which include user protection: radio shows “Svi smo mi potrošači“ on Croatian Radio's second channel, “Se bum vas tužil“ show at Radio Sljeme, “Glas potrošača“ at Channel ! of the Croatian Radio and TV shows “Što vas žulja“ i “Potrošački kod“
- actively participates in the work of other state institutions on projects concerning user/consumer protection (round table of the Ministry of the Economy on consumer protection, participation in the work of the National Consumer Protection Council).

[25] the leaflet is available to all citizens in the pdf format at http://www.hakom.hr/default.aspx?id=1504

5.2 Protection of users of postal services

Pursuant to the provisions of the PSA, HAKOM is competent for protecting the rights of users of postal services and for resolving disputes between users and providers of postal services. The level of protection and complaints resolution procedure of users of postal services has been aligned with the procedure for the protection of end users of public communications services with operators of public communications services on the basis of the ECA, as a three instance procedure.

Pursuant to the provisions of the PSA, a user of postal services may submit a written complaint to a postal service provider in case of loss of a postal item, non-compliance with the deadline for the delivery of a postal item, if the postal service provider did not provide the service or did not provide it entirely or in case of damage or loss of contents of a postal item. Upon receipt of a written reply of a postal service provider, the user is entitled to submit a complaint to the Consumer Complaints Commission of the postal service provider. In case of dispute between the user and provider of postal services concerning the resolving of the complaint, the user may submit to the Agency a motion for dispute resolution within 30 days from the day of having received the reply from the Consumer Complaints Commission.

HAKOM resolves disputes by adopting a decision, on the basis of the opinion of the Consumer Complaints Commission, an advisory body established with HAKOM, in accordance with the act regulating user protection. 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.

In 2014 HAKOM received 58 requests for dispute resolution between users and providers of postal services. Out of the total number of requests, 53 refer to disputes with universal service provider, HP.

A total of 60 disputes initiated by users were resolved in 2014, out of which 42 were received in 2014, and 18 in 2013.

Out of a total number of disputes, 9 were solved by a decision, out of which two were dismissed, and the remaining 7 requests were rejected as inadmissible because they were submitted by unauthorised persons or did not involve the provision of postal services. In other conducted proceedings 38 user requests were rejected as unfounded, and 13 were accepted or partially accepted. A total of 48 disputes concerned domestic traffic, and 12 concerned international traffic.

No administrative disputes were initiated against HAKOM's decisions in 2014.

Concerning types of complaints, 21 requests referred to unfulfilled contractual obligations, that is, obligations that were not fulfilled in their entirety, and 13 to registered mail. A total of 12 disputes were initiated due to loss of a postal item, 4 disputes referred to non-compliance with deadlines for delivery, and 17 disputes were initiated because of damage or loss of contents of a postal item.

5.3 Passenger protection

Pursuant to the provisions of the ARRMS, (from 19 June 2014) HAKOM is competent for the protection of passenger rights and for resolving passenger complaints against railway undertaking's decisions. In compliance with the provisions of the ARRMS, a passenger may submit a written complaint to the railway undertaking for the protection of his or her rights laid down in Regulation 1371/2007, the ARRMS, general conditions for carriage of passengers, the act regulating railway traffic and other regulations on passenger rights. Pursuant to the Consumer Protection Act (OG No. 41/14), the passenger may submit a claim to the railway undertaking's Commission for Consumer Claims against a written reply of the railway undertaking. In case of dispute between a passenger and a railway undertaking in relation to complaint resolution, the passenger may file a complaint to HAKOM within 15 days.

HAKOM resolves disputes by adopting a decision, on the basis of the opinion of the Consumer Complaints Commission, an advisory body established with HAKOM, in accordance with Consumer Protection Act. 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.

In 2014 HAKOM did not receive any passenger complaints. Objections addressed to the rail carrier mostly concerned the work of staff, schedule and train delays.

The provisions of the ARRMS on inspection supervision in the area of passenger protection have entered into force on 1 January 2015.

5.4 Protection of children

HAKOM continued with its activities aimed at the protection of children and youth on the internet and during use of electronic communications services. Days of Safer Internet were marked in February with the topic "Media literacy for the Safety of Children in the World of the Media and the Internet". Various activities are aimed at raising the awareness of parents that their children will contact them if they come across inappropriate content or communication on the Internet or on their mobile phone which does not make them feel comfortable. The role of parents is important because they follow the growing up of their children and are in the end responsible for their behaviour in the real and virtual world. They are the ones who will transfer their knowledge and skills to their children and teach them the best and the most appropriate way of communicating with children and adults. The children protection system covers many areas and in this manner training may be conducted through the family, educational institutions, social, health and judicial institutions. In order to raise the awareness of parents and children, the Centre for Safer Internet continued with a series of trainings on the topics of: Training of Pupils on Electronic Abuse, "Say No to hate speech on the Internet", "Workshop for the development of digital comics", "Let's make the Internet better together", etc. The emphasis was placed on the protection of personal information of children and youth by teaching them not to provide their personal information, information about their family and friends, address, date of birth, user names and passwords used, their photographs and video clips because they may be abused by other persons.

5.5 Protection of disabled persons

In order to ensure access to services by disabled persons, HAKOM provides expert opinions and explanations on the implementation of the ECA and regulations adopted pursuant to the ECA. Furthermore, HAKOM also makes sure that universal service providers and all other operators, within the framework of their technical abilities, comply with their obligation to ensure the following to disabled persons:

- equal access to public communications services

- appropriate equipment adjusted to specific needs of persons with impaired hearing, sight or limited motor skills
- ability to receive subscription contracts and bills in alternative forms
- access to user services, in particular to employees trained to work with disabled persons
- access to emergency services for hearing-impaired persons.

In addition to regular activities aimed at ensuring access to disabled persons, within the framework of the Programme for Internet and Broadband Development in Areas of Special State Concern, Hilly and Mountainous Areas and Islands, HAKOM financed the procurement of three applications indented for disabled persons, which were completed in 2014.

Personal therapist project: By financing the personal therapist project, HAKOM enabled to the wider social community the usage of a support system for medical treatments. Pethe System (personal therapist) is an application that was installed in hospitals and health care institutions and associations in 2014. Hospitals in Pula, Krapina, Goljak, the school for disabled persons in Varaždin and all associations members of the Croatian Cerebral Palsy Association have installed the personal therapist. The above-mentioned system provides tools for individual access to each patient, enables the creation of individual exercises and trainings, ensures their correct implementation and the possibility of analysis of the completed therapy by the therapist and the patient. The main strength of the system is the ability to implement a rehabilitation programme outside of the specialized health-care institutions themselves, in local health care institutions and non-governmental organization and in the patient homes themselves.

Adjustment of websites of the Croatian Institute of Public Health to disabled persons: The adjustment of the content for blind and visually impaired persons has been successfully implemented on two websites: www.hzjz.hr and www.javno -zdravlje. hr . HAKOM recognized the need that the provision and availability of the relevant health information must be one of the bases for creating equal opportunities for this part of the population and this project provides all blind and visually-impaired persons

- offer of information related to public health and health (emergency situations....)
- information to partners and public institutions concerning the activities of the Croatian Institute of Public Health
- access to birth records and documents related to work of health care institutions (forms...)
- publication of publications of the Croatian Institute of Public Health
- information to users about the work of the Croatian Institute of Public Health (services, working hours, prices...)
- online application for individual services (courses, seminars, lectures, workshops...)
- online reports of emergency events (disease outbreaks ...)
- publicly available information on the work of the Croatian Institute of Public Health.

Online advertising for disabled persons: A notice board was created for disabled persons on the following website: www.javno-zdravlje.hr/oglasnik. Until now, disabled persons have had difficulties with placing and advertising their products and services and this application permitted greater competitiveness.
In addition to that, the objective of the notice board is the following:

- to promote self-employment of disabled persons (which contributes to the development of rural parts of the country, in particular of remote and underdeveloped areas)
- inclusion of disabled persons into information society
- support to regional development of information and communication technology by enabling the disabled persons to access new technologies

- increasing motivation for use of technology
- assistance with the development of small business, agriculture and tourism in the areas in question by disabled persons.

Furthermore, in late 2014 HAKOM selected the most favourable tenderers for the development of the following applications:

e-Physical therapy at home/e-House care is a programme application promoting and facilitating therapy work and communication with patients, doctors, providers of care at home/physical therapy at home. It will create preconditions for the improvement of quality of health care and enable the preparation of a summary of medical information collected while providing home care/physical therapy at home. Physical therapy procedures will be able to be approved for longer periods of time for certain diseases such as children's paralysis, multiple sclerosis and the similar.

e-diagnostics and support for children with communications difficulties (eDD) is aimed at timely discovery of communications difficulties (autism, intellectual difficulties, language and speech disorders) in children in the sense of making possible the diagnostics of expert employees in nursery schools and schools and by paediatricians and general practitioners and providing insight into basic support strategies.

Delayed or late diagnostics of difficulties have direct negative consequences on development, social inclusion and quality of life of children and the family in general. Difficulties discovered too late result in more costs for the society and, at the human level, in poorer development of children and lower quality of life of the child and his or her family.

The implementation of the above-mentioned applications and their wider use in the society are expected in 2015.

6 PUBLICITY OF WORK

The obligation of publicity of HAKOM's work was defined in Article 14 of the ECA and Article 9 of the PSA and Article 8 of the ARRSM. The obligation of publicity also arises from the Right of Access to Information Act, General Administrative Procedure Act and Public Procurement Act.

Restrictions in relation to public access to HAKOM's work exist only to the extent to which this obligation refers to the obligation to respect confidentiality of certain data and to protect personal data.

During 2014, HAKOM maintained the basic structure of its website that is simple to navigate and provides a clear overview of data. The published documents are structured in such a manner that HAKOM's decisions and rulings are separated from rulings and decisions adopted in relation to HAKOM's decisions. In addition to all subordinate legislation under HAKOM's competence, unofficial consolidated versions were also published.

Following the merger with the Rail Market Regulatory Agency with HAKOM, information on nits work, including the published acts and judgments, have been moved to HAKOM's website bearing in mind the year of their adoption. The website of the former Rail Market Regulatory Agency has not been completely shut down but it contains a link to HAKOM's website.

The following were regularly published on the website:

a) all adopted decisions and other administrative acts, and all judgements of the Administrative Court and the High Administrative Court of the Republic of Croatia as well as the final misdemeanour rulings,
b) proposals for regulations, measures and decisions in relation to which it was prescribed that they must be subject to public consultation, and other documents for which this was not prescribed but it was assessed that there is a need for public consultation on those documents,
c) available databases on registers were regularly updated and made available;
d) statistical data on markets of electronic communications, postal and rail services were published regularly;

Furthermore, HAKOM publishes information on important decisions, judgements and regulations on the electronic communications and postal services markets.

HAKOM's representatives participate in radio and TV shows intended for informing the public about important issues in the electronic communications, postal and rail services markets. The majority of public appearances referred to user protection.

As a special form of publicity of its work, HAKOM answers all questions asked on the "Ask us" application on its website[26]. A total of 1842 questions were asked in this manner during 2014.

HAKOM continued to use its Facebook page[27] with a view to informing users and public about rights of users and activities carried out by HAKOM:

During 2014, HAKOM received 24 requests for access to information pursuant to the Act on the Right of Access to Information. All requests were resolved within the time limit. Furthermore, the Office for Associations of the Republic of Croatia received information about conducted public consultation with a view to preparing a report on consultations with the interested public in procedures for the adoption of laws, regulations and other acts in 2014.

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[26] http://www.hakom.hr/default.aspx?id=59
[27] http://www.facebook.com/HAKOM

7 COURT PROCEEDINGS

Court proceedings covered by this report include administrative disputes initiated against HAKOM's final decisions, misdemeanour proceedings initiated by HAKOM against natural or legal persons due to violations of laws under HAKOM's competence and enforcement proceedings against legal and natural persons for non-payment of frees for the right of use (State Budget) and for HAKOM's work.

Administrative disputes

All of HAKOM's decisions in administrative disputes are final and may not be appealed. However legal protection is ensured in an administrative dispute.

Jurisdiction is divided in the following manner:

The High Administrative Court is directly competent for disputes against decisions adopted by the Council of HAKOM in the electronic communications and postal services sectors and against decisions adopted by HAKOM's inspectors in case of very serious and serious violations of the ECA and the PSA.

First-instance administrative courts are competent for disputes against decisions adopted in disputes against users of postal and electronic communications services and operators or service providers.

First-instance administrative courts are also competent for disputes against decisions in the area of regulation of rail services market.

In 2014, a total of 78 administrative complaints were filed against HAKOM's decisions, out of which 45 refer to user disputes in the area of electronic communications (Figure 7.1.).

Administrative courts adopted 14 decisions in administrative disputes initiated against HAKOM's decisions. A total of 11 HAKOM's decisions were confirmed, and 3 were annulled.

The average duration of proceedings before administrative courts is 1.5 years, and there is a serious backlog of cases in the High Administrative Court were currently 68 cases are pending.

Since a total of 77 disputes against HAKOM's decisions were initiated by the end of 2014 before administrative courts, a slight increase in the number of submitted administrative disputes against HAKOM's decisions was noticed compared to 2013.

Figure 7.1. The analysis of administrative disputes per type of decision

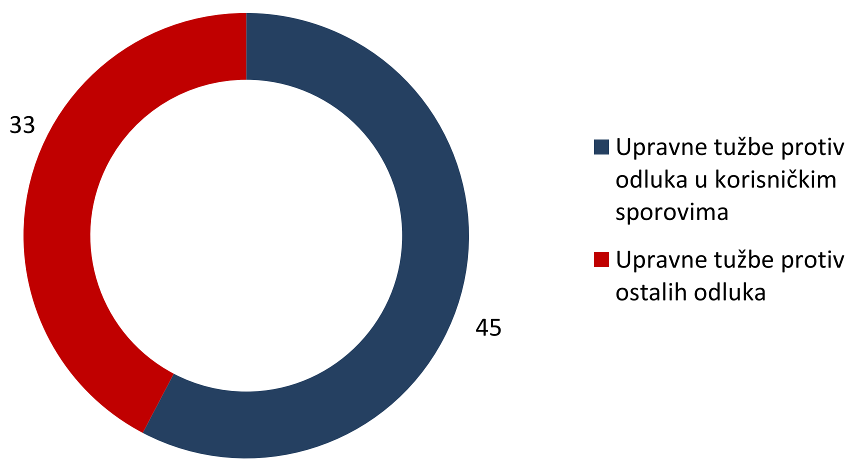
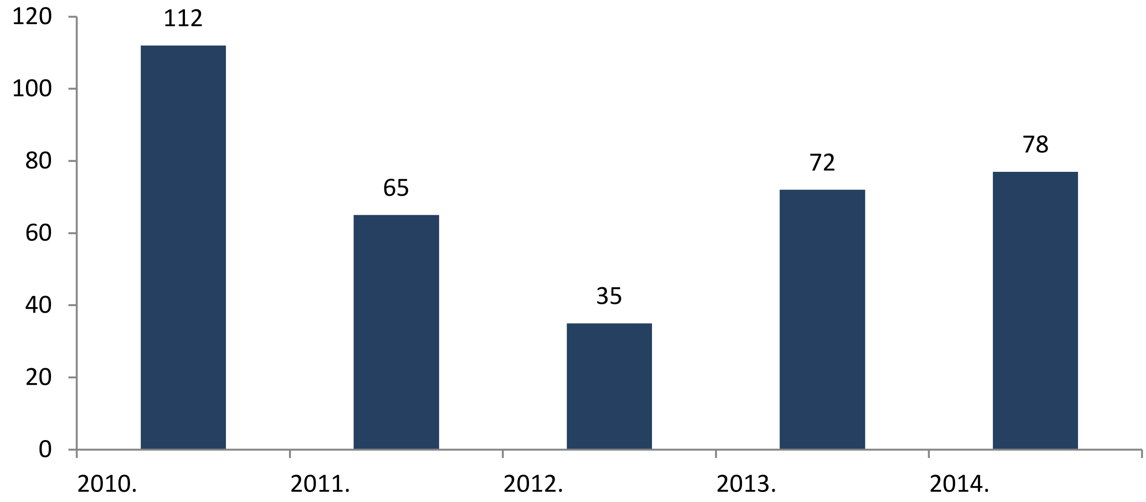


Figure 7.2. Number of filed administrative complaints



Misdemeanour proceedings

In compliance with its legal competence, HAKOM initiated in 2014 a total of 4 misdemeanour proceedings in the area of electronic communications.

Taking into account the previous years, HAKOM currently has 26 first-instance misdemeanour proceedings before the competent misdemeanour courts.

A total of 21 judgments were adopted in 2014, out of which 18 first-instance court judgments and 3 judgments of the High Administrative Court.

Six final judgments imposed fines amounting to HRK 3,909,000 and the maximum confirmed individual fine imposed on a legal person amounted to HRK 2 million for violations of regulatory obligations in the electronic communications sector.

Enforcement and other proceedings

A total of 71 enforcement proposals were submitted in 2014 against various companies and a total of HRK 973,489 were claimed, out of which HRK 783.170 were collected by 31 December 2014.

8 COOPERATION

8.1 International cooperation

European Union (European Commission, Council)

In 2014 HAKOM actively participated in the work of the Council of the EU at the expert level where it represented Croatian views at meetings of the Working Party on Telecommunications and Information Society (WP Tele) where proposal of the TSM Regulation was discussed. HAKOM's participation in the Council is of great importance for the Republic of Croatia in the first place because of the currency of all topics (roaming and network neutrality) in the TSM Regulation and their influence on the electronic communications market in the Republic of Croatia. It must be mentioned that the Republic of Croatia, as represented by HAKOM, was recognized in this case by the Council as one of the important contributors to the roaming discussion and its expertise contributed to the conclusion of the discussion with conclusions taking into account interests of the Republic of Croatia as a Mediterranean country receiving much more tourists, and thus more roaming traffic, compared to the number of Croatian tourists travelling abroad.

During the year, HAKOM participated in the work of the RSC (Radio Spectrum Committee) which helps to the EC to develop decisions for technical implementation ensuring harmonized conditions for availability and efficient use of the RF spectrum in the EU. RSC also deals with measures ensuring accurate and timely information about spectrum use. Through participation in the work of this authority national regulators were able to discuss with the EC their proposals before implementation in order to ensure the optimization of measures depending on various situations in different countries.

HAKOM has also participated in the work of RSPG (Radio Spectrum Policy Group) which is a high-level advisory group assisting the EC with the development of the RF spectrum policy, in particular in relation to alignment with its approach, harmonized availability conditions and efficiency of use of the RF spectrum and establishment and functioning of the internal market. RSPG adopts opinions, views and reports and advises the EC at the strategic level.

Since EC's decisions refer directly to the RC which is obliged to implement them, the participation in the RSC and RSPG is of key importance to enable timely influence on the final decision, depending on the national situation for individual parts of the RF spectrum.

On the basis of decision 2013/195/EU, concerning the inventory of the spectrum for all Member States, HAKOM regularly informed the European Commission about the use of the 400 MHz – 6 GHz band. Furthermore, data in EFIS (European Frequency Information System) have been regularly updated with the status of implementation of ECC and ERC decisions and implementation of applications for small range devices (ERC Recommendation 70-03).

BEREC

HAKOM participates in the voting process of BEREC, Body of European Regulators for Electronic Communications, for all decisions adopted at the plenary meetings. In 2014 Domagoj Jurjević, deputy president of the Council, acted as vice president of BEREC and IRG and HAKOM was thus able to participate even more actively in the creation of conditions for the establishment of a single European electronic communications market, taking into account national peculiarities of the Republic of Croatia. The fact that HAKOM was given the honour of providing a vice-president for BEREC during the first year of its full membership is evidence of appreciation for participation, expertise and knowledge of many HAKOM's experts involved in BEREC's work.

As members of BEREC's working groups, HAKOM's experts participated directly in the development of several documents and guidelines defining the direction of regulation of the electronic communications market at the EU level. The most significant contribution was given in the area of roaming, preparation of opinions on amendments to the EC Recommendation on the relevant market and Guidelines for the margin-squeeze test.

In addition to the above-mentioned activities, HAKOM's experts participated as members and rapporteurs of BEREC's ad hoc working groups that were formed at specific times to provide BEREC's opinions on suspicions expressed by the European Commission concerning the decisions of some regulators in EU Member States which, according to the European Commissions' opinion, were not in compliance with the regulatory framework. It is important to mention in this context that in none of the 24 decisions notified by HAKOM to the European Commission, the Commission questioned the compliance of HAKOM's decisions with the EU legislation, although some of these decisions introduced new views on market regulation. Furthermore, a HAKOM representative, as vice president of BEREC, was in charge of a working group that prepared a document on the impacts of roaming at prices of domestic calls "Analysis of the impacts of „Roam like at Home“ (RLAH)“. This was the most important document for further discussions on this topic in the Council.

ITU

HAKOM's important role in the region was confirmed by an invitation for participation in several regional and international conferences where HAKOM's experts participated in round tables and gave lectures.

HAKOM was invited by the International Telecommunications Union (ITU) to participate in a conference of International Telecommunications Union Plenipotentiary Conference, at the international telecommunications conference on development (ITU Telecom World) and at the Global Symposium for Regulators (GSR 14). In September 2014, Deputy Secretary General of the International Telecommunications Union (ITU) visited Croatia and held a meeting at HAKOM on the topic of electronic communications development and further cooperation with ITU.

CEPT

As in the previous years, in the area of radio communications during 2014 HAKOM actively participated in the work of the Electronic Communications Committee which is an umbrella body developing joint strategies and regulation in electronic communications and coordinating the use of the RF spectrum for Europe.

As part of preparations for the upcoming World Radiocommunications Conference WRC-15 that will take place in Geneva in 2015, HAKOM participated in the work of ECC subgroups dealing with preparation and alignment of European positions concerning the use of the RF spectrum. Global and regional allocation of the RF spectrum is defined at the WRC, including guidelines on future use of certain technologies. The alignment of joint views of CEPT administrations ensures a stronger approach at the global level and the protection of interests of European countries.

During 2014 HAKOM continued its participation in the ECC Working Group Frequency Management – WGFM for the purpose of continuous monitoring of the development of use of the RF spectrum at the level of CEPT and, where necessary, to align the legislation at the national level.

Furthermore, it also continued to participate in the work of the Working Group Spectrum Engineering in ECC which develops guidelines for use and coordination of the spectrum and carries out compatibility studies between different radiocommunications services as a technical basis for the preparation of European reports, decisions and recommendations. In early 2014, Krunoslav Bejuk was elected vice president of the WGSE (*Working Group Spectrum Engineering*) for the term of office of three years. The task of the vice-president of WSGE is to organize and manage the work of the group together with the president. He or she is elected on the basis of experience and qualifications which shows that many years of participation and quality of HAKOM's experts has been recognized at the European level. Project team SE19 is part of the above-mentioned working group and HAKOM's representatives have participated in its work. Working group WGSE adopted during 2014 report ECC 211 (Technical assessment of the possible use of asymmetrical point-to-point links) containing the analyses of influences of asymmetric links to the efficiency of use of the RF spectrum, which was developed by HAKOM.

As part of preparatory activities for the allocation of the second digital dividend, HAKOM followed in 2014 the working group ECC TG6 (Long Term Vision for the UHF band) as well, the main tasks of which include the identification of development scenarios related to long-term development of the RF spectrum, technical and regulatory requirements, economic, social and cultural issues and development of a framework for efficient future use of the RF spectrum.

In addition to the above-mentioned working groups, HAKOM also participated in the work of the FM44 project team which deals with the issue of satellite links due to the possible mutual influence of new systems and existing microwave links in the Republic of Croatia.

In September of 2014 HAKOM organized a CEPT gathering which consisted of two meetings, a meeting of the project team ECC PT1 and a meeting of the working group CPG PTD (*Conference Preparatory Group PTD*). The project team ECC PT1 deals with IMT(*International Mobile Telecommunications*) technologies in the sense of development of regulations for future and new generations of mobile communications and radiofrequency planning, while the CPG PTD (Conference Preparatory Group PTD) deal with the preparation and coordination of European attitudes for the upcoming World Radiocommunication Conference 2015 (WRC-15). The topics covered included regulatory framework for the "second digital dividend" (694-790 MHz) and the additional spectrum for broadband Internet access. The gathering was attended by more than 140 participants, representatives of European regulators and the industry.

In 2014 HAKOM continued its participation in the work of the working group for short range devices SRD/MG (Short Range Devices / Maintenance Group). The working group deals with mass-production devices which use the RF spectrum without the need for individual licences (alarms, medical devices, RFID, transport systems and communications equipment, such as Wi-Fi). Due to the diversity of frequency bands used by short range devices and their number, including their economic impacts, the industry interest for SRD frequency bands is considerable.

The FM 49 project team deals with finding the frequency band for public protection and emergency situations. Since the final selection of the spectrum for this purpose will have an impact not only on the users of the spectrum but also on others, HAKOM participated in 2014 in the work of this group that will finish its task in 2015.

Reports of other working groups were followed in the year before as well, at the level of analysis of outgoing documents.

ERGP

Within the framework of ERGP, the organization of European Regulators Group for Postal Services, HAKOM actively participated in the work of individual working groups in the same way as in the years before. The issues covered by the working gropus include universal service, regulatory accounting, prices, situation on the postal services market, quality of services, user satisfaction, cross-border mail and the similar, and the objective is to develop a single European postal services market and the aligned application of the acquis on a completely liberalized market. HAKOM's experts participated in the development of several different documents that were adopted by representatives of regulatory authorities from all Member States, including HAKOM, at ERGP's plenary sessions.

CERP

HAKOM's representatives have regularly participated in the work of the European Committee for Postal Regulation (CERP) and in 2014 they were present and actively participated at CERP's plenary session in Skopje and in the work of the CERP working group for UPU issues and cooperation.

IRG Rail

Within the framework of IRG Rail, the organization of independent regulators' group for rail services, HAKOM actively participated in the work of individual working groups. The issues covered by working groups include the definition of compensations for access to the rail infrastructure through the definition of direct costs for the definition of the amount of the fee, the situation on the rail services market, the legal framework and access to service facilities. The objective of the work of working groups is to develop a single European market for rail services with unified methodologies for access to and calculation of fees and harmonized application of the *acqui*s on a completely liberalized market. HAKOM's experts participated in the development of several different documents that were adopted by representatives of regulatory authorities from all Member States, including HAKOM, at IRG Rail's plenary sessions. Documents are available at IRG Rail's website (www.irg-rail.eu).

ENRRB (European Network of Rail Regulatory Bodies)

ENRRB is a European Commission advisory body which meets three times a year to discuss issues and practice under the competence of regulation of the rail services market. The work of the regulatory authorities is presented at the meetings in order to harmonize the decision-making principles in the entire Community. In 2014 HAKOM actively participated in the work of ENRBB at all of its sessions.

HLIG

High Level Group on Internet Governance is a group that was established by the European Commission. Representatives of EU Member States, Norway and Switzerland participate in its work. The EC presides over the group and the group’s main task is to coordinate and harmonize the opinions on Internet management, the exchange of information about the meetings of the GAC Committee *Government Advisory Committee, GAC*) with ICANN (*Internet Corporation for Assigned Names and Numbers*, ICANN). HLIG is also used for the exchange and alignment of attitudes at the IGF conference (*Internet Governance Forum* – a forum established in 2006 by a decision of the UN General Secretary where Internet management is openly discussed). The focus of HLIG's activities is on issues of Internet management referring to public interest.

Other

HAKOM's employees participate in numerous other international gatherings as authors, lecturers or panellists. During 2014, a total of 41 HAKOM's representatives actively participated in 40 conferences, gatherings, workshops and working groups. They published a total of 24 papers, including five expert and scientific papers in magazines. A series of other presentations were held at scientific conferences, expert gatherings and at other events.

Within the framework of the 37th international ICT gathering MIPRO 2014, HAKOM organized a round table on the future of Internet management. The round table gathered representatives of state administration, academic and technical community, civil society and users and representatives of the private sector, that is, of companies present on the Croatian market, in the first place operators and producers of equipment, solutions and services.

At the international symposium ELMAR 2014 (Electronics in Marine), HAKOM organized for the third year in a row a special session on management of RF spectrum entitled New Trends in Spectrum Engineering. Five papers were presented at this session which passed international review, including works in the electronic communications sector written by HAKOM's employees. Furthermore, at this year’s ELMAR, HAKOM was a co-organizer of the lecture on cognitive radio held by Thomas Weber from the European Communications Office. The session itself, and works that were presented at the session, resulted from active participation of HAKOM's experts in the work of international working groups (in the first place within CEPT) and expert analyses and measuring conducted regularly to protect radiocommunications systems and ensuring the efficient management of the RF spectrum.

A special workshop on regulatory challenges on the electronic communications market was organized within the framework of this year's SoftCOM, an international scientific conference on software, telecommunications and computer networks. This is the fourth-in-a-row specialized workshop dealing with issues of regulation of new generation networks where papers were presented that resulted from HAKOM's cooperation with representatives from the industry and the academic community through the Looking to the Future 2020 project.

An interdisciplinary international gathering, IWSSIP (International Conference on Systems, Signals and Image Processing), where scientific papers in the area of theoretic, experimental and applied signal processing are presented, took place in Dubrovnik from 12 to 15 May 2014 HAKOM's representatives played an active role in the programme of this gathering as presidents of sessions and reviewers and authors of papers.

Within the framework of the 21th INFOFEST in Budva an international conference entitled "Towards Mobile Broadband Ubiquity in Europe" was organized by the Agency for Electronic Communications and Postal Services of Montenegro (EKIP) and the International Telecommunications Union (ITU). The conference was attended by representatives of HAKOM and other regulatory agencies, ministries, electronic communications operators, as well as representatives and experts from international organizations competent for regulation and policy of electronic communications. HAKOM's representatives gave lectures on novelties in the legislative process of the EU in the area of electronic communications and protection of user rights and presented the electronic communications market in the Republic of Croatia.

Postal 2014, a symposium on new technologies in postal and telecommunications traffic took place at the Faculty of Transport in Belgrade, Serbia, on 2 and 03 December 2014. The symposium gathered more than 450 participants, acclaimed experts from postal and telecommunications organizations, transport and electrical engineers, economists, lawyers and managers. The symposium programme included one paper by a HAKOM expert.

In April of 2014 HAKOM represented Croatia at the historical conference NETmundial in Sao Paolo where the future of Internet management was decided, and HAKOM also represented the Republic of Croatia at the 50th meeting of the Internet Corporation for Assigned Names and Numbers (ICCANN) which took place in London from 12 to 26 June. The topics of the meeting included, in addition to technical issues of management and coordination of single Internet identifiers, a discussion on the wider context of Internet management, protection of public interest and the manner of determination and implementation of Internet policy management. A high-level meeting was organized as part of the conference which was attended by representatives of governments from many countries from all continents.

At the Open Mobile Summit, the 11th global meeting attended by high-level experts, which took place in place in London, experts exchanged experiences with a special emphasis on the merging of content, context and behaviour of users, and on creating a satisfied end user of public electronic communications services. Deputy President of the Council, Domagoj Jurjević, represented BEREC and HAKOM at one of the round tables on roaming regulation. Deputy President of the Council also represented BEREC in November at the plenary session of REGULATEL, which is BEREC's counterpart in Latin America. In addition to its participation at the round table, BEREC's work programme was also presented, including the organization and manner of work of working groups in BEREC.

The 24th economic forum, which was held from 2 to 4 September in Krynica-Zdroj in Poland, gathered around 2500 participants from the sectors of politics, economy, science and media. The slogan of the Forum was "The Post-Crisis World: Time for New Leaders", and HAKOM participated in a panel discussion on "European Cloud Computing: threat or wishful thinking?"

8.2 Domestic cooperation

During 2014, 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 and particular emphasis must be placed on cooperation with:

- Ministry of Maritime Affairs Transport and Infrastructure
- Ministry of Construction and Physical Planning
- Ministry of Foreign Affairs and European Affairs
- Ministry of Defence
- Ministry of Culture
- Ministry of the Economy
- Ministry of Public Administration
- Ministry of the Interior
- Ministry of Regional Development and EU Funds
- Ministry of Science, Education and Sports
- Croatian Railway Safety Agency
- Electronic Media Agency
- Croatian Competition Agency
- Croatian Institute for Health Insurance
- Croatian Standards Institute
- Croatian Red Cross
- Croatian Firefighting Association
- Croatia Control
- Croatian Academic and Research Network, CARNET
- Central Bureau of Statistics.

HAKOM actively cooperated with the Ministry of Physical Planning and Construction and units of local and regional self-government within a view to promoting investments into broadband access and building of an integrated infrastructure.

In 2014, HAKOM's employees actively participated in several gatherings by participating at lectures, presentations, participation in round tables and workshops and by presenting their activities. Cooperation with the academic community must also be mentioned, in particular with the Faculty of Electrical Engineering and Computing, must be stressed, as well as with the Zagreb Electrotechnical Society and the Croatian Chamber of Engineers and Electrical Engineering.

HAKOM co-organized the 7th Days of Electronic Media, 20th Days of Radio, 7th Days of Television and 7th Days of the Internet. The covered topics included the current topics of electronic media broadcasters and the exchange of opinions and communications between broadcasters, regulators and chairmen of management boards. HAKOM's representatives participated in discussions on the future of the radiofrequency spectrum and broadcasting fees and on DVB-T2 as a platform for digital radio.

The regional forum GDi Solution User Forum Spring 2014 – Innovations for Life, organized by GDi GISDATA-e, was held in Rovinj od from 31 March to 2 April 2014. This is the biggest event od GDi solutions in the South-eastern and Central Europe gathering more than 300 participants. In one of the opening speeches HAKOM gave an overview of the key challenges in the development of a broadband ecosystem and an overview of the market and presented its new portal, as one of the projects of national interest.

In addition to the above-mentioned forum, HAKOM also participated in the ESRI conference of users of geoinformation systems which gathered more than 500 participants from all continents, except Australia. HAKOM has been using and developing applications based on geoinformation systems (GIS) for years. It transferred its experiences on participants through lectures and panel discussions.

Among other things, HAKOM's employees actively participated in expert gatherings KOM 2014 (Conference on Electronic Communications Technologies and Standards in Information Technology), Days of Chartered Electrical Engineers, Telekom Arena and several expert round tables. HAKOM continued strengthening its role and activates in the protection of users and children, which was presented at several expert gatherings and workshops. In cooperation with the Union of Tenants Associations of the Republic of Croatia (KUSHR) and having consulted operators of optical networks and the Association of Managers of Residential and Commercial Buildings, HAKOM issued a practical and educational brochure "Fibre to the building…" The purpose of the brochure is to educate and familiarize all interested parties with new rules regulating the issue of fibre introduction into the existing buildings and to raise the awareness of co-owners of residential/business buildings of the need to install fibre installations and to present the advantages of fibre installations, the conditions of placement, rules and obligations of all participants (co-owners, users, operators). HAKOM published a framework agreement following the agreement with the Union of Tenants Associations of the Republic of Croatia, the Association of Building Managers and operators building optical distribution networks. This is a template of an agreement signed by co-owners of residential/commercial buildings and the selected operator who was chosen by the (co)owners to install, maintain and operate the fibre installations. The purpose of the framework programme was to help (co)owners and operators to establish quality mutual relations in order to comply with regulations and avoid misunderstandings and disputes.

The representatives of HAKOM participated as expert members of the Commission of the Ministry of Maritime Affairs, Transport and Infrastructure in the review of chapters of the Strategy for Development of the Postal Services Market in Croatia up to 2020 by giving proposals, instructions and objections in the drafting of the above-mentioned Strategy and the associated Action Plan for the Implementation of the Strategy, which was developed by joint tenderers in the last three quarters of 2014.

9 HAKOM

9.1 Assistance programme

In 2014, HAKOM continued with activities concerning the allocation of state aid for high-speed broadband networks development in the areas of special state concern, hilly and mountain areas and on the islands (hereinafter: state aid): Activities are carried out pursuant to HAKOM's Programme for Internet and Broadband Development in Areas of Special State Concern, Hilly and Mountainous Areas and Islands (2011.) and in accordance with Measure 3 of the Implementation Programme for the Strategy for Broadband Development in the Republic of Croatia 2014 - 2015[28] The broadband ecosystem comprises the entire chain of broadband Internet access, which includes infrastructure for broadband access, broadband-based applications and services, and the necessary equipment for the realization of services and for use of Internet access. The aid programme was divided into three projects: access, equipment and services.

The objective and purpose of aid is the achievement of a balanced regional development, faster development of broadband, and connecting of target groups such as educational, health care and public institutions to the broadband network which represents a broadband ecosystem.

9.1.1 Access infrastructure

In 2014, four rounds of public tenders were conducted for the allocation of state aid for high-speed broadband networks development in the areas of special state concern, hilly and mountain areas and on the islands (hereinafter: For that reason, it was agreed in March that state aid amounting to HRK 2,949,299.82 will be paid to the company Pro-ping d.o.o. for the territory of the Brodsko-posavska County, and, following the verification of compliance with the payment requirements, the total amount was paid in September. The main conditions that need to be fulfilled for the payment of state aid include the requirement that all target users from the tender must be ensured a minimum speed of connection of 2 Mbit/s to broadband Internet access, and that the wholesale offer has been ensured and that further conditions have been ensured for increasing the access speed to a minimum of 30 Mbit/s at the latest by 31 August 2016.

A fifth round of competitions was organized for target users on the islands and state aid was agreed with the company Hrvatski Telekom d.d. amounting to HRK 1,979,425.51. Following the verification of compliance with the conditions for payment, the state aid was paid in full in December.

The sixth round of tenders for the granting of state aid for the building of broadband infrastructure for Internet access was implemented in August for the flooded areas of Slavonia The contract with the company Hrvatski Telekom d.d. was signed in October and the state aid in the total amount of 2,647,349.00 was granted in November, following the fulfilment of the payment requirements.

The seventh round of tenders was carried out at the end of the year for the remaining target users in the Dubrovačko-neretvanska, Ličko-senjska, Požeško-slavonska, Osječko-baranjska, Varaždinska, Zadarska i Zagrebačka County. The granting of state aid was agreed in December with Hvatski Telekom d.d. for target users in the areas of Dubrovačko-neretvanska, Ličko-senjska, Požeško-slavonska i Zagrebačka County amounting to HRK 5,761,872.13, with the company Vipnet d.o.o. for the territory of Osječko-baranjska, Varaždinska i Zadarska County in the total amount of HRK 3,623,789.89. Within six months companies have to ensure the basic conditions for the connection of end users to the broadband network in order to fulfil the requirements for state aid.

Table 9.1. provides an overview of tenders for the granting of state aid in 2014.

[28] http://www.mmpi.hr/UserDocsImages/Strategija-DTV-novo%2010.pdf

Table 9.1. Tenders for state aid in 2014

Krug natječaja	Ponuditelj	Ciljano područje	Ugovoreni iznos (Kn)
IV	Pro-ping d.o.o.	Brodsko-posavska	2.949.299,82
V	Hrvatski Telekom d.d	Otoci	1.979.425,51
VI	Hrvatski Telekom d.d	Poplavljena područja	2.647.349,00
VII	Hrvatski Telekom d.d	Dubrovačko-neretvanska	748.583,04
	Hrvatski Telekom d.d	Ličko-senjska	1.580.976,52
	Hrvatski Telekom d.d	Požeško-slavonska	1.229.742,40
	Hrvatski Telekom d.d	Zagrebačka	2.202.570,17
	VIPnet d.o.o.	Osječko-baranjska	354.774,82
	VIPnet d.o.o.	Varaždinska	1.532.511,18
	VIPnet d.o.o.	Zadarska	1.736.503,89
Sveukupno ugovoreno u 2014.			**16.961.736,35**

These four rounds of tenders cover a total of 106 target users in all territories.

During 2014 the control of fulfilment of requirement for the payment of state aid for tenders carried out in the previous period was carried out followed by the control and payment of state aid from the second round of the tender to Vipnet d.o.o. in January 2014 in the total amount of HRK 5,902,476.98 for the territories of Šibensko-kninska, Vukovarsko-srijemska and Zadarska Counties. The control and payment of state aid to Vipnet d.o.o from the third round of the tender was carried out in June and July amounting to HRK 3,949,241.87 for the territories of Bjelovarsko-bilogorska, Dubrovačko-neretvanska, Krapinsko-zagorska and Sisačko-moslavačka Counties. A control and payment of the remaining part of state aid from the second round to Hrvatski Telekom d.d. was carried out in December 2014 for the territory of the Požeško-slavonska and Splitsko-dalmatinska Counties amounting to HRK 3,601,075.56.

A total of HRK 21,028,868.74 of state aid was paid in 2014 for the building of infrastructure enabling broadband Internet access.

Figure 9.1. shows the number of target users per individual county for which state incentives have been awarded for the past seven rounds for the building of broadband Internet access infrastructure.

Figure 9.1. The number of target users per counties for which state aid has been granted

No state aid was granted for the Istarska, Koprivičko-križevaka, Međimurska County and for the City of Zagreb because in those areas uses from the target groups are able to connect to the broadband Internet access.

9.1.2 Services (applications)

In accordance with itis Programme, HAKOM conducts tenders for the development and implementation of selected designs, selects contractors and contracts delivery and implementation of the application. Two rounds of a public invitation for the submission of projects for the development of software and services for promoting and balancing broadband development in the republic of Croatia were carried out in 2014, in particular in areas of special state concern, mountain and hilly areas and on the islands (third and fourth rounds). Response to both public tenders was significant and many designs were received the implementation of which will result in the improvement of quality of life in Croatia. The objective of public invitations was to collect designs for software applications and services supporting the development of the economy and quality of life in the Republic of Croatia, that is, supporting the development of education, health, agriculture, search and rescue, safety of citizens and services of e-Government.

Six public tenders were invited in 2013 for the selection of contractors for 17 different projects that had been previously selected through public invitations for the delivery of ideas for software applications and the purpose of which is to stimulate and harmonize the development of broadband in areas of special state concern, hilly and mountain areas and on the islands. A total of 19 contracts were signed with the tenderer for the procurement of software specified in the tender. The total value of the development of the agreed applications mentioned in Table 8.2. amounts to HRK 9.63 million without VAT. The delivery of 12 applications took place in 2014.

9.1.3 IT Infrastructure

Pursuant to HAKOM's Programme, during 2014 three public tenders for the procurement of hardware for promoting and balancing broadband development in the areas of special state concern, in hilly and mountain areas and on the islands.

HAKOM participated in 2014 in the reconstruction of the flooded areas in order to assist with IT introduction and faster reestablishment of vital functions such as education and health.

Table 9.2. Published tenders for hardware

Title	Contractor	Status
Tablets for IT introduction into schools in the flooded areas in Gunja	Storm Informatika d.o.o.	Completed
Tablets for IT introduction into public nurse system in the flooded areas	HT d.o.o.	Completed
Hardware for teleradiology for islands and inaccessible areas	Ericsson Nikola Tesla d.d	Completed
Hardware for the firefighters alert system	Storm Informatika d.o.o.	Completed
Hardware for the e-Safety system	KingICT d.o.o.	Completed
Hardware for applications for the purposes of IT Introduction into the educational system	KingICT d.o.o.	Completed

Total value of the **procured** hardware amounts to HRK 6.111 million excluding VAT.

9.2 E-Agency

Through the e-Agency programme, HAKOM is striving to provide quality public service to all participants on the postal and electronic communications markets by using modern IT tools and IT systems. E-Agency relies on the ICT strategy of the Republic of Croatia and is a part of the e-business development strategy in the RoC. The implementation of e-Agency project enables all citizens, companies and organizations to do business with the operator in an easy and quick manner with reduced costs. E-Agency has been developing intensively since 2010 and has been recognized by users of HAKOM's services. Although it has become a crucial part of all main processes, further development is necessary in order to improve the electronic aspect of Agency's relations with citizens, business entities and the state administration and public services. Electronic business increases the availability of the regulator and makes public services more efficient and more attractive.

Two publicly available services e-Guidelines and e-Building Conditions were implemented in 2014 thus enabling greater availability and faster issuing of guidelines for the development of spatial plans as well as the issuing of special building conditions for the purposes of the development of the main project. Several applications focused on improving business processes by using web-based technologies were offered.

In compliance with recommendations from the SMART Study 2012/0022, a project was initiated for upgrading the Interactive GIS portal with data on broadband access speed. Data on contracted speed (2Mbit/s and greater) of fixed broadband access of private households (take-up rate) is presented as an interactive map to the level of the lowest local self-government units. The objective and purpose of this upgrade of the interactive GIS Portal with a new thematic unit. "Overview of speed of broadband access" helps the local self-government units to analyse the use of broadband access speed in their territory. In this manner the fulfilment of objectives of the Digital Agenda at the level of cities and municipalities in Croatia or residential communities of the City of Zagreb may be monitored and use of state and aid from the EU funds may be measured.

E-Agency is a noticeable, simple and modern porta with numerous e-services and available applications implemented with a view to increasing efficiency and easier accessibility of HAKOM's services from any place at any time. All e-applications have been realised on the basis of the principle of a unique application which is momentarily activated on the basis of user account parameters. The following e-applications have been developed on HAKOM's website:

- e-Conditions - this application enables electronic submission of applications for the issuing of special conditions of building for the development of the main project. This type of automation speeds up the business processes from the submission to the issuing of general conditions for building.
- e-Guidelines -this application permits electronic submission of applications for the issuing of guidelines in the process for the development of business plans and their amendments. This contributes to significant optimization and transparency of the entire business process and, in the end, to faster issuing of guidelines for the development of business plans.
- e-Vessels - the process of electronic submission of requests and granting of licences for devices using the RF spectrum on vessels. A web application which integrates the functionality of a portal, Enterprise Resource Planning and Document Management System.
- List of licences- 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 – an application allowing a user, after registration, to file a complaint electronically and follow the status of the complaint The application was integrated with DMS and CRM systems in 2012 ensuring automatic registration of complaints, entry into the CRM and immediate notification of users.
- e-Certificates - a solution within the Document Management System which automates the process for the grating 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 - this application is the most popular one and it is used by users to follow the status of number porting and receive information about the current network, all in real time, all synchronized with the central number portability database;
- e-Market - application that allows the collection of information on the situation on the market, It is carried out electronically with the authorisation of users from a remote location by means of a web service or a web portal. The application also enables the analysis of market developments,
- e-Operator - the 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.
- e-Broadcasting - the application is intended for radio broadcasters and operators providing the radio broadcasting service via a terrestrial network of broadcasters. It enables simpler and faster submission and resolution of applications for licenses for use of the radio-frequency spectrum. The procedure for the submission of applications and granting of licences is on average twice as fast than the traditional paper procedure.
- e-Microwave - an implemented application that significantly speeds up the business process of the submission of complaints and granting of licences, that is, of the authorizations for use of the radiofrequency spectrum in the microwave link,

9.3 Development of competences

Technology advancement and increasing changes on the electronic communications and postal and rail services markets place continuous challenges before HAKOM requiring constant improvements of the organization and processes and continuous development of competences of workers. New technologies and new markets are continuously emerging on markets regulated by HAKOM, communication and exchange of information is more interconnected, there are bigger, faster and unexpected changes of markets, conditions and requirements, which is why HAKOM has been applying an integrated approach to education through the development of competences in order to preserve its role of an independent organization that can adapt to fast and frequent changes and which is able to follow changes in the development of technology and society.

The main reasons for the development of competences are the implementation of organizational values and strategies and clear understanding of expectations from workers. HAKOM's policy is aimed at continuous improvement of work processes, regulatory knowledge and skills of employees with a view to creating the best solutions for the electronic communications, postal and rail services markets and for the society in general. Taking into account the fact that HAKOM's success depends on the knowledge, skills and capacities of employees, the development of competences is achieved through orientation on lifelong learning. Educational programmes are implemented in cooperation with educational institutions, international bodies, by attending post-graduate courses, by participation of workers on research projects, seminars, conferences, workshops, courses and working groups in the bodies of the EU, with a view to upgrading the knowledge, exchange of experiences, recognition of the best practice and following of regulatory aspects in the world and in the EU.

Workers and their competences, talents, capacities and dedication to work are the most important factor for HAKOM which is why HAKOM continuously invests into their development and upgrading. The most important programmes during 2014 aimed at increasing organization and individual regulatory capacity with a view to achieve further development of employee competences were the interdisciplinary post-graduate studies, the „Looking to the future“ programme and learning of foreign languages.

9.3.1 Interdisciplinary postgraduate studies

The fifth generation of HAKOM's employees was enrolled in the university interdisciplinary post-graduate study “Regulation of the Electronic Communications Market” in 2014. This course was launched by HAKOM in cooperation with the Faculty of Electrical Engineering and Computing, the Faculty of Economics and the Faculty of Law in Zagreb. The duration of the course is one academic year (two semesters) during which participants acquire knowledge and competences in economic, legal and technological aspects of market regulation and the ability to apply the regulatory framework and for the resolution of regulatory problems. Upon completion of the course, students will acquire the title of a Specialist in electronic communications market regulation.

Including the fifth generation, a total of 39 of HAKOM's employees took the course, out of which the fourth generation of students are five employees who have fulfilled the requirements of the competition and the course, including a topics for the thesis which is of interest for HAKOM.

9.3.2 “Looking to the Future” project

HAKOM continued its cooperation with the academic community in 2014, including the Faculty of Electrical Engineering and Computing of the University of Zagreb, the Faculty of Electrical Engineering, Mechanical Engineering and Shipbuilding in Split, the Faculty of Electrical Engineering in Osijek and the Faculty of Economics and Business in Zagreb, HAKOM started a multidisciplinary research project "Looking to the Future". This project is a continuation of a successful three-year multidisciplinary project "Looking to the Future", and it covers all topics important for the regulation of the electronic communications market, in particular cloud computing, M2M, network neutrality, mobile trade (m-payment) network safety and others. In addition to representatives of the academic community and HAKOM, operators and representatives of the industry also participate in the project.

General topics covered by the project include the following:

A. Development of electronic communications sector up to 2020 Technological, business and market development stimuli. Positioning of network operators, service providers and producers of IT and communications equipment International and European trends Peculiarities of the Croatian electronic communications market in the context of a single European telecommunications market, potential market failures
B. Regulatory aspects of new generation of networks, systems and services: smart networks, great amounts of data, new internet architecture and services for advanced information society. Security and privacy of users and data protection.
C. Influence of the single European telecommunications market for the electronic communications sector and its influence on the overall economic development of the Republic of Croatia. Regulatory and legal aspects, standardization. Value chain of contents, networks and services, participants on the single market for electronic communications and their relations, competition and promotion of innovation and investments in the context of an initiative on the single market of EU electronic communications.

In addition to general topics, the project also has specific topics agreed upon at the beginning of every year. The specific topics that were covered in 2014 include the following:

- The concept of a Croatian ecosystem for the provision of complex services based on cloud computing and machine to machine communication (M2M - *Machine-to-Machine*) within the framework of a single European market for electronic communications. Services of public interest, services for persons with complex communications needs.
- Digital Agenda 2020 in the Republic of Croatia Broadband Internet Access in rural areas and on the islands: techno-economic analysis. Introduction and building of network infrastructure Ipv6, models for interconnection and convergence of networks, services and protocols. Investment models and procedures for the analysis of cost-effectiveness of investments into the network, relationship between Internet access providers and OTT service providers (*Over the Top*).
- Data protection with a view to ensuring privacy of users of new telecommunications services on the single electronic communications market. Competence of regulators for mobile applications, mobile payment.
- Harmonization of network neutrality at the global level. Measuring and analysis of the quality of services provided by providers of internet services in the Republic of Croatia
- The Second digital dividend Cognitive radio.
- Dominant position of operators on the electronic communications market and its abuse in the context of diversification of the portfolio of services

The project results for 2014 were presented at a special session during the Softcom conference which took place in Split.

9.3.3 Foreign languages

The need for the improvement of language skills arises from the need for continuous training and improvement in linguistic areas necessary for the fulfilment of HAKOM's objective and policy. HAKOM's employees actively participate in the work of international regulatory organizations, they participate in various international conferences, and, within the framework of their tasks and activities related to HAKOM's areas of competence, literature in foreign languages is a continuous source of new knowledge.

Knowledge of languages and improvement of language skills is a precondition for following the trends on rapid-growth markets regulated by HAKOM. For that reason, HAKOM continued in 2014 with foreign language courses, in particular English and French language courses, that were attended by 18 employees.

9.4 ISO 9001 quality management system

The quality management system is based on continuous improvement of business procedures, upgrading of business processes and their shortening or improvement with a view to increasing the satisfaction of users of HAKOM's services by fulfilling their requirements. Quality management is also focused on the satisfaction of users of services, all interested parties and workers. With a view to achieving the above-mentioned values, HAKOM continuously develops good working climate and relations towards the society as a whole, and towards employees. For that reason, quality has been incorporated into all processes and organizational structures.

It must be mentioned that quality control is a process that never stops and its purpose is based on continuous improvements of the system meaning that HAKOM's continuous improvements are based on efficient fulfilment of the mission and values of HAKOM, efficient management of financial and human resources and satisfaction of users and all interested parties.

In order to fulfil the requirements of the standard, the second audit was carried out in October 2014 by the certification body "Bureu Veritas Croatia": In addition to the external audit, HAKOM carries out internal audits at least once a year and the results of this audit are used as guidelines for further improvements of the quality system.

9.5 EU funds

Since HAKOM participates in the drafting of proposals for strategies studies, guidelines, programmes and implementing plans adopted by the Government of the Republic of Croatia which lay down the basic principles and policies for the development of electronic communications in the Republic of Croatia and define national priorities in the planning of building, installing and use of public electronic communications networks electronic communications infrastructure and associated facilities and the development of electronic communications services of special interest for the Republic of Croatia, HAKOM provided expert support to the Ministry of Maritime Affairs, Transport and Infrastructure (MMATI) and Ministry of the Regional Development and EU Funds for the drafting of documents for the Partner Agreement, Operational Programme Competitiveness and Cohesion.

Pursuant to the Regulation on bodies in management and control systems for use of the European Social Fund, European Regional Development Fund and the Cohesion Fund in relation to the objective of "Investing into Growth and Jobs", HAKOM was designated as an intermediary authority of the first level within the framework of the Operational Programme in the area of competitiveness and cohesion "Competitiveness and Cohesion" for the priority axis of use of information and communication technology in the priority Increasing broadband accessibility and presenting high-speed networks and support to the development of new technologies and networks for digital economy. By the end of the year, the first steps were made in terms of preparation and organization of a level one intermediate authority, such as the assessment of burden, proposal for organization and systematization of jobs.

In addition to the above-mentioned activities, in the fourth quarter of 2014 HAKOM participated in the work of the Commission for the Development of the proposal for the Strategy for Broadband Development in the Republic of Croatia 2016-2020. The preparation of the strategy that was supposed to be finished by mid-2015 is a precondition for the use of financial instruments of EU funds.

9.6 Staff

HAKOM consists of the Council and of the administrative service. HAKOM is managed by the Council of HAKOM which consisted of five members at the end of 2014, including the president and deputy president of the Council. The administrative service carries out administrative and technical tasks and it is governed by a Director appointed by the Council. At the end of 2014, HAKOM employed 174 people.

Figure 9.2. Structure of employees according to level education and title

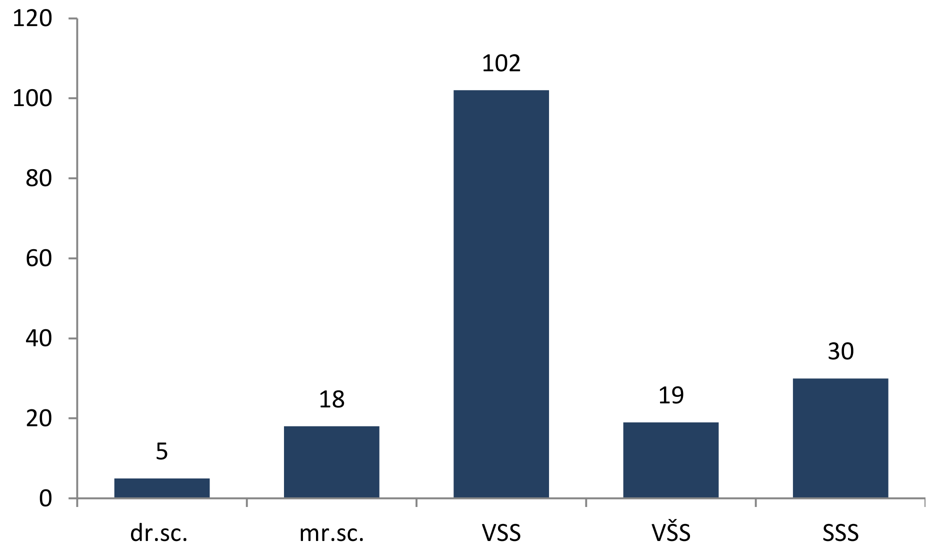


Figure 7 shows the structure of employees according to level of education

Figure 7 shows that HAKOM's employees are mostly highly educated. A total of 13 percent of employees have completed post-graduate studies in electrical, transport, legal or economic sciences (PhD or MSc), as many as 70 % of employees have university education, while only 17 % of employees have secondary school qualifications.

Figure 9.3. Structure of employees according to profession

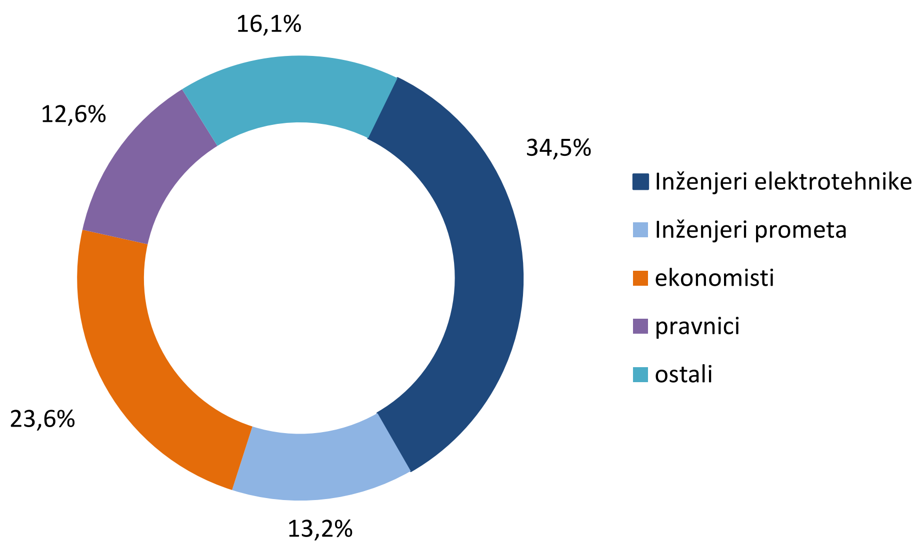


Figure 8. shows the structure of employees according to profession Since HAKOM's main activity is the regulation of the electronic communications market, rail and postal services markets and since this primarily requires knowledge in the engineering sector, it is not surprising that HAKOM's

employees are mostly electrical and transport engineers who make almost 48% of all employees. They are followed by economists who make 24% of employees, then law school graduates making 13% and the remaining 16% are other professions.

Figure 9.4. Structure of employees according to gender

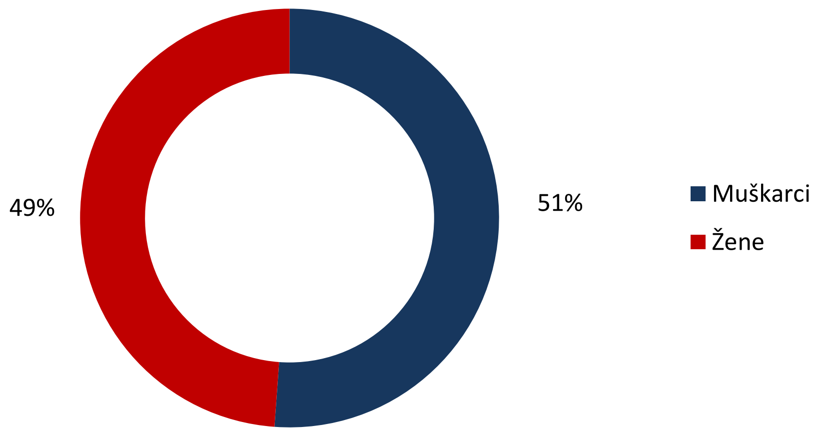


Figure 9.4 shows the percentage of workers per gender which shows that HAKOM pays special attention to non-discrimination during employment. The ratio between women and men is almost equal, 49% of employees are women and 51% are men.

Figure 9.5. Structure of employees according to age

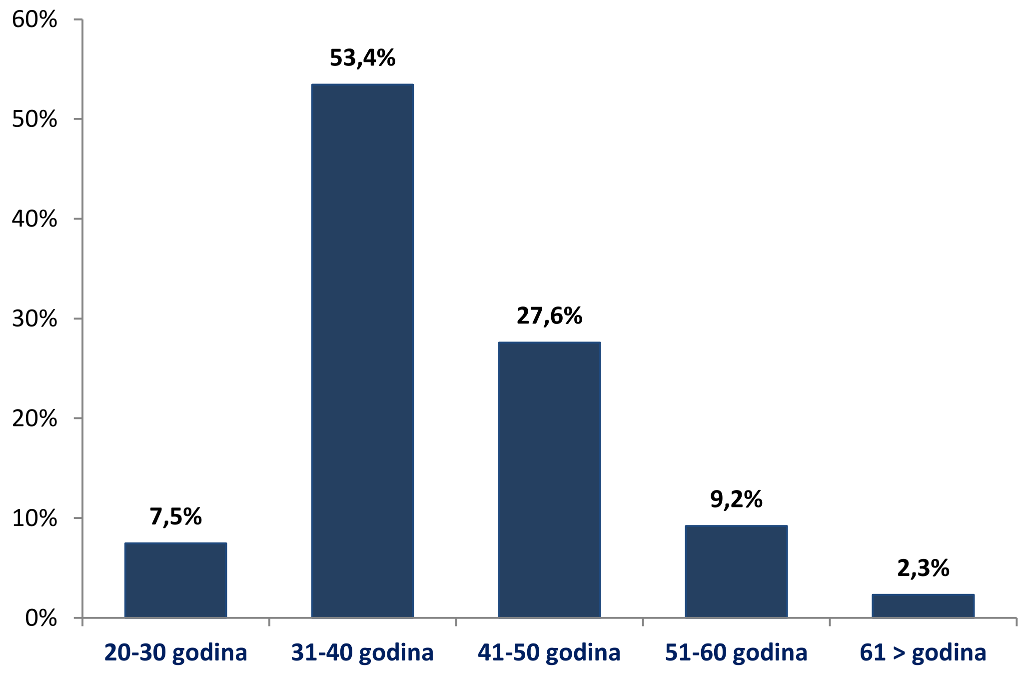
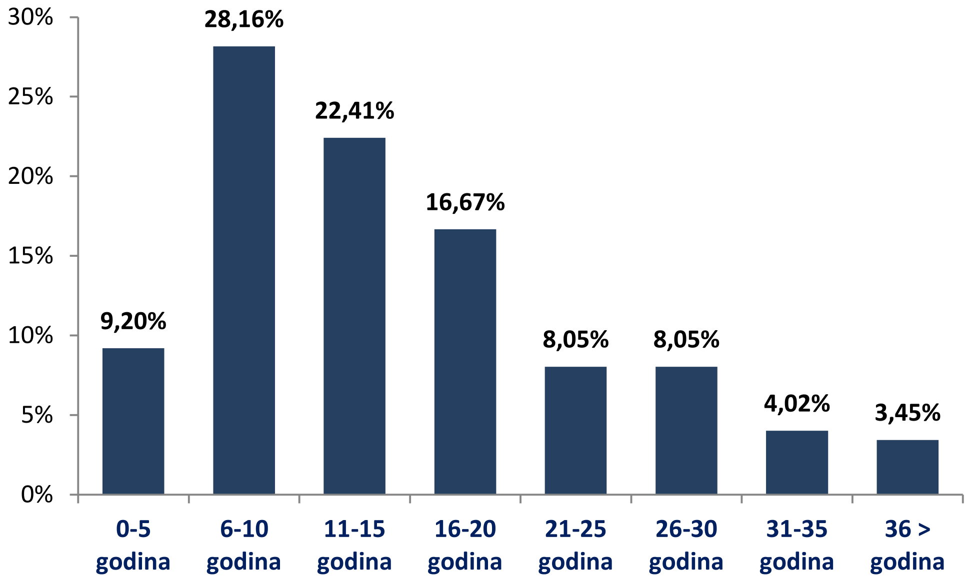
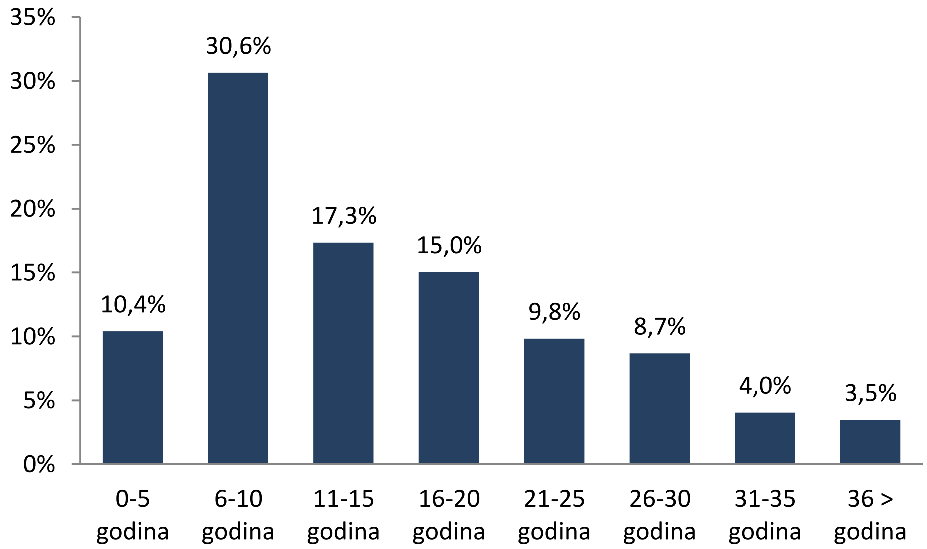


Figure 9.6. Structure of employees according to years of experience



It is obvious from Figure 9.5 and 9.6 that more than 60 percent of employees are under 40 years of age and experienced in activities under HAKOM's competence

Figure 9.7. Structure of employees according to years of experience



The majority of workers are young people experienced in sectors under HAKOM's competence (Figure 9.6. and 9.7.).

10 FINANCIAL AND FINAL STATEMENT

10.1 Legislation

HAKOM applies legislation referring to non-profit organisations. The accounting of non-profit organisations was laid down in 2014 in 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. Revenue and expenditure is shown according to the principle of occurrence of events regardless of collection or payment.

Revenue, expenditure and business results for the electronic communications, postal and rails 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 collected funds, the balance sheet as of 31/12/2014, the analysis of investments and analysis of revenue of the State Budget of the Republic of Croatia.

10.2 Revenue

Funds for the carrying out of HAKOM's activities are ensured on the basis of HAKOM's annual financial plan in compliance with the ECA and special laws regulating the postal services sector and the rail services market.

The calculation and amount of fees and the manner of payment of fees for the financing of HAKOM's work are laid down in the Ordinance adopted by HAKOM's Council. Fees are established in compliance with the principles of objectiveness, transparency and non-discrimination.

Table 10.1. Earned revenue in 2014 compared to the annual financial plan (in HRK)

	DESCRIPTION	2014 Plan	Realised in 2014	Index
1	Revenue from frequency fees	42,000,000	52,461,251	125
2	Revenue from fees for the carrying out of other HAKOM's activities	28,500,000	21,300,429	75
3	Revenue from fees for use of addresses and numbers	6,700,000	6,733,834	101
4	Revenue from annual fees for the carrying out of activities in the postal services sector	3,000,000	2,854,067	95
5	Other revenue	2,650,000	3,985,619	150
	TOTAL	**82,850,000**	**87,335,200**	**105**

Figure 10.1. Diagram of Table 10.1. Revenue earned in 2014

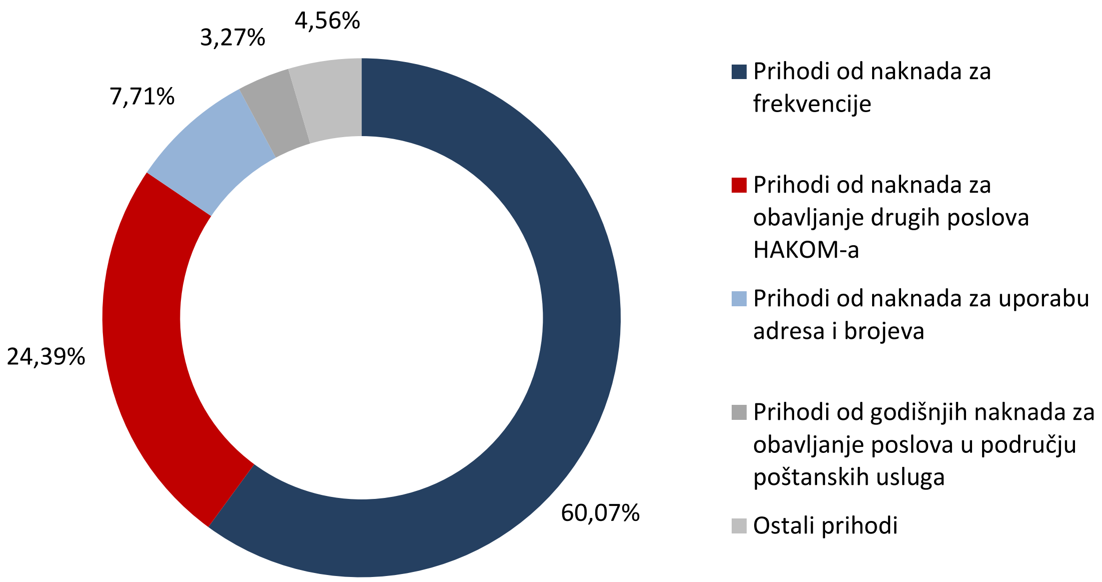


Table 10.2. Comparison of amount of materially significant revenue in the three-year period (in HRK)

	DESCRIPTION	Realised in 2012	Realised in 2013	Realised in 2014
1	Revenue from frequency fees	60,866,955	61,215,442	52,461,251
	Index	-	101%	86%
2	Revenue from fees for the carrying out of other HAKOM's activities	31,761,807	30,184,762	21,300,429
	Index	-	95%	71%
3	Revenue from fees for use of addresses and numbers	6,797,519	6,706,357	6,733,834
	Index	-	99%	100%
4	Revenue from annual fees for the carrying out of activities in the postal services sector	3,814,989	3,661,967	2,854,067
	Index	-	96%	78%
5	Other revenue	5,421,228	4,359,358	3,985,619
	Index	-	80%	91%
6	Total revenue	109,934,959	106,271,386	87,335,200
	Index	-	97 %	82 %

Revenue from frequency fees

Revenue from frequency fees exceed the planned amounts by 25 percent. IN 2014 additional revenue was earned from the allocation of the second part of the digital dividend (800 MHz, public auction) and the additional available RF spectrum at 1800 MHz (public invitation). To a lesser extent, the increased revenue was influenced by need for more transfer capacity due to further development and increased use of broadband technologies. As a result, revenue from the radiofrequency spectrum is much higher than planned.

RF spectrum management is the subject of Chapter 2.1 of the Annual report.

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 earned by operators in the previous calendar year for the provision of electronic communications networks and services on the market.

The total amount of revenue depends on the annual prescribed percentage, the number of providers of services and the total annual gross revenue. The amount of the prescribed percentage decreases every year on the basis of the Ordinance on the payment of the fees for carrying out of HAKOM's tasks and

The fall in revenue from the carrying out of other HAKOM's activities is mostly caused by the reduction of the prescribed percentages for 2014 and by the fall in annual gross revenue.

Table 10.3. Amounts of prescribed percentages for the electronic communications markets

Year	2009	2010	2011	2012	2013	2014
Percentage	0.32%	0.29%	0.28%	0.25%	0.25%	0.20%

Since 2014, pursuant to the Ordinance on payment of fees for carrying out of tasks of HAKOM, the fee for the carrying out of other HAKOM's tasks, expressed as a percentage of total annual gross revenue earned by operators in the previous calendar year during provision of the activity of electronic communications and services on the market, was reduced by 0.20 percent. It is also prescribed that the fee must be paid only by those operators that earned gross revenue higher than HRK 1,000,000 in the previous calendar year.

Revenue from fees for use of addresses and numbers

The earned revenue from fees for use of addresses and numbers is at the planned level.

Addressing and numbering space management is the subject of Chapter 2.2 of the Annual Report.

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

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.

The total amount of revenue depends on the annual prescribed percentage, the number of providers of services and the total annual gross revenue. The amount of the percentage is decreased every year on the basis of the Ordinance on the payment of the fees for carrying out of HAKOM's tasks and the number of providers of services and the annual revenue are planned on the basis of results of the previous year.

Table 10.4. Amounts of prescribed percentages for the postal communications markets throughout the years

Year	2010	2011	2012	2013	2014
Percentage	0.29%	0.28%	0.25%	0.25%	0.20%

Since 2014, pursuant to the Ordinance on payment of fees for carrying out of tasks of HAKOM, the fee for the carrying out of other HAKOM's tasks, expressed as a percentage of total annual gross revenue earned by operators in the previous calendar year, was reduced by 0.20 percent. It is also prescribed that the fee must be paid only by those operators that earned gross revenue higher than HRK 1,000,000 in the previous calendar year.

Postal services market is discussed in Chapter 3 of the annual report.

Other revenue

Table 10.5. Other realized revenue (in HRK)

	DESCRIPTION	Realised in 2013	Realised in 2014	Index
1	Revenue from financial assets	2,923,257	2,338,628	80
	- interest on term deposited funds and funds at sight	2,107,418	1,868,280	89
	- revenue from lawful interest rates	759,344	459,281	60
	- positive exchange rate differences	56,495	10,885	19
	Revenue from financial assets	0	182	0
2	Revenue from damages and refunds	889,695	1,221,992	137
3	Revenue from sales of long-term assets	193,543	183,009	95
4	Other unmentioned revenue	352,863	241,990	69
	TOTAL	**4,359,358**	**3,985,619**	**91**

Other revenue is planned amounting to HRK 2,650,000. The realization of this revenue is significantly higher than planned. The exceptionally high other revenue has been achieved by means of deposits of funds and revenue from damages and refunds.

Three vehicles were sold in 2014, one SUVs and one personal vehicle. Vehicles were sold on the basis of published tenders to bidders who offered the highest price.

Other unmentioned revenue consists of revenue from compensations in nature, revenue from technical inspections and special authorizations.

10.3 Expenditure

10.3.1 Total HAKOM's expenditure per sectors

HAKOM's total expenditure in 2014 amounted to HRK 119,822,415.

Table 10.6. Total revenue - comparison with 2013 (in HRK)

	2013	2014	Index
Revenue in the electronic communications sector	82,710,917	86,406,365	104
Expenditure in the postal services sector	2,444,310	2,595,731	106
Revenue in the rail services sector	0	773,422	0
Expenditure for capital donations	18,757,814	30,046,897	160
Total	**103,913,041**	**119,822,415**	**115**

Table 10.7. Total expenditure - realization according to plan (in HRK)			
DESCRIPTION	2014 Plan	2014	Index
Revenue in the electronic communications sector	96,118,700	86,406,365	90
Expenditure in the postal services sector	3,932,500	2,595,731	66
Revenue in the rail services sector	0	773,422	0
Expenditure for capital donations	44,092,481	30,046,897	68
Total	**144,143,681**	**119,822,415**	**83**

Out of the total expenditure for the **electronic communications sector,** HRK 38,326,999 refers to employee expenses, HRK 27,784,175 refers to material expenditure, HRK 17,110,504 refers to expenditure from depreciation, HRK 93,535 refers to financial expenditure, HRK 73,536 refers to current donations and HRK 3,017,616 refers to other expenditure.

Out of the total expenditure for the **postal services sector,** HRK 1,184,955 refers to employee expenses, HRK 1,409,132 refers to material expenditure, HRK 1,544 refers to financial expenditure and HRK 100 refers to other expenditure.

Out of the total expenditure for the **rail services regulation sector,** HRK 351,401 refers to employee expenses, HRK 420,115 refers to material expenditure, HRK 1,851 refers to financial expenditure and HRK 55 refers to other expenditure.

Capital donations are expenditures for the Programme for the development of the Internet and broadband access in the areas of special state concern, hilly and mountainous areas and on islands.

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

Total **employee expenditure** is 9 percent lower than approved in HAKOM's annual financial plan. There was a slight increase in expenditure for salaries in kind, other expenditure for employees and contributions for employment compared to what was planned.

Other employee expenses include retirement bonuses, financial aid in case of death of a close family member, aid to women who have given birth and presents for employee's children on special occasions.

Total **material expenditure** is 16 percent lower than approved in HAKOM's annual financial plan. Under material expenditure only rents and leases are 3 percent above the planned amount as a result of the exchange rate differences between EUR and HRK.

Out of the total material expenditure, HRK 3,611,156 refers to reimbursements to employees, HRK 10,192 refers to compensation of costs to members of representative and executive bodies, HRK 59,767 refers to compensations to external contractors, HRK 22,961,899 refers to expenditure for services, HRK 2,471,575 refers to expenditure for material and power, and HRK 498,833 refers to other unmentioned expenditure.

In relation to the approved annual financial plan, compensation of costs to workers are 8 percent lower, compensations for members of commissions re 49 percent lower, compensations for other external associates are 12 percent lower, expenditure for services is 14 percent lower, expenditure for material and energy is 23 percent lower and other unmentioned material expenditure is 61 percent lower.

Donations include current and capital donations. Current donations are at the level approved by the annual financial plan.

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. Funds for the coverage of this expenditure are included under surplus funds. The surplus funds are discussed in the Chapter 10.5. These funds are on a separate giro-account increased by the regular interest rate on a vista funds.

In HAKOM's Financial Plan for 2014 a total of 44,092,481 was approved for the Programme for Internet and Broadband Development in Areas of Special State Concern, Hilly and Mountainous Areas and Islands and the Programme for the Elimination of Interferences and Improvement of Reception of Television.

The internet development programme was divided into three projects: connection to broadband access, installation of the appropriate computer equipment and installation of the approved applications.

In 2014 a total of 21,028,86 was spent for connections to broadband Internet in areas of special state concern, mountain and hilly areas and on the islands in the following counties: Šibensko-kninska, Vukovarsko-srijemska, Zadarska, Bjelovarsko-bilogorska, Dubrovačko-neretvanska, Krapinsko-zagorska, Sisačko-moslavačka, Brodsko-posavska, part of Splitsko-dalmatinska County, part of Požeško-slavonska County, islands and Southeast Slavonia.

A total of HRK 3,126,56 was spent for the installation of selected applications: The adjustment of contents for blind persons, IT introduction into public nurse facilities in the Republic of Croatia, Firefighers alert system, Monitoring of firefighting vehicles and persons during interventions, Development and establishment of a system for the management of contents of the central web-site for access to information from the public administration of the Republic of Croatia, Personal therapist, ECDL online courses for independent learning, PLODORED - records of plant production supervised by integrated production, Internet advertising for disabled persons from areas of special state concern, hill and mountain areas and islands, eRedomat, Metaregister and Volunteers for civil protection.

A total of HRK 5,891, 466 was spend for the installation of computer equipment. Licences and tablet computers were procured and a solution for safe mobile acess for IT activities in flooded areas, hardware for the Croatian Institute for Health Insurance, CarNET and the Croatian Firefighting Association were implemented.

A total of 30,046,897 was spent in 2014 for the Internet Development Programme.

10.3.3 HAKOM's realized revenue compared to the annual financial plan

The Table below shows expenditure realized in comparison with HAKOM's annual financial plan in total and then separately for the electronic communications sector and separately for the postal services sector and the sector for the regulation of the rail services market.

Table 10.8. HAKOM's realized expenditure in 2014 compared to the annual financial plan (in HRK)

Class	Subgroup	Section	TITLE	PLAN FOR 2014	REALIZED in 2014	INDEX
41			Employee expenses	44,015,000	39,863,355	91
	411		Salaries	37,391,000	33,031,035	88
		4111	Salaries for regular work	36,926,000	32,649,576	88
		4112	Payment in kind	365,000	381,459	105
		4113	Payments for overtime work	100,000	0	0
	412		Other employee expenses	1,180,000	1,307,428	111
		4121	Other employee expenses	1,180,000	1,307,428	111
	413		Contributions on salaries	5,444,000	5,524,892	101
		4131	Contributions for health insurance	4,874,000	4,934,277	101

		4132	Contributions for employment	570,000	590,615	104
42			Material expenditure	35,083,200	29,613,422	84
	421		Reimbursements to employees	3,940,000	3,611,156	92
		4211	Business trips	2,150,000	2,124,470	99
		4212	Travel expenses	700,000	645,096	92
		4213	Professional training of employees	1,090,000	841,590	77
	422		Reimbursement of costs to members in commissions and similar	20,000	10,192	51
		4221	Reimbursement of costs to members in commissions and similar	20,000	8,515	43
		4222	Reimbursement of business trip costs	0	1,677	0
	424		Compensations for external associates	68,000	59,767	88
		4241	Compensations for carrying out of activities	68,000	59,767	88
	425		Expenditure for services	26,550,200	22,961,899	86
		4251	Telephone, mail and transportation services	1,550,450	1,053,110	68
		4252	Services of current and investment maintenance	2,320,000	2,166,361	93
		4253	Promotion and information services	660,750	425,432	64
		4254	Utility services	942,500	918,584	97
		4255	Leases and rents	10,300,000	10,579,602	103
		4256	Health and veterinary services	420,000	51,650	12
		4257	Intellectual and personal services	4,214,500	3,270,388	78
		4258	IT services	3,742,000	2,777,486	74
		4259	Other services	2,400,000	1,719,286	72
	426		Expenditure for material and power	3,215,000	2,471,575	77
		4261	Office supplies and other material expenditures	940,000	578,946	62
		4263	Energy	2,090,000	1,841,579	88
		4264	Small inventory and car tyres	185,000	51,050	28
	429		Other material expenditure	1,290,000	498,833	39
		4291	Insurance premiums	800,000	413,216	52
		4292	Entertaining	265,000	76,713	29
		4293	Membership fees	199,000	8,904	4
		4295	Other material expenditure	25,000	0	0
43			Depreciation expenditure	17,500,000	17,110,504	98
	431		Depreciation	17,500,000	17,110,504	98
		4311	Depreciation	17,500,000	17,110,504	98
44			Financial expenditure	93,000	96,930	104
	443		Other financial expenditure	93,000	96,930	104
		4431	Banking services and payment transaction services	50,000	58,935	118
		4432	Negative exchange rate differences and currency clause	20,000	23,184	116
		4433	Penalty interest	3,000	0	0
		4434	Other financial expenditure	20,000	14,811	74
45			Donations	44,167,481	30,120,433	68
	451		Current donations	75,000	73,536	98
		4511	Current donations	75,000	73,536	98
	452		Capital donations	44,092,481	30,046,897	68
		4521	Capital donations	44,092,481	30,046,897	68

46			Other expenditure	3,285,000	3,017,771	92
	461		Fines, penalties and damages	110,000	8,023	7
		4611	Compensation for damages to legal and natural persons	100,000	3,403	3
		4612	Penalties, storage charges and other	0	4,620	0
		4614	Contractual fines and other compensations for damage	10,000	0	0
	462		Other expenditure	3,173,000	3,009,748	95
		4621	Value not written-off and other expenditure from alienated and depreciated long-term assets	100,000	15,129	15
		4622	Expired debts	3,000,000	2,980,644	99
		4623	Expenditure for other taxes	49,000	13,975	29
		4624	Other expenditure	24,000	0	0
			TOTAL	**144,143,681**	**119,822,415**	**83**

Table 10.9. Expenditure in electronic communications for HAKOM in 2014 compared to the annual financial plan (in HRK)

Class	Subgroup	Section	TITLE	PLAN FOR 2014	REALIZED in 2014	INDEX
41			Employee expenses	42,299,000	38,326,999	91
	411		Salaries	35,941,000	31,768,515	88
		4111	Salaries for regular work	35,486,000	31,387,064	88
		4112	Payment in kind	355,000	381,451	107
		4113	Payments for overtime work	100,000	0	0
	412		Other employee expenses	1,130,000	1,247,295	110
		4121	Other employee expenses	1,130,000	1,247,295	110
	413		Contributions on salaries	5,228,000	5,311,189	102
		4131	Contributions for health insurance	4,682,000	4,743,299	101
		4132	Contributions for employment	546,000	567,890	104
42			Material expenditure	33,075,700	27,784,175	84
	421		Reimbursements to employees	3,785,000	3,327,192	88
		4211	Business trips	2,075,000	2,016,515	97
		4212	Travel expenses	670,000	617,736	92
		4213	Professional training of employees	1,040,000	692,941	67
	422		Reimbursement of costs to members in commissions and similar	20,000	10,192	51
		4221	Reimbursement of costs to members in commissions and similar	20,000	8,515	43
		4222	Reimbursement of business trip costs	0	1,677	0
	424		Compensations for external associates	68,000	59,767	88
		4241	Compensations for carrying out of activities	68,000	59,767	88
	425		Expenditure for services	24,887,700	21,528,888	87
		4251	Telephone, mail and transportation services	1,490,450	1,011,208	68
		4252	Services of current and investment maintenance	2,290,000	2,148,087	94
		4253	Promotion and information services	620,750	417,047	67
		4254	Utility services	902,500	878,173	97

		4255	Leases and rents	9,900,000	10,203,797	103
		4256	Health and veterinary services	400,000	48,842	12
		4257	Intellectual and personal services	3,302,000	2,458,787	74
		4258	IT services	3,602,000	2,695,534	75
		4259	Other services	2,380,000	1,667,413	70
	426		Expenditure for material and power	3,095,000	2,373,904	77
		4261	Office supplies and other material expenditures	900,000	549,483	61
		4263	Energy	2,015,000	1,773,371	88
		4264	Small inventory and car tyres	180,000	51,050	28
	429		Other material expenditure	1,220,000	484,232	40
		4291	Insurance premiums	780,000	399,239	51
		4292	Entertaining	224,000	76,254	34
		4293	Membership fees	193,000	8,739	5
		4295	Other material expenditure	23,000	0	0
43			Depreciation expenditure	17,300,000	17,110,504	99
	431		Depreciation	17,300,000	17,110,504	99
		4311	Depreciation	17,300,000	17,110,504	99
44			Financial expenditure	87,000	93,535	108
	443		Other financial expenditure	87,000	93,535	108
		4431	Banking services and payment transaction services	46,000	56,780	123
		4432	Negative exchange rate differences and currency clause	19,000	22,701	119
		4433	Penalty interest	3,000	0	0
		4434	Other financial expenditure	19,000	14,054	74
45			Donations	44,167,481	30,120,433	68
	451		Current donations	75,000	73,536	98
		4511	Current donations	75,000	73,536	98
	452		Capital donations	44,092,481	30,046,897	68
		4521	Capital donations	44,092,481	30,046,897	68
46			Other expenditure	3,282,000	3,017,616	92
	461		Fines, penalties and damages	109,000	7,985	7
		4611	Compensation for damages to legal and natural persons	100,000	3,403	3
		4612	Penalties, storage charges and other	0	4,582	0
		4614	Contractual fines and other compensations for damage	9,000	0	0
	462		Other expenditure	3,173,000	3,009,631	95
		4621	Value not written-off and other expenditure from alienated and depreciated long-term assets	100,000	15,129	15
		4622	Expired debts	3,000,000	2,980,644	99
		4623	Expenditure for other taxes	49,000	13,858	28
		4624	Other expenditure	24,000	0	0
TOTAL				**140,211,181**	**116,453,262**	**83**

Table 10.10. Expenditure in postal services for HAKOM in 2014 compared to the annual financial plan (in HRK)

Class	Subgroup	Section	TITLE	PLAN FOR 2014	REALIZED in 2014	INDEX
41			Employee expenses	1,716,000	1,184,955	69
	411		Salaries	1,450,000	971,294	67
		4111	Salaries for regular work	1,440,000	971,286	67
		4112	Payment in kind	10,000	8	0
		4113	Payments for overtime work	0	0	0
	412		Other employee expenses	50,000	50,340	101
		4121	Other employee expenses	50,000	50,340	101
	413		Contributions on salaries	216,000	163,321	76
		4131	Contributions for health insurance	192,000	145,838	76
		4132	Contributions for employment	24,000	17,483	73
42			Material expenditure	2,007,500	1,409,132	70
	421		Reimbursements to employees	155,000	104,556	67
		4211	Business trips	75,000	40,961	55
		4212	Travel expenses	30,000	21,240	71
		4213	Professional training of employees	50,000	42,355	85
	422		Reimbursement of costs to members in commissions and similar	0	0	0
	424		Compensations for external associates	0	0	0
	425		Expenditure for services	1,662,500	1,234,988	74
		4251	Telephone, mail and transportation services	60,000	27,630	46
		4252	Services of current and investment maintenance	30,000	11,320	38
		4253	Promotion and information services	40,000	5,031	13
		4254	Utility services	40,000	24,569	61
		4255	Leases and rents	400,000	294,087	74
		4256	Health and veterinary services	20,000	1,487	7
		4257	Intellectual and personal services	912,500	779,305	85
		4258	IT services	140,000	56,337	40
		4259	Other services	20,000	35,222	176
	426		Expenditure for material and power	120,000	60,635	51
		4261	Office supplies and other material expenditures	40,000	15,594	39
		4263	Energy	75,000	45,041	60
		4264	Small inventory and car tyres	5,000	0	0
	429		Other material expenditure	70,000	8,953	13
		4291	Insurance premiums	20,000	8,467	42
		4292	Entertaining	41,000	323	1
		4293	Membership fees	7,000	163	2
		4295	Other material expenditure	2,000	0	0
43			Depreciation expenditure	200,000	0	0
	431		Depreciation	200,000	0	0
		4311	Depreciation	200,000	0	0

44			Financial expenditure	6,000	1,544	26
	443		Other financial expenditure	6,000	1,544	26
		4431	Banking services and payment transaction services	4,000	961	24
		4432	Negative exchange rate differences and currency clause	1,000	219	22
		4433	Penalty interest	0	0	0
		4434	Other financial expenditure	1,000	364	36
45			Donations	0	0	0
46			Other expenditure	3,000	100	3
	461		Fines, penalties and damages	1,000	29	3
		4611	Compensation for damages to legal and natural persons	0	0	0
		4612	Penalties, storage charges and other	0	29	0
		4614	Contractual fines and other compensations for damage	1,000	0	0
	462		Other expenditure	2,000	71	4
		4623	Expenditure for other taxes	1,000	71	7
		4624	Other expenditure	1,000	0	0
TOTAL				**3,932,500**	**2,595,731**	**66**

Table 10.11. Expenditure from HAKOM's regulation of the rail services market in 2014 compared to the annual financial plan (in HRK)

Class	Subgroup	Section	TITLE	PLAN FOR 2014	REALIZED in 2014	INDEX
41			Employee expenses	0	351,401	0
	411		Salaries	0	291,227	0
		4111	Salaries for regular work	0	291,227	0
		4112	Payment in kind	0	0	0
		4113	Payments for overtime work	0	0	0
	412		Other employee expenses	0	9,792	0
		4121	Other employee expenses	0	9,792	0
	413		Contributions on salaries	0	50,382	0
		4131	Contributions for health insurance	0	45,140	0
		4132	Contributions for employment	0	5,242	0
42			Material expenditure	0	420,115	0
	421		Reimbursements to employees	0	179,408	0
		4211	Business trips	0	66,994	0
		4212	Travel expenses	0	6,120	0
		4213	Professional training of employees	0	106,294	0
	422		Reimbursement of costs to members in commissions and similar	0	0	0
	424		Compensations for external associates	0	0	0
	425		Expenditure for services	0	198,023	0
		4251	Telephone, mail and transportation services	0	14,272	0
		4252	Services of current and investment maintenance	0	6,954	0
		4253	Promotion and information services	0	3,354	0
		4254	Utility services	0	15,843	0

		4255	Leases and rents	0	81,717	0
		4256	Health and veterinary services	0	1,321	0
		4257	Intellectual and personal services	0	32,296	0
		4258	IT services	0	25,615	0
		4259	Other services	0	16,651	0
	426		Expenditure for material and power	0	37,036	0
		4261	Office supplies and other material expenditures	0	13,869	0
		4263	Energy	0	23,167	0
	429		Other material expenditure	0	5,648	0
		4291	Insurance premiums	0	5,510	0
		4292	Entertaining	0	136	0
		4293	Membership fees	0	2	0
43			Depreciation expenditure	0	0	0
44			Financial expenditure	0	1,851	0
	443		Other financial expenditure	0	1,851	0
		4431	Banking services and payment transaction services	0	1,194	0
		4432	Negative exchange rate differences and currency clause	0	264	0
		4433	Penalty interest	0	0	0
		4434	Other financial expenditure	0	393	0
45			Donations	0	0	0
46			Other expenditure	0	55	0
	461		Fines, penalties and damages	0	8	0
		4611	Compensation for damages to legal and natural persons	0	0	0
		4612	Penalties, storage charges and other	0	8	0
		4614	Contractual fines and other compensations for damage	0	0	0
	462		Other expenditure	0	47	0
		4623	Expenditure for other taxes	0	47	0
TOTAL				**0**	**773,422**	**0**

10.3.4 HAKOM's expenditure in 2014 compared to the previous year

The table below is an overview of HAKOM's expenditure in 2014 compared to 2013

Table 10.12. HAKOM's expenditure in 2014 compared to the previous year (in HRK)a)

Class	Subgroup	Section	TITLE	REALIZED in 2013	REALIZED in 2014	INDEX
41			Employee expenses	38,249,729	39,863,355	104
	411		Salaries	32,118,758	33,031,035	103
		4111	Salaries for regular work	31,735,629	32,649,576	103
		4112	Payment in kind	380,977	381,459	100
		4113	Payments for overtime work	2,152	0	0
	412		Other employee expenses	1,210,157	1,307,428	108
		4121	Other employee expenses	1,210,157	1,307,428	108
	413		Contributions on salaries	4,920,814	5,524,892	112
		4131	Contributions for health insurance	4,343,102	4,934,277	114

		4132	Contributions for employment	577,712	590,615	102
42			Material expenditure	29,129,795	29,613,422	102
	421		Reimbursements to employees	3,897,595	3,611,156	93
		4211	Business trips	1,870,347	2,124,470	114
		4212	Travel expenses	979,936	645,096	66
		4213	Professional training of employees	1,047,311	841,590	80
	422		Reimbursement of costs to members in commissions and similar	8,164	10,192	125
		4221	Reimbursement of costs to members in commissions and similar	7,797	8,515	109
		4222	Reimbursement of business trip costs	367	1,677	457
	424		Compensations for external associates	61,825	59,767	97
		4241	Compensations for carrying out of activities	61,825	59,767	97
	425		Expenditure for services	21,921,136	22,961,899	105
		4251	Telephone, mail and transportation services	1,236,887	1,053,110	85
		4252	Services of current and investment maintenance	1,975,931	2,166,361	110
		4253	Promotion and information services	332,920	425,432	128
		4254	Utility services	1,084,142	918,584	85
		4255	Leases and rents	10,559,507	10,579,602	100
		4256	Health and veterinary services	412,615	51,650	13
		4257	Intellectual and personal services	2,101,090	3,270,388	156
		4258	IT services	2,373,269	2,777,486	117
		4259	Other services	1,844,776	1,719,286	93
	426		Expenditure for material and power	2,029,834	2,471,575	122
		4261	Office supplies and other material expenditures	626,946	578,946	92
		4263	Energy	1,316,715	1,841,579	140
		4264	Small inventory and car tyres	86,173	51,050	59
	429		Other material expenditure	1,211,241	498,833	41
		4291	Insurance premiums	992,537	413,216	42
		4292	Entertaining	93,840	76,713	82
		4293	Membership fees	119,533	8,904	7
		4295	Other material expenditure	5,331	0	0
43			Depreciation expenditure	17,262,635	17,110,504	99
	431		Depreciation	17,262,635	17,110,504	99
		4311	Depreciation	17,262,635	17,110,504	99
44			Financial expenditure	74,766	96,930	130
	443		Other financial expenditure	74,766	96,930	130
		4431	Banking services and payment transaction services	48,264	58,935	122
		4432	Negative exchange rate differences and currency clause	19,223	23,184	121
		4433	Penalty interest	187	0	0
		4434	Other financial expenditure	7,092	14,811	209
45			Donations	18,832,728	30,120,433	160
	451		Current donations	74,914	73,536	98
		4511	Current donations	74,914	73,536	98
	452		Capital donations	18,757,814	30,046,897	160

		4521	Capital donations	18,757,814	30,046,897	160
46			Other expenditure	363,388	3,017,771	830
	461		Fines, penalties and damages	13,628	8,023	59
		4611	Compensation for damages to legal and natural persons	7,070	3,403	48
		4612	Penalties, storage charges and other	6,558	4,620	70
		4614	Contractual fines and other compensations for damage	0	0	0
	462		Other expenditure	349,760	3,009,748	861
		4621	Value not written-off and other expenditure from alienated and depreciated long-term assets	51,306	15,129	29
		4622	Expired debts	278,573	2,980,644	1,070
		4623	Expenditure for other taxes	19,881	13,975	70
		4624	Other expenditure	0	0	0
			TOTAL	**103,913,041**	**119,822,415**	**115**

10.4 Business performance results

Table 10.13. Results of HAKOM's business operations total and according to sectors (in HRK)

	DESCRIPTION	Realisation 2014	Realization electronic communications sector	Realization sector of PS	Realization sector of RS
	REVENUE	**87,335,200**	**84,478,880**	**2,856,320**	**0**
1	Revenue according to special regulations	83,351,281	80,497,214	2,854,067	0
2	Revenue from assets	2,338,628	2,336,375	2,253	0
3	Revenue from donations	0	0	0	0
4	Other revenue	1,645,291	1,645,291	0	0
	EXPENDITURE	**119,822,415**	**116,453,262**	**2,595,731**	**773,422**
1	Employee expenses	39,863,355	38,326,999	1,184,955	351,401
2	Material expenditure	29,613,422	27,784,175	1,409,132	420,115
3	Depreciation expenditure	17,110,504	17,110,504	0	0
4	Financial expenditure	96,930	93,535	1,544	1,851
5	Donations	30,120,433	30,120,433	0	0
	Current donations	73,536	73,536	0	0
	Capital donations	30,046,897	30,046,897	0	0
6	Other expenditure	3,017,771	3,017,616	100	55
	Business performance results in 2014	-32,487,215	-31,974,382	260,589	-773,422

Table 10.14. Results of HAKOM's business operations total and according to sectors (in HRK)

	DESCRIPTION	HAKOM 2014	Electronic communications sector 2014	Sector of PS 2014	Sector of RS 2014
	Business performance results in 2014	-32,487,215	-31,974,382	260,589	-773,422
	Planned business results in HAKOM's Financial Plan	- 61.293.681	-60,751,181	-542,500	0

Table 10.15. Results of HAKOM's business operations total and according to sectors (in HRK)

	DESCRIPTION	HAKOM 2014	Electronic communications sector 2014	Sector of HAKOM 2014	Sector of RS 2014
	Business performance results in 2014	-32,487,215	-31,974,382	260,589	-773,422
	Analysis of capital donations.	+30,046,897	+ 30.046.897		
	Business results in 2014 less minus capital donations	-2,440,318	-1,927,485		

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. Since capital donations are not financed from regular revenue but from surplus collected funds, negative business results appear.

It was envisaged in HAKOM's Financial Plan that investments and HAKOM's regular expenditure will be financed from surplus funds as well, except from capital donations.

For that reason, HAKOM's 2014 Financial Plan already envisaged a negative business result amounting to HRK 61,293,681.

Negative business results in 2014 are not a reflection of poor business management and planning but they are a consequence of the planned financing from the surplus of collected funds and decrease of surplus revenue.

In 2014 HAKOM's competence also included regulation of rail services market.

Funds for the carrying out of HAKOM's activities in the areas of rail services regulation are ensured on the basis of HAKOM's annual financial plan in compliance with the Act on the Regulation of the Rail Services Market. Since the merger was completed in mid-2014, HAKOM's Financial Plan for 2014 did not have planned funds for the financing of regulation of rail services market. The deficit of funds for regulation of the rail services market in 2014 will be compensated from the fees in 2015 in compliance with the Act on the Regulation of the Rail Services Market.

The Regulation on the accounting of non-profit organizations prescribes that revenue and expenditure is shown on the basis of **accrual** regardless of collection or payment, and business performance results do not represent a surplus of **collected** funds transferred to the next year. The surplus funds are discussed in the next Section.

10.5 Surplus collected funds

Surplus collected funds on 31 December 2014 amounted to HRK 40,014,943. The surplus collected funds consist of money in the bank and of petty cash (account 11 of the Balance Sheet on 31 December 2014) and deposits (account 121 o the Balance Sheet) minus the prepaid revenue in 2015 (account 2912 of the Balance Sheet).

The surplus collected funds were already carried over to 2015 in the 215 Financial Plan.

HAKOM's 2015 Financial Plan envisaged the financing from the carried over surplus collected funds amounting to HRK 44,460,000. In compliance with HAKOM's 2015 Financial Plan, if the actual surplus funds is less than planned, activities financed from the surplus collected funds will be implemented up to the amount of the actual surplus collected funds.

10.6 Balance sheet

10.6.1 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

Non-financial assets consists of produced and non-produced assets. The group of non-produced assets include investments into land and non-material assets. Produced assets are construction facilities, installations and equipment, means of transportation and computer programmes.

The value of land was increased by the purchased construction site in Split for the building of the Split branch office. The land was bought in 2014 from the State Property Management Office. In addition to the construction site in Split, the total value of the land consists of three construction sites in Otok, Ravna Gora and Kostrena.

Business premises purchased after 1 January 2008 are entered in the „Business premises“ account the correction of value for which is expressed as the amount of depreciation. Business premises include regional offices and CMSs. They comprise regional offices in Rijeka and Osijek and CMS Veliki Bokolj and CMS Ozljak. A new mobile CMS was procured in 2014 and placed in Čilipi.

Business premises purchased after 1 January 2008 are entered under „Other business premises“ account the correction of value for which is calculated for the source of financing. Other construction facilities consist of CMS, Otok, CMS Ravna Gora and CMS Degman.

The value of plants and equipment increased by 5 percent compared to the year before. Measuring devices for mobile CMS and CMSs were procured in 2014.

The value of means of transport increased by the procured four terrain vehicles.

Investment into computer software was necessary for the purpose of modernization of software through the e-Agency programme.

Financial assets

Table 10.16. HAKOM's financial assets (in HRK)

Calculation from the accounting plan	Balance as of 31/12/2013	Balance as of 31/12/2014	Index
11 cash in bank and petty cash	38,885,844	24,980,884	64
12 deposits, guarantees	52,460,897	36,991,912	71
16 receivables for revenue	29,077,320	24,510,935	84
19 revenue for future periods	220,540	1,215,406	551
TOTAL	**120,644,601**	**87,699,137**	**73**

Money in the bank, petty cash, deposits and guarantees and receivables for revenue are much lower than the year before. This is the result of the planned decrease of surplus revenue.

Receivables for revenue

Table 10.17. HAKOM's receivables for revenue (in HRK)

Description of receivables	State of funds on 01/01/2014	State of funds on 31/12/2014
Total receivables	29,077,320	24,510,935
Outstanding receivables	11,221,425	12,333,672
Mature outstanding receivables	17,855,895	12,177,263

Total receivables for revenue are lower than the year before, in particular the mature outstanding receivables.

Court proceedings were initiated for receivables that were not payed within 30 days after the dunning letter. A total of 68 enforcement proceedings were initiated in 2014.

Enforcement proceedings are discussed in Chapter 7 of the Annual Report.

Table 10.18. HAKOM's balance sheet as of 31/12/2014 (in HRK)

Account from acc. plan	DESCRIPTION	Balance 31 December 2013	Balance 31 December 2014	Index
	ASSETS	**174,166,389**	**137,090,981**	**79**
0	Non-financial assets	53,521,788	49,391,844	92
01	Unproduced long-term assets	3,955,487	4,509,916	114
011	Material assets - natural resources	93,397	1,168,592	1,251
0111	Land	93,397	1,168,592	1,251
012	Non-material assets	22,032,753	22,982,753	104
0123	Licences	2,874,414	2,874,414	100
0124	Other rights	92,872	92,872	100
0128	Other non-material assets	19,065,467	20,015,467	105
019	Value correction of unproduced long-term assets	18,170,663	19,641,429	108
02	Produced long-term assets	49,566,301	44,881,928	91
021	Construction facilities	11,510,471	12,168,891	106
0212	Business premises	8,153,663	8,812,083	108
0213	Other facilities	3,356,808	3,356,808	100
022	Plants and equipment	143,979,303	150,731,542	105
0221	Office equipment and furniture	8,952,129	9,342,255	104
0222	Communications equipment	1,006,409	960,027	95
0223	Maintenance and protection equipment	551,529	747,322	136
0225	Instruments, devices and machines	128,973,826	135,186,528	105
0227	Devices, machines and equipment for other purposes	4,495,410	4,495,410	100
023	Means of transport	22,181,899	22,840,645	103
0232	Other means of transport	22,181,899	22,840,645	103
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	28,348,626	30,562,874	108
0261	Investments into software	28,348,626	30,562,874	108
029	Value correction of produced long-term assets	156,482,172	171,450,198	110

042	Small inventory in use	542,203	491,383	91
049	Value correction of small inventory	542,203	491,383	91
1	Financial assets	120,644,601	87,699,137	73
11	Cash in bank and petty cash	38,885,844	24,980,884	64
111	Cash in bank	38,878,381	24,977,067	64
1111	Money on accounts in domestic business banks	38,878,381	24,977,067	64
113	Cash in bank	7,463	3,817	51
12	Deposits, guarantee deposits and receivables from employees and for overpaid taxes and other	52,460,897	36,991,912	71
121	Deposits in banks and other financial institutions	47,400,000	31,600,000	67
1211	Deposits in domestic banks and other financial institutions	47,400,000	31,600,000	67
122	Guarantee deposits	2,481,416	2,484,744	100
123	Receivables from employees	461	172	37
124	Receivables for overpaid taxes and contributions	9,204	20,581	224
1241	Receivables for overpaid taxes	9,204	20,581	224
129	Other receivables	2,569,816	2,886,415	112
1291	Receivables for refundable fees	88,920	36,993	42
1293	Receivables for advance payments	2,480,896	2,849,422	115
1294	Other unmentioned receivables	0	0	0
16	Receivables for revenue	29,077,320	24,510,935	84
163	Receivables for revenue pursuant to special regulations	26,235,951	23,674,611	90
164	Receivables for revenue from assets	2,841,369	836,324	29
19	Expenditure for future periods and outstanding collection of revenue	220,540	1,215,406	551
191	Revenue for future periods	220,540	1,215,406	551
	LIABLITIES AND OWN RESOURCES	**174,166,389**	**137,090,981**	**79**
2	Liabilities	44,330,768	40,122,109	91
24	Liabilities for expenditure	4,091,585	5,376,275	131
241	Employee liabilities	3,148,396	3,468,303	110
2411	Liabilities for net salaries	1,722,589	1,930,273	112
2412	Liabilities for net salaries - net	15,481	6,293	41
2414	Liabilities for income tax and surtax on salaries	454,065	433,539	95
2415	Liabilities for contributions from salaries	541,960	590,953	109
2416	Liabilities for contributions on salaries	414,048	506,850	122
2417	Other liabilities for employees	253	395	156
242	Liabilities for material expenditure	722,291	696,149	96
2421	Reimbursements to employees	81,812	51,010	62
4222	Compensations to members in rep. and exec.bodies	0	612	0
2425	Liabilities towards domestic suppliers	640,479	644,527	101
2426	Liabilities towards foreign suppliers	0	0	0
245	Liabilities for collected assistance funds	12,295	1,075,303	8,746
249	Other liabilities	208,603	136,520	65
2492	Obligations for value added tax	208,594	106,520	51
2493	Obligations for deposits	9	30,000	333,333
29	Delayed expenditure payments and future revenue	40,239,183	34,745,834	86
291	Delayed payment of expenditure	0	0	0

292	Unpaid future revenue	40,239,183	34,745,834	86
2921	Pre-paid revenue	21,970,288	16,565,941	75
2922	Delayed recognition of revenue	18,268,895	18,179,893	100
5	Own resources	129,835,621	96,968,872	75
51	Own resources	4,366,344	3,988,611	91
511	Own resources	4,366,344	3,988,611	91
5221	Surplus revenue	125,469,277	92,980,261	74
5222	Revenue deficit	0	0	0
Off-balance sheet records				
61	Off-balance sheet records -assets	54,194,550	174,117,784	321
62	Off-balance sheet records - liabilities	54,194,550	174,117,784	321

10.6.2 Liabilities

Heading 24 contains Liabilities for expenditure referring to salaries for December 2014, obligations towards suppliers and obligations towards the State Budget. The liabilities for collected aid funds include the obligation to the State Budget, that is, the bank guarantee was collected as well as the State Budget receivables that were paid to HAKOM's account on 31 December 2014. Liabilities towards the State Budget were covered on 14 January 2015.

Heading 2921 Delayed recognition of revenue contains delayed revenue, that is, revenue for 2015 paid in 2014. Since a significant amount of 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.

Heading 2922 Delayed recognition of revenue contains delayed revenue, that is, revenue for 2015 paid in 2014.

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

Heading 5221, surplus revenue, contains surplus revenue. Decreased surplus revenue results from the planned decrease of surplus revenue implemented through the financing of the surplus collected funds.

10.7 Investments

Table 10.19. Revenue earned in 2014 (in HRK)

DESCRIPTION		Plan 2014	Realisation 2014	INDEX
I.	Licences	50,000	0	0
II.	Other rights - Investments into someone else's assets for the rights of use	624,000	0	0
III.	Other non-material assets - expenditure for development project and studies	950,000	950,000	100
IV	Business premises	6,500,000	658,420	10
V	Computers and IT equipment	700,000	477,792	68
VI	Other office equipment	126,875	98,390	78
VII	Office furniture	86,000	24,174	28
VIII	Communications equipment	100,000	99,700	100
IX	Maintenance and protection equipment	75,000	217,007	289
X	Measuring and control devices	7,660,000	6,205,799	81
XI	Devices, machines and equipment for other purposes	0	0	0
XII	Means of transportation - other vehicles	0	0	0
XIII	Means of transportation - utility vehicles	2,250,000	1,403,385	62
XIV	Investments into software	4,500,000	2,160,989	48
	Land	0	1,075,195	0
TOTAL		**23,621,875**	**13,370,851**	**57**

10.8 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.

A total of HRK 766,717,109 was invoiced in 2014 for the benefit of the State Budget. Out of the total invoiced amount, HRK 743,141,276 (97 percent) refers to fees for use of the radio frequency spectrum. Other refers to fees for authorisations and licences, addresses and numbers and legal penalty rates.

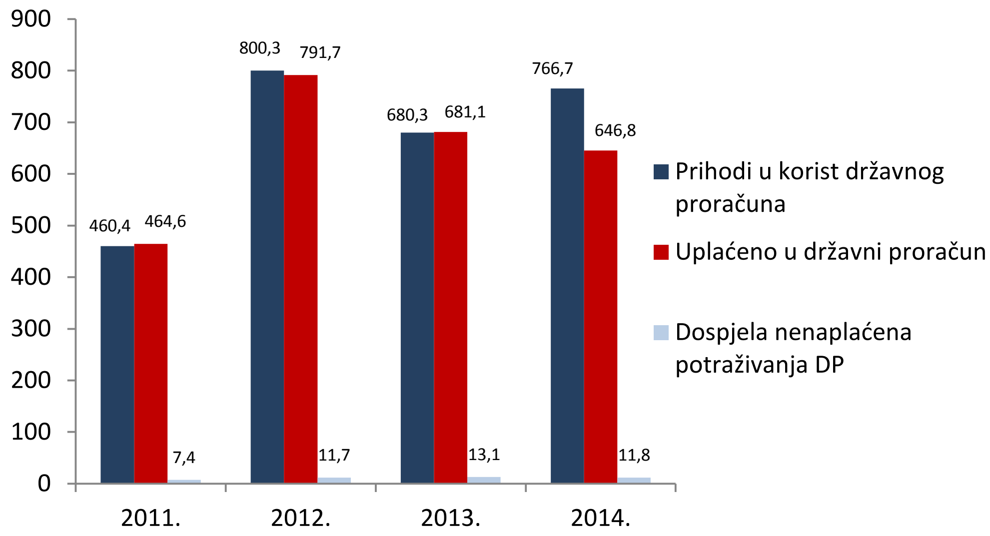
According to our records, a total of HRK 646,793,875 were paid into the State Budget in 2014. State Budget Funds paid into HAKOM's giro account by mistake are paid by HAKOM to the State Budget.

Table 10.20. Realisation of State Budget revenue in 2014 (in HRK)

DESCRIPTION	2011	2012	2013	2014
State Budget revenue	460,363,129	800,256,828	680,304,775	766,717,109
Paid into the State Budget	464,621,464	791,650,001	681,057,926	646,793,875

Table 10.21. Receivables - state budget (in HRK)				
Description of receivables	State as of 31/12/2011.	State as of 31/12/2012.	State as of 31/12/2013.	State as of 31/12/2014.
Total receivables SB	50,261,176	58,617,042	54,194,550	174,117,784
Outstanding total receivables SB	42,900,619	46,874,985	41,127,827	162,321,581
Receivables SB	7,360,557	11,742,057	13,066,723	11,796,203

Figure 10.2. State Budget revenue, payments and receivables per years (in HRK million)



A total of 68 enforcements were initiated in 2014 for all receivables that were not paid even 30 days after the issued dunning letter. The recovery of HRK 699,676 for the benefit of the State Budget was achieved in court and HRK 602,816 were collected.

10.9 Independent audit report (summary)

An independent audit firm performed the audit of financial statements of the Croatian Regulatory Authority for Network Industries covering the balance as of 31 December 2014, and the revenue and expenditure headings or the period from 1 January to 31 December 2011, and notes to financial statements. Financial statements have been prepared in accordance with the prescribed in legal form for non-profit organization.

In accordance with an audit's firm opinion, financial reports are an accurate presentation, in all significant elements, HAKOM's financial positions on 31 December 2014, as a result of its business operations for the year ending on that date, in accordance with the Regulation on the accounting of non-profit organizations.

Total assets of the Agency amounted to HRK 137.1 million on 31 December 2014, out of which non-financial assets amounted to HRK 49.4 million and financial to HRK 87.7 million.

A total of HRK 13.4 million of non-financial assets were procured, and all investments were in compliance with amendments to the financial plan for 2014. The total value adjustment in 2014 amounted to HR 17.5 million in 2012 while purchase value and value adjustment for depreciated non-financial assets amounted to HRK 1.1 million. A list of non-financial assets was published with the status as of 31 December 2014, and decisions were adopted pursuant to the proposal of the commission for listing assets recorded in the Agency's business books.

The most important items of financial assets are deposits in domestic banks and claims for revenue. Financial assets also include cash in bank and petty cash, receivables for revenue and expenditure for future periods expressed in accordance with the provisions of the Regulation on accounting of non-profit organizations. Balances on domestic currency accounts and petty cash balance are based on credible documentation (excerpts from business banks and a petty cash balance as of 31 December 2014). The audit company verified the shown receivables on the basis of written confirmations from buyers.

The balance sheet liabilities as of 31 December 2014 consist of liabilities amounting to HRK 40.1 million, own sources amounting to HRK 4.0 million and business results amounting to HRK 93.0 million.

The most important item among liabilities is the postponed payment of expenditure and future revenue amounting to HRK 34.7 million. The company separated liabilities on revenues in the current and revenue in future periods.

The balance of own sources is a result of value adjustment and depreciation of assets purchased in 2007 and before.

Business results consist of cumulated surplus/deficit of revenue over expenditure in earlier years minus the expressed surplus revenue in 2014 totalling HRK 32.5 million. The implementation of the Programme for the development of the Internet and broadband access in the areas of special state concern, hilly and mountainous areas and on the islands and the financing of this programme from surplus revenue resulted in negative result in 2014.

As of 31 December 2014 the Agency does not have significant potential liabilities. According to the attorney and the Agency's legal service, no negative outcomes are expected from legal disputes against the Agency.

Annexes:

A. List of abbreviations

ADSL - Asymmetric Digital Subscriber Line
AEM - Agency for Electronic Media
RMRA - Rail Market Regulatory Agency
CRSA - Croatian Railway Safety Agency
CCA - Croatian Competition Agency,
BEREC - Body of European Regulators for Electronic Communications
BR -Radiocommunication Bureau
BRIFIC - Bureau Radio International Frequency Information Circular
CADB – Central Administrative Database of Ported numbers
CABP - Central Administrative Base of Portability
CARNET- Croatian Academic and Research Network
CEPT - European Conference of Postal and Telecommunications Administrations
COCOM - Communications Committee
CPG - Conference Preparatory Group – ECC group dealing with preparation of ECPs
CPS - Carrier Pre-Selection
CRM - Customer Relationship Management
DAB - Digital Audio Broadcasting
SGA – State Geodetic Administration
DMS - Document Management System
DSLAM -Digital Subscriber Line Access Multiplexer
DTV – Digital television
DUZS – National Protection and Rescue Directorate
DVB-T - Digital Video Broadcasting – Terrestrial
COCOM -Electronic Communications Committee
ECDL - European Computer Driving Licence
ECO - European Radiocommunications Office
ECP - European Common Proposals
ECTS - European Credit Transfer System
EDZ – Electrotechnical Society Zagreb
EFIS - European Frequency Information System
EC – European Commission
ECI – Electronic communications infrastructures
EKIP – Electronic Communications and Postal Services Agency of Montenegro
ELMAR - International Symposium "Electronic in Marine"
ENRRB - European Network of Rail Regulatory Bodies
ERGP - European Regulators Group for Postal Services
EU - European Union
EUROSTAT - Statistical Office of the European Union
E&Y – Ernst and Young
FEEC - Faculty of Electrical Engineering and Computing
FM - Frequency Modulation
FTTH- Fibre to the Home
FTTx - Fibre TO The x
GIS - Geographic Information System
GPON - Gigabit Passive Optical Network
GPS - Global Positioning System
GSM - Global System for Mobile Communications

GSM - R- Global System for Mobile Communications - Railway
HAKOM – Croatian Post and Electronic Communications Agency
HCM – Harmonised Calculation Method – International agreement for the harmonisation of frequencies for mobile and fixed terrestrial systems
HLIG - High Level Internet Group
HP - Croatian Post
HRT – Croatian radio-television
HT - Hrvatski Telekom d.d. (Croatian Telecom)
CFC - Croatian Firefighting Community
CIHI - Croatian Institute for Health Insurance
HŽ - Croatian Railways
ICSMS - Information and Communication System on Market Surveillance
ICT - Information and Communication technologies
ICT - Information and Communication technologies
IOT - Internet of Things
IP - Internet Protocol - Network protocol for data transfer which is used for source and destination computers for data communication over computer network
IPTV - Internet Protocol Television
IRG - Independent Regulators Group
IRG R - Independent Regulators Group- Rail
ISO - International Standards Organization
ITU - International Telecommunication Union
CMS – Control and measuring station
CMC – Control and measuring centre
CTV - Cable television
LLU - Local Loop Unbundling
LTE - Long-Term Evolution - A technology which enables high transfer speed over 4th generation mobile communications systems
MCPP - Ministry of Construction and Physical Planning
MIFR - Master International Frequency Register
ME - Ministry of the Economy
MPEG -Moving Picture Experts Group –.
MSTI– Ministry of the Sea, Transport and Infrastructure
MRFEU- Ministry of Regional Development and EU Funds
MI - Ministry of the Interior
MUX - Multiplex a stream of digital signals containing several radio or television programmes and/or other data simultaneously transferred via one radio frequency channel;
MFEA - Ministry of Foreign and European Affairs
M2M - Machine to Machine
NCRT - National Council on Radio Television
NGA - Next Generation Access
NGN - Next Generation Network
NIPP – National Infrastructure of Spatial Data
OG – Official Gazette
OiV - Odašiljači i veze d.o.o.
OLT - Optical Line Termination - Unit or device serving as terminating point for an optical line changing the optical signal into the electrical signal
OTT – Over-the-top service
PAY-TV - Television programmes with payment
PCM Pulse Code Modulation –
MCMS - Mobile control and measuring station
PMR - Private Mobile Radio

PSTN - Public Switched Telephone Network
RAK - Regulatory Agency of Bosnia and Herzegovina for Communications
RAPEX – Rapid Exchange of Information System
RBA - Republic Broadcasting Agency
RF - radiofrequency
RRB - Radio Regulations Board
RRC – Regional Radiocommunications Conference
RSC - Radio Spectrum Committee
RSPG - Radio Spectrum Policy Group
RoC – Republic of Croatia
R&TT – Radio and telecommunications terminal equipment
RTR (Rundfunk und Telekom Regulirungs)
RUO Reference Unbundling Offer
SAT TV - Satellite television
S-DAB - Satellite Digital Audio Broadcasting
SD- Standard Definition
SINTESIO - Non-profit institution for issues of compliance of NGN and laboratory for testing interoperability with headquarters in the Republic of Slovenia
SDTV- Standard Definition Television
SEE Digi.TV - South-East European Digital Television
SIM - Subscriber Identity Module
SMP - Significant Market Power operator
SMS - Short Message Service
SNG - Satellite News Gathering
SRD - Short Range Devices
T - DAB - Terrestrial Digital Audio Broadcasting
TETRA -Terrestrial Trunked Radio) – standard for private mobile communications
TV – Television
UHF - Ultra High Frequency: RF band between 30 MHz and 300 MHz
UMTS - Universal Mobile Telecommunications System (3rd generation mobile network)
UPU - Universal Postal Union
USB - Universal Serial Bus
VAS - Value Added Service
VDSL - Very-high-bit-rate Digital Subscriber Line
VHF - Very High Frequency RF band between 300 MHz and 3 GHz
WGSE
WIFI – Local wireless network in the 2.5/5 GHz frequency band
WP TELE - Working Party for Telecommunications at the Council of the EU
WRC- World Radiocommunication Conference
WGFM - Working Group Frequency Management
WLR -Wholesale Line Rental
xDSL - x Digital Subscriber Line
ECA – Electronic Communications Act
PSA – Postal Services Act
RA - Railways Act
ARRSM - Act on the Regulation of the Rail Services Market

B. List of figures

C. List of tables