

2023 ANNUAL WORK PROGRAMME

ZAGREB 2022



CROATIAN
REGULATORY AUTHORITY
FOR NETWORK
INDUSTRIES

CONTENT

Introduction	3	RF spectrum management	23
		Spectrum allocation for mobile communications networks	24
Electronic communications	5	Regulatory activities	24
Regulatory activities	6	EMF level verification	25
Construction and the ECI	7	Spectrum monitoring	26
Services	8	Control and measurement system	26
Consumer protection	10	Inspection	27
Inspection	11	Cooperation	27
Cooperation	11		
Postal services	14	Development programmes and the national Broadband Competence Office (BCO)	30
Regulatory activities	15		
Universal service	16	HAKOM's other activities	32
Consumer protection	16	Better regulation strategy	33
Inspection	16	Regulatory framework	33
Cooperation	17	Publicity of operations	34
		Information access	34
Rail services	19	Personal data protection	34
Regulatory activities	20	Inspection activities	34
Access to the rail network and service facilities	20	Court proceedings	34
Passengers' rights protection	21	Competence development and business processes improvement	35
Inspection	21	e-Agency	35
Cooperation	21		
		Account description used in references	37
		Abbreviations	38

The background is a deep blue gradient. On the left side, there are vertical columns of binary code (0s and 1s) in a lighter blue, semi-transparent font. Overlaid on this is a faint, light blue grid. In the center-left area, there is a data visualization consisting of several vertical bars of varying heights and a thin, wavy line graph that trends downwards from left to right. The overall aesthetic is high-tech and digital.

01

INTRODUCTION

INTRODUCTION

[Croatian Regulatory Authority for Network Industries](#) (HAKOM) is a national regulatory authority for electronic communications and postal and rail services. HAKOM is an autonomous and non-profit legal entity with public authority, accountable for its work to the [Croatian Parliament](#). The 2023 Annual Work Programme defines HAKOM's activities (goals) and outcomes related to the time frame, the 2023 Financial Plan and strategic priorities determined by the [HAKOM's Strategy for the Period between 2022 and 2025](#).

Most of the tasks and operations are performed within the scope of public authority pursuant to acts whose implementation falls within HAKOM's competence. These primarily include the [Electronic Communications Act \(ECA\)](#), [Act on Measures to Reduce the Cost of Deploying High-speed Electronic Communications Networks](#), [Postal Services Act \(PSA\)](#), [Act on the Regulation of Rail Services Market and the Protection of Passenger Rights in Rail Transport \(ARRSM\)](#) and the [Railway Act \(RA\)](#). Pursuant to these acts, HAKOM is competent to adopt ordinances regulating in detail technical issues regarding the implementation of these acts, while also participating in the implementation of other acts and subordinate legislation.

HAKOM's regulatory principles and goals are defined by the regulatory framework of the European Union (EU) and the Republic of Croatia (HR), and are best summarised in its **mission statement**: *"By encouraging regulatory predictability, preventing discrimination, ensuring the efficient management of limited goods, promoting effective investments, protecting market competition and contributing to the development of the European Union's market, HAKOM regulates the markets of electronic communications, postal and rail services in the interest of service users."*

HAKOM's **vision** involves: *"Developing sustainable network services markets that enable competition through a wide range of high-quality services accessible to all citizens."*

The market regulation falling within HAKOM's competence is highly interdisciplinary, involving a combination of technical, economic and legal expertise. HAKOM's inspection powers provide for a prompt response to all observed market irregularities, while a high level of user (passenger) protection is ensured by preventive and corrective activities, including the resolution of disputes between users and service providers in all three network industries. The year 2023 will see the adoption and full implementation of **the better regulation strategy**, based on the completion of a project currently underway. The regulatory impact assessment will be a standard precondition for all important regulatory decisions.





02

**ELECTRONIC
COMMUNICATIONS**

The electronic communications market has been in upswing since 2021. The growth of investments in very high capacity networks and 5G networks has created an environment conducive to a higher degree of digitalisation - a precondition for the competitiveness of the economy and the whole society. This environment or “ecosystem” should serve the interests of citizens and the economy, the end-users of all services, which means that regulation should seek to find a balance between competition and investments, accessibility and network neutrality of services and user protection. The new EU regulatory framework, with which the new ECA complies, is expected to become fully implemented in 2023. New market analyses that take into account the geographical segmentation according to various criteria will be completed, while the new regulation will provide a basis for continued investment in the electronic communications infrastructure, focusing on the areas in which competition is not as developed as in densely populated urban areas. Important activities will be carried out to ensure cyber and network security in the market, while network neutrality and open internet will remain basic principles for the provision of all services. The protection of end-users in electronic communications as well as informing and educating users about services, rights or obligations will account for a significant part of activities to be implemented in the following year.

Regulatory activities

HAKOM adjusts its regulatory activities to the conditions in the electronic communications market. This requires timely and accurate market data enabling a prompt adjustment of regulatory activities, if necessary, and the adoption of measures that are data-informed and dimensioned to eliminate market obstacles, identified on the basis of the collected data. For this reason, HAKOM regularly **collects data and indicators on market conditions** and publishes them on its website. Different data and indicators are collected to provide information to other national institutions and international institutions.

A number of regular activities will be carried out for the purposes of implementation or the supervision of implementation of various regulatory obligations imposed on operators with significant market power (SMP operators) in the markets subject to ex ante regulation: **the margin squeeze test (MST)**, which is carried out for all retail offers in the broadband market submitted by entities subject to the MST, tracking various wholesale KPIs, amending standard offers, etc.

Regular annual activities are coupled with periodical activities (carried out once in three years, or, in accordance with the Code, once in five years), which involve **the analyses of relevant markets subject to ex ante regulation**. These activities encompass analysing market condi-

tions and defining regulatory measures that are in compliance with the established market condition, with a focus put on protecting competition, efficient investments and protecting end-users’ interests.

The first quarter of 2023 will see the completion of **the analysis of the wholesale broadband access market**, which started in early 2022 and included a detailed geographical analysis of the market and examination of the possibility of geographical market segmentation in line with the latest recommendations of the European Commission (EC). Once this analysis has been completed, HAKOM will bring its regulatory obligations in compliance with the provisions of the new analysis, taking into account potential differences in regulatory obligations across different geographical areas. This primarily refers to the MST methodology, which will be attuned to the new market analysis.

A new round of **the analysis of the wholesale high-quality access market** (wholesale dedicated capacity market) will be carried out by the end of 2023. In accordance with the comments from the latest EC market analysis, a detailed geographical analysis will also be carried out, which may result in geographical market segmentation or regulatory measures.

In December 2020, the European Commission adopted a delegated act (DA)¹, whose provisions came into force on 1 July 2021. The delegated act aims to achieve the EU-wide harmonisation by **the implementation and application of provisions on single fixed and mobile voice call termination rates (FTR and MTR)**. This will accelerate the development of the EU single market and reduce trade barriers between Member States, as well as some administrative barriers, as regulatory authorities will no longer be obliged to develop their own cost models. In 2023, HAKOM will, in cooperation with operators, continue to monitor the implementation of the DA in the Croatian market, eliminate potential ambiguities and monitor the impact of single voice call termination rates in the electronic communications market.

In the context of the anticipated further development of the 5G technology, resulting from the granting of RF spectrum licences and the obligation to provide network access to MVNOs, which will lead to the further development of competition and innovative services for end-users, HAKOM will monitor and supervise whether operators comply with all obligations pursuant to RF spectrum licences and whether network access has been provided under the conditions that enable effective competition and the development of innovative services for end-users.

Reasonable weighted average cost of capital (WACC) rates in fixed and mobile networks are regularly updated, which is important for further investments, as WACC rates provide for the best assessment of return on capital investments to which SMP operators investing in the

1. Commission Delegated Regulation (EU) 2021/654 of 18 December 2020 supplementing Directive (EU) 2018/907 of the European Parliament and of the Council by setting a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate, available at [link](#)

infrastructure are entitled. After the new WACC, to be calculated in 2022, comes into force on 1 January 2023, HAKOM will ensure the compliance of the wholesale fee.

Following the coming into force of the new ECA, HAKOM will start applying new regulatory options stemming from the new EU regulatory framework. In 2023, possibilities will be examined to apply the provisions on **symmetrical regulation**, which is applicable to all operators irrespective of the established SMP status and relates to **the regulation of access within buildings or to the first distribution point**.

“Market Day”, a traditional conference for the stakeholders of the electronic communications market will be held in autumn. The conference aims to gather all interested parties, such as the representatives of operators or consumer protection associations, present the results achieved in the past year from the regulator’s perspective, announce future activities and discuss current market condition and the direction of its development.

Construction and the ECI

An analysis will be carried out of the regulatory framework in order to reduce the costs of building the electronic communications infrastructure (ECI) and deploying very high capacity networks (VHCN). The analysis will inform the cooperation in the procedures of amending subordinate legislation that directly impact the use of the existing ECI and other associated facilities as well as regulations governing technical and other conditions for the construction of new electronic communications networks (ECNs), with a focus on fostering collective investments in the construction of very high capacity networks. The cooperation on amendments will aim to make VHCNs accessible to residential, business and other facilities.

The collection, processing and cartographic representation of broadband coverage data are carried out on a regular basis. The collected and processed data on the availability and use of broadband speeds as well as on the expression of commercial interests in the construction of very high capacity networks are published via the geographic information system (GIS). The system aims to define the areas acceptable for the co-financing of the construction of electronic communications networks through government aid and for monitoring and analysing market and investment development. All relevant data comprised by this measure will be available in the electronic form through standardised web services. The collected data and defined areas will be disclosed on HAKOM’s website by means of GIS portal thematic browsers Data on broadband availability will be submitted to the European Commission to enable a common display of broadband coverage at the EU level ([European broadband mapping portal](#)).

The ECI legalisation procedure is the procedure of regulating the current condition of telecommunication cables installed without the prior conclusion of contracts on the access to and the shared use of cable ducts. Once a procedure has been completed, HAKOM adopts a decision imposing additional obligations on the infrastructure operator, beneficiary operator and legal or natural person, with an aim of regulating the condition of cable ducts. The legalisation procedure will promote the shared use of the ECI and improve the safety of use of ECNs, network integrity and the interaction of electronic communications services.

The right of way, and the right of servitude, regulate the right of access to, installation, use, repair and maintenance of the ECN, ECI and associated facilities, including cable ducts, as well as other related rights, which impose a burden on the real estate on which the ECI and associated facilities have been constructed. As the infrastructure operator is required to pay the right of way fee to the common good manager or the real estate owner, HAKOM will continue to address the requests submitted by real estate owners or common good managers to identify the infrastructure operator and determine the amount of the right of way fee.

The coordination of the implementation of a package of EU measures to reduce the costs of deploying very high capacity networks and provide timely and investment-friendly access to the 5G RF spectrum in order to promote connectivity (**Connectivity Toolbox**) will be a major activity in 2023.

The implementation has the following goals:

- streamlining the construction permit granting procedure;
- increasing the transparency of the procedure by means of a single information point ([ski.dgu.hr](#); e-Licences);
- ensuring the realisation of the right of access to existing physical infrastructure and real estate owned and/or controlled by public sector bodies;
- establishing the steady practice of resolving disputes related to infrastructure sharing;
- assessing and reducing the environmental impact of communications networks;
- financial incentives in spectrum allocation processes, with an emphasis on unused frequency bands;

- Union-wide coordination on radiofrequency spectrum management to foster high-quality wireless connectivity in the industry;
- informing the public on the impact of electromagnetic fields and care for public health;

In order to fulfil these goals in the public interest, HAKOM plans to invest its own financial and human resources and cooperate closely with all stakeholders that are either competent for their implementation or exposed to their influence. HAKOM will especially promote and take care of the fulfilment of measures, in line with the time frame, for which it is the competent authority under the National Plan for the Development of Broadband Access. The time frame for the realisation of this complex activity depends primarily on the cooperation of competent line ministries, primarily of the Ministry of Physical Planning, Construction and State Assets (MPPCSA), Ministry of the Sea, Transport and Infrastructure (MSTI), Ministry of the Economy and Sustainable Development (MESD) and Ministry of Health (MH) as well as of investors in very high capacity networks (VHCN.) and local self-government units.

The basis for cooperation with the State Geodetic Administration (SGA) on the establishment of the single ECI cadastre database is provided for by the [State Survey and Real Estate Cadastre Act](#) and the [National Spatial Data Infrastructure Act](#), with the SGA being responsible for the establishment of the Central Repository of the Cadastre of Lines with the GIS ECI module (Geographic Information System of the Electronic Communications Infrastructure and Associated Facilities), i.e., a single base aimed at ensuring access to spatial data on the constructed electronic communications infrastructure and available electronic communications capacities in the HR. The exchange of these data on the ECI between HAKOM and the SGA will be established via HAKOM's future GIS software. This will create the preconditions for the provision of support to the following HAKOM's business processes:

- the process of establishing special conditions for construction;
- the processes related to the right of way certificate and the right of use of real estate;
- the process related to the legalisation of the ECI;
- ensuring a timely access to information on the existing ECI suitable for the shared use;
- the processes related to the activities of HAKOM as the authority competent for disputes over the shared use of the ECI.

Guidelines and opinions in the procedure of preparation and adoption of physical plans will be issued on an ongoing basis. Pursuant to the provisions of the [Physical Planning Act](#) HAKOM participates, in accordance with the provisions of the ECA, Article 59, paragraphs (3) and (11), in the adoption of physical plans, from the submission of a request (the competent planning authority's decision to commence developing a plan or to amend an existing plan) to participation in public consultations by providing a written opinion on draft proposal for a physical plan aimed for public consultations.

As a public authority for construction, HAKOM establishes special **conditions for construction/connection conditions and issues main project certificates**. The process of establishing special conditions for construction and issuing main project certificates has been digitalised by introducing the e-Licences internet service. In order to achieve further digitalisation and automation, internal processes will be adjusted in accordance with the new provisions of the ECA, based on which HAKOM establishes connection conditions.

Pursuant to the provisions of the new ECA, HAKOM will assign **Broadband Ready** labels to all new constructed buildings and buildings that have undergone major renovation, marking them as ready for providing the high-speed internet access service. HAKOM will adopt a decision specifying the form and shape of the label as well as the conditions for its assignment.

Services

The security of networks and services, as tools for the connectivity of service users, is a prerequisite for a digital society. **The security of networks and services** therefore plays an increasingly important role in the activities carried out by HAKOM in cooperation with operators and other competent institutions in the HR and EU. The analyses of potential security incidents reported by operators, complying with the criteria prescribed in the [Ordinance on the manner and deadlines for the implementation of measures for the protection of security and integrity of networks and services](#), will provide an insight into the state of security of networks and services, assess the measures implemented by operators and review the revisions of security policies. This will serve as a basis for HAKOM to put forward its proposals for the improvement of security of networks or services and to promptly report on the breaches of security or the loss of integrity of Croatian communications networks or services to the European Union Agency for Cybersecurity (ENISA) and the competent national regulatory authorities of other EU Member States.

The development of new technologies, primarily 5G networks, and a constant increase in the number of communications services users, increasingly call for a high level of network securi-

ty to be exercised during data transfers through the communications infrastructure, especially when using the internet access service. In cooperation with the national Computer Emergency Response Team (CERT), HAKOM will strongly focus on the **cybersecurity** of end-users of the internet access service. In 2023, the National Cybersecurity Council will continue work on the national implementation of the Toolbox, in particular of technical measures comprised by the Toolbox, prescribed by the Ordinance on the manner and deadlines for the implementation of measures for the protection of security and integrity of networks and services. The effects of the implemented measures will be assessed in cooperation with the EC, primarily with the NIS (Network and Information Security) Cooperation Group, so that further steps can be determined.

In December 2020, the EC, in order to adopt additional measures to further improve the resilience and incident response capacities of public and private entities, competent authorities and the Union as a whole in the field of cybersecurity and critical infrastructure protection, adopted a new cybersecurity strategy. This strategy prescribes the strengthening of the EU's strategic autonomy in order to improve its resilience and common response and to develop an open and global internet. The proposal is based on the amendment to the NIS Directive (EU 2016/1148) made by **the new NIS2 Directive and the implementation of the new CER Directive** (Directive of the European Parliament and of the Council on the resilience of critical entities). HAKOM will participate in the national working group on the development and implementation of the new HR cybersecurity strategy, focusing on the implementation of the accompanying measures of this strategy's action plan as the measure implementing or co-implementing authority.

HAKOM is entrusted with the task of **managing the addressing and numbering space** in electronic communications. This involves the ongoing monitoring of market conditions, timely preparation of addressing and numbering plans, prompt assignment of addresses and numbers and the adoption of necessary regulations enabling users the portability and use of the addressing and numbering space. HAKOM is also responsible for the Central Administrative Database of Ported Numbers (CADPN) and will take care of its maintenance and development, acting in tune with the wishes of users and operators so as to enable its optimum use. HAKOM is also responsible for the HR addressing and numbering space database ([e-Operator](#) system), which will be regularly maintained to enable operators to electronically submit requests for the primary allocation, revocation or transfer of rights to use addresses and numbers.

Network neutrality and open internet are important for market development and end-users. Pursuant to [Regulation \(EU\) 2015/2120](#) of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications

(TSM Regulation), HAKOM ensures the protection of open internet access. In 2023, HAKOM will continue to supervise the following:

- i.) the manner of implementation of the operator transparency requirement under the TSM Regulation (e.g. clearly defined minimum, maximum and normally available internet access speeds in the fixed network and estimated speed in the mobile network);
- ii.) the operator traffic management measures and the duration of measures going beyond reasonable traffic management measures, e.g. those applied in the case of congestion or to protect network security;
- iii.) the impact of specialised services on the internet access service (access and core network);
- iv.) measures to prohibit the blocking or congestion and slowing down of certain applications.

The quality parameters of the provision of public voice services will be monitored and analysed by collecting data from operators, while **the quality of provided internet access services** will be monitored by means of user applications [HAKOMetar](#) and [HAKOMetar Plus](#), including checking internet openness parameters. In addition to ensuring open internet and net neutrality, HAKOM will control the compliance of the roaming service with the TSM Regulation.

According to currently available data, three quarters of the EU population have no access to the **IPv6 protocol** and there are major differences across Member States in its implementation. The internet community claims that this is an indication that Europe is a continent of contrasts when it comes to IPv6. The European Commission has declared that IPv6 "is an important precondition for digital Europe." The next relevant factor is the lack of IPv4 addresses that Europe is faced with at the moment. The IPv4 protocol provides the addressing space of about 4.3 billion addresses. However, the success of the internet, the variety of usage and the spread of associated facilities result in the gradual exhaustion of IPv4 addresses. In addition, the Open Internet Working Group of the Body of European Regulators for Electronic Communications (BEREC) has noted that public IP addresses are key for enabling users to realise their rights to use and provide applications and services, as specified in Regulation (EU) 2015/2120 on open internet access. Therefore, in 2023, HAKOM will, in cooperation with other national institutions, primarily the Central State Office for the Development of the Digital Society (CSODDS) and the Croatian Academic and Research Network (CARNET), work proactively on the national promotion of the IPv6 transition in the HR.

Universal services in electronic communications represent the minimum set of electronic com-

munications services of a specified quality that must be available to all end-users at an affordable price throughout the HR territory, regardless of their geographical location, with as little distortion of competition as possible. A key principle and goal of the electronic communications market regulation in the HR is to ensure **access to universal services** for all users of electronic communications services, which also includes ensuring an appropriate **quality of universal service provision**.

HAKOM promotes, on an ongoing basis, the development of the machine-to-machine (M2M) communication and the Internet of Things (IoT). It is essential for future development to examine M2M/IoT services within the EU electronic communications regulatory framework and analyse potential market barriers, such as, among others, limited resource distribution, standardisation, international roaming, switching operators, number portability as well as cybersecurity and data privacy.

Consumer protection

In 2023, one of the strategic goals will be to achieve a high quality and availability of services for users and a more efficient user protection. HAKOM will, in addition to resolving disputes between operators and users, continue to carry out activities aimed at preventing situations that may inflict damage to the user as a weaker party in a contractual relationship with the operator. The activities will be aimed at improving the transparency of service provision, increasing the availability of high-quality services, monitoring and measuring the quality of provided services and simplifying the process of selecting and changing contracted services. **The semi-annual work of operators' consumer complaint commissions will be analysed** in order to gain more information on difficulties encountered by users while switching or using contracted services; requests for user dispute resolution will continue to be analysed and a **report on the work of operators' consumer complaint commissions** will be prepared and published. The focus is on the detailed analysis of users' complaints and operators' responses during the two-phase procedure. The results of these analyses will inform decisions on potential improvements in operators' complaint resolution processes. HAKOM will also continue to analyse and **review operators' general operating terms and conditions, special conditions for service use and price lists**, bringing them into compliance, if necessary, with regulations in effect.

Taking into account that a well-informed and educated user is a precondition for efficient protection, HAKOM will continue to put a special focus on informing and educating users. In addition to direct communication with users ([telephone contact](#), [e-mail](#), [Ask Us](#) application and social

networks), these efforts will include the participation of HAKOM's experts in radio and TV programmes on user-related topics and cooperation with consumer protection associations. Education will also be carried out by means of **user leaflets, brochures and educational videos** featuring useful advice and information on users' rights and operators' obligations, which will be distributed to users, consumer protection associations and operators. All materials will be available on HAKOM's website and free to download for the purpose of informing or educating users. A part of user leaflets and brochures will be offered to consumer protection associations for their activities.

With an aim of enhancing user experience, i.e., assisting users with the use of contracted services, HAKOM provides and regularly updates free user applications, which are available on its website. **HAKOMetar** is a tool for measuring broadband access speeds in the fixed network, which enables users to check the contracted speed. The measurement results are acceptable as evidence in the end-user complaint resolution process. **HAKOMetar Plus** is a tool for the informative measuring of internet access quality in mobile and WLAN networks, including checking internet openness and neutrality parameters **The Cost Estimator** application started to be revised, with an aim to enable users to find the most favourable tariff in accordance with their consumer habits. Data are to be updated in real time to provide users with access to all operators' new tariffs. In cooperation with the MESD, HAKOM also keeps and maintains the **Do Not Call Register**. By entering their telephone numbers in the Do Not Call Register users confirm that they do not want to be contacted for advertising or sales purposes, which can be verified on HAKOM's website. Traders will still be able to access and check numbers in the Register and through the internet service.

In 2023, attention will continue to be paid to **young people and children** and their protection on the internet. In February 2023, HAKOM will mark the Safer Internet Day with operators and interested stakeholders. In addition, all primary schools in the HR will be provided with updated brochures containing important advice for children and parents on the safe use of internet in the school year 2022/2023. Schools will organise workshops for parents and children, in accordance with their needs and possibilities. Children, young people and schools will have access to the updated [Privacy Calculator](#), a free application made to raise users' awareness and inform them of internet fraud, depending on the kind of data they are required to give out.

Additionally, cooperation will be continued with the research and scientific community and the associations of persons with disabilities on the project implemented to make digital content and services as user friendly as possible for **persons with disabilities (PWD)**. The focus will be on proactive action towards market development and the overall accessibility of services through digital media. Also participating in the project will be associations dealing with the problems of persons with disabilities, which are indispensable for collecting information on the real needs of persons with disabilities in a digital society. At mid-2023, HAKOM will organise an international conferen-

ce on the topic of persons with disabilities in a modern society, which will enable the exchange of experiences and ideas for improving accessibility and raising awareness of these issues.

Inspection

HAKOM’s inspection powers provide for a better and prompt response in market regulation. HAKOM will therefore continue to perform **inspection supervisions and market controls** in accordance with the 2023 Annual Inspection Plan. Inspection supervisions will verify, among other things, compliance with regulatory obligations, the provision of the universal service, the protection of user rights, the quality and safety of communication networks, the conformity of radio equipment, the efficient use of the radiofrequency spectrum, network neutrality, the prevention of unsolicited electronic communications and the timely payment of the right of way fee to real estate owners. All cases involving legal violations or non-compliance with specific provisions that are likely to adversely affect a large number of users will be considered a priority, while administrative acts adopted based on inspection supervisions will be made public.

Cooperation

HAKOM’s role as a national regulatory authority for network industries and electronic communications implies intensive cooperation with other public authorities in the HR, scientific institutions and market stakeholders, as well as active **international cooperation**, i.e., representing the HR in a large number of international institutions or work groups engaged in electronic communications.

HAKOM participates in the work of BEREC, the Body of European Regulators for Electronic Communications, as well as in the work of EU agencies, committees and institutions, in particular the COCOM, RSPG, ENISA and RSC. HAKOM also participates in the work of international organisations, such as the ITU, CEPT, IRC, EMERG and EaPaReg. HAKOM’s experts will continue working as members of numerous expert teams or groups within these organisations.

As regards **cooperation with domestic institutions**, HAKOM most closely cooperates with the MSTI, MPPCSA, CPDPA and CCA, but it will also cooperate with other public authorities/public law bodies, such as the CBS, SGA and others, consumer protection associations and the scientific community.

The table below presents HAKOM’s activities in the electronic communication market planned for 2023. The table includes a reference to the expenditure accounts of the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity.

Electronic communications market activities in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Complete the analysis of the wholesale broadband access market	Analysis of the wholesale broadband access market	I	N	2.1., 2.2.
2.	Harmonise the margin squeeze test methodology with the provisions of the analysis of the wholesale broadband access market	Harmonised document Market squeeze test methodology	IV	N	2.1., 2.2.
3.	Harmonise the regulatory obligations of SMP operators with the analysis of the wholesale broadband access market	Harmonised regulatory obligations of SMP operators with the analysis of the wholesale broadband access market	IV	N	2.1., 2.2.
4.	Conduct an analysis of the wholesale dedicated capacity market (M2/2020, i.e. M4/2014 & exM14/2003)	Analysis of the wholesale dedicated capacity market	IV	N, 3237	2.1., 2.2.
5.	Amend standard offers	New wholesale conditions in standard offers	ongoing	N	2.1., 2.2.
6.	Issue opinions on standard offers for access to networks co-financed from EU funds.	HAKOM’s opinions regarding standard offers	ongoing	N	2.1.
7.	Conduct the margin squeeze test (MST)	Tariff packages of operators subject to the MST in accordance with the Methodology	ongoing	N	2.1.

8.	Collect and disclose data on the EC market condition	Reports on indicators of the electronic communications market	quarterly	N, 426	2.1., 5.1.
9.	Supervise the implementation of regulatory obligations	Analysis and disclosure of regulated wholesale KPIs, supervision administrative acts	ongoing	N	2.1., 2.2.
10.	Resolve regulatory disputes	Administrative acts	ongoing	N	4.2.
11.	Revise the security policies of operators comprising the implementation of 5G Toolbox technical measures	Application of the Ordinance on the manner and deadlines for the implementation of measures for protecting safety and integrity of networks and services	ongoing	N	1.3.
12.	Monitor and analyse the safety of networks and services and publish the collected data	Reports on cyber incidents and network safety: Quarterly reports Annual reports (NCSS and ENISA)	ongoing quarterly II	N	1.3.
13.	Implement the NIS2 directive in cooperation with other public authorities from the working group	Proposals of amendments to regulations	IV	N	1.3.
14.	Promote the use of IPv6 addresses with other relevant public authorities	National report, workshop	IV	N	1.1.
15.	Implement net neutrality rules (TSM Regulation)	Operators work in accordance with the TSM Regulation Opinions and comments for BEREC Annual Report for BEREC and EC	ongoing ongoing II	N	1.1.
16.	Analyse quality parameters of operators' service provision	Semi-annual reports	I and III	N	1.1.

17.	Manage the addressing and numbering space	Numbering and addressing plan	ongoing	N	2.3.
18.	Ensure and monitor the number porting process	CADPN in operation	ongoing	N	1.1.
19.	Measuring the quality of universal service provision in electronic communications	Annual Report on the quality of provision of universal service	ongoing	N	1.2.
II					
20.	Process registration applications and notifications on the start or termination of provision of electronic communications services	HAKOM's certificates and updated list in the e-Operator EU register of operators updated with HR operators	ongoing	N, 3238	2.2.
21.	Implement activities related to roaming regulation	Support to BEREC and operators	ongoing	N	4.1., 1.1.
22.	Monitor and supervise the implementation of obligations for the MVNO access	Enabled access to MVNOs	ongoing	N	2.1., 2.2.
23.	Ensure compliance of regulated wholesale fees with WACC values	All regulated wholesale fees brought into compliance with WACC values	I	N	2.1., 2.2.
24.	Enhance the system of collecting data for the geographical review of coverage by broadband networks and their use (mapping)	System with integrated data coverage for various purposes	I	N	3.1.
25.	Implement the ECI legalisation procedure	HAKOM's administrative acts	ongoing	N	1.3.
26.	Connect with the single ECI cadastre database in cooperation with the SGA	HAKOM's and SGA's services connected and operative	ongoing	N	5.1.
27.	Collect and process data on the broadband access coverage	Graphical display accessible on the internet	ongoing	N, 3237	3.2.

28.	Issue opinions in the procedure of drafting and adopting physical plans and public consultation, including the State Plan for Spatial Development	HAKOM's opinions	ongoing	N	3.1, 5.1
29.	Establish special conditions for construction/connection conditions/grant main project certificates	HAKOM's administrative acts	ongoing	N	5.1.
30.	Identify the infrastructure operator (right of way)	HAKOM's administrative acts	ongoing	N	1.3.
31.	Issue Broadband Ready labels for new constructed buildings and buildings that have undergone major renovation	Broadband Ready labels	ongoing	N	3.1.
32.	Participate in the implementation of the best EU practices (set of measures) in the Connectivity Toolbox	Increase the availability of very high capacity networks (VHCN)	ongoing, in accordance with the document	N	3.1.
33.	Resolve user complaints with electronic communications operators	HAKOM's administrative acts	ongoing	N	1.1. 4.2.
34.	Analyse the work of operators' consumer complaints commissions	Semi-annual reports	I and III	N	1.1.
35.	Cooperate with the representatives of operators' consumer complaints commissions	Recommendations for improvements in the processing of consumer complaints	ongoing	N, 3233	1.1.
36.	Analyse general terms and conditions, special conditions and price lists	Amendments according to the analysis	ongoing	N	1.1. 4.2.
37.	Monitor and measure the quality of provided services, simple and transparent selection of service providers	Applications under construction: HAKOMetar HAKOMetarplus Cost estimator	ongoing	N, 3238	1.1. 1.3.

38.	Maintain Do Not Call Register and cooperate with the MESD, traders and users	Register operational, accessible to users and traders	ongoing	N, 3238	1.1.
39.	Inform and educate users	Brochure, leaflet and video Workshops and lectures, media appearances, social network posts	ongoing	N, 3233	1.1.
40.	Cooperate with PWD associations and FEEC	Accessibility of services and products to persons with disabilities	ongoing	N, 3233	1.1.
41.	Respond to user inquiries	Responses given in the shortest possible period	ongoing	N	4.2.
42.	Performance of inspection supervisions	Supervision administrative acts	I ongoing	N	4.2.
43.	Issue and publish expert opinions	Expert opinions	ongoing	N	4.3.
44.	Cooperation with international bodies	Work in international bodies and work groups Cooperation, meetings	ongoing	N	4.1., 5.1.
45.	Cooperate with domestic institutions	Work in work groups Cooperation Meetings	ongoing	N	5.1.
46.	Organise PWD conference	International conference on accessibility	II	N, 3233	1.1.
47.	Organise Market Day	Operators and consumer protection associations Previous and future work presented Exchange of opinions	III	N, 3233	1.1., 3.3.

A hand holding a smartphone over a laptop keyboard, with a yellow overlay.

03

POSTAL
SERVICES

The EU and HR postal market have in the past two years been strongly affected by the global pandemic, with the result that letters volume has continued to decrease, while parcels volume and total revenues have grown. Under such circumstances, the role and tasks of HAKOM as a regulatory authority have not significantly changed, but market activities have continuously adapted to these trends. Furthermore, while planning work and activities in the forthcoming period, account should be taken of proposals and initiatives related to new postal regulation, which is expected to adjust services to new user requirements and market changes and is already being discussed at the global and EU levels. Notwithstanding any changes, HAKOM's mission for the forthcoming period remains the same, being primarily related to promoting and creating conditions for fair competition, removing barriers for investing in and developing the postal sector, protecting postal service users and ensuring the sustainability of universal service provision in the whole HR territory, while complying with the prescribed quality.

Regulatory activities

HAKOM's work and activities are prescribed by **the Postal Services Act** and the accompanying subordinate regulation, which is aligned with the acts of the UPU and the provisions of the EU Postal Directive, with the direct application of **the Regulation on cross-border parcel delivery services (Parcel Regulation)**. In international postal traffic, HAKOM applies regulatory measures both in the EU common postal market and at the global level regarding the universal service. In the forthcoming period, HAKOM will take an active part in the preparation and harmonisation of international regulations and their implementation in the Croatian legislation, informing all postal market stakeholders about proposed amendments. Activities will continue to focus on the fulfilment of obligations pursuant to the Parcel Regulation. The first activity involves the statistical and financial monitoring of cross-border parcel traffic, while the second concerns the monitoring of prices within the scope of the universal service. HAKOM will, among other things, carry out an assessment of cross-border tariffs applied to some chargeable services provided by universal service providers, i.e., their revaluation/justification assessment, and will submit data to the EC for publication, issuing warnings to designated providers whose prices are unjustifiably high.

HAKOM will also continue to carry out its tasks specified by the PSA, primarily **the monitoring of the conditions and development of the postal services market**. The monitoring will be conducted by the ongoing collection of statistical, financial and other data, the analysis of these data, the publication of the most important indicators and market trends and the adoption of some regulatory decisions. The collected data will also be used to meet the requirements imposed by European bodies in charge of the monitoring and analysis of the EU postal market (EC, ERGP,

UPU), respond to various external inquiries (journalists, providers, etc.) and meet the needs of government authorities and institutions (MSTI, CBS, CCA and others).

Special attention will be paid to **the fulfilment of obligations of all postal services providers** pursuant to the PSA, with a special focus on the monitoring of compliance of submitted amendments to general terms and conditions of postal services providers and their price lists. In the cases of non-compliance with the PSA, amendments will be ordered, as appropriate. HAKOM will be receiving the applications of new postal services providers as well as the notifications of removals and/or status changes of existing providers; the Register of postal services providers will be kept and publicly available. HAKOM will also verify prescribed procedures related to user rights in the complaint submission process.

Amendments to the Ordinance on the universal service provision, in the part related to transparency and equal **access to the postal network** of other providers of interchangeable postal services, consolidators and large users provided for the further opening of the HR market. Consequently, HAKOM will in the forthcoming period closely monitor the obligation, conditions and prices of network access of the universal service provider and carry out controls in order to enable fair competition to other providers. The results of the analysis will provide a basis for appropriate regulatory measures to be implemented by amendments to the conditions and prices of network access in order to strengthen competition in the letter segment of the postal market. HAKOM will continue its proactive regulatory activities aimed at monitoring potential new methods of postal service provision, especially those related to e-trade and growing digitalisation linked to the substitution of letters, and at creating equal market competition in the parcel segment of the market.

Pursuant to the provisions of the Ordinance on the universal service provision connected with **the structure of the postal network of the universal service provider**, the forthcoming period will see the continued analysis of the network as well as the modelling and simulation of new solutions to reduce the unfair financial burden on the designated universal service provider, which is paid from the state budget. The analysis will focus on the actual needs for the density of coverage with postal offices, due to the fact that present technological solutions and innovations in the provision of postal services as well the HR population size no longer require such a dense postal office network, as confirmed by providers using other forms of access points when providing postal services.

Giving **expert opinions** and explanations regarding the applications of the PSA and subordinate legislation, as well as responding to the inquiries of interested citizens and legal persons related to the provision of postal services will remain part of HAKOM's regular activities.

Universal service

Universal service is a group of postal services provided in the domestic and international traffic in the interest of the HR, which must meet certain quality standards and be available at an affordable price to all users in the whole HR territory under equal conditions. In accordance with the PSA, **HP – Hrvatska pošta d.d.** has the right and obligation to provide the universal service. Pursuant to the PSA and the Ordinance on the provision of universal service, the control of the fulfilment of the universal service obligation is one of the most important HAKOM's regulatory activities.

The operational activities include, among other things, the verification of compliance of general terms and conditions, price lists and other acts adopted by the HP as well as the implementation of amendments if these acts are not in compliance with the PSA and the Ordinance on the provision of universal service. The control of HP's fulfilment of obligations related to the universal service also includes monitoring the prescribed density of the access point network, primarily changes in the number and locations of postal offices and other access points as well as procedural compliance during the closure and moving/reorganisation of postal offices. Part of the activities include monitoring and regulating postal offices' working hours and interruptions in the postal traffic caused by force majeure. Also monitored are exemptions from the universal service provision set forth in the Ordinance on the provision of universal service, especially the exemption from the five-day delivery obligation in some areas. In 2023, HAKOM will perform an analysis of the universal service provision related to the five-day delivery obligation in the HR territory.

HAKOM will focus some of its regulatory activities on compliance with the prescribed quality criteria for universal service provision, that is, on the supervision and monitoring of quality, given its significance in the universal service provision. The quality criteria are set forth in the PSA. The universal service provider is obligated to perform quality measurement in accordance with Croatian standards and submit **the Report on the quality of provision of universal service** to HAKOM. In order for the measurement results stated in the Report to be verified, especially regarding the end to end quality of postal items, an independent audit will be performed. The audit results will serve as a basis for the implementation of adequate corrective measures if service quality fails to meet the prescribed criteria.

Pursuant to the PSA, the universal service provider has the obligation of **accounting separation of revenues and costs**, both for universal services and for interchangeable and other postal services. Accounting separation is performed in accordance with the Instruction of HAKOM. The elaborated Regulatory Financial Statement (RFS) is submitted to HAKOM, which will, as in the

previous years, perform an audit to verify the reliability of accounting operations and issue a Statement of (Non) Compliance with the Methodology. Based on the audited RFS, HAKOM performs other regulatory activities, primarily the supervision and regulation of universal service prices and HP postal network access prices.

HAKOM also verifies the calculation of **the cost of an unfair financial burden (net cost)** on the universal service provider, as the universal service provider is entitled to the reimbursement of the net cost when universal service obligation generates an unfair financial burden. When it completes the verification, HAKOM will adopt a decision specifying net cost, which is paid from the state budget.

In accordance with the PSA, HAKOM is obliged to verify, every five years, based on the analysis of the HR postal market condition, whether there are postal services providers capable of ensuring the provision of the universal service pursuant to the provisions of the PSA. The universal service provider will be designated on the basis of the completed analysis.

Consumer protection

HAKOM's key activity related to user protection will primarily include the procedures of **resolving disputes between users and postal services providers** pursuant to the PSA. The information collected during dispute resolution procedures will also be used to introduce improvements to the market by potential corrections of providers' general terms and conditions or by conducting inspection supervisions. Based on the analyses of disputes, HAKOM will issue recommendations and guidelines to providers, aimed at establishing a uniform business practice and eliminating observed inconsistencies. Efforts will be taken to protect postal service users by educating and informing them about their rights through various communication channels. Other information interesting for users will also be published.

Inspection

The inspection supervision of the application of the PSA is HAKOM's important tool for regulating the postal services market, in particular with regard to the fulfilment of obligations of the universal service provider and the protection of user rights with all providers. Inspection supervisions will be carried out according to the Annual Inspection Plan or based on information on potential irregularities and regulatory violations, i.e., user complaints. Depending on the facts established during inspection supervisions, postal inspectors will take measures

pursuant to the PSA and actions within their competence. All administrative acts adopted by postal inspectors and judgements passed in administrative disputes and misdemeanour proceedings related to the inspection supervision process will be published on HAKOM's website.

Cooperation

In the period to come, HAKOM will continue cooperation with all stakeholders in the domestic postal services market, primarily with public law bodies in the HR, such as the MSTI, Croatian Bureau of Statistics (CBS), CCA and MESD, as well as with the representatives of consumer protection associations and the academic community. HAKOM's priority in international cooperation will be active participation in the work of the European Regulators Group for Postal Services (ERGP) and, with the MSTI, the EC's Postal Directive Committee. In cooperation with the MSTI, HAKOM will participate in the work of UPU bodies as well as in various strategic workshops and working bodies. Cooperation with the stakeholders of the postal services markets from other countries will also be continued.

The table below presents HAKOM's activities in the postal services market planned for 2023. The table includes a reference to the expenditure accounts of the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity

Postal services market activities in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Analyse the organisation of the postal network and model and simulate new solutions	Amendments to the Ordinance on the provision of universal service	III	N	4.2.
2.	Collect and process data on postal services market condition	Reports on postal services market indicators	quarterly	N	2.1.

3.	Meet the requirements pursuant to the Regulation on cross-border parcel delivery services	Data submitted to EC bodies	X	N	4.1.
4.	Control the fulfilment of universal service obligation	Verified delivery, postal network density, postal offices' working hours, etc.	ongoing	N	1.2.
5.	Analyse the five-day delivery obligation	Review of the conditions related to the five-day delivery	III	N	1.2.
6.	Control the calculation of a price limit for a part of the universal service	Verified key parameters that influence the price limit and price adjustment	I	N	1.2.
7.	Monitor and analyse prices and discounts for universal service	Affordable and cost-oriented prices for all users	ongoing	N	1.2.
8.	Control the conditions and prices of access to the universal service provider's postal network	Access to the universal service provider's postal network enabled to all users under equal conditions	ongoing		2.1.
9.	Analyse condition in the HR postal services market in order to establish whether there are postal services providers that can ensure the universal service provision	Designated universal service provider	IV	N	1.2.
10.	Resolve regulatory disputes	HAKOM's decisions	ongoing	N	2.1.
11.	Review the obligations of all postal services providers	Verified providers' registration/removals, logbook keeping, general terms and conditions, price list, status changes, etc.	ongoing	N	2.1.

12.	Monitor the impact of e-trade and digitalisation on the postal services market and the emergence of new methods of postal services provision	Registration of new postal services providers and new services and equal conditions created for all market stakeholders	ongoing	N	2.2.
13.	Supervise the implementation of the accounting separation obligation	RFS audit Compliance statement	III	N, 3237	2.1.
14.	Establish the unfair financial burden on the universal service provider (net cost)	Revision of requests for the reimbursement of net costs Decision on the net cost amount	IV	N, 3237	2.1.
15.	Analyse the Report on the quality of provision of universal service	Revised Report and corrective measures	III	N, 3237	1.2.
16.	Resolve user disputes with postal services providers	HAKOM's decisions	ongoing	N	1.1.
17.	Respond to the inquiries and reports of users and other stakeholders of the postal services market	Replies to users and other stakeholders	ongoing	N	4.2.
18.	Performance of inspection supervisions	Supervision administrative acts	ongoing	N	4.2.
19.	Issue expert opinions	Expert opinions	ongoing	N, 3237	4.2.
20.	Cooperation with postal market stakeholders	Regular meetings and panels	ongoing	N	4.3.
21.	Cooperation with international bodies	Work in international bodies and work groups Expert proposals	ongoing	N	4.1.



04

**RAIL
SERVICES**

A decade after the HR joined the EU and after the complete opening of the rail freight transport for competition, the previous positive market development indicators are an example of the successful liberalisation of the freight rail transport, as well as motive for a comprehensive analysis of the market situation. In 2022, the rail services market and the transport market continued to show the consequences of the COVID-19 crisis. As a result, no significant market recovery is expected in 2023, in particular in rail passenger transport. Therefore, through its regulatory activities, HAKOM will strive to promote the development of competition and ensure transparent and non-discriminatory conditions for the provision of rail services on which the transport market depends. For this purpose, HAKOM will also regularly carry out inspection supervision activities aimed at eliminating any observed irregularities in the market or the rights of passengers, as fast and as efficiently as possible.

Regulatory activities

HAKOM carries out most of its activities ex officio, within the supervision of the rail services market, so that in 2023 the focus will be on the **analysis of the indicators of rail services market development since Croatia's joining the EU**. Since in July 2023 it will be ten years since the liberalisation of the rail freight transport market, a special market overview of the past ten years will be published in which data for the mentioned period will be presented.

The review of the model for the calculation of **fees for the minimum access package** will continue under **the project for the analysis of cost allocation and calculation of fees for the minimum access package**. Special attention will be paid to the analysis of the impact of regulatory activities on the rail services market, and not only on the transport market itself. The development of methodologies for the calculation of charges for rail services provided by service facility operators will also be monitored.

HAKOM will improve market conditions by **collecting and processing data on market development and the protection of passenger rights**. For the purposes of participation in the work of the working groups of the EU and the EC Independent Regulators' Group, HAKOM will be engaged in the preparation and publication of the final analyses of the condition of the rail services market. HAKOM will act in an open manner towards the market, directing its activities towards **ensuring equal conditions and non-discriminatory access to rail services, the services in service facilities and the service facilities themselves** to all applicants.

By acting proactively ex officio and performing inspection supervisions, HAKOM will control the market, by identifying and removing potential barriers within the shortest possible period.

Regulatory experience gained from supervision and market analyses will be exchanged with EU regulatory authorities, the MSTI, the Croatian Railway Safety Agency (CRSA), the Air, Maritime and Railway Traffic Accidents Investigation Agency (AIA) and the EC, for the purpose of harmonising the practice and regulations of Member States. HAKOM will actively participate in the MSTI working group for the preparation of the strategic and legislative framework for rail transport. Panel discussions and round tables scheduled to be held in the course of 2023 will promote the importance of the development of the rail services market.

In the implementation of the procedures falling within its competence, HAKOM will cooperate with all rail system stakeholders, in particular with the infrastructure operator and railway undertakings in order to take appropriate measures through its activities towards rail service users. In this sense, individual consultations will be conducted with rail market services stakeholders for the purpose of a better regulatory effectiveness with regard to market requirements.

Access to the rail network and service facilities

The right of **access to the rail network and service facilities**, as well as to all services required for the performance of rail transport, is prescribed by the Railway Act (RA). Regulatory activities will remove potential and real barriers for the access to the market and its functioning, promote a simpler use of rail services and the market orientation of rail service providers to improve the quality of the provision of rail services.

HAKOM on an ongoing basis monitors the preparation, adoption, implementation and application of the conditions and criteria contained in the **Network Statement** and the descriptions of service facilities. In 2023, special attention will be paid to the compilation and publication of the Network Statement, its content, amendments to the Network Statement as the infrastructure manager's key document as well as the descriptions of service facilities that all service facility operators are obliged to publish. It should be noted that two network statements are applied in a single year, while at the same time a new network statement is being prepared, so that activities related to three different network statements are carried out simultaneously. Its importance for the market is emphasised by the fact that the network statement also contains links to the descriptions of service facilities or the descriptions themselves. The purpose of the supervision of conditions for access to the rail services market is to eliminate unauthorised provisions or prevent a service provider – infrastructure manager/service facility operator from discriminating applicants, as well as to verify the compliance of the network statement's content with the legislation of the HR and the EU.

Passengers’ rights protection in rail passenger transport

Pursuant to the Act on the Regulation of Rail Services Market and the Protection of Passenger Rights in Rail (ARRSM), HAKOM is competent for the protection of passengers’ rights in rail passenger transport and for the implementation of [Regulation \(EC\) No 1371/2007](#) of the European Parliament and of the Council of 23 October 2007 on rail passengers’ rights and obligations, to be repealed as of 7 June 2023 and [Regulation \(EU\) 2021/782](#) of the European Parliament and of the Council of 29 April 2021 on rail passengers’ rights and obligations is applied. For the purpose of informing passengers about the new provisions, HAKOM will publish a new **brochure on passengers’ rights and obligations**, in which passengers will be provided with the most important information and informed about the changes in their rights and obligations. Based on the regulations that govern passengers’ rights in rail passenger transport or the performance of inspection supervision, HAKOM will analyse the protection of passengers’ rights, impose measures to eliminate irregularities and promote improvements in the offer of passenger transport services in rail transport.

Disputes between passengers and railway undertakings will be resolved within the shortest legally prescribed period possible, transparently and objectively, in accordance with regulations and based on proposals put forward by the Commission for the Protection of User Rights. Dispute analyses will identify the needs to improve the conditions and the form of transport provision, monitor the condition and create grounds for ordering appropriate adjustments by railway undertakings by ex officio procedures and inspection supervisions.

Railway undertakings and railway station/stop operators are obliged to ensure equal access to services to all users, with an adequate provision of services to persons with disabilities and persons with reduced mobility posing a challenge. Since poor communication between railway undertakings and railway station/stop operators has been observed in the previous performance, which is important in situations when these two entities must act together, HAKOM will strive to promote intensified cooperation for the benefit of passengers. HAKOM will actively participate in the working groups dealing with regulations concerning rail passenger transport.

Inspection

In the area of passengers’ rights protection, HAKOM performs inspection supervision of the implementation of the ARRS, Regulation No 1371/2007 and other regulations governing passengers’ rights in rail transport. Within inspection supervisions at official places and in vehicles, HAKOM will control the conditions and accessibility of services. HAKOM will perform inspection supervisions in the rail services market, as appropriate, of the implementation of the RA with the aim of resolving regulatory issues, in particular those regarding access to rail services and service facilities.

Cooperation

Being a member of the European Network of Rail Regulatory Bodies (ENRRB), HAKOM actively participates in the work and exchange of regulatory practice with the EC as well as in the work of the Independent Regulators’ Group – Rail (IRG). After chairing the IRG-Rail, HAKOM will continue to promote current topics, such as the application of advanced technologies and the synergy of the regulatory authority for multiple network industries. HAKOM will also prepare the annual work programme and at the requests of market stakeholders present the annual data of the EU rail services market analysis.

As part of international cooperation, HAKOM will actively participate in the meetings of the National Enforcement Bodies under Regulation (EC) No 1371/2007 on rail passengers’ rights and obligations (NEB). The aim of the meetings is to exchange experiences, establish best practices for the protection of rail passengers’ rights and harmonise practices.

In the HR, HAKOM will cooperate with the authority responsible for safety and interoperability of the railway system – the Croatian Railway Safety Agency (CRSA), with the authority responsible for the issuance of licences for the provision of rail transport services – the MSTI, accidents investigation authority, the Croatian Competition Agency (CCA), and with other institutions within the rail system.

The table below presents HAKOM’s activities in the rail services market planned for 2023. The table includes a reference to the expenditure accounts in the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity.

Rail services market activities in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Supervise the implementation of the 2023 Network Statement and any amendments	Control – Publishing amendments to the Statement – Regulatory compliance analysis	ongoing	N	2.1., 2.2.

2.	Supervise the implementation of the 2024 Network Statement and all amendments	Control – Publishing amendments to the statement – Regulatory compliance analysis	ongoing	N	2.1., 2.2.
3.	Supervise the preparation, publishing and implementation of the 2025 Network Statement	Control – Publishing the draft – Publishing the statement – Regulatory compliance analysis	ongoing	N	2.1., 2.2.
4.	Revise descriptions of service facilities	Descriptions of service facilities comply with regulations	ongoing	N	2.1., 2.2.
5.	Resolve regulatory disputes	Administrative acts	ongoing	N	2.1., 4.2.
6.	Keep the register of rail services of service facility operators	Register operational and updated	ongoing	N	4.2., 4.3.
7.	Control charges for rail services	Charges comply with regulations	ongoing	N	4.2., 4.3.
8.	Analyse cost allocation and calculation of charges for minimum access package	Analysis prepared	IV	N, 3237	4.2., 4.3.
9.	Analyse regulatory financial statements	Report	ongoing	N	4.2., 4.3.
10.	Supervise rail services market – transparent and non-discriminatory conditions for the provision of services	Non-discriminatory and transparent conditions of access to the network and service facilities	ongoing	N	4.3.
11.	Carry out inspection supervisions in the area of rail services	Supervision administrative acts	ongoing	N	4.3.

12.	Collect and process data on rail services market	Reports on rail services market indicators	Quarterly/ annually	N	4.3.
13.	Collect and process data for the special market overview – ten years of the liberalisation of freight rail transport	Report	IV	N	4.3.
14.	Collect data – service facility operators	Data collection system set up	IV	N	4.3.
15.	Resolve user disputes with undertakings	Administrative acts	ongoing	N	1.1., 1.2.,
16.	Carry out inspection supervisions in the area of passengers' rights protection	Supervision administrative acts Annual report published	ongoing	N	1.1., 1.2.,
17.	Promote passengers' rights and obligations	Brochure, leaflet and video Workshops and lectures, media appearances, social media posts	IV	N, 3233	1.1.
18.	Cooperate in the preparation of regulations in the area of the rail services market and passengers' rights protection	Analysis and proposals for improvement prepared	ongoing	N	4.1.
19.	Cooperate with rail market stakeholders	Meetings and round tables held Participation in the work of expert groups Cooperation realised	ongoing	N, 3233	4.1., 5.1.
20.	Cooperate with international bodies	Work in international bodies and working groups	ongoing	N	4.1., 5.1.



05

**RF SPECTRUM
MANAGEMENT**

The RF spectrum encompasses the 9 kHz to 275 GHz RF frequency band, used by different radio communication services: broadcasting, mobile services, fixed services, satellite services, radio astronomy, radio navigation, maritime and air traffic control services, etc. These services use the RF spectrum for numerous purposes, with different services often using the same frequency band for different purposes. For instance, the same band is used for TV broadcasting, cameras and microphones when broadcasting different events, such as concerts and soccer games, as well as for WAS/RLAN networks and meteorological radars. Constant progress and the needs of the society lead to ongoing changes in the way individual frequency bands are used, so that there is an increasing trend towards a joint or shared manner of spectrum use among different services and technologies. In order to ensure smooth operation of all existing networks and the introduction of new ones, the use of the RF spectrum needs to be carefully planned and coordinated both in the HR and internationally. The main changes and guidelines for the future application of the RF spectrum are adopted at ITU's World Radiocommunication Conferences, such as the WRC 23 for which HAKOM will be preparing intensively in the course of the year in order to be ready for participation in the conference in November and December 2023. Developed and secure electronic communications, especially radio communications, will still play an important role in many economic and social activities, in particular with regard to the development of the digital society. In the forthcoming EU digital decade, wireless broadband networks are expected to make an even more significant contribution to the development of Industry 4.0 and the economy and a larger availability and enhancement of digital skills and business in the territory of the EU and the HR.

Therefore, one of HAKOM's key tasks is the management of the RF spectrum as a naturally limited public good that needs to be managed rationally and responsibly for the benefit of the society. The RF spectrum is managed pursuant to the provisions of the ECA, in line with the principles of objectivity, transparency and non-discrimination, with the aim to create a stimulating environment for efficient investments, innovation and market competition.

Efficient management also requires daily, systematic control and supervision of the RF spectrum, measurements, examinations and identification of the sources of interferences and implementation of measures to eliminate them. For this purpose, the system of control and measuring centres and stations has been set up, which is constantly upgraded and regularly maintained according to needs.

Spectrum allocation for mobile communications networks

In 2023, HAKOM will complete the procedure for spectrum allocation for the frequency bands that have already been in use for a number of years (800/900/1800/2100/2600 MHz). Since licen-

ces for these frequency bands cease to be valid in 2024, HAKOM will allocate these bands in a public auction procedure. Preparations for the public auction started in 2022.

In order to achieve the strategic goals of the HR, which, in particular, include the coverage of a certain percentage of the geographical area or population and specific areas lacking commercial interest, the obligations of coverage of these areas by the Quality of Service (QoS) will be prescribed. Following the allocation, the obligations will be prescribed by the specific licence for the use of the RF spectrum. This will ensure the efficient use of the RF spectrum and prevent potential misuse, meaning that a single operator takes up the spectrum excessively without the intention to use it.

When stipulating the above conditions, HAKOM will take into account the stipulation of the coverage obligations in the areas lacking commercial interest. Consequently, different conditions for the allocation and use may be prescribed for the individual segments of the spectrum.

Operators that will be assigned the frequencies within the 800 MHz frequency band will be included in the process of removal of the interferences that may be caused by mobile communications networks towards the end-users of digital terrestrial networks.

Regulatory activities

After the new Electronic Communications Act enters into force, the drafting of subordinate legislation on the use of the RF spectrum (started in 2022) will be completed, which primarily refers to the ordinances on the conditions of use of the RF spectrum and special conditions of the installation and use of radio stations.

Taking into consideration the rapid technological development, the spectrum allocation carried out for 5G and good practices in organising the "5G Day", in 2023, HAKOM will organise an event to promote the application and **promotion of new technologies**.

Participation in the work of the **5G network working group** and cooperation with market stakeholders will continue primarily in the segment related to electromagnetic fields (EMP) and monitoring the 5G development and deployment in accordance with the [National Plan for the Development of Broadband Access in the Republic of Croatia 2021-2027](#).

In order to monitor the deployment of 5G networks and check the fulfilment of the conditions under the licence, the holders of licences have the obligation to provide HAKOM with informati-

on on the geographical location and technical data for the installed base station or changed data on the existing radio station, which includes the data for each sector according to the pre-defined format before the start of operation. On a quarterly basis, the holders of licences have the obligation to provide HAKOM with a georeferenced coverage map with the calculated values of signal levels, separately for each frequency band in which the individual technology is applied, according to the previously agreed format. Based on the submitted data and the sample of control measurements determined according to the submitted data, HAKOM will **check the fulfilment of conditions and obligations from the licences issued for the RF spectrum use**.

Under the public tender procedure, a licence for the use of the RF spectrum for the **digital radio (DAB+)** for MUX 1 multiplex in the territory of the HR was issued in late 2021 (the 174-240 MHz frequency band). Thus, after four years of test broadcasting, the commercial operation of the digital radio (DAB+) was launched, and in early 2022, the [Agency for Electronic Media](#) (AEM) awarded the first concessions to broadcasters at the national and the regional level. The launching of the commercial operation of the digital radio is expected to contribute to the development of the radio market and enable the accessibility of a large number of radio channels to listeners. The frequency band earmarked for the analogue FM radio (87.5-108 MHz) is exceptionally congested, so it is precisely the possibility of introducing new programme contents that represents one of the principal advantages of the digital radio in the VHF III frequency band (174-240 MHz). In 2023, HAKOM will continue the process of international harmonisation of the technical parameters of digital radio transmitters in order to ensure technical preconditions for its continued implementation. It is worth noting that there is no obligation to put out the analogue FM radio, so that the speed and success of the digital radio implementation will primarily depend on the penetration of DAB+ receivers, user interest in new radio content and the interest of existing and future broadcasters in providing new content via the DAB+ platform. Depending on market interest, HAKOM will announce and conduct public tenders to issue licences for the new digital radio multiplexes on the national and/or regional levels as well as for the two remaining digital television multiplexes (DVB-T2). In 2023, HAKOM will also continue ensuring technical parameters for concessions for the provision of FM radio services in accordance with the requests of broadcasters and the AEM.

As a follow-up to the activities initiated by HAKOM with the assistance of the ITU-R in 2021, with regard to the assignment of frequency resources for the national coverage in the **stationary satellite service** on geostationary orbital position 63° E, in cooperation with the administrations that have made a similar request, HAKOM will continue the initiative to amend the provisions of the ITU Radio Regulations in order to facilitate the coordination process with other satellite networks. Activities within this initiative will be intensified as part of the European preparations for the 2023 World Radiocommunication Conference (WRC 23) as well as activities within the relevant ITU-R working group and finally at the WRC 23.

By employing modern IT tools and systems, HAKOM constantly improves its operation ensuring faster and easier access to its services for the users of the RF spectrum and communicates information falling within its competence to the public. Within the framework of the e-Agency programme, and in connection with the use of the RF spectrum, the following [e-Licence](#) services are currently available, providing for a simple and speedy way of submitting applications and issuing licences for the use of the RF spectrum: [e-Vessels](#), [e-Broadcasting](#) and [e-Microwave](#).

The process of introducing new e-services for the remaining types of licences for the RF spectrum use was launched in 2022. The implementation completion is planned in 2023. HAKOM has already implemented the e-signature service, the sending and receiving of licences in electronic form. In 2023, HAKOM will also ensure users to have insight into licences in electronic form by means of electronic channels, such as the personal user mailbox, business user mailbox or the [e-Citizens](#) system, which, in addition to the above mentioned e-services, will further contribute to the enhancement of services provided by HAKOM.

In addition to the mentioned licensing applications, there is also the application for an overview of licences (*Pregled dozvola*), which enables an overview of issued licences for the use of the RF spectrum, in general and individually, which will be updated, as appropriate.

In order to meet the transparency requirements under the TSM Regulation relating to the speed of internet access in mobile communications networks, HAKOM will publish data on its website submitted by operators within the framework of comparable coverage maps, as well as data on the quality of data and voice services.

Since based on the RSPG opinion, adopted pursuant to Art. 28 of the European Electronic Communications Code, after several decades, interferences in the TV channels in the 470-694 MHz band as well as interferences in the 700 MHz band, which has been used for 5G mobile communications networks since the licence was issued in August 2021, were successfully removed in 2022. HAKOM plans to continue its international activities to remove interferences in the FM and VHF III (DAB) frequency band.

EMF level verification

The protection from radio communications electromagnetic fields (EMFs) in the areas of increased sensitivity is one of HAKOM's important and regular activities. Within the framework of monitoring data on base stations, HAKOM will continue running calculations and, where necessary,

conducting **measurements of the level of electromagnetic fields** on the ground. HAKOM will continue to carry out control measurements of the EMF levels of base stations and other radio stations and publish measurement results via its internet GIS portal <http://mapiranje.hakom.hr/>. Through activities related to the control of the EMF levels of radio stations, which, where necessary, also include preventive or corrective action, HAKOM ensures the compliance of the construction of radio stations with regulations in the field of electronic communications and indirectly with health care regulations prescribing EMF protection.

The work of the task force for EMFs and small cells, established within the framework of the 5G working group, will continue in 2023. Cooperation with the relevant representatives of the scientific community, institutions and other stakeholders within the framework of this task force is aimed, among other things, at better informing and educating the public on the impact of EMFs on humans and ensuring a responsible approach to the construction of the 5G network.

Spectrum control

One of HAKOM's key roles is to ensure the use of the RF spectrum in compliance with the issued (valid) licences and to protect the holders of licences for the RF spectrum use. Accordingly, HAKOM regularly **controls and monitors the RF spectrum**, which includes daily, weekly and monthly measurements and different measuring campaigns. Measurements are carried out by a sophisticated measuring system consisting of multiple control and measuring centres, control and measuring stations, measuring vehicles and manual measuring devices. All measurements are conducted in accordance with clearly defined procedures complying with applicable norms, regulations and recommendations. The results collected by measurements also serve as the basis for further planning and coordination of the RF spectrum. Within the framework of the activities on the **protection from interferences**, special attention will be awarded to the protection of services competent for search and rescue, emergency services, maritime and air traffic control radio communications that are important for protecting human lives and property as well as to operators of mobile electronic communications.

Measuring campaign – Italian interference: Every year, from July to September, comprehensive measurement activities are undertaken, measuring interferences with Croatian radio (FM and T-DAB+) and television (DVB-T/T2) networks originating from the Italian Republic in VHF and UHF frequency segments. After the measurements, the obtained results are processed, which eventually results in reporting the interferences to the Italian administration and the International Telecommunication Union (ITU) in order to ensure smooth use. Since in 2022 interferences in the UHF frequency area were successfully resolved, the emphasis of the measurements will be

on removing the interferences in the FM radio and the digital (DAB+) radio in the VHF III band.

Measuring campaign – WAS/RLAN in the 5 GHz frequency band: Starting from the end of 2021 and in the course of 2022, the new meteorological radars operating within the 5470–5725 MHz frequency band will become operational (in the following order: RC Gradište kod Županje, RC Bilogora, RC Debeljak – Sukošan, RC Goli, RC Ulijenje and RC Puntijarka), which is shared with WAS/RLAN devices. WAS/RLAN devices use the RF spectrum in accordance with general licence OD-201. Intensified implementation of targeted checks of the use of the 5 GHz frequency band, the compliance of the operation of WAS/RLAN devices with the provisions laid down in the general licence and the removal of unwanted interferences with the operation of meteorological radars is expected in 2023. With regard to the importance of the base of reported WAS/RLAN radio stations in the so far conducted activities related to the removal of interferences with the operation of meteorological radars within this band, HAKOM will continue to improve the application for reporting user RLAN devices and promote its use. The objective of the measurement is primarily to enable undisturbed implementation and use of new meteorological radars in the 5 GHz frequency band.

Measuring campaign – Verification of coverage and measuring key performance indicators of mobile telecommunications networks: In order to meet the transparency obligations under the TSM Regulation relating to the speed of internet access in mobile telecommunications networks, a measuring operation will be carried out aiming at verifying data on the coverage of mobile networks supplied by mobile telecommunications network operators. In addition to the verification of mobile telecommunications networks, for the first time it is also planned to carry out a detailed measuring of key performance indicators of mobile telecommunications network operators. The operation will be carried out on an ongoing basis in order to regularly refresh data processed within the framework of the comparison of submitted coverage maps.

Control and measurement system

Maintenance and procurement of the control and measuring system: The sophisticated measuring system used in the control of the RF spectrum is regularly maintained and upgraded to keep up with the latest technologies implemented in the area of electronic communications. Regular measuring system maintenance activities include: agreements on the maintenance, repair, development, upgrades and calibration of the measuring equipment and system software support; repairs, maintenance and procurement of communications equipment for linking of the control and measuring system as well as its leasing, regular control of certified anti-theft and fire alarm systems; maintenance of antenna poles, which includes painting, verification of verti-

cality and grounding; works related to facilities management, detailed annual checks of control and measuring centres, control and measuring stations and measuring vehicles and regular calibration of measuring instruments in accordance with the calibration plan.

Construction of a control and measuring station (CMS) on Bilogora: In order to improve the quality of the RF spectrum control and monitoring, the construction of a CMS in the Northern Croatia region is planned. The construction of the new CMS will provide for spectrum monitoring and control in a several times wider coverage of the HR territory than the area currently covered by the existing CMSs located in Northern and North-West Croatia.

Inspection

Inspection supervision is performed after irregularities or divergences from the conditions laid down in licences for the RF spectrum use are established through measurements. At the same time, there is an ongoing supervision of the radio equipment put on the market and/or in operation (use) pursuant to the Law on Technical Requirements for Products and Conformity Assessment and [Directive 2014/53/EU](#) (Radio Equipment Ordinance).

Cooperation

Participation in the work of **international working groups related to RF spectrum management** within the framework of the CEPT, ITU and specialised working groups within the framework of BEREK and the EC is key for the positioning of the HR and the protection of national interests. Participation in the work of the RSC and the RSPG, bodies competent for the harmonisation of the RF spectrum and the adoption of EU-wide RF spectrum management policies is especially noteworthy. Within the framework of the above bodies, HAKOM intends to continue its activities for the removal of interferences in the FM analogue radio (87.5-108 MHz) and ensuring preconditions for the uninterrupted operation of the digital radio within the VHF III band (74-240 MHz). Within the framework of international cooperation, HAKOM will participate in international conferences, symposiums and working groups connected with RF spectrum management and in the preparation of documents important for the regulation of the EU-wide radiofrequency spectrum use.

Since the **World Radiocommunication Conference WRC 2023** will be held at the end of 2023, in the first half of the year, HAKOM is expected to intensify its activity in the work of different working groups as part of preparations for the WRC 23. These activities will culminate in the participation in the conference in November and December 2023. The following topics of the forthco-

ming conference are of particular importance for Croatia: the future of the UHF frequency band used for television broadcasting in Croatia; the potential purpose of additional frequency bands for the new generation mobile systems; and topics related to satellite procedures with regard to the assignment of frequency resources for the national coverage on the geostationary orbit in the stationary satellite service.

HAKOM will cooperate with neighbouring countries' administrations for the purpose of cross-border cooperation and harmonisation of the RF spectrum use and the exchange of experiences on RF spectrum management. The RF spectrum will be harmonised on the international level in accordance with international regulations and agreements. Where necessary, HAKOM's representatives will participate in coordination meetings with neighbouring countries' administrations and enter into implementing agreements relating to the use of the RF spectrum.

Participation in international meetings for removing interferences and interaction with international institutions competent for the area of radio communications is extremely important for the removal of long-standing interferences in the frequency bands for the FM radio. HAKOM will continue to participate in the work of the Working Sub-group on cross-border coordination (Good Offices Working Group) established by the Radio Spectrum Policy Group of the EC. HAKOM will also participate in international meetings, report on the status of interferences and seek further involvement of the competent bodies of the International Telecommunication Union (ITU), the Radio Regulations Board (RRB) and the Director of the Radiocommunication Bureau (BR) in resolving the problem of interferences in the segment of terrestrial broadcasting.

Domestically, HAKOM will cooperate with different ministries, agencies, institutes and other authorities to keep RF spectrum management effective and well-designed and ensure a stimulating environment for investments, innovation and market competition in the area of electronic communications. Cooperation will also continue with members of the academia and the industry on a consultative and educational level.

The table below presents HAKOM's activities in the RF spectrum management and control planned for 2023. The table includes a reference to the expenditure accounts in the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity.

RF spectrum management activities in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Regular radiofrequency spectrum control	Measurement reports on conducted measurements	ongoing	N, 453	2.3.
2.	Remove international interferences	International meetings International interferences requiring additional communication removed	ongoing	N	4.2.
3.	Remove domestic interferences	Domestic interferences removed	ongoing	N	2.3.
4.	Verify the meeting of conditions from the licences for public networks of mobile communications	RF spectrum use in accordance with licences	IV	N	2.3.
5.	Head and organise the 5G working group	Working group meetings and required documents	ongoing	N, 329	4.2.
6.	Organise an event (conference) to promote new technologies	Event (conference)	II	N, 329, 3233	1.1.
7.	Allocate spectrum for mobile communications networks	RF spectrum use licences for mobile communications	II	N	2.3.
8.	Harmonise RF spectrum internationally	Implementing agreements on spectrum use with neighbouring countries and individual radio stations harmonised	ongoing	N	2.3.
9.	Upgrade the GIS platform	Platform upgraded	ongoing	N, 454	4.2.

10.	Amend the Table of RF spectrum use and allocation plans	Table of use and allocation plans amended and ready for adoption in accordance with international regulations, interest shown and market and technology development	III	N, 3238	3.2.
11.	Issue compliance certificates	Certificates for radio stations that complied with conditions	ongoing	N	4.2.
12.	Issue licences for RF spectrum use pursuant to submitted applications	HAKOM's administrative acts	ongoing	N	2.3.
13.	Prepare calculations and issue annual invoices for the RF spectrum use for valid licences	Annual invoices for the RF spectrum use	ongoing	N	2.3.
14.	Upgrade the e-Licences service	New e-Licences services for satellite and air traffic communications e-Licences	IV	N, 454	1.1.
15.	Plan and optimise radiocommunication networks	Efficient use of RF spectrum: Improved coverage of existing networks – Conditions for operation of new networks ensured	ongoing	N	2.3.
16.	Prepare HR positions and participate in WRC 2023	HR positions prepared within CEPT and the EU Participation in WRC 23		N, 329	5.1.
17.	Construct a control and measuring station (CMS) on Bilogora	New control and measuring station	III	N, 3239, 421, 422	2.3.

18.	Control the levels of electromagnetic fields (EMF)	GIS browser of radio stations and EMF measurements Measurement reports	ongoing	N	4.2.
19.	Implement Measuring campaign — Italian interference	Measurement report Reports for the removal of interferences	III – IV	N	4.2.
20.	Implement Measuring operation – WAS/RLAN in the 5 GHz frequency band	Detailed measurement reports	ongoing	N	2.3.
21.	Implement Measuring operation – verification of coverage and measuring of key performance indicators of mobile telecommunications networks	Detailed measurement reports	ongoing	N	2.3.
22.	Maintain control and measuring system	New measuring equipment for new technologies (5G) Measuring equipment calibrated	ongoing	N, 3232, 4521	2.3.
23.	Perform inspection supervisions	Supervision administrative acts	ongoing	N, 3211	4.2.
24.	Cooperate in international activities related to RF spectrum	Work in international bodies and expert groups Cooperation	ongoing	N	4.1.

06

**DEVELOPMENT PROGRAMMES
AND THE NATIONAL
BROADBAND COMPETENCE
OFFICE (BCO)**



HAKOM will continue its role of the Competent Authority for the [National Framework Programme for the Development of Broadband Infrastructure in Areas Lacking Sufficient Commercial Interest for Investments](#) (NFP) in 2023. Twenty individual projects, initiated in the previous financial period, 2014 – 2020, are implemented under the NFP. Under the [National Recovery and Resilience Plan](#), additional funds are ensured for the continuation of the FNP implementation with some twenty new projects that are expected to be contracted in the course of 2023. HAKOM as the Competent Authority for the Framework Programme (CAFP) coordinates the implementation of projects and cooperation with other authorities within the system, in particular Intermediate Bodies levels 1 and 2 – the [Ministry of Regional Development and EU Funds](#) (MRDEF) and the [Central Finance and Contracting Agency](#) (CFCA). The CAFP will publish all activities related to the FNP implementation at <https://nop.hakom.hr/>.

The CAFP's role also includes monitoring progress in the implementation of the announced commercial investments by operators within the scope of public consultations held for all individual projects of units of local and regional self-government competing for grants.

HAKOM's activity as the national Broadband Competence Office (BCO) will continue in 2023. The new website and other forms of communication will provide for a professional and high quality information of citizens and business entities about new possibilities and opportunities for further broadband access development as well as the development of the 5G network and very high capacity networks (VHCN).

The table below presents HAKOM's activities in the development programmes and the BCO planned for 2023. The table includes a reference to the expenditure accounts in the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity.

Activities of development programmes and the BCO in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Cooperate with ministries, agencies and business entities with regard to FNP implementation (MRDEF, MSTI, CFCA, operators)	Activities related to FNP implementation carried out	ongoing	N	3.2.

2.	Participate in the work of the Operational Programme Competitiveness and Cohesion (OPCC) Monitoring Committee	Participation in the Committee meetings Monitoring progress in achieving specific OPCC objectives	ongoing	N, 3233	4.2.
3.	Monitor the implementation of commercial interest	The report on the implementation of the commercial interests of operators prepared	IV	N	3.3.
4.	Report to the European Commission on NFP implementation	Written report on NFP implementation	IV	N	5.1
5.	Carry out activities of the Broadband Competence Office (BCO)	BCO website developed Coordination of bodies included in BCO activities	I ongoing	N, 3237	3.1., 3.2., 3.3, 4.2.
6.	Consult and inform the public and interested stakeholders with regard to broadband access development	Consultation conducted and information provided Workshops held	ongoing	N	3.3.
7.	Cooperate with stakeholders with regard to broadband development	Cooperation realised Work in expert groups Meetings	ongoing	N, 3233	3.3.
8.	Cooperate with international bodies and participate in meetings of the European BCO Network and in the work of other international groups	Cooperation realised and the level of expertise raised Meetings	ongoing	N, 3233	3.3, 5.2.



07

HAKOM'S
OTHER
ACTIVITIES

Better regulation strategy

HAKOM advocates the upgrading of its capacities for better designing, implementing and evaluating regulatory activities for the benefit of consumers and businesses. Effective regulatory activity may have a positive impact on the market by means of reducing administrative burdens and excessive regulatory costs as well as providing for a better service, more job opportunities, innovation and increased investment.

The first step was made in early 2022, when the project on introducing the Regulatory Impact Assessment (RIA) in electronic communications, postal and rail markets² was launched as part of the project *Strengthening the implementation of regulatory impact assessment*. The project also includes the Legislation Office of the Government of the Republic of Croatia and ministries. The project is implemented by the German Corporation for International Cooperation (Gesellschaft für Internationale Zusammenarbeit (GIZ)) in cooperation with the Directorate-General for Structural Reform Support of the European Commission (DG REFORM). The project was commissioned by the German Federal Ministry of Economic Affairs and Climate Action and co-financed under the Technical Support Instrument (TSI).

Our strategic goal is to improve predictability, transparency and responsibility of our decision-making process.

The comprehensive Strategy for Better Regulation will enable HAKOM to achieve its ultimate goal, that is, the implementation of **Regulatory Impact Assessment (RIA)** as the standard precondition for all relevant regulatory decisions until the end of the next year.

RIA will be a set precondition for any proposal submitted to the Council for consideration, unless clearly defined criteria for exclusion of the exemption apply.

In this regard, the current objectives are, as follows:

- revise our internal regulatory procedures and policy-making structures to adopt the best international practice with regard to the adoption of evidence-based policies and formalise regulatory impact assessment within HAKOM;

- prepare an adapted guide and a methodological tool for regulatory impact assessment, which will be applied to all regulatory activities in electronic communications, postal services and rail;

- enhance employees' analytical capacities through training on regulatory impact assessment methodologies, tools and processes;

- elaborate the binding Better Regulatory Agenda for the whole organisation.

The project closure is expected at the end of the first half of 2023, and the full implementation of the methodology, tools and processes at the level of the whole organisation is expected by the end of the year.

Regulatory framework

With regard to the changes in the electronic communications, postal and rail services markets, one of HAKOM's strategic activities will be to carry out a detailed analysis of such EU acts from the perspective of the interests of the HR and the stakeholders in the HR market. The results of the analysis will be integrated in the proposal of the positions adopted by the Government of the HR based on which further negotiations in the legislative procedure are conducted. In March 2020, a working group of the line ministry was formed, competent for drafting the new ECA transposing [Directive \(EU\) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code](#) into the Croatian legal system. HAKOM's representatives also formed part of the working group. HAKOM will continue its cooperation with competent ministries with regard to the transposition of the acquis and the optimisation of the acts and regulations, i.e. the adjustment of certain sectoral rules to optimise them with regard to the market. After the adoption of new sectoral rules, HAKOM will adopt relevant implementing regulations (ordinances).

Primarily by participating in BEREC's activities, HAKOM will also continue to monitor the development of the future legislative framework at the EU level concerning the potential regulation of digital platforms within sectoral regulations. Future acts will be analysed in detail and the results obtained from such analyses will be included in the proposal of positions adopted by the Government of the HR.

2. <https://hakom.hr/hr/svecanost-otvaranja-technical-support-instrument-projekta/9216>

Publicity of operations

The publicity of operations is defined by two levels: the legislative level and the level that makes HAKOM's activities more transparent or more efficient for the users of its services. The legislative level stipulates the submission of the Annual Activity Report and the Financial Statement for the previous year to the Croatian Parliament and the Government of the HR; the adoption and publishing of the Annual Work Programme and the Financial Plan for the following year following prior public consultation, the publishing of the adopted decisions for all those having a large impact on the market; the publishing of the adopted rulings, frequency plans and the like. In addition to the legally prescribed procedures, attention is also paid to disclosing any other information important to end-users or business entities, primarily on the internet: the publishing of news, advice and warnings (including through social media), with the possibility of a daily telephone contact for users or contacts via other electronic means (the "[Ask Us](#)" application, [email](#), social networks).

In 2023, HAKOM's website in Croatian and in English will be regularly updated with current contents, and public information and advice will also be distributed through other digital platforms, such as Facebook, Twitter, LinkedIn or YouTube.

Information access

HAKOM, as a public authority, enables the users to exercise the right of information access and the re-use of information in accordance with the provisions of the [Act on the Right of Access to Information](#) – by submitting oral or written requests. Information access is enabled by the timely publishing of information on HAKOM's activities on HAKOM's official website and by providing information based on submitted requests. In this way, HAKOM fulfils the principle of transparency and publicity of its operations as well as the timeliness, completeness and accuracy of information published. HAKOM will continue to publish information relevant for its work and organisation regularly, in particular the information impacting user interests. HAKOM will also continue to provide any information that may help users or facilitate the use of services in each of the three markets falling within HAKOM's competence.

Personal data protection

In activities undertaken within the framework of its legal powers, HAKOM processes personal data of users, applicants and other parties in accordance with the [General Data Protection Regulation](#)

(Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC), other applicable regulations and HAKOM's Personal Data Protection Policy.

In accordance with the Electronic Communications Act, HAKOM will continue to monitor the implementation of obligations under the [Directive on e-privacy](#) (Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector, as amended by Directive 2009/136/EC), which are transposed into the provisions of Title IV of the ECA. In addition, HAKOM monitors the activities in relation to the adoption of the new e-privacy Regulation repealing the mentioned e-privacy Directive and the adoption of new acts resulting from the European data strategy, such as the Data Act and the Data Management Act.

Inspection activities

Inspection activities will be performed according to the Annual Inspection Plan for 2023 under the principles of proportionality and adequacy. Proportionality is achieved by choosing measures that are proportionate to the nature of violation of law, taking into account the complexity and abundance of regulations and rules that subjects in the market have to comply with. The supervised entities are ordered to take measures necessary for the elimination of established irregularities, while any misdemeanour proceedings are initiated in accordance with legal powers, taking into account all circumstances of each inspection supervision procedure. The adequacy of inspection supervision is, as a rule, achieved by eliminating systemic problems in the market that may considerably undermine competition and/or end-user rights. The report on inspection supervisions performed in 2022 will be published at the beginning of the year and the Annual Inspection Plan for 2024 will be adopted by the end of 2023. All administrative acts adopted on the basis of inspection supervisions will be made publicly available.

Court proceedings

Court proceedings in which HAKOM will participate as a party to the proceedings will include administrative disputes initiated against HAKOM's final decisions, misdemeanour proceedings initiated by HAKOM against natural and legal persons due to the violations of legislative provisions falling within HAKOM's competence and enforcement proceedings against legal and na-

tural persons for the non-payment of fees for the right of use (state budget) and for HAKOM's work, and pre-bankruptcy and bankruptcy proceedings where HAKOM applied for its claims against a debtor upon whom pre-bankruptcy or bankruptcy proceedings have been initiated.

Competence development and business processes improvement

Employees are HAKOM's largest and the most important resource. In 2023, much attention will be paid to the creation of organisational culture and environment in which competence development is considered to be an added value contributing to the organisation's progress. With this aim, HAKOM will continue to develop the competences of its employees and support their engagement in lifelong learning and development. Employee training, their education at graduate and postgraduate studies will be further pursued and the personal career development system will be completely implemented.

As a pilot entity, HAKOM will continue to participate in the project of the Ministry of Justice and Administration entitled the "[Development of a competency framework for public administration employees](#)" and completely build a business and professional competency system with the goal to improve the expert, efficient and professional provision of services to users.

The **Business Process Management (BPM)** methodology has been integrated. In accordance with the methodology, activities will continue on the recognition, modelling and designing of processes as well as the analysis of the already modelled processes for the purpose of further improvements. The optimisation and digitalisation of operations has been constantly implemented, which primarily includes the improvement of the existing processes or the introduction of the new ones. In accordance with the established business policy based on agile work principles, HAKOM will continue to identify the possibilities for further improvements in operations and readiness for change focusing on service users' satisfaction.

The **Project Management (PM)** process has been set up in accordance with the tested project management methodology. The PM enables the instantaneous availability of data on the project scope, milestones, costs, participants and the status of project activities. Activities will continue on promoting consistency and uniformity in project management at HAKOM, updating of the established methodology and its compliance with business needs and it will be ensured that projects comply with HAKOM's strategy and operational objectives of the individual organisational unit.

e-Agency

The development of external user-oriented services within the e-Agency programme will continue with the aim of improving, enhancing and modernising the current business processes at HAKOM. In addition to the introduction of office management in accordance with regulations, it is also necessary to introduce and implement new internal processes and systems as well as to improve the current services. For this reason, **new functionalities** will be implemented in the **office management programme** to achieve higher efficiency and better monitoring of business organisation processes. Three new services for the users of HAKOM's services will also be set up, i.e. three types of e-Licences: for mobile, fixed and amateur radio stations.

In building the e-Agency, HAKOM carries out a series of activities and measures with the aim to increase cybersecurity and reliability of its external and internal services, aiming to provide a good quality response to the growing security threats in the cyberspace. Education and other actions aimed at raising employee awareness of the importance of cybersecurity are frequently carried out as well as occasional checks of the current situation of the cybersecurity of HAKOM's IT system.

Implementation of the new ERP system: With the aim of enhancing its organisational and financial efficiency, HAKOM plans to implement the new ERP system, which also includes the integration of a new accounting programme. It is expected to achieve more efficient posting and financial reporting processes and result in improved employee performance and a more efficient financial management and control.

Digital archiving of cases: With the goal of a complete digitalisation of operations, HAKOM will implement the functionalities of the digital archiving of cases, which will contribute to financial savings as well as saving time and paper.

The table below presents HAKOM's other activities planned for 2023. The table includes a reference to the expenditure accounts in the Financial Plan for each of the activities (a list of all expenditure accounts is included at the end of the document) and a reference to the strategic goal the realisation of which is assisted by the execution of a specific activity.

Other HAKOM activities in 2023					
No.	Activity	Result	Completion (quarter)	Fin. Plan	Strategic goal/ Priority
1.	Complete and implement the RIA project	RIA process established Strategy for better regulation	IV	Projekt ⁴	2.1.
2.	Participate in drafting proposals of positions in adopting EU regulations	Proposals of positions of the HR	ongoing	N	4.1.
3.	Transpose the acquis	Drafting regulations	ongoing	N	4.1.
4.	Participate in the legislative procedure of adopting EU regulations	Drafting regulations	ongoing	N	4.1.
5.	Adopt new sectoral implementing rules	New ordinances	ongoing	N	4.1.
6.	Participate in court proceedings	Preparing acts and depositions: motions for indictment, misdemeanour warrants, lawsuits, appeals, responses to lawsuits and appeals and motions for enforcement Representation before courts, administrative and other state authorities	ongoing	N, 3237	4.2.
7.	Protect personal data processed by HAKOM in the capacity of controller	High level of protection of personal data	ongoing	N	4.2.
8.	Enable information access	Information pursuant to the Act on the Right of Access to Information	ongoing	N	4.2.

9.	Coordinate the implementation of the Annual Inspection Plan for 2023	Annual Inspection Plan implemented	ongoing	N, 3237	4.2.
10.	Prepare the Annual Inspection Plan for 2024	Annual Inspection Plan for 2024	IV	N, 3237	2.1.
11.	Prepare the Annual report and Financial statement for 2022 and submit them to the Croatian Parliament	Annual report and Financial statement for 2022	II	N, 3237	5.1.
12.	Prepare the Annual work programme and the financial plan for 2024	Annual work programme and the financial plan for 2024	IV	N	5.1.
13.	Analyse and harmonise business processes	All processes that were subject to change analysed and harmonised	ongoing	N	5.1.
14.	Manage projects	Projects comply with established project methodology	ongoing	N	5.1.
15.	Update web and Intranet sites and other digital communication platforms	Relevant and timely information for the public	ongoing	N, 3238	5.1.
16.	Develop competences	New competences	ongoing	N	5.3.
17.	Develop and maintain e-Agency services	New e-Agency services added and existing ones upgraded	ongoing	N, 3238, 454	5.1., 5.2.

ACCOUNT DESCRIPTION USED IN REFERENCES

The abbreviation “N” includes 31 – Employee expenses, 321 – Compensations of expenses to employees, 322 – Expenditures for materials and energy, 3231 – Telephone, postal and transport services, 324 – Compensation of expenses to unemployed persons, 329 – Other unmentioned operating expenditure.

ACCOUNT	DESCRIPTION	2023 PLAN PROPOSAL (€)*
		107,404,670
31	Expenses for employees	58,490,400
311	Salaries	43,490,705
312	Other expenses for employees	7,681,926
313	Contributions on salaries	7,317,769
32	Material costs	35,810,520
321	Employees cost reimbursements	4,400,000
322	Material and energy expenses	2,823,750
323	Expenses for services	26,910,370
	3231 – Telephone, postal and transport services	1,184,100
	3232 – Current and investment maintenance services	1,800,000
	3233 – Marketing and information services	747,500
	3234 – Utility services	410,800
	3235 – Renting and leasing	9,444,500

	3236 – Health and veterinary services	400,000
	3237 – Intellectual and personal services	4,892,200
	3238 – Computer services	5,572,270
	3239 – Other services	2,459,000
324	Compensation of expenses to unemployed persons	5,000
329	Other unspecified operating expenses	1,671,400
34	Financial expenses	172,500
343	Other financial expenses	172,500
37	Compensations to citizens and households on the basis of insurance	87,500
372	Other budget compensations to citizens and households	87,500
38	Other expenses	30,000
383	Fines, penalties and damages	30,000
41	Expenses for procurement of non-produced fixed assets	114,500
411	Tangible assets – Natural resources	1,000
412	Intangible assets	113,500
42	Expenses for procurement of produced fixed assets	9,624,250
421	Buildings	1,000,000
422	Plants and equipment	5,237,250
426	Intangible produced assets	3,387,000
45	Expenses for additional investments in non-financial assets	3,075,000
452	Additional investments in plants and equipment	100,000
453	Additional investments in means of transport	500,000
454	Additional investments in other non-financial assets	2,475,000

* The amounts in the table refer to the Financial Plan at the time of the adoption of the Annual Work Programme and may deviate in the case of revision.

The Financial Plan for 2023 is available at [HAKOM website](#).



ABBREVIATIONS

AEM – Agency for Electronic Media

ARRSM – Act on the Regulation of Rail Services Market and the Protection of Passenger Rights in Rail Transport

BCO – Broadband Competence Office

BEREC – Body of European Regulators for Electronic Communications

BR – Radiocommunication Bureau

CADPN – Central Administrative Database of Ported Numbers

CAFP – Competent Authority for the Framework Programme (for the development of broadband internet access)

CBS – Croatian Bureau of Statistics

CCA – Croatian Competition Agency

CEPT – European Conference of Postal and Telecommunications Administrations

CERP – European Committee for Postal Regulation

CFCA – Central Finance and Contracting Agency

CMS – Control and Measuring Station

COCOM – Communications Committee

DA – European Commission delegated act on single voice termination rates

DAB – Digital Audio Broadcasting

DVB-T2 – Digital Video Broadcasting –Terrestrial2

EaPaReg – Eastern Partnership Electronic Communications Regulators Network

EC – European Commission

ECA – Electronic Communications Act

ECI – Electronic Communications Infrastructure

ECN – Electronic Communications Network

EMERG – Euro-Mediterranean Regulators Group gathers regulators from the Euro-Mediterranean countries

EMF – electromagnetic field

ENISA – European Network and Information Security Agency

ENRRB – European Network of Rail Regulatory Bodies

ERGP – European Regulators Group for Postal Services

ERP – Enterprise Resource Planning

EU – European Union

FM – Frequency Modulation

GIS – geographic information system

GIS ECI – geographic information system of the electronic communications infrastructure and other associated facilities

HAKOM – Croatian Regulatory Authority for Network Industries

HP – Hrvatska pošta d.d.

HR – Republic of Croatia

IoT	– Internet of Things	PM	– Project Management
IRG	– Independent Regulators Group	PSA	– Postal Services Act
IRG-Rail	– Independent Regulators Group – Rail	PWD	– Persons with a disability
ITU	– International Telecommunication Union	RA	– Railway Act
ITU-R	– International Telecommunication Union – Radiocommunications	RF	– Radiofrequency
M2M	– Machine to Machine	RFS	– Regulatory Financial Statement
MESD	– Ministry of Economy and Sustainable Development	RIA	– Regulatory Impact Assessment
MPPCSA	– Ministry of Physical Planning, Construction and State Assets	RRB	– Radio Regulations Board
MRDEF	– Ministry of Regional Development and EU Funds	RSC	– Radio Spectrum Committee
MST	– Margin Squeeze Test	RSPG	– Radio Spectrum Policy Group
MSTI	– Ministry of the Sea, Transport and Infrastructure	SGA	– State Geodetic Administration
MVNO	– Mobile Virtual Network Operator	SMP	– Significant Market Power operator
nCERT	– national Computer Emergency Response Team	UHF	– Ultra High Frequency: radiofrequency band spread in the range between 30 MHz and 300 MHz
NEB	– National Enforcement Body (national authority for the enforcement of regulations on the rights of passengers in rail transport)	UPU	– Universal Postal Union
NFP	– National Framework Programme for the Development of Broadband Infrastructure in Areas Lacking Sufficient Commercial Interest for Investments	VHCN	– Very High Capacity Network
NIS	– Network and Information Security	VHF	– Very High Frequency – electromagnetic waves in the radiofrequency band from 30 MHz to 300 MHz
NS	– Network Statement	WACC	– Weighted Average Cost of Capital (for reasonable rates of return on invested capital)
OPCC	– Operational Programme Competitiveness and Cohesion	WAS/RLAN	– Wireless Access System/Radio Local Area Network
		WLAN	– Wireless Local Area Network



