Annual Report of the Electronic Communications Office of Iceland (ECOI)

2024

Fjarskiptastofa

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The Electronic Communications Office of Iceland
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The Electronic Communications Office of Iceland

Suðurlandsbraut 4, 108 Reykjavík



A word from the managing director

Activities Related to Cybersecurity

The Electronic Communications Office of Iceland is the administrative authority responsible for the administration and implementation of cybersecurity issues in Iceland. Cybersecurity activities within the Office are mainly carried out by two approximately equally sized units, the CERT-IS cybersecurity team and Digital Security. Digital Security also acts as a consulting coordination authority in Iceland and has an advisory coordinating role for regulators involved in enforcing the legal framework for cybersecurity in Iceland, as well as serving as the single point of contact for cybersecurity issues in Iceland according to Directive (EU) 2016/1148 (NIS1).

New Cybersecurity Framework, NIS2

In 2024, Digital Security led preparations for the implementation of the European Union's new Network and Information Systems Directive (NIS2). The work involved drafting a bill for the minimum requirements of the Directive. The project was carried out at the request of the then Ministry of Higher Education, Science and Innovation. The preparation of the NIS2 legislation had great significance in various ways for the Division, as EU Member States were obliged to adopt the Directive no later than October 2024. In addition, the EU Commission established an implementing act on minimum requirements and notification requirements for entities in the digital market. It is still unclear when NIS2 will be transposed into Icelandic law. The ECOI strongly emphasises



that this should be done as soon as possible in view of the state of cybersecurity in Iceland, and in view of current global tensions, where cyberattacks at the behest of hostile states are increasingly being carried out on important infrastructure.

Status of Current Cybersecurity Regulations

The basis of national cyberprotection rests on socially important companies and institutions in Iceland that take active measures to ensure their cybersecurity through preventive measures, including in accordance with cybersecurity regulations. National cyber defences depend as much on these entities as on defence-related entities. Therefore, a civil legal framework for cybersecurity is, in fact, the basis for a defence-based approach to cybersecurity. The State's role includes ensuring that designated critical infrastructure implements appropriate preventive measures in line with cybersecurity regulations. The ECOI is responsible for overseeing this for telecommunications companies and digital service providers, the Central Bank of Iceland for the financial sector, and the Icelandic Transport Authority, the Directorate of Health and the Environment and Energy Agency for their respective sectors. Of these five agencies, only the first two have received necessary funding to oversee the implementation of preventive cybersecurity measures among their clients. It has been established that over 50% of entities on the Minister's list of critical infrastructure do not take adequate preventive measures to maintain strong cybersecurity in their information and network systems. As a result, implementation of the cybersecurity regulations currently covers less than half of critical infrastructure, as the implementation of current cybersecurity regulations is only partially funded. It is important to address this and strengthen the capacity of supervisory authorities to promote high levels of cybersecurity among critical infrastructure in Iceland.



The operation of the CERT-IS cybersecurity team has developed rapidly in the short time since the development of the unit began in earnest in 2021. Based on the data sharing agreement with the Ministry for Foreign Affairs from 2022 and in response to global developments following Russia's invasion of Ukraine, defence-related and NATO cybersecurity issues have increasingly influenced CERT-IS's activities. There are plans to further develop the organisation of cybersecurity, particularly CERT-IS, both from a defence perspective and in accordance with EU cybersecurity regulations such as NIS2. It is especially important to strengthen CERT-IS's analytical capabilities by implementing an early warning system accompanied by 24/7 monitoring year-round to detect signs of cyberattacks and possible data theft from critical infrastructure.

CERT-IS publishes an annual statement detailing its activities and the development of cyber threats in Iceland. There is no sign of a decrease in cyberattacks; the number of reported incidents continues to rise, including voice phishing, fraud campaigns, data breaches, online phishing, and other increasingly sophisticated threats. Microsoft phishing attacks are increasingly targeting companies, and threat actors backed by foreign governments are targeting Icelandic entities. For more information, see the annual statement on the CERT-IS website.

Cyberfraud and Voice Phishing

Cyberfraud is one of the most common forms of cyberattack, with many manifestations where attackers use various electronic means to deceive victims. There are numerous cases where ordinary people have lost significant amounts of money to cyberfraud, in addition to other damages such as identity theft and loss of other sensitive data. There are also numerous examples of attackers gaining access to victims' information systems, leading to further attacks on the victim's network. The ECOI has worked with telecommunications market participants to curb voice phishing and fraudulent SMS messages, and has achieved considerable success, though cybercrimi-

nals constantly find new ways to defraud. The Office has also worked with the ministry responsible for telecommunications and cybersecurity to consider possible legislative changes to further strengthen measures, such as preventing domain name spoofing, authorising automated SMS scanning (similar to spam filtering), and measures to address voice phishing calls to mobile phones. Combating fraud on social media is more difficult, as consumer protection there largely depends on the platforms themselves. The legal position of consumers in such cases needs to be examined in more detail. The ECOI also recommends monitoring legal developments abroad, where service providers may be required, under certain circumstances, to compensate consumers for financial losses due to cyberfraud.

Deployment of Electronic Communications Services

For years, the rollout of high-speed networks to Icelandic homes and businesses has been one of the main projects and causes of the ECOI and the government. 24 agreements have been signed between the Telecommunications Fund and municipalities to strengthen the fibre-optic connection of domiciles in urban areas outside market areas. Furthermore, Neyðarlínan (Iceland's emergency hotline) has been designated as a universal service provider and will connect all homes not otherwise reached by high-speed mobile networks. It is expected that all homes and workplaces in Iceland with year-round activity will be connected to high-speed networks by the end of 2027, achieving the government's goal of making Iceland a "gigabit country." This is a significant achievement, placing Iceland among the world leaders in access to high-speed telecommunications networks, as reflected in the ITU's ICT Development Index, where Iceland ranked third globally in 2024

The rollout of 4G and 5G high-speed mobile networks is well underway, already reaching over 99% of Icelandic households, with plans to provide all households with such services. High-speed mobile networks are also accessible in 80% of the country's landmass, most surrounding waters, and 98% of the road network. Efforts are underway to ensure a seamless, high-speed mobile network service in the primary road network, which is expected to be achieved by the end of this decade. During the year, the Office launched a mapviewer for the public showing telecommunications access nationwide. The mapviewer is available at https://kortasja.lmi.is/mapview/?application=fjarskiptastofa

Alongside this major expansion of modern networks, older technologies are being phased out. GSM and 3G will be discontinued by the end of 2025. Work is also underway to phase out the old telephone systems and the copper line system. All this is expected to be completed by year-end 2027.

Telecommunications Innovation Policy

The transformation of Iceland's telecommunications infrastructure to high-speed networks based entirely on new internet technologies will soon be completed. This will enable Icelanders to access advanced telecommunications services seamlessly almost anywhere in the country.

This position, which most countries aspire to, puts Iceland in a leadership role and offers opportunities for further digital trans-

[1]See: https://www.itu.int/hub/publication/D-IND-ICT_MDD-2024-3/

formation, innovation, and efficiency. The ECOI believes a telecommunications innovation policy should be established to identify opportunities and increase efficiency. Given the high capacity and technical features of the new networks, they are used to distribute television content to almost every household in the country, with mobile networks to provide backup if fixed connections are unavailable. As a result, the new telecommunications networks can assume the roles of older specialised systems, and could potentially be integrated with future emergency and rescue communications, currently based on the TETRA system. This is only the beginning. With the development of 5G networks into 5G standalone (5G SA), various technological innovations will be introduced, allowing for increased security, greater differentiation of services, better service for connected devices, and so on. These technological developments can create new opportunities for product development and solutions for the public and businesses.

Resilience and Security of Telecommunications

As Iceland approaches its goal of becoming a gigabit country, the use and importance of telecommunications in society continue to grow. Society and the economy are now highly dependent on reliable telecommunications, and disruptions can have significant impact on all activities, potentially leading to emergencies. The ECOI has therefore developed a strategy for telecommunications resilience, detailed in the annual report. The fact is that the resilience of telecommunications is a matter of public interest and national security so it is important that such policy has government support and broad consensus on its goals and implementation. Once the strategy is finalised, the government should develop an action plan listing projects to support the resilience of telecommunications, such as ensuring dual or backup connections for all urban areas with a single connection, providing auxiliary routes for critical infrastructure if all submarine cables fail, developing a new national telecommunications network, and addressing various technical aspects relating to operational security of telecommunications. Telecommunications, along with the electricity grid, are a basic infrastructure system. At a time of global uncertainty, it is essential that governments have a clear vision for resilience and work systematically on improvements.

Digital Affairs in Society

The use and deployment of digital services has become so important in today's technologically advanced society that they should be considered an infrastructure without which society cannot function. The current framework for digital affairs is spread across ministries and agencies, with little coordination. The ECOI believes a more holistic approach to digital regulation is needed, considering telecommunications, cybersecurity, and transformative technologies such as artificial intelligence and quantum computing.

Development of Telecommunications

Much progress has been made in implementing telecommunications regulations over the past quarter-century. The ECOI has spearheaded the transition from oligopoly to competition, supported the development of telecommunications networks and telecommunications security, and taken action to increase consumer protection. Market analyses are the ECOI's main tool for promoting competition and ensuring all market participants can compete on equal terms. In 2024, the ECOI's published the results of its market analyses of connections to telecommunications networks. There is now competition for such connections in a large part of the market. The analysis of trunk networks is expected to



be completed next. This approach is based on EU telecommunications legislation, which is currently under review. It is unclear what the main changes will be, but the European Commission emphasises the development of a more unified service market across borders and the evolution of telecommunications companies operating throughout the EEA. Whatever the outcome, it is unlikely to be binding in Iceland before the end of this decade.

Trust Services

Trust services play a crucial role in Iceland. Secure authentication for various information systems and electronic document signing is based on this technology and associated regulations. New regulations are expected to offer even further benefits for consumers, including by introducing a standardised electronic wallet (e-wallet) to securely store various electronic identification and certificates and activate them by simple means when necessary. The aim is to standardise various electronic services across the EEA so that Icelandic services, certificates and identification are recognised in all EU countries. This will undoubtedly further promote the digital transformation of critical public services. However, there are two sides to such projects. It is vital to ensure the security of these services, statutory consumer protection, and public education on potential threats from cybercriminals seeking to exploit and steal.

Quantum Computers

The advent of quantum computers presents significant opportunities, but may also pose certain threats. One such threat involves cybersecurity and encryption.

It is almost certain that with quantum computers, modern ("normal") encryption will become useless. It is therefore necessary to introduce a new type of cryptography, secure for quantum computers. Such technology already exists and is developing rapidly. This will require the replacement of equipment, both hardware and software, in a large part of the telecommunications



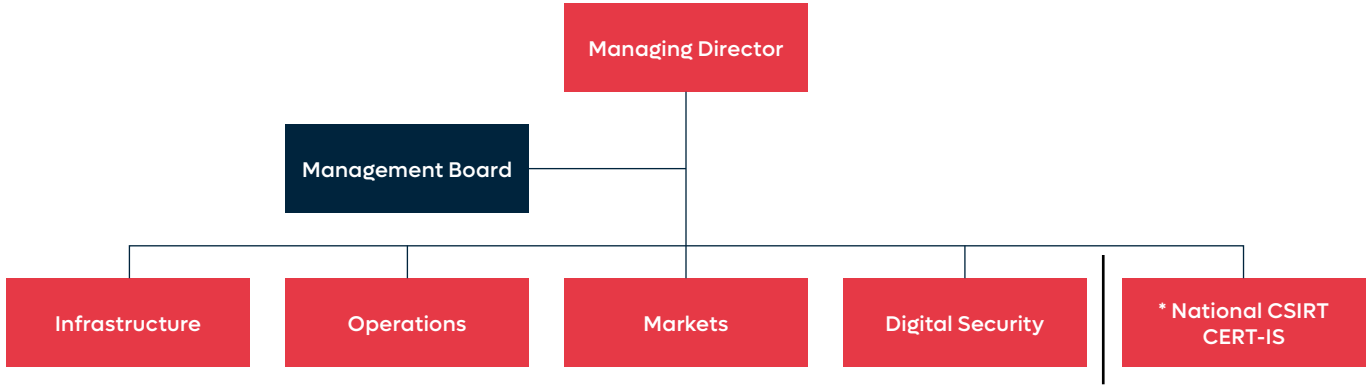
and technology sectors. The replacement is likely to be both time-consuming and costly. It is too late to start this process once the first quantum computer is up and running. Meanwhile, encrypted data is already being stolen for later decryption; "steal now, decrypt later". This means that governments must develop strategies to prepare society for the arrival of quantum computers. Such strategies could require that all new equipment from a certain date be ready for quantum-safe encryption and that the most sensitive information, both public and private, that needs to remain confidential for a long time, be re-encrypted now using quantum-safe methods. Standards and many other factors must also be considered. It is expected that critical infrastructure will be required to assess their encryption risks with regard to quantum computers and take appropriate measures. In some cases, regulations may be interpreted to require critical infrastructure to take "appropriate measures" regarding encryption in light of this anticipated new technology.

General information about the Electronic Communications Office of Iceland (ECOI)

There has been a great deal of development within the ECOI in recent years, a trend that continued in 2024. This growth is due to the increased emphasis placed by the government on cybersecurity and secure telecommunications. The number of full-time equivalent positions has been steadily increasing since 2021, which meant that at the end of 2024 their number had risen to 51. The most important development was the expansion of the CERT-IS cybersecurity team and the strengthening of the Office's capacity to take action in the field of digital security.

There is an added emphasis on the development of telecommunications networks and immense importance is attached to the security of telecommunications systems and the protection of consumers.

Work continued on maintaining the ECOI's certifications with regard to equal pay policy, security of control systems, and environmental certification (ÍST 85:2012, ISO/IEC 14001, and ISO 14001).



The Managing Director of the ECOI is Hrafnkell V. Gíslason.
The executive board is comprised of the Managing Director and heads of divisions.
The Office had 27 full-time equivalent positions at the beginning of the year 2020 and that number had increased to 51 at the end of 2024.

*The national CSIRT shall be organisationally separated from the supervisory role of Fjarskiptastofa in the field of digital security.



The policy and objectives of the Electronic Communications Office of Iceland

The ECOI's vision for the future

The Electronic Communications Office of Iceland wishes to be an innovative partner in the development of a secure digital community, as the functionality of modern societies depends on strong and secure telecommunications systems and ongoing innovation in this field.

The values of the Electronic Communications Office

The values of the Electronic Communications Office of Iceland form the frame for the institution's activities, and staff members can refer to them for support when it comes to prioritisation and focus in communications both inside and outside the institution. These values are grounded in the Office's role and they serve as incentives that support the vision for the future.

We show **INTEGRITY** by

- respecting both external and internal interested parties
- living up to the trust that is invested in us
- promoting social responsibility

We show **PROFESSIONAL KNOWLEDGE** by

- providing services in a professional manner
- acting professionally in all aspects of our work
- continually seeking to obtain more knowledge

We show **INNOVATION** by

- seeking new methods and solutions
- being willing to cooperate and work in partnerships
- having a clear vision for the future

Policies which the Electronic Communications Office has established with regard to its activities:

- Human resources policy
- Security policy
- Social media policy
- Equal pay policy
- Policy on the handling of personal data
- The Electronic Communications Office of Iceland's policy on the security and functionality of telecommunications infrastructure
- The Electronic Communications Office of Iceland's policy on the structure and implementation of surveillance of operators of digital infrastructure

ISO/IEC 27001 certification for the management of information security at the Electronic Communications Office of Iceland

The Electronic Communications Office of Iceland takes information and operational security very seriously. The Office has in recent years worked according to an information security management system based on ISO/IEC 27001 and received ISO/IEC 27001 accreditation in 2020. When the management system was originally introduced, it was assumed that the CERT-IS cybersecurity team would be outside its scope. In 2020 it was decided to expand the scope of the management system so that it would also apply to the cybersecurity team.

Equal pay certification of the Electronic Communications Office of Iceland

The Electronic Communications Office of Iceland was awarded equal pay certification in February of 2021. The Office's main objective with the equal pay certification is to combat the gender pay gap and to promote gender equality in the labour market.

The Office has introduced to its quality system the equal pay standard ÍST 85:2012, which is a management standard for equal pay systems. This includes the establishment of objectives focused on ensuring that the equal pay system is subject to monitoring and that it is consistent with the Office's policy. This involves, among other things, performing a wage analysis at least once a year, and the benchmark shall be that the gender discrepancy in the relevant population is no more than 5%. In 2023, this percentage proved to be 2.1%. In addition, the wage model is presented to employees once a year.

This certification ensures that we use professional work methods that will prevent direct and indirect discrimination on the basis of gender

Environmental issues, sustainability and the social responsibilities of the Electronic Communications Office of Iceland

The Paris Agreement, which has been ratified by many states, stipulates that the objective shall be to keep global warming below 2 degrees Celsius and as close to 1.5 degrees as possible. The Icelandic government has signed and ratified the Agreement and the Icelandic government has set a target for the country to have achieved carbon neutrality no later than 2040.

According to the Climate Act, the Government of Iceland, governmental institutions and companies that are majority-owned by the state have an obligation to establish a climate policy for themselves with defined objectives regarding a reduction in greenhouse gas emissions and carbon offsetting. The Electronic Communications Office of Iceland has established such a policy for itself, which is consistent with these objectives set by the government.

The ECOI completed step 5 of the Green Steps in government operations with an environmental certification according to the ISO 14001 standard.

The Electronic Communications Office of Iceland's environmental and climate policy

The Electronic Communications Office of Iceland's environmental and climate policy was published in May 2021. The purpose of this policy is to make a targeted reduction in the effects of the CO2 emissions generated by the Office's activities, set a good example for other agencies and companies, and communicate results in order to have a direct and indirect impact on Iceland's climate obligations.

The policy is based on the following: the Environment Agency's guidelines regarding climate policies of public entities, the Icelandic government's commitments with regard to the Paris Agreement, the Icelandic government's climate action plan, the statement issued by the directors of the institutions of the Ministry of the Environment, Energy and Climate regarding reductions in greenhouse gas emissions and carbon neutrality, the United Nations Sustainable Development Goals and Green Steps.

By the year 2030, the Office will reduce its CO2 emissions by a total of 40%, with due consideration of the number of the Office's staff members, relative to the year 2019 which are generated by the following activities:

- International and domestic flights, by encouraging teleconferences and different work procedures
- Employees' commutes to and from work, through added support for eco-friendly transportation methods
- Driving in connection with the activities of the Electronic Communications Office of Iceland, by replacing the Office's own vehicles and setting requirements for car rentals and taxi services to provide non-fossil fuel vehicles
- Waste, through efforts to ensure less waste generation and more sorting
- Energy use, through energy-efficiency measures
- Employee meals

The Electronic Communications Office of Iceland also aims to achieve carbon neutrality in its activities by carbon-offsetting all remaining emissions through established methods.

The Electronic Communications Office also aims to meet legal requirements relating to environmental and climate issues, and to promote constant improvements.

This policy is subject to annual review with regard to changes and developments that have an impact on climate issues. The Electronic Communications Office of Iceland's environmental and climate policy applies to all activities of the Office, its employees, buildings, installations and projects.

In order to support the goals of this policy, the Electronic Communications Office of Iceland works according to an approved action plan which includes measures to reduce CO2 emissions caused by aviation and other transportation, by encouraging the importance of teleconferences, flexible work hours and remote working, and also by making transportation agreements with employees. All measures that concern matters such as eco-friendly purchasing, monitoring of water and energy consumption, less food waste and even better sorting of waste produced by the Office.

The environmental and climate policy is supported by the introduction of Green Steps and green accounting.



Introduction of Green Steps

Green Steps in government activities is an Environment Agency project that aims to achieve a targeted reduction in the environmental impact of government institutions. The introduction of Green Steps in the activities of the Electronic Communications Office of Iceland has been successful, despite the fact that the global pandemic did not make it easy.

In 2024, various actions were taken in connection with the introduction of Green Steps. Among these are:

- examining food waste on a regular basis
- reducing the use of packaging
- focusing on increasing the number of transportation agreements
- organic sorting of waste is now an option, and in fact waste is now sorted into 8 categories
- requesting eco-friendly taxis and rental cars where available

Green accounting

The Electronic Communications Office of Iceland carries out green accounting, which is a part of Green Steps, and keeps track of its purchasing and waste production with regard to environmental and climate goals. The Office's carbon footprint is calculated using the results of its green accounting and of the travel habits survey which the employees are invited to complete every year.

Options are being considered regarding how to simplify management and the supply of information in the context of green accounting and the Electronic Communications Office of Iceland's carbon footprint. Monitoring of the volumes involved in:

- the purchase of fuel
- electricity and hot water consumption
- travels undertaken as part of the work of the ECOI, both aviation and automobile travel
- employees' commutes to and from work
- disposal and sorting of waste

The Electronic Communications Office of Iceland's largest emission factor by far is that resulting from flights. The Electronic Communications Office of Iceland stresses the importance of cooperating with its sister organisations and international connections such as the ITU, EU institutions and BEREC. Mutual knowledge acquisition, both at the domestic and international level, is a vital part of the Office's activities. The number of flights taken by employees decreased significantly during the Covid years of 2020 and 2021.

In 2024, the number of flight trips increased, which can also be explained by the fact that the number of employees of the Electronic Communications Office of Iceland is now nearly half as high as it was at the beginning of 2021, which is mostly due to the staff of the CERT-IS cybersecurity team and the Division of digital security.

It is anticipated in the Electronic Communications Office of Iceland's environmental and climate policy that the institution's carbon footprint will decrease by 40% from the year 2019 until the year 2030. An increased emphasis on teleconferencing will promote these goals, and the efficacy of teleconferences has been established. Therefore, the Electronic Communications Office of Iceland is part of an eco-friendly work group within BEREC, which among other things works towards finding ways in which to measure and reduce the carbon footprint of the telecommunication sector. Needless to say, this participation has hitherto only taken place through teleconferences.

The Electronic Communications Office of Iceland's objectives to reduce emissions may be ambitious, and yet they are in line with the framework established by the government and will be reviewed whenever changes occur in the circumstances or organisation of the institution.

Organisation and operation of divisions

Telecommunications Infrastructure

The Telecommunications Infrastructure Division is responsible for organising the resources for telecommunications (frequencies and numbers) and the allocation of authorisations for these resources. The Division also monitors frequencies, which includes measuring, responding to and resolving interference issues. By mapping and analysing the current and planned telecommunications infrastructure and related infrastructure, the Division promotes the development of infrastructure in cooperation with government authorities and market participants. The Infrastructure Division also has a response and coordination role with regard to the telecommunications sector in the event of disruption to operations, such as can occur during natural disasters. The Division also works towards increasing the resilience of telecommunications networks, in cooperation with the government and market participants. IT support services, IT development and security of services are also part of the Infrastructure Division's operations. The Head of the Division is Þorleifur Jónasson. Other members of the Division are Bjarni Sigurðsson, Hjalti Pálmason, Hörður R. Harðarson, Njörður Tómasson, Óskar Sæmundsson, Páll Sveinn Guðmundsson, Sigurður Ísleifsson, Sigurjón Ingvason, Soffía Jónsdóttir, Vilhelm G. Bergsveinsson and Þorgeir Sigurðarson.

Operations

The role of the Operations Division is to ensure continuous and streamlined operations, and to ensure that the operations are in accordance with the accredited quality processes of the Office. We strive to make the ECOI a place where people like to work. This includes efforts to ensure that the Office is a workplace where good health is promoted and we emphasise the importance of equality and balancing work and home life. The Head of the Division is Hrefna Ingólfsdóttir. Other members of the Division are Ásta Guðrún Jóhannsdóttir, Birna G. Magnadóttir, Hanna G. Daníelsdóttir and Ingibjörg Hallbjörnsdóttir.

Administration

The Administrative Division, which combines legal and practical tasks, coordinates the institution's administrative matters and directs competition and consumer affairs. This Division performs market analyses and imposes obligations on the market participants which have significant market power. The Head of the Division is Björn Geirsson. The staff of the Division are Anna María Reynisdóttir, Arnar Stefánsson, Birgir Óli Einarsson, Guðmann Bragi Birgisson, Hulda Ástþórsdóttir, Óskar Hafliði Ragnarsson and Snorri Þór Daðason.

Digital Security

Digital Security is where monitoring is performed to ensure that parties meet the minimum requirements in the field of cybersecurity. These are requirements that concern the organisation of cybersecurity issues and the risk management frameworks of telecommunications companies, digital infrastructure and providers of digital services. The Division does research work regarding



risks and incidents that occur, and carries out preventive audits and risk assessments. The Division also has a coordination role towards other supervising authorities in the field of cybersecurity for the purpose of promoting a coordinated implementation of cybersecurity laws. In addition, the Division has a monitoring function with regard to trust services, and confers upon parties full accreditation for providing trust services.

The Head of the Division is Unnur Kristín Sveinbjarnardóttir, and other staff are Anton Björn M. Helgason, Arna Hrönn Ágústsdóttir, Arnar Freyr Guðmundsson, Bjarni Hallgrímur Bjarnason, Björn Þór Rögnvaldsson, Margrét Valgerður Helgadóttir, Pétur Sævald Hilmarsson, Þórdís Rafnsdóttir and Sigrún Lilja Sigmarsdóttir.

The CERT-IS cybersecurity team

The principal tasks of the CERT-IS cybersecurity team concern situational awareness of the state of cybersecurity issues and responding to cyber incidents when they occur, and the organisation of CERT-IS reflects these main points of focus. By having the cybersecurity team as an independent organisational unit, we can guarantee that information and incidents will be handled independently and entirely separate from other divisions. The Director of CERT-IS is Guðmundur Arnar Sigmundsson.

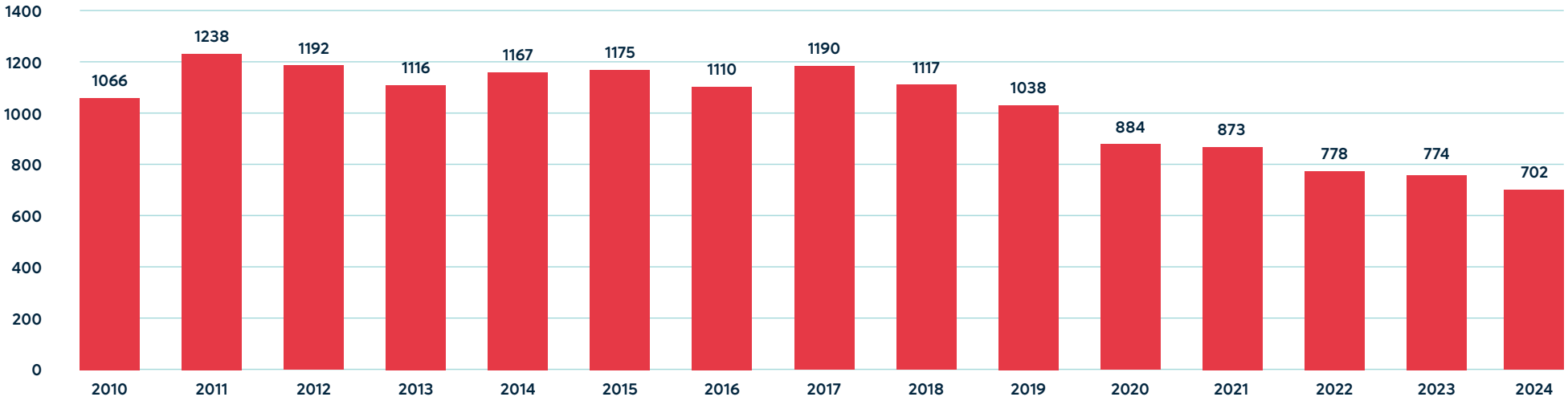
The Staff Association of the Electronic Communications Office is a dynamic association of staff members with the main purpose of maintaining good morale and cultivating a good atmosphere at work. The Staff Association works efficiently with the Office and arranges events of various kinds at regular intervals each year, with different emphases depending on the season. The Staff Association also arranges trips abroad for educational and informational purposes, on average every two years.

Activities of the Electronic Communications Office of Iceland in 2024

Case handling time and case workload

In 2024, a total of 702 cases were recorded in the ECOI's case list. This is a lower number than in the previous year, as can be seen in the bar chart below, which is line with the overall trend in recent years. Cases added to the list vary widely in nature, and include consumer complaints and interference complaints to cases initiated by the Office itself, as well as cases concerning employees' day-to-day duties, such as market and cost analyses, frequency allocations, the issuing of permits, and inspections of telecommunication equipment in marine vessels, to give but a few examples.

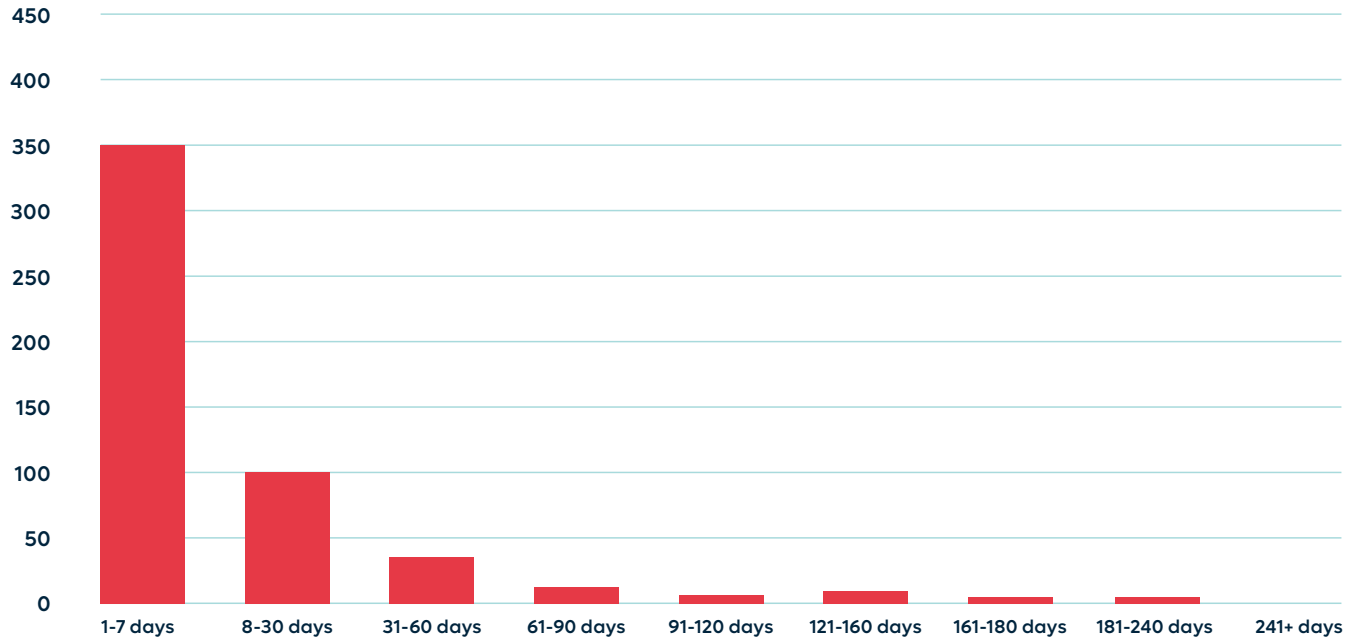
Number of cases filed with the Electronic Communications Office of Iceland in the years 2010–2024



Pursuant to Article 16 of Act No. 75/2021 on the Electronic Communications Office of Iceland, the Office is required to resolve submitted queries as soon as possible, and within four months at the latest, unless there are exceptional circumstances. In an ever-changing and fast-paced competitive market, it is important that disputes are resolved quickly and conclusively, without compromising quality standards. Consequently, the time it takes to process complaints lodged with the Office is monitored closely. Unresolved cases added to the list more than four months ago are designated yellow and cases older than eight months are designated red.

Out of the 702 cases in 2024, 532 were resolved within the established time limit. This is a proportion similar to that of recent years. When these numbers were added up for the beginning of 2025, a total of 524 cases were closed with the processing times indicated on the following bar graph.

Handling time for closed cases – cases created in 2024





This means that of the queries submitted in 2024, 8 were unfinished at that time, most of them recorded in late 2024 or near the end of the year. The graph indicates that the vast majority of cases are resolved, i.e. just over 97% of them, within the 120-day time limit required by law, with close to 86% resolved within 30 days.

Cases that are filed with the Office by market participants or their customers have reduced in number in recent years. The number of disputes that telecommunication companies have submitted to the Office for resolution has been getting lower and a form of equilibrium, or predictability, has been established regarding the implementation of rules and obligations in the competitive environment.

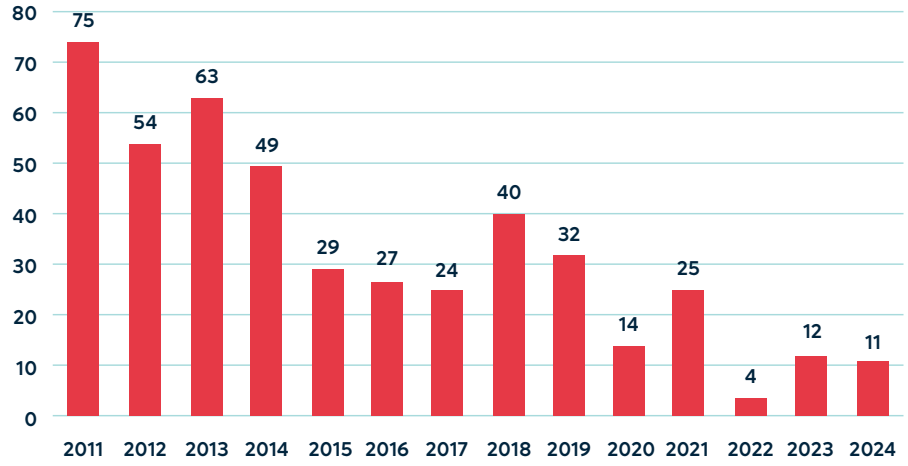
This can possibly be traced to the fact that monitoring of market participants has in later years increasingly been in the form of Office-initiated cases, which are in general larger in scope and more complex than the resolution of cases submitted. Such Office-initiated cases involve, among other things, resolving disputes that the Office would potentially have received as multiple submitted cases, each of which concerning a separate issue. Questions or disputes that arise after a decision has been made regarding such cases may however often be answered with reference to this decision, without requiring a case or administrative decision to be formally filed.

Consumer complaints have also decreased in number. On the one hand, there is a reduction in the number of complaints about unsolicited telecommunications, as the ECOI has for several years systematically informed companies about the rules governing electronic marketing when complaints about such marketing are received. This has greatly reduced repeated complaints about unsolicited communications from the same parties. The ECOI has also participated in the "consultative group on the protection of individuals during the time leading up to elections" from its founding in 2021, which involves informing political organisations about the rules governing contact with members of the public via telecommunications, including telephone calls, SMS messages and e-mail. The group comprises the Icelandic Media Commission, the ECOI and CERT-IS, the National Electoral Commission and the Icelandic Data Protection Authority, and its objective is to gather information and analyse potential threats to elections, which may involve data protection, disinformation, cybersecurity or national security.

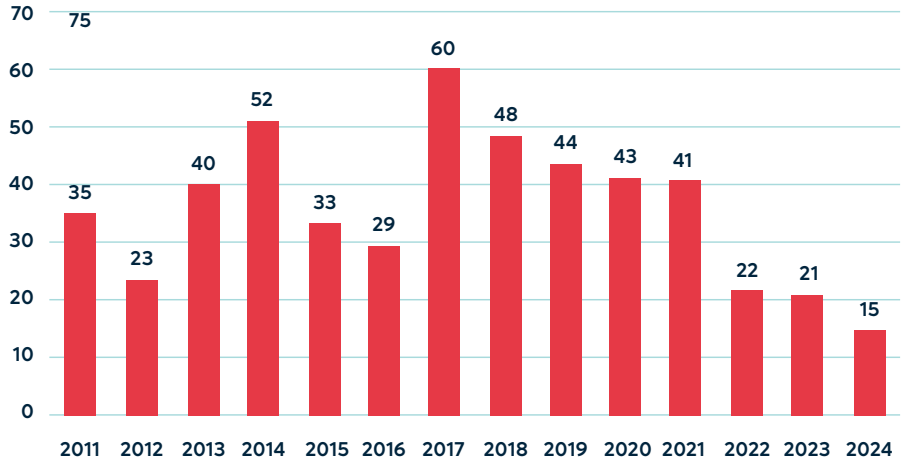
However, there has also been a decrease in consumer complaints about invoicing by electronic communications companies. A possible explanation might be that, in general, the companies now offer self-service to consumers through "My Pages", where the consumer has an overview of their transactions and service subscriptions.

The bar graph on queries involving consumer affairs has an overview of queries from consumers relating to matters other than unsolicited telecommunications. Although the nature of such queries varies, complaints about invoicing have accounted for a significant percentage over the years.

Fjöldi erinda vegna neytendamála



Fjöldi erinda vegna óumbeðinna fjarskipta



[2]https://fjarskiptastofa.is/fjarskiptastofa/tolfraedi-og-gagnasafn/frettasafn/frett/fr%C3%A9ttir/Stofnadur-hefur-verid-samradshopur-um-vernd-einstaklinga-i-addraganda-kosninga

Various key figures from the activities of the Electronic Communications Office of Iceland in 2024

Frequencies allocated

Radio and TV stations	24
Backbone links (number of links)	15
Mobile station systems on VHF and UHF	75
MF and HF	1
Short-term radio broadcasting	50
Temporary licences	250

Codes allocated

Number of allocated codes	2,723,440

Interference complaints

Interference complaints	73

Issues of radio equipment permits

Aircraft	61
Marine vessels	393
Mobile surface stations on very high frequency - VHF	138
Mobile surface stations on ultra high frequency - UHF	2
Mobile surface stations on medium frequency - MF	3
Handheld stations on very high frequency - VHF	281
UHF handheld stations	121
VHF land-based master stations	0
UHF land-based master stations	0
Emergency locator transmitters (PLB)	11
Paging systems	0

Radio equipment inspections on maritime vessels and open motor boats

Boats shorter than 24 m, inspected by inspection agencies and the Icelandic Transport Authority	814
Boats longer than 24 m and ships	149
Pleasure craft inspected by owners	44

Inspections of boats and ships - by region

Reykjavík	39
North West	18
North East	30
South	39
South West	23
Ships registered abroad	0
Ships inspected abroad/not by the ECOI	4

Allocation of MMSI numbers

Numbers for ships	200

Issues of user licences

Amateurs, Icelandic	18
Amateurs, international	1
Amateurs, misc.	20

Registered ground stations

Fixed-base stations

VHF stations	262
UHF stations	33
MF-SSB stations	23
Paging devices	16

Mobile stations in cars

MF-SSB stations	461
VHF stations	7197
UHF stations	148

Handheld stations and beacons

VHF stations	8264
UHF stations	2115
Markers (beacons)	44
PLB emergency buoys (406 MHz)	134
Miscellaneous equipment	153

Ship stations

Medium frequency stations MF	8
Medium frequency and shortwave stations MF/HF	189
VHF stations	3154
Emergency radios GMDSS	637
Radar transponders SART	111
Radar transponders SART-AIS	161
Navtex	206
Emergency buoys, free-floating (406 MHz)	368
Emergency buoys in lifeboats and on board (406 MHz)	2504
Inmarsat C	216
Iridium	8
BlueTraker	9
Automatic identification systems (AIS)	1919



Overview of publications

A list of all the Electronic Communications Office's publications can be found on the Office's website: ***PUBLISHED MATERIAL (FJARSKIPTASTOFA.IS)***

Comparative statistics on the use of electronic communications in eight countries

A statistical report is published annually in cooperation with the Electronic Communications Office of Iceland and its sister institutions in the Nordic countries and in the Baltics. The report gathers comparative data on the use of the main electronic communications services and on developments over recent years in the eight countries. On the whole, the use of electronic communications is very similar in these countries and their citizens use comparable technologies in a similar way. Despite this, there are nonetheless variations in the usage and development of specific services.

The Nordic comparative report can be accessed on ***THE OFFICE'S WEBSITE UNDER PUBLICATIONS.***

Statistical reports from the ECOI

The Electronic Communications Office of Iceland gathers data from telecommunication companies registered in Iceland on various metrics relating to telecommunications operations and services. The Office processes this data into statistical reports that summarise the main metrics and companies operating on the Icelandic telecommunications market. The reports are published twice a year: in the second quarter for the whole preceding year and a mid-year status update in the fourth quarter. The aim is to improve information provision and increase transparency on this market. The ECOI's reports are equivalent to those published by its sister institutions in neighbouring countries. ***THE REPORTS CAN BE FOUND ON THE ELECTRONIC COMMUNICATIONS OFFICE'S WEBSITE.***

Some principal statistical information about the Icelandic telecommunications market in 2024:

In the telephone market, the trends of previous years continue as both users and minutes decrease in number from one year to another. Landline subscribers decrease by 16.9% between years and minutes decrease by 14.1%. Síminn is the largest company on the landline market, with a market share of over 62% at the end of 2024.

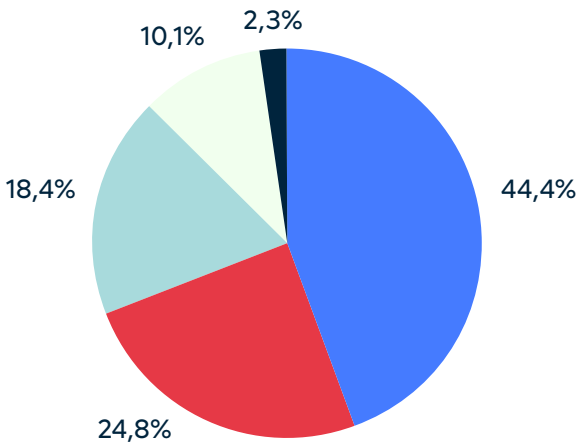
The total number of mobile phone subscriptions increases slightly between years, by 1.7%. There has been an increase in mobile subscriptions, whereas pre-paid subscriptions have decreased in number. The number of mobile phone call minutes was 1,079 million minutes in 2024, compared with 1,085 million minutes for the same time period in the previous year, which is a 0.6% decrease in the number of minutes between years.

The volume of data on mobile phone networks keeps increasing although this increase has somewhat abated as it was just under 18.1% between years and as in the preceding years the increase is mainly connected with the introduction of 5G.

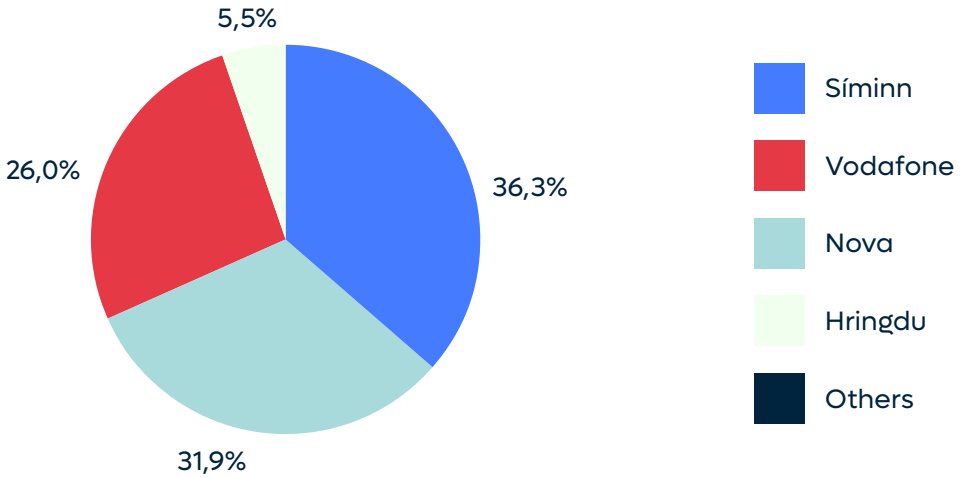
There has been a slight increase in the number of internet connections between the years, and a major increase in fibre-optic connections with a corresponding decrease in xDSL connections. At year-end 2024, fibre-optic connections accounted for over 93% of all internet connections, and the number of fibre-optic connections is currently about 138 thousand, whereas xDSL connections are just under 10 thousand.

The total volume of data on fixed-line networks increased by 1.6% between the years and about 90% of the amount of data is from downloading and 10% from uploading.

Number of internet connections
Marketshare by company



Mobile subscriptions
Marketshare by company





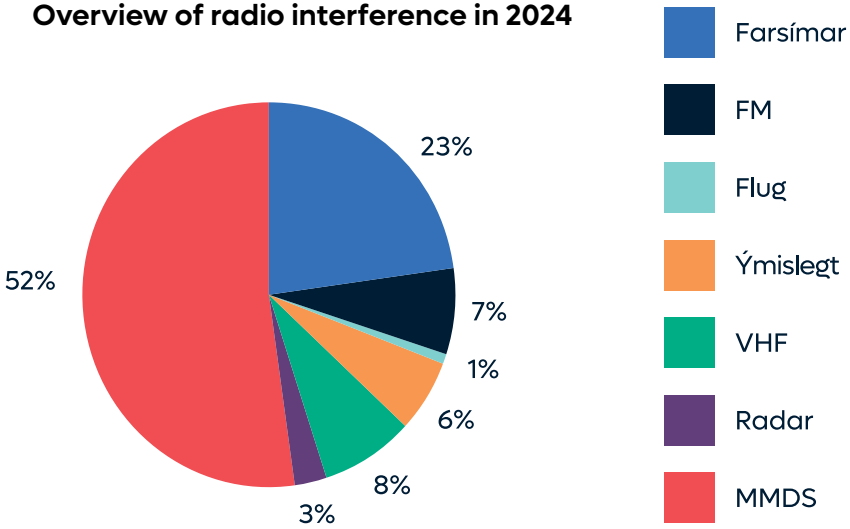
Telecommunications market, telecommunications infrastructure and information technology

The telecommunications market is constantly changing in step with technological developments and changes in the legal environment, both in Iceland and on an international level.

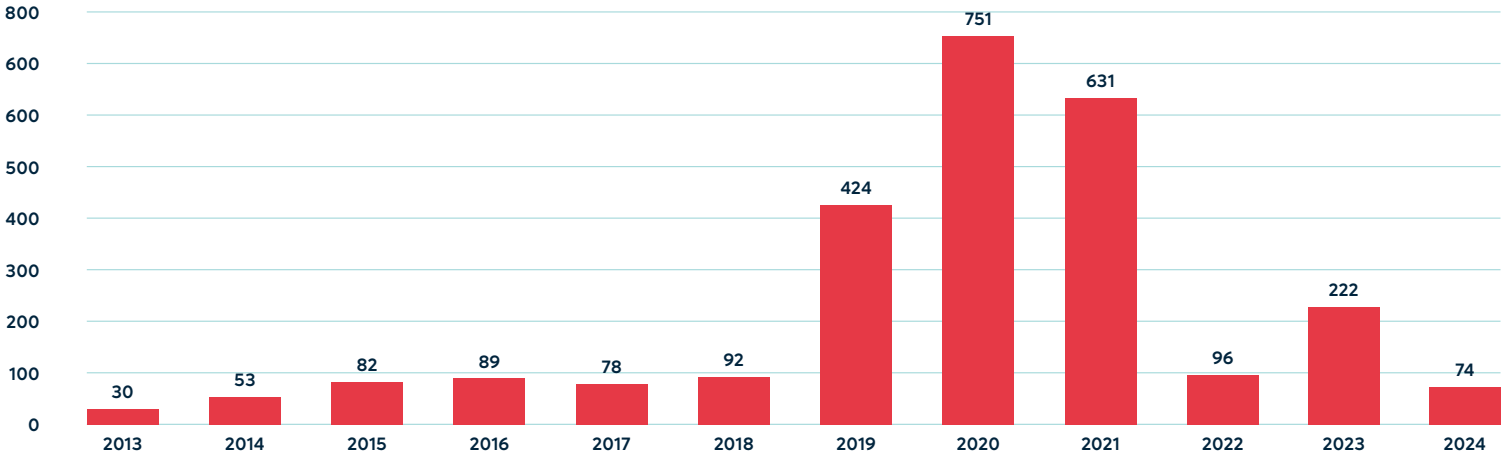
Monitoring the airwaves – The Electronic Communications Office of Iceland's interference monitoring

Interference monitoring is an important part of the ECOI's spectrum monitoring. In 2024, the number of interference instances was 74, a significant decrease between the years, and they are itemized in image 1. This can be the result of several factors, as the number of MMDS interferences is now very low. Shutdown of 2G and 3G systems has also begun, which has reduced interference between systems. Reports of disruptions from mobile phone systems (labelled MMDS and mobile) account for about 75% of disruptions in 2024. Disruptions from MMDS are a result of old frequency converters, and other kinds of disruptions that affect mobile phone systems, e.g. transponders, disruptions from lights.

Overview of radio interference in 2024



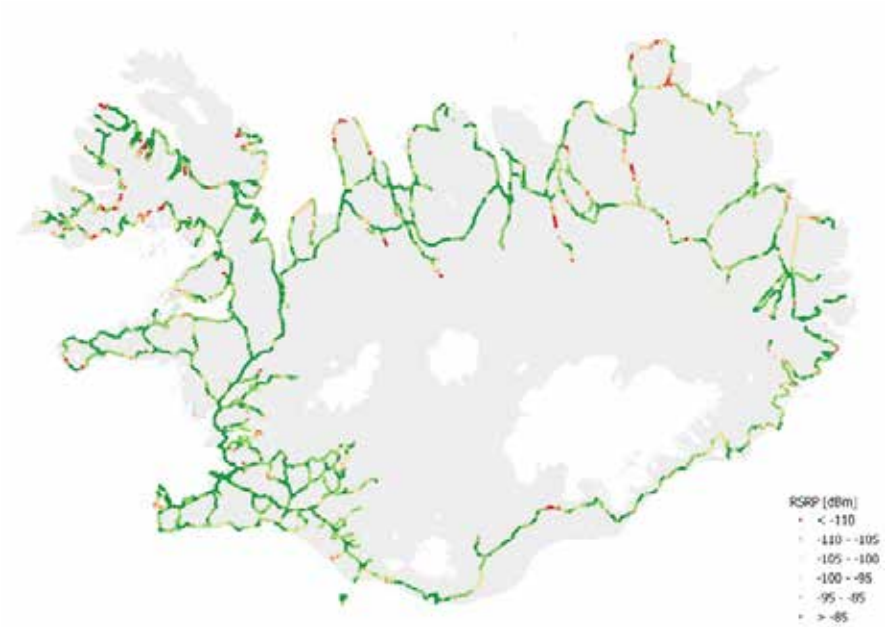
Number of reported instances of interference 2013 to 2024

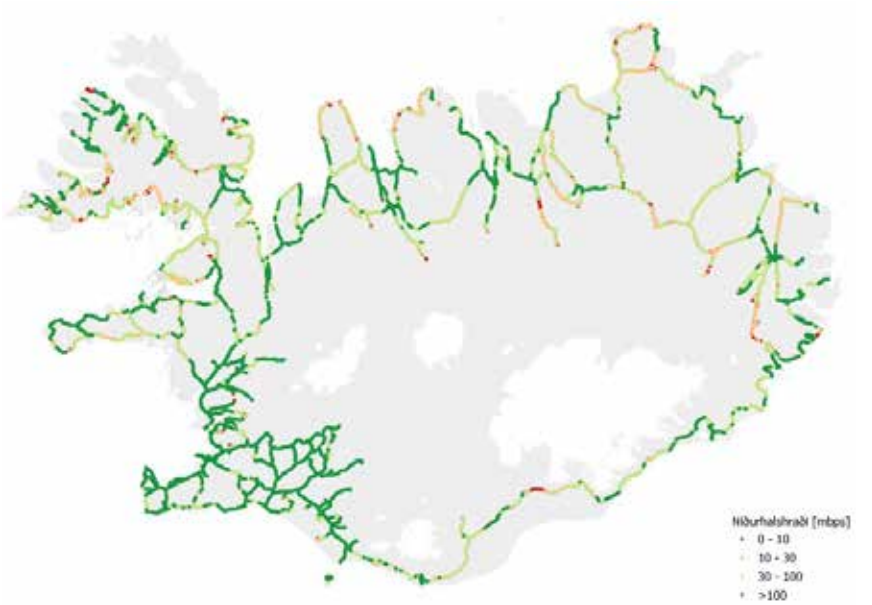


Measurements

ECOI employees performed a large amount of measurements on the country's mobile networks. in 2024. Figure 2 shows where measurements were taken and how the signal is. Measurements are based on the experience of 4G(LTE) users in a car, whereby green is a good signal, orange okay, red means the risk of disconnection or connection interferences.

Download speed was also measured. The map below were shows the best possible speed measured on the country’s roads in 2024, green means a download speed of over 100 Mbps, light green means 30-100 Mbps, orange 10-30 Mbps, and red is 0-10 Mbps.







Quality testing of telecommunications companies' mobile network systems

In the second half of 2023, a quality test of the telecommunications companies' mobile network systems was conducted for the first time by an independent third party. The results of the test performed for the ECOI by the German specialist company Rohde & Schwarz were published in January.

The method of measurement that was used is co-ordinated and standardised by the European Telecommunications Standards Institute (ETSI) whereby a grade/points are awarded depending on the findings for each factor measured, and the importance thereof for the overall findings, on one hand in the assessment of the quality of phone calls and data transmission on the other hand. The measurements involved simulating typical behaviour on the part of users of the general mobile network (telephone calls, Internet browsing etc.).

Quality tests such as these provide the Electronic Communications Office with a valuable overview of the capacity of each mobile phone system in the country, in addition to enabling the Office to assess the quality of all the mobile phone systems based on international standards and thus compare them to mobile phone systems abroad that have been tested in the same manner.

More information about the results of the quality tests can be found here in the ECOI's press release:

THE ICELANDIC MOBILE NETWORK MEASURES UP TO OTHER EUROPEAN MOBILE SYSTEMS IN INDEPENDENT QUALITY TESTS

Product Watch

The ECOI is now a participant in the Product Watch, a new web site that helps consumers avoid defective and dangerous products. Such products include electronics, clothing, cosmetics, toys, and children's safety equipment. The Product Watch is made up of nine organisations that monitor products sold on the Icelandic market. Monitoring of equipment and the provision of infor-

mation about equipment used in telecommunications in Iceland falls under frequency monitoring, and the right equipment is essential for avoiding telecommunications disruptions.

Internet speed and telecommunications network quality in Iceland

Based on the analysis by the ECOI of Ookla® Speedtest Intelligence® data, 2024.

Fixed-line internet

Download speed

Mean 358.753 Mbps

Median 231.268 Mbps

(All year 2024)[3]

Fixed-line internet

Upload speed

Mean 346.360 Mbps

Median 216.123 Mbps

(All year 2024)[4]

Mobile internet

Download speed

Mean 240.44 Mbps

Median 147.22 Mbps

(All year 2024)[5]

Mobile internet

Upload speed

Mean 28.168 Mbps

Median 19.1 Mbps

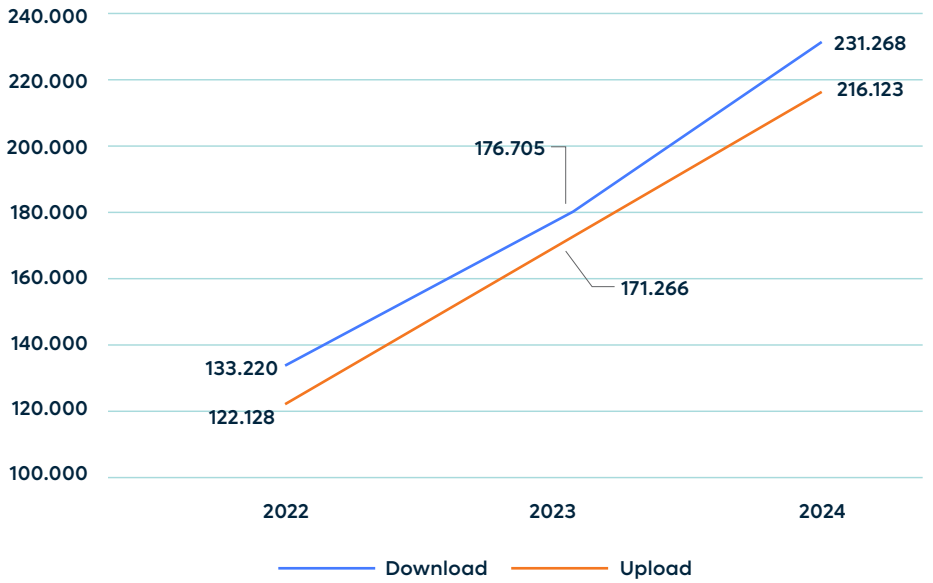
(All year 2024)

[3] Speedtest Intelligence®

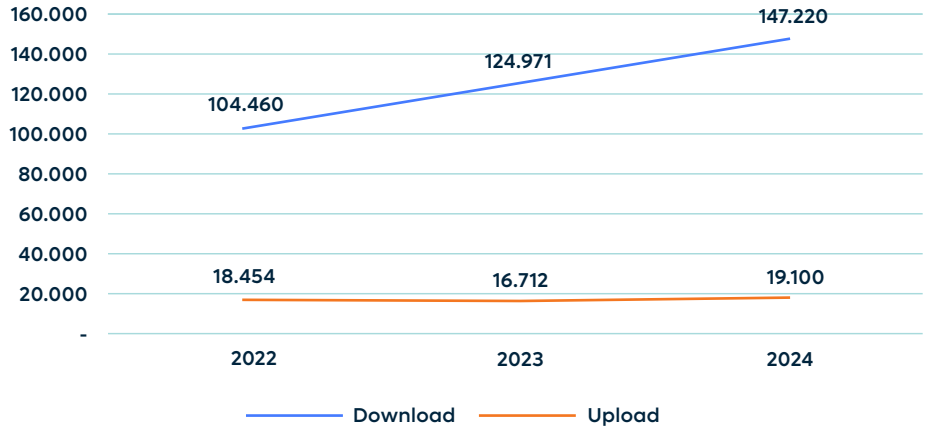
[4] Speedtest Intelligence®

[5] Based on Nova, Síminn, Vodafone

Development of speed in the fixed network



Average speed in mobile networks



Mobile networks 5G

Download speed

Mean 361.99 Mbps

Median 315.634 Mbps

(All year 2024)[6]

Mobile networks 5G

Upload speed

Mean 38.072 Mbps

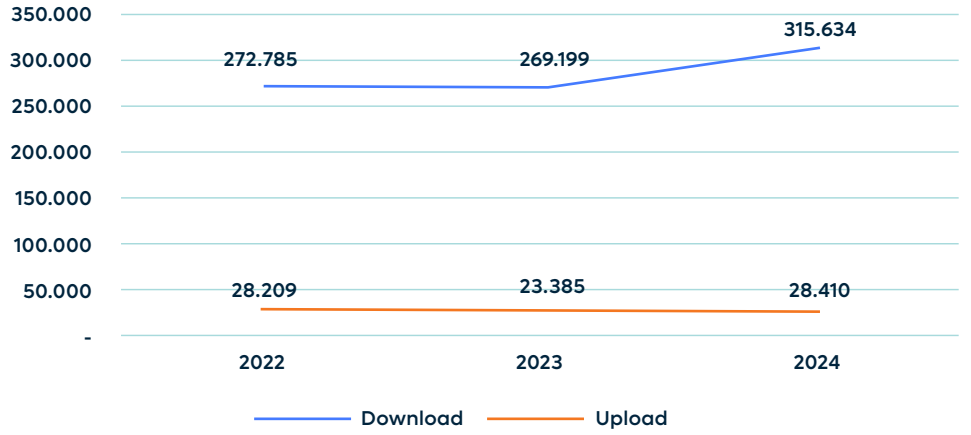
Median 28.410 Mbps

(All year 2024)[2]

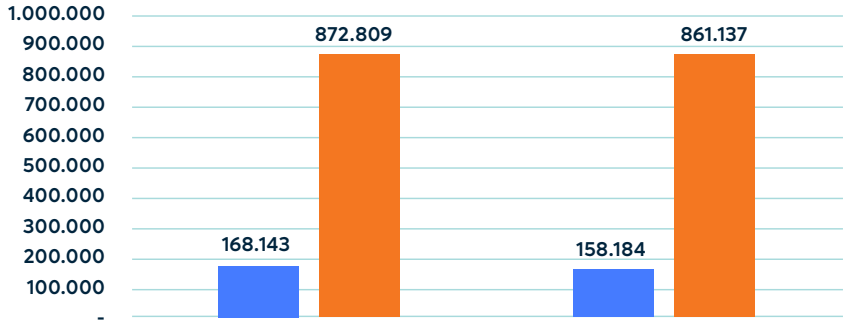
[6] Based on Nova, Síminn, Vodafone

The median here is ranked from lowest to highest, which is closer to the typical user experience. In statistical terms, the median is less likely to be affected by unusual numbers (such as a limited number of users on very high speed connections), while the average is the sum of all the numbers in the data set divided by the number of values)

Development of speed in 5G



Download speed 2024



	Wownload speed	Upload speed
Fixed Wifi	168.143	158.184
Fixed ethernet	872.809	861.137



Reliability of telecommunication networks and their resilience

Digitisation is indicative of the development of our society and the change is very rapid. All residents, companies, public institutions and critical societal infrastructure require access to secure and powerful telecommunication networks and services. Telecommunication networks play a key role when it comes to digital services, and are in fact the foundation on which digital service is based. The Electronic Communications Office of Iceland therefore considers that it is necessary to ensure that the foundation is reliable and has a high capacity.

There has recently been operational disruption to telecommunication systems where telecommunication services for the general public have become temporarily unavailable. There have been vociferous calls for the authorities to prevent such situations from occurring again. In the Electronic Communications Office of Iceland's risk assessment for the National Security Council in 2022, it was stated clearly that there is a certain market failure with regard to the security of telecommunications, due to the fact that telecommunication companies in Iceland are not prepared to, nor do they have a legal obligation to, take the utmost measures to ensure the resilience of telecommunications in all situations, such as against large-scale, rare events.

The Infrastructure Division of the Electronic Communications Office of Iceland is working on the presentation of a plan regarding ways in which to promote the development and continuing proliferation of telecommunication networks in Iceland with the aim of achieving a higher level of reliability and resilience of the telecommunication networks in the country. Work is ongoing on

formulating policy regarding dependable and resilient telecommunications networks, which includes objectives and indicators for the next 10 years. The ECOI's strategy for reliable and resilient networks was put to public consultation at the end of October and a summary of comments and suggestions is in progress.

Similarly, the Division is working in cooperation with the Department of Civil Protection and Emergency Management towards the completion of a contingency plan for operational disruptions due to natural hazards as well as an internal process to address operational disruptions within the telecommunication networks. Channels of communication have been established to ensure a minimal response time in incident management.

Persistent seismic activity continued in Reykjanes this year. Telecommunications systems continued to withstand the disasters despite minor disruptions, thanks to the effective cooperation among telecommunications companies, whose communication takes place on the ECOI's response channel on MS Teams.

This year saw a significant increase in scam calls from Icelandic mobile numbers placed from abroad, as well as in the number of scams attempted via SMS.

The ECOI commissioned a survey on the prevalence of and consumers' experiences with online fraud and scam messages. The survey was conducted by Gallup at the end of 2023 following a series of fraudulent calls made to Icelandic phone users over a period of several days earlier in the same month. The survey results were published at the beginning of May.

The Infrastructure Division has subsequently worked extensively with telecommunications companies to coordinate the companies' actions on scam calls and SMS messages.

The authorities are also currently working on projects that promote the increased use of satellite connections as a last resort, and the infrastructure department has worked to support such projects. A number of other projects that may contribute to increased resilience are currently underway and in the preparatory stages.

Termination of 2G and 3G mobile service

The ECOI first drew attention to this issue in February 2022, when it launched an open consultation on mobile operators' plans for terminating the service. At the end of the consultation, a press release about the main findings was issued:

https://www.fjarskiptastofa.is/fjarskiptastofa/tolfraedi-og-gagnasafn/frettasafn/frett/Fr%C3%A9ttir/nidurstada-samrads-um-lokun-gsm-og-3g-thjonustu

It stated that mobile operators plan to terminate all 2G and 3G services by the end of 2025 at the latest, at which point nearly four years will have passed since the termination plans were officially announced in consultation with the ECOI. It should be noted that decisions on the timing of the termination of 2G and 3G services are made by the companies in question and not by the ECOI.

Currently, parts of the companies' 2G and 3G services have already been terminated. This is done in phases so as to minimise negative impact on customers. The shutdown of services by individual companies is planned as follows:

3G All companies are shutting down services and will terminate them entirely by the end of 2025.

2G - Nova – 2G terminated by the end of 2024

- Vodafone – 2G terminated by mid-2025

- •Síminn – 2G terminated by the end of 2025

Frequency management

The frequency spectrum is a limited natural resource and must be used in an efficient manner so that telecommunications networks can function without disruption. Technologically, communications devices are rapidly advancing and it is therefore necessary to manage the frequency spectrum efficiently. This is a key point in ensuring the interoperation of various radio systems without the telecommunications systems causing interference with each other. Spectrum monitoring serves as the eyes and ears when it comes to the organisation and allocation of frequencies.

The ECOI began consultations this year regarding amendments to the conditions for spectrum licenses. The licenses concerned apply to Nova, Síminn and Sýn for various mobile network service frequency bands issued in 2023, and Öryggisfjarskipti's spectrum license on a 700 MHz frequency band for emergency and security services, which was issued in 2022.

The aforementioned spectrum licenses contain various conditions regarding frequency usage and service coverage. The conditions currently under consideration pertain to uninterrupted high-speed mobile network connectivity on trunk roads and the timeframe for the development of the emergency and safety system.

The reason for the consultation is the lack of funding available for Öryggisfjarskipti's component of the trunk road project and the development of an emergency and safety system. Öryggisfjarskipti has therefore been unable to meet the conditions of its spectrum license. The stipulation that Öryggisfjarskipti participate in the trunk road project affects all spectrum licensees, as the intention was for Öryggisfjarskipti to provide passive infrastructure along the trunk roads that the other companies would then use to install transmission equipment.

Significant progress has already been made in deployment on trunk roads, but it is anticipated that the lack of funding for Öryggisfjarskipti's projects will cause delays in further development. It has become evident that there will be a significant delay in Öryggisfjarskipti's ability to develop a new emergency and safety system. The ECOI considers it important that the 700 MHz frequency band be available when development of a new emergency and safety system commences, and therefore desirable that the company retain the license for the time being, but for the conditions to be relaxed.

For the above reasons, the ECOI plans to delay the part of the timeframe for the trunk road project that pertains to mobile network operators. The status of the project will be reassessed at the end of the year and if there is no funding in sight for Öryggisfjarskipti's component, it is expected that the scope of the project will require substantial changes, which may result in services on the trunk roads not being as good as intended.

The ECOI Mapviewer

In connection with the IT Fair held in February, the ECOI opened a new mapviewer to the public. The mapviewer is designed to provide information for anyone interested in the status and development of telecommunications infrastructure in Iceland, whether that be residential and business connections to fibre-optics or the development of mobile networks at a national level. Items that can be viewed in the mapviewer include:

- Residential and business address access via fixed network, where the coverage depicts addresses around the country as dots, colour-coded according to quality of access to a fixed network.
- Access via mobile network showing coverage and quality of mobile network connections at addresses around the country.
- 2G, 3G, 4G and 5G coverage that shows the expected mobile network signal coverage of all service providers.
- Connection on trunk roads that shows all sections of road reachable by any given market participant.
- 4G mobile network measurement data. All measurement points can be viewed on a map.

For the first time, indicators set by the Ministry of Culture, Innovation and Higher Education for the development of fibre-optic infrastructure in settlements and the development of mobile networks on the country's trunk roads have been published.

- Telecommunications metric: Densely populated and urban areas are depicted as patches on the map. Areas that have reached 80% fibre-optic coverage are shown in green and those who have not achieved this goal are shown on a colour gradient according to status.
- Telecommunications metric: Shows trunk roads as lines on the map. Sections of trunk roads not covered by a 10 Mbps mobile network are shown in red. Sections added for shared use are shown in a specific colour.

IT

A decision was made this year to strengthen the ECOI's IT services, with an emphasis on increasing information security and reorganising and improving user services.

Changes to administrative practices and procedures

Provisional decisions by the ECOI

With the entry into force of the earlier Act No. 69/2003 on the Post and Telecom Administration in 2003, a special provision was introduced that allowed the ECOI to make a provisional decision subject to certain conditions. The conditions in question pertain to the fact that a delay in a decision would result in the forfeiture of the rights of the party to the case or substantial financial loss. It is the responsibility of the party requesting a provisional decision to prove that either condition is met. There is precedent of the ECOI making a provisional decision on its own initiative, in which case the ECOI provides reasoning for how legal provisions are met.



The provision in Act No. 75/2021 on the Electronic Communications Office of Iceland is substantially unchanged from earlier legislation and is contained in Article 18 of the new Act. As the wording indicates, the authorisation shall be exercised with caution and care taken to assure that real interests are not jeopardised in the event of a delay in the processing of administrative matters, which at times may be complicated, extensive and time consuming.

Last year, the ECOI compiled information from its case registry on the number of provisional decisions it has made since the authorisation was enacted into law, the proportion of appeals made to the ECOI Appellate Committee and the outcome of these cases. The ECOI believes there is reason to share this information with stakeholders. Finally, there is a brief discussion of a specific change in administrative practices regarding appeals of provisional decisions that took place at the end of 2023.

Since 2003, the ECOI (and its predecessor the Post and Telecom Administration) has made 15 provisional decisions out of a total of 530 decisions to date. This amounts to about 3% of the total number of the ECOI's decisions. This statistic reveals that the ECOI is exercising this authorisation prudently and in exceptional cases.

Of these 15 provisional decisions, 4 have been appealed to the ECOI Appellate Committee. The appeal rate is therefore relatively low, or about 27%. Of these 4 complaints, the Committee took 3 under substantial consideration. It has thus been the ECOI's understanding for many years that provisional decisions have been appealable to the Appellate Committee. However, in the last appeal by the Appellate Committee, which concerned the appeal of a provisional decision, there was a change in the Committee's administrative practices, which has presumably taken note of the development of administrative practices in Iceland in recent years. The complaint was dismissed on the grounds that there was no final resolution of an administrative case that concluded the dispute between the parties.

Upon further examination by the ECOI of the grounds of the ruling and in view of implementation by other holders of higher administrative authority, the ECOI believes that this is the correct conclusion. Provisional decisions are such that if the matter is not resumed for substantive processing within a specified time limit, they will automatically expire.

According to the above, it can therefore be expected that the ECOI will take this into account in its future administrative prac-

tices and will not make formal and appealable decisions regarding provisional measures that the ECOI deems necessary in specific circumstances. It should be noted, however, that the Althingi Ombudsman is considering this Appellate Committee decision in response to a complaint from a party to the case and therefore we must for the time being await further developments regarding the final outcome of this amended administrative procedure.

Operating procedures for the ECOI's data collection

Last year, the ECOI issued operating procedures for the regular data collection regarding stakeholders that the ECOI performs every year.

The ECOI performs a wide range of tasks in the development of the telecommunications market. These tasks include promoting competition for the benefit of consumers, increasing public access to high-speed data transmission services, enhancing the security of telecommunications networks and improving the quality of services. The number of such projects has increased in recent years, especially with regard to the development of telecommunications infrastructure and the monitoring of its security. Many of these tasks require extensive data collection on the telecommunications infrastructure, market and competition conditions, performance of telecommunications companies, as well as information on information security management systems and security measures taken by telecommunications companies.

Continuous and regular data collection has become so extensive that it was deemed necessary to organise by amending procedure. The ECOI therefore issued procedures for data collection. The procedures are intended to increase the efficiency of the ECOI's regular data collection, further enhance data security, and increase transparency and predictability for the parties involved. The guidelines and resulting procedures are also intended to simplify and make it easier for parties to process data requests, as well as to improve consistency in the presentation of responses.

As part of the amended data collection arrangements, a summary of forthcoming ECOI data requests will be published for the coming year. On 5 December, such an overview was published on the ECOI website for the year 2024, in connection with open consultation with stakeholders on the preparation of data collection procedures.

The plan is to publish such an overview annually in order to improve transparency and predictability of the ECOI's information collection.

The aim is to gather information through the electronic information portal, which is currently being designed and implemented. The relevant provisions of the procedures in this regard have therefore not yet been tested. Instructions for how to use the information portal will be available in due course. This project is still ongoing, currently in collaboration with Digital Iceland for login and e-administration.

Operating procedures primarily pertain to ECOI operations, i.e. they concern the organisation, development and execution of data collection according to predefined processes. However, the procedures also naturally affect regulated entities that must take measures to adapt to the standardised data collection procedures. As previously stated, the aim is to simplify and facilitate the process.

[1] Based on the companies Hringiðan, Nova, Síminn, Hringdu, Snerpa and Vodafone

[2] Based on Nova, Síminn, Vodafone



The ECOI's market analyses of the telecommunications market in 2024

Market analyses of the telecommunications market form a significant part of the Office's operations. They constitute the most important policy instrument for the ECOI to safeguard competition and thereby support fair pricing, innovation, and improved access to services across the country. They are used to safeguard competition by analysing the position of market participants on telecommunications wholesale markets and by imposing appropriate obligations where competition is not considered adequate, in certain areas of the country as may be appropriate at each time. Market analyses are also intended to promote increased and more rapid deployment of high-speed telecommunications networks in Iceland. Market analyses are the basis

for decisions on whether to impose, maintain, change, or lift specific regulatory obligations on electronic communications companies that have been designated as having significant market power.

The production of a market analysis report can be divided into three phases:

1. 1Defining the relevant service markets and geographical markets
2. Analysing the relevant markets, determining whether there is active competition in these markets, and making a decision as to whether there are one or more companies with significant market power
3. Making a decision as to whether obligations should be imposed, amended, or withdrawn with regard to companies with significant market power

The ECOI carries out analyses of the markets specified in the recommendations from the EFTA Surveillance Authority (ESA) in accordance with the Electronic Communications Act and Iceland's obligations under the EEA Agreement. Furthermore, the Electronic Communications Act requires the ECOI to define these markets in accordance with the circumstances specific to Iceland. The ECOI's market definitions may therefore be expected to vary from those in the recommendations. In addition, the ECOI is permitted to review additional telecommunications markets over and above those specified in the recommendation. The ESA recommendation in force in 2024 was issued on 11 May 2016 and lists considerably fewer markets than in previous ESA recommendations on the same subject, published in 2004 and 2008, respectively. In general, it was considered that not all the markets in the recommendation from 2008 still met the requirements for imposing restrictions in advance. The markets that must be reviewed under the current ESA recommendation from 2016 are the following wholesale markets:

Market 1
Lúkning símtala í einstökum almennum símkerfum með fasttengingu

Market 2
Voice call termination on individual mobile networks

Market 3

a) Local access with a fixed connection

b) Central access provided at a fixed location for mass-market products

Market 4
High-quality access provided at a fixed location

The Post and Telecom Administration's analyses of the following wholesale markets, based on the ESA recommendation from 2008, remain in effect:

Market 6

The terminal part of leased lines (PTA Decision No. 8/2014), which has now become market 4 as described earlier, and which will be analysed again in 2024.

In addition to this, the analysis of the following wholesale market based on the ESA recommendation from 2004 remains in effect:

- Trunk line segments of leased lines, previously market 14 (PTA Decision No. 21/2015), which will be analysed again in 2024.

Main tasks in the field of market analysis in 2024

During the year, analyses were performed on wholesale markets in accordance with the Office's annual plan. In October 2021, the Electronic Communications Office of Iceland completed its analysis of markets 3a, local access with fixed connection, and 3b, central access with fixed connection for mass-market products, cf. the Electronic Communications Office's Decision No. 5/2021 of 19 October 2021. In that analysis it was revealed that the ECOI would reassess whether there was reason to reconsider the geographical definition of these markets, for reasons such as if Ardian's purchase of Míla would go through, for example. This finally happened in September of 2022. The ECOI therefore began subsequently to re-examine the aforesaid market analysis, which mostly took place in 2023, and was concluded on 14 May of 2024 with ECOI Decision No. 5/2024. This analysis is enormous in scope and complexity and well over one thousand pages in length. Míla and Tengir appealed the decision to the ECOI Appellate Committee in June 2024, but the Committee had not issued its ruling at the end of 2024.

Major tasks resulting from market analyses in 2024

Decision on Míla's cost analysis of wholesale prices for optic waves and amendment to the reference offer for leased lines

With the ECOI Decision No. 1/2024, dated 9 February of the same year, the ECOI approved Míla's cost analysis of wholesale access to Míla's optic waves on the market for trunk segments of leased lines. The amendment also approved a change to Míla's reference offer for leased lines. An optic wave would be a connection in Míla's dense wavelength-division multiplexing (DWDM) system. A light wave would be provided at specified locations in the Míla trunk network and four data transmission speeds would be available, i.e. 1, 10, 25 and 100 Gb/s and six distance categories. According to the conclusion of Míla's cost analysis, now approved by the ECOI, monthly prices would range between ISK 44,494 and ISK 611,610 depending on data transfer speed and distance. Installation fees would be ISK 96,386. The decision describes the criteria and methods for cost analysis in more detail. The new Míla wholesale tariff was due to take effect on 10 March, 2024.



Cyber and data security

Cyber and data security are becoming an increasingly important part of the issues concerning response and security for society as a whole, and the ECOI plays a key role in this regard. The Office operates the CERT-IS cybersecurity team, monitors the organisation of security measures and the function of critical infrastructure, and is a member of the Cyber Security Council. The Council is a government consultation forum and its purpose is to follow up on the introduction of the government's policy on cyber and data security. The institution also cooperates with various parties that work on cybersecurity issues.

Activities of the CERT-IS cybersecurity team

The activities of CERT-IS are based on the Electronic Communications Act and laws relating to the security of networks and information systems supporting critical infrastructure, and are basically divided into to subcategories. On one hand, CERT-IS provides coordination and incident management with regard to the network security of providers of essential services, and on the other hand it maintains a proper situational awareness of cyber security issues for the Icelandic network domain.

In addition to these two main objectives, the team works in close international cooperation with cybersecurity teams, and as such is Iceland's point of contact in terms of technological coordination and incident management involving the principal neighbouring states and other friendly states.

CERT-IS is an organisational unit within the Electronic Communications Office of Iceland, although due to certain legal obligations it shall have a degree of independence when it comes to accounting, computer systems and work facilities. In light of that fact, CERT-IS has issued an independent annual statement for the year 2024 which can be accessed for further information about its activities on ***THE TEAM'S WEBSITE.***

Activities of Digital Security

The Division employs 10 experts who have various backgrounds and a vast amount of experience in the field of information security and cybersecurity legislation.

This Division's activities involve monitoring minimum requirements regarding cybersecurity and risk control framework on the basis of the Electronic Communications Act and cybersecurity legislation, and it has a very important role when it comes to cybersecurity of important telecommunications infrastructure and basic digital infrastructure.

In addition, the Division has the role of a consulting coordination authority towards other monitoring authorities, on the basis of cybersecurity legislation, for the purpose of promoting the coordinated implementation thereof. This entails maintaining a specific policy regarding how to construct and implement monitoring of the security of network and information systems supporting critical infrastructure.

Monitoring generally involves self-assessments, audits and testing, as well as inspections of the organisation of cybersecurity issues with individual parties, and pre-inspections and investigation of individual incidents and risk factors. The Division also carries out general and specific risk assessments.

With regard to monitoring on the basis of cybersecurity and telecommunications legislation, the Division operates on policies from 2020 on telecommunications and from 2021 on cybersecurity legislation. In 2024, a review of these policies began with the aim of coordinating the them and issuing a single policy for the implementation of all cybersecurity controls in 2025.

In the middle of the year, the Minister of Culture, Innovation and Higher Education at the time approved a cybersecurity action plan which entrusted the ECOI to act as an implementing body for a coordinated self-assessment for all operators of essential services. Digital Security has therefore partnered with all other regulatory authorities on the basis of cybersecurity legislation for the project. Self-assessment began in the field of energy and health in 2024 and the intention was to implement self-assessment of other parties in the first half of 2025.

The Division was involved in the drafting of a regulation on security of telecommunications with the Ministry of Culture, Innovation and Higher Education, and the regulation was published in the government consultation portal. However, the regulation was not issued in 2024.

Continuous improvements are being made to the self-assessment forms that are sent out to regulated entities. In 2023 work



began on the digitisation of the self-assessment process, and the first version of that solution is scheduled to be taken into use in 2025.

During 2024, the Division undertook defined and in-depth audits of the organisational structure of four parties' cybersecurity issues, of which it completed two. The audits began in 2023 or the end of 2022. These audits applied to both organisational measures and technical measures in the field of cybersecurity. Furthermore, instructions to four parties for the development of a comprehensive governance structure for cyber- and information security were followed up on. The department completed 12 preliminary reviews of security incidents during the year and made one administrative decision regarding such an incident.

In 2024, the Division prepared the implementation of the European Union's new Network and Information Systems Directive (NIS2). The work involved drafting a bill for the minimum requirements of the Directive. The project was carried out at the request of the then Ministry of Higher Education, Science and Innovation. The preparation of the NIS2 legislation had great significance in various ways for the Division, as EU Member States were obliged to adopt the Directive no later than October 2024. In addition, the EU Commission established an implementing act on minimum requirements and notification requirements for entities in the digital market.

A representative from Digital Security has also participated in the NIS Cooperation Group, a consultation forum of EU member states, the European Commission and the EU Agency for Cybersecurity (ENISA). The representative has attended meetings in order to increase knowledge within the Office and to strengthen its network of connections and international cooperation in the area of cybersecurity. The aforesaid Cooperation Group is a key element within the European Union with regard to requirements that shall be made regarding the cybersecurity of important infrastructure, the performance of monitoring and co-ordination within Europe. The group was established with the so-called NIS-1 Directive in the area of cyber and information security, and the EU's NIS2 Directive has significantly expanded the group's role.

Digital Security representatives have also taken part in increased cooperation among the Nordic countries in the field of cyber security. Representatives from the field participate in the Nordic NIS Cooperation Group of telecommunications regulatory bodies, and collaboration was established between specialists and

lawyers of the institutions that host the Nordic countries' CSIRT. The ECOI hosted such a meeting in Iceland in May of 2024.

Digital Security provides monitoring on the basis of Act No. 55/2019 on Electronic Identification and Trust Services for Electronic Transactions. Many of the tasks that are based on this Act involve awarding providers of trust services a fully validated position in that field. Parties are also required to maintain such status through regular compliance assessments reviewed and verified by the ECOI. No changes have been made to the number of parties or trust services who hold approved status. The ECOI is also responsible for notifying the EU regarding the identification structure for Iceland. Such a request for notification has been received from the Minister. The project has not been fully implemented due to lack of funding.

Representatives of the Division participate in European cooperation in this field, and are members of FESA, i.e. the Forum of European Supervisory Authorities for Trust Service Providers. The group meets twice a year, and also works in close cooperation with ENISA. A great deal of preparatory work went on within the group in relation to the introduction of a new regulation in the field of electronic identification and trust services that was formulated within the legislative bodies of the European Union. This regulation will have somewhat far-reaching effects in this country, and therefore knowledge acquisition and preparation is important.

The department organised and hosted the cybersecurity conference *"Safety Starts at the Top"* at Hilton Nordica on 8 October.

The ECOI had a booth at the IT Fair in February of 2024, and staff held three presentations.

Unnur Kristín Sveinbjarnardóttir prepared a lecture on NIS2 at the IT Fair in February of 2024, but due to her absence, Þórdís Rafnsdóttir gave the lecture. The Head of the Division also participated in numerous other events pertaining to EU cybersecurity regulations.

Unnur Kristín was one of the instructors at the Cyber Security Leader course held in November 2024 by Akademias.

In addition, Unnur Kristín Sveinbjarnardóttir published two newspaper articles this year.

Sigrún Lilja Sigmarsdóttir gave the talk *Information Security – Why are we doing this? Under the auspices of Stjórnvísi in November of 2024.*

Finally, it is worth mentioning that the Division also acts for the Electronic Communications Office of Iceland on the basis of Article 13 of Act No. 54/2021 on Icelandic domain names, which was passed in Parliament on 27 May 2021. Enforcement is required every two years and in 2023, the ECOI performed an audit on the basis of the Act on conditions for top-level domain registry. There were therefore no projects pertaining to this Act in 2024.





Consumer Affairs and Privacy

One of the principal tasks of the Electronic Communications Office of Iceland is to protect the interests of consumers in the telecommunications market, and to safeguard protection for them in their dealings with telecommunication companies. The Office publishes information for consumers, participates in measures to protect personal data and privacy and works on safeguarding the maintenance and security of public telecommunications networks.

The Electronic Communications Office's website includes a section specifically intended for consumers. There, consumers can submit messages, complaints and inquiries to the Office if they are of the opinion that a telecommunication company is in violation of the obligations required by law or of general authorisations and operation licences. Dozens of such messages are received each year, although only some of them enter the formal complaints process. This does not include incidents where assistance and advice is given over the phone, nor the responses to inquiries of various kinds. Several of the most interesting cases that the ECOI dealt with in 2024 are detailed below.

Service components and subscription plan pricing

The ECOI received a complaint from a consumer regarding Síminn's change to a service component in a subscription plan and the price of the service. Following a review of the consumer protection provisions of the Electronic Communications Act with reference to the complainant's complaint, the ECOI concluded that Síminn had violated Article 72 of the Act concerning notification to customers of changes to the terms or tariffs of the service. In other respects, the complainant's complaint was dismissed.

In Decision No. 7/2024, the ECOI detailed the nature of consumer protection under the Electronic Communications Act and the relevant key provisions, namely:

- Information requirements for contracts (Article 69): Consumers must be informed in a clear manner about their rights and possible limitations of services. The content of the terms and conditions must also be available in a condensed form.
- Comparison of electronic communications services (Article 70): Consumers should have access to a comparison of the price and quality of different subscription plans free of charge.
- Duration, termination and amendments (Article 72): Companies should notify of changes one month in advance in which case consumers can terminate the contract without payment of damages. Consumers are not required to accept such changes.
- Maximum commitment period of contracts (Article 72): Contracts have a maximum commitment period of six months to avoid competition concerns.
- Number and service transfer (Article 76): Consumers may retain their phone number when changing service providers.

The provisions do not provide for the ECOI to be able to review individual decisions made by electronic communications companies on product availability, subscription plans, prices and business terms at the retail level. Such interventions may only apply in well-defined exceptional circumstances, subject to specific conditions, which were not applicable in this case.

The Electronic Communications Act is also not based on the assumption that customers are required to agree to amendments to terms and tariffs by electronic communications companies. Meanwhile, consumer protection law aims to ensure that consumers are informed, have accessible information about their business terms, and can easily transfer their business to other service providers, e.g. in the event of unfavourable changes to their business terms.

Reception of e-mail by mistake, chance or without specific authorisation

According to Article 88(4) of the Electronic Communications Act, the sender of an e-mail is protected from inadvertently sending an e-mail message to an unauthorised person by mistake or chance, or to a party who does not have specific authorisation to process the content of the e-mail. In addition, the outside party may not exploit the information contained in the e-mail or distribute the e-mail to others. The party must also notify the

sender of the error.

During the year, the ECOI received a complaint regarding an alleged violation of this provision. The circumstances of the case involved the complainant sending an e-mail to a specific group of recipients, considering it evident that the contents of the e-mail were not intended for others or for public disclosure. One of the numerous recipients of the e-mail, however, decided to forward it to a third party outside the group of original recipients. It is not known who forwarded the e-mail or why. From the evidence in this case, the ECOI considered it improbable that the e-mail had been forwarded by mistake or that the recipient received the forwarded message by chance or without specific authorisation.

The ECOI concluded, in Decision No. 8/2024, that the person who forwarded the e-mail could be a party to a complaint relating to the sending of an e-mail by mistake or chance to an unauthorised party, but not the complainant. The complaint would have to originate from the person who forwarded the e-mail, and their subjective position on these legal requirements would have to be known in order to resolve the matter. It is not enough that the content of the forwarded e-mail involves sensitive interests of the original sender or that the e-mail has been forwarded without the original sender's authorisation. The complaint was therefore dismissed due to lack of legitimate interests.

Costs of SMS alerts

Public telecommunications networks are not specifically defined as emergency communications systems by law, but it is clear from the expectations of users, responders and other public bodies that the public mobile network is in fact a safety tool for the public.

The number of SMS alerts that responders send to the public, to warn of an imminent or ongoing emergency, has increased in recent years. This is largely attributable to the coronavirus epidemic and volcanic activity in the Reykjanes peninsula. As such alerts are also received by foreign tourists, the costs incurred by Icelandic telecommunications companies have also increased due to, among other things, the need to pay termination fees to foreign telecommunications companies.

In the summer of 2024, the ECOI received a query from Neyðarlínan ohf. requesting that the Office clarify the content of Article 99 of the Electronic Communications Act. This was due to a dispute between Neyðarlínan and the electronic communications undertakings Síminn hf. and Sýn hf. over the payment of bills for emergency warnings. The ECOI considered it appropriate to resolve the dispute by a decision, as government authorities generally do not resolve individual disputes by issuing guidelines for the relevant parties to follow, and the ECOI's competency must also be considered in the event of a formal resolution in later stages.

The conclusion of the ECOI in the case was twofold; on the one hand, the Office considered that it was not obligatory for Neyðarlínan to make a formal request to electronic communications undertakings in advance for emergency warnings to be free of charge before they were sent out. On the other hand, the ECOI considered that the electronic communications undertakings were authorised to charge Neyðarlínan for expenses incurred in connection with termination and roaming charges, since Article 99 of the Electronic Communications Act was not intended to affect charges pursuant to Articles 53 and 54 of the Act. Such costs would not be covered by the phrase "without charge" in Article 99 of the Act.

Installation of fibre-optic cable without consultation with real estate owner

The ECOI received a complaint regarding Ljósleiðarinn ehf., in which the complainant alleged that the company had installed fibre-optic cable on the complainant's premises without permission and without consultation on the utilities route. Reference was made to the provisions of Article 34 of the Electronic Communications Act, which stipulates that where it is necessary for an electronic communications undertaking to locate electronic communications infrastructure in the land of another party, then the owner of such real estate is obliged to authorise this, given that full compensation is paid for verifiable damage, temporary disturbance and impairment of possible use of the real estate, where this is the case. The provision also states that electronic communications undertakings must consult the owners or persons controlling such property or structures as to where the lines shall be laid.

However, during the processing of the complaint it was found that the cable tube in question was owned and had been installed by the complainant's neighbour rather than Ljósleiðarinn ehf. The ECOI therefore considered that this was a dispute between two parties over construction on and access to the property of the complainant, which was a matter involving neighbour and property law. This dispute between neighbours was considered irrelevant for Ljósleiðarinn ehf., as the matter stood, as this was not a permanent location for the fibre-optic cable.

The ECOI concluded that Article 34 of the Electronic Communications Act did not apply to the case and that it did not fall within the Office's competence to resolve civil disputes between neighbours, as such disputes were a matter for the courts. The complaint against Ljósleiðarinn ehf. was therefore dismissed.

Parties not unauthorised to use cookies

The ECOI received a complaint against RÚV ohf. regarding the use of cookies on the RÚV website. Specifically, the complainant could not follow the live feed from the Reykjanes peninsula via RÚV's webcam because it was embedded content from another website that wanted to collect a statistics cookie. However, the complainant had requested that no cookies be stored so the content could not be displayed. The complainant requested that the ECOI investigate the activities of RÚV in relation to access restrictions.

The ECOI concluded that the complaint did not fall within the scope of the Electronic Communications Act and dismissed it. ECOI monitoring of the use of cookies consists of ascertaining whether such processing is authorised, for example whether the user has given informed consent and whether the user been informed of such authorisation. In this case, however, the dispute was not whether consent was obtained or whether users were informed. Instead, the issue was whether RÚV ohf. was authorised to use cookies at all, which the complainant considered to be an access barrier.

The Electronic Communications Act contains no restrictions on whether legal entities – public or private – can use cookies on their websites. For that reason, the ECOI considered the matter to be outside the scope of the Office and therefore not within its competence to rule on such a dispute.

Universal service

Origin and development of universal telecommunications services

In most parts of Europe, telecommunications activities used to fall under the purview of state-owned enterprises or institutions. Telecommunications activities were then governed by public exclusive rights. Covered by the state's exclusive rights, extensive telecommunications infrastructure was developed in Iceland. As the 20th century drew on, almost every home and workplace had been connected to the public telecommunications network. The nature of the activities was such that the conditions for competition were not good, i.e., another telecommunications network could not be installed and thereby promote competition. As a result, large and robust state-run telecommunications companies emerged in the majority of states.

By the end of the 20th century, circumstances had begun to change. With technological changes and market developments, it had become a viable option for other companies to undertake telecommunications activities on the ground of gaining access to the state-run telecommunications company's infrastructure. This development led to a change in the European telecommunications regulatory framework towards the lifting of the state's exclusive rights over telecommunications activities, cf. Directive 96/19/EC of the European Parliament and of the Council.

This Directive was introduced in Iceland by the Telecommunications Act No. 143/1996 and then by further measures, which included the implementation of certain European directives by the Telecommunications Act No. 107/1999. Two basic measures were deemed necessary with the introduction of competition on the telecommunications market. On the one hand, to set up a specific telecommunications regulatory body with the intended purpose of introducing effective competition in a market where there was no competition at all. In this respect, general competition law would not suffice, and further measures would be required to open them market and promote competition. On the other hand, it was the will of politicians that the public should nevertheless enjoy telecommunications services that the state-run companies had provided on equal terms in a comprehensive and affordable way across the country.

There were two main options in Iceland; that the Ministry of Transport and Communications at the time assume all new administrative tasks in the field of telecommunications and postal affairs, or that a new agency be established to undertake these tasks under the Ministry's supervision. The second option was chosen and this was in accordance with government decisions in most other EEA member countries. The Post and Telecom Administration began operating on 1 April, 1997 after its predecessor, the Post and Telephone Administration, was changed into a state-owned corporation and given the name Póstur og sími hf. The State Telecom Inspectorate was incorporated into the new institution at the same time. The institution was then given its current name, the Electronic Communications Office of Iceland, upon the entry into force of the new Act No. 75/2021 on the Electronic Communications Office, and tasks concerning postal issues were transferred to the Institute of Regional Development by Act No. 76/2021.

The telecommunications services whose availability to the public was to continue upon the abolition of exclusive state rights was referred to as universal telecommunications services. Due to the objective of universal service regulations, i.e. to maintain

the level, quality and pricing of telecommunications services that existed upon the abolition of exclusive rights, new types of telecommunications services and the future development of telecommunications networks were not expected to fall under the regulatory environment of universal service. For a long time, therefore, mobile services, which for the most part emerged after the enactment of the first provision on universal service, were not considered a universal service. On the other hand, technology has advanced so much since the inception of the legal environment for universal telecommunications services that it is in many cases a more cost-effective option to meet the requirements of universal service with new technologies, e.g. mobile network solutions.

The gist of universal service today is that consumers should be guaranteed affordable access to telephone services at their legal domicile or other place of residence and, on the other hand, usable internet access services. Today, types of universal services are not tied to a specific technology and therefore high-speed mobile network solutions meet these criteria. However, the right to universal service is not absolute and may be subject to restrictions such as costs, geographical conditions or other disadvantages of provision of services. Today, such anomalies are very rare and work is underway to solve them once and for all, cf. Decision no. 6/2024.

Discontinuation of copper

In the spring of 2024, the telecommunications company Míla hf. announced that work had begun on discontinuing the company's copper local loop system. The system had served Icelanders for over 100 years, first for voice telephony and in later years for high-speed data transmission using VDSL technology.

On the occasion of system's discontinuation, the ECOI undertook a review of the homes and workplaces that had not been provided with adequate mobile network services upon discontinuation of the copper local loop system. The ECOO considered it necessary to take specific measures to establish an adequate telecommunications network at the locations in question. To that end, the emergency line Neyðarlínan ehf. was appointed as a universal service provider of telecommunications connections, cf. ECOI Decision No. 6/2024. It is the responsibility of Neyðarlínan to oversee installation and connection at the locations in question.

Video interpreter services

With Decision No. 10/2024, the ECOI rejected the Icelandic Association of the Deaf's demand that video interpreter services be considered a universal service, and consequently that the service would be funded as such. The ECOI had previously discussed this demand in the Post and Telecom Administration Decision No. 20/2016. As in that decision, it was concluded that such an obligation would not be imposed on telecommunications companies, either one or more, without explicit legal authority that such a service fall under the concept of a universal service or a decision to do so made by the Minister. The Electronic Communications Act No. 70/2022 and Universal Service Regulation No. 1100/2022 do not provide for the inclusion of video interpreter services in universal services

Administrative decisions of the ECOI in 2024

The Office made fifteen formal administrative decisions in 2024. The ECOI Appellate Committee ruled on one case where the Office's decisions had been appealed to the Committee.

The ECOI has maintained statistics on the outcome of administrative rulings since 2007, when the current setup of the Office was adopted. This table shows the decisions made up to and including 2024:

Year	ECOI's decisions	Appealed decisions	Appeal proportion	Total rulings	Rescinded decisions	Upheld decisions	Upheld - proportion / appealed
2007	27	9	33%	9	1	8	**89%**
2008	33	7	21%	7	1	6	**86%**
2009	23	5	22%	5	0	5	**100%**
2010	41	10	24%	10	3	7	**70%**
2011	35	5	14%	5	2	3	**60%**
2012	40	7	18%	7	1	6	**86%**
2013	33	4	12%	4	0	4	**100%**
2014	42	5	12%	5	2	3	**60%**
2015	37	10	27%	10	2	8	**80%**
2016	24	4	17%	4	0	4	**100%**
2017	32	13	41%	13	1	12	**92%**
2018	28	4	14%	4	1	3	**75%**
2019	31	7	23%	7	3	4	**57%**
2020	18	4	22%	4	0	4	**100%**
2021	20	1	5%	1	0	1	**100%**
2022	15	4	27%	4	0	4	**100%**
2023	11	1	9%	1	0	1	**100%**
2024	15	6	40%	6	1	5	**83%**
Total	**505**	**106**	**21%**	**106**	**18**	**88**	**83%**
Of total	**100%**				**3,6%**		
					Average percentage upheld*		**83%**

*Using weighted mean

A summary of the decisions issued by the Electronic Communications Office of Iceland and the Post and Telecom Administration can be found on the ***OFFICE'S WEBSITE.***

Registered telecommunications companies at the end of 2024

Name	Registered	Type of services
1819 – Nýr valkostur ehf.	20/06/2014	Directory enquiries services
Advania Ísland ehf.	17/04/2002	Data transmission services
Alza ehf.	01/09/2017	Data transmission services via wireless and fixed-line networks
Althingi (the Icelandic Parliament)	23/03/2015	Transmission of radio and/or television signals
Astrocast SA	29/09/2020	Data transmission service via wireless networks
Austurljós ehf.	05/03/2015	Data transmission networks and services
Ábótinn ehf.	28/03/2003	Data transmission networks and services
Árvakur hf.	26/01/2015	Directory enquiries services
Ásaljós	18/08/2015	Operation of fixed electronic communications network
BERJAYA HOTELS ICELAND hf.	23/06/2021	Transmission of radio and/or television signals
Bláskógaljós	20/12/2019	Operation of fixed electronic communications network
Bloomberg Finance L.P.	19/07/2007	Line rental services and general telecommunications network
Boðleið Þjónusta ehf.	01/12/2015	Voice telephony services, mobile telephone services and operation of a fixed-line telecommunications network
BT Solutions Limited, Iceland branch	28/07/2014	Data transmission services
Century Link Iceland ehf.	01/12/2015	Operation of fixed-line electronic communications network and data transmission services
Cisco International Limited	06/07/2022	Cloud-based SMS and VoIP service
Colt Technology Services AB	29/09/2015	Data transmission services

Name	Registered	Type of services
Cronus ehf.	01/10/2019	Transmission of radio and/or television signals
Cubic Telecom Limited	09/08/2018	Operation of fixed-line and wireless electronic communications networks, data transmission via wireless electronic communications networks
Dalaveitur ehf.	14/02/2017	Operation of fixed electronic communications network
Darknet ehf.	09/11/2023	Voice telephony services
DCN Hub ehf.	10/12/2012	Mobile and data transmission services
DIDWW Ireland Limited	26/02/2019	Data transmission and voice telephony services
Digriklettur ehf.	01/04/2019	Operation of fixed electronic communications network
DVD-Margmiðlun ehf.	06/02/2004	Operation of radio broadcasting broadband system
EchoStar Mobile Limited	01/07/2020	Mobile network satellite service
County of Eyja- og Miklaholtshreppur	29/09/2015	Operation of fixed electronic communications network
Factor ehf.	30/05/2013	Data transmission network and data transmission services
Farice ehf.	02/09/2003	Submarine cable
Ferðaþjónustan Húsafelli ehf.	23/04/2018	Data transmission services via fixed-line networks, operation of fixed-line tele-communication network
Fjarskiptafélag Reykhólshrepps	09/08/2018	Operation of fixed electronic communications network
Fjarskiptafélag Skagabyggðar	08/06/2016	Data transmission network
Fjarskiptafélag Skeiða og G ehf.	08/03/2013	Data transmission network
Fjarskiptafélag Svalbarðshrepps ehf.	14/02/2017	Operation of fixed electronic communications network

Name	Registered	Type of services
Fjölnet ehf.	26/10/2001	Voice telephony, data transmission services and telecommunication network
Flóaljós	17/01/2020	Operation of fixed electronic communications network
FOSSA Systems S.L.	21/04/2022	Data transmission services
Gagnaveita Helgafellssveit ehf.	18/08/2015	Operation of fixed electronic communications network
Gagnaveita Hornafjarðar ehf.	13/02/2013	Electronic communications network
Gagnaveita Suðurlands ehf.	09/12/2013	Data transmission services
Gagnaveitan ehf.	08/06/2011	Electronic communications services
Garmin (Europe) Limited	05/07/2022	Data transmission services, satellite services
GlobalCall ehf.	04/09/2008	Voice telephony services
Globalstar Europe Satellite Services Ltd.	21/02/2010	Satellite services
Halló ehf.	23/05/2014	Directory enquiries services
Hátíðni ehf.	17/08/2020	Voice telephony services, operation of wireless telecommunication network, data transmission service via fixed-line networks and wireless networks and transmission of radio and/or television signals
Hitaveita Drangsness	28/03/2019	Operation of fixed electronic communications network
Hitaveita Egilsstaða/Fella ehf.	11/09/2018	Operation of fixed-line and wireless telecommunications network, data transmission service via wireless and fixed-line networks and transmission of radio and/or television signals
Hitaveita Tálknafjarðarhrepps	24/06/2015	Data transmission services via fixed-line network

Name	Registered	Type of services
Hljóðsmárinn ehf.	24/10/2017	Transmission of radio and/or television signals
Hópkaup ehf.	28/04/2015	Directory enquiries services
Hótel Laki ehf.	10/04/2017	Operation of fixed electronic communications network
Hrafnshóll ehf.	30/01/2019	Operation of fixed electronic communications network
Hringdu ehf.	09/11/2010	Voice telephony and data transmission services
Hringiðan ehf./Vortex Inc.	03/12/1998	Voice telephony, data transmission services and telecommunication network
Hrunaljós	17/01/2020	Operation of fixed electronic communications network
Húnanet ehf.	23/10/2017	Operation of fixed electronic communications network
Municipality of Hvalfjarðarsveit	31/03/2014	Electronic communications network
I CALL ehf.	05/12/2022	Voice telephony and mobile phone service, data transmission service.
Icelandair ehf.	14/02/2014	Electronic communications network
in2com limited trading as in2tel	01/11/2023	Voice telephony services
Internet á Íslandi hf.	03/02/1998	Electronic communications network, voice telephony and data transmission services
Isavia ohf.	30/12/2010	Voice transmission service for aircraft and operation of fixed-line electronic communications network
Isavia ANS ehf.	21/02/2020	Operation of fixed electronic communications network
Já hf.	21/11/2007	Publication of telephone and address directories. Telephone information service
Kukl ehf.	20/03/2009	Voice telephony, data transmission services and telecommunication

Name	Registered	Type of services
network		
Icelandic Coast Guard	01/01/2011	Management and leasing of NATO fibre optic cable
Leaf Space Iceland ehf.	16/02/2022	Data transmission services via satellite
Leiðarljós ehf.	14/02/2017	Operation of fixed electronic communications network
Lindin, kristið útvarp	26/01/2015	Transmission of radio and/or television signals
LíF í Mýrdal ehf.	15/09/2014	Operation of fixed electronic communications network
Ljós og gagnaleiðari ehf.	10/08/2009	Data transmission network
Ljósfesti ehf.	19/12/2016	Operation of fixed electronic communications network
Ljósleiðarinn (formerly Gagnaveita Reykjavíkur ehf.)	23/03/2007	Data transmission networks and services
Optical fibre in the municipality of Árneshreppur	14/11/2023	Operation of fixed electronic communications network
Optical fibre for Borgarbyggð	18/10/2019	Operation of fixed electronic communications network
Ljóspunktur ehf.	24/10/2017	Operation of fixed electronic communications network
Loopup Spain SL	05/10/2021	Data transmission services
Lýsir ehf.	20/12/2019	Operation of wireless electronic communications network
Magnavík ehf.	01/04/2004	Data transmission services
Martölvan ehf.	26/11/2007	Voice telephony services, data transmission services and electronic communi-cations network
Míla ehf.	04/04/2007	Electronic communications network

Name	Registered	Type of services
Netpandan ehf.	05/09/2022	Data transmission services via fixed-line network
Netvöktun ehf.	09/08/2018	Voice telephony services, operation of a fixed-line and wireless electronic communication network, data transmission services via fixed-line and wireless networks
Neyðarlínan ohf.	06/10/1999	Voice telephony/emergency service response line
Nordic Networks ehf.	24/11/2016	Submarine cable and data transmission services
Nova hf.	12/07/2006	Voice telephony and data transmission services
OnAir S.A.R.L.	29/04/2008	Mobile communication services on aircraft (MCA)
OneWeb communications s.a.r.l.	20/05/2021	Data transmission service via satellite
Opin kerfi ehf.	25/02/2011	Data transmission services
Origo hf.	12/12/2011	Data transmission services
Orkufjarskipti hf.	26/10/2001	Electronic communications network
Premis ehf.	24/10/2017	Voice telephony and mobile telephony services, operation of wireless and fixed-line telecommunications network and data transmission services via fixed-line and wireless networks
Protegion ehf.	05/03/2018	Operation of fixed electronic communications network
Rafal	02/05/2022	Data transmission service via wireless networks
Rafey ehf.	18/08/2015	Operation of fixed electronic communications network
Rangárljós	29/08/2016	Operation of fixed electronic communications network
Refinitiv Norge A/S	01/09/2017	Data transmission services via fixed-line network

Name	Registered	Type of services
Ríkisútvarpið ohf.	29/07/1997	Electronic communications services: radio and TV broadcasting
S126 ehf.	21/02/2024	Data transmission services via fixed-line network
Sensa ehf.	19/12/2016	Data transmission services via fixed-line network
Síminn hf.	30/07/1998	Voice telephony, GSM, data transmission network etc.
Snerpa ehf.	17/08/2000	Electronic communications network, voice telephony and data transmission services
Splitti ehf.	08/07/2019	Voice telephony and mobile services, data transmission via fixed-line and wireless electronic communications networks and directory enquiries services
Starlink Internet Services Limited	17/12/2020	Data transmission services via satellite
Studio Norn ehf.	14/10/2020	Transmission of radio and/or television signals
Sumarsól ehf.	01/12/2015	Directory enquiries services
Svartsteinn ehf.	24/01/2022	Data transmission service via fixed-line network and mobile network
Swarm Technologies Inc.	17/08/2020	Satellite service for IoT and M2M devices
Sýn hf.	27/03/2007	Voice telephony services, mobile telephony services, data transmission services and electronic communications network
Tech Support á Íslandi ehf.	03/03/2017	Voice telephony, data transmission services via fixed-line and wireless networks
TELE Greenland A/S	24/06/2008	Submarine cable
Tengir hf.	20/09/2002	Fibre-optic network
Tismi BV	05/03/2015	Voice and mobile telephony
TP Global Operations Limited	28/03/2022	Data transmission service via wireless networks

Name	Registered	Type of services
TRS ehf.	29/03/2004	Data transmission services
TSC ehf.	18/01/2002	Voice telephony, data transmission services and telecommunication network
Twilio Ireland Limited	12/07/2019	Voice telephony and mobile services, data transmission via fixed and wireless electronic communications networks and operation of fixed-line and wireless electronic communications networks
Tölvun ehf.	25/04/2003	Data transmission networks and services
Tölvuþjónustan ehf.	10/12/2020	Data transmission services via fixed-line network
Vengo ehf.	18/10/2019	Data transmission services via fixed-line network
Verne Global hf.	29/09/2020	Data transmission services via fixed-line network
Vesturbyggð	07/11/2023	Operation of fixed electronic communications network
Vonage B.V.	08/09/2022	Voice telephony services
Yellow Mobile B.V.	18/07/2017	Voice and mobile telephony, operation of fixed and wireless electronic communications networks, data transmission via fixed-line and wireless electronic communications networks
Zendensk International Limited	09/08/2018	Cloud-based SMS and VoIP service
Þekking - Tristan hf.	16/01/2004	Data transmission networks and services
Þorvaldur Stefánsson	14/10/2014	Maritime data transmission
Örugg afritun ehf.	18/10/2019	Data transmission services via fixed-line network
Öryggisfjarskipti ehf.	06/10/2008	Telecommunications services and network/TETRA


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