Communications Commission

2019 Annual **REPORT**

2019

Communications Commission

Kakha Bekauri

Chairman of the Communications Commission

The reality caused by the COVID-19 pandemic in the world has made the strategic importance of the telecommunications sector clearer for everyone. It once again revealed how telecommunications services have become an integral part of our lives. Under the state of emergency declared in the country, telecommunications services have become crucial for all citizens. Communication has completely switched to Internet services not only within our country, but throughout the world. We can proudly say that the Georgian telecommunications sector has successfully responded to the crisis caused by the pandemic.

Remote work of state bodies, educational institutions, the private sector, constant access to information, to services through various applications or websites - all this would be impossible without the efficient work of the Commission and players of the field. It has always been clear to us that telecommunications is an area that requires dedicated work and development on a daily basis. The pandemic and life in isolation have made clear to almost all citizens the need for even greater development of our field and the introduction of new technologies.

On a global scale, the 5th generation Internet is today the main path to the development of technology. In order to introduce new technologies, we actively work to ensure that our citizens get the chance to use 5G in 2020. 5G Internet is a necessary precondition for the further development of such important fields as economics, healthcare, education, etc. Therefore, it is fundamentally important to effectively respond to modern challenges and take a leading position in the introduction of new technologies along with leading countries.

The result of the efficient work of the Communications Commission and its liberal policy in recent years is that Georgia has successfully coped with the challenges existing in the world. The Internet quality control system, the innovative project of the Commission - Sheamotsme.ge, has become even more relevant during the coronavirus pandemic. The system ensures provision of high-quality services for each citizen. We introduced the Internet quality control system in early 2019 that allowed customers to control their own providers. We take effective steps to ensure protection of the rights of all consumers, since protection of the interests of our citizens is the main priority of the Commission.

It is important for us that our citizens not only have unhindered access to high-tech services, but also develop their skills necessary for proper navigation in the digital world. Technological development, along with many positive things, has created new challenges as well.

In the world in which we live, information spreads at lightning speed, and the best weapon to deal with fake news is a knowledgeable, media literate citizen. Today, when the dangers posed by imitative reality, false information, and psychological manipulation are obvious, I am not embarrassed to say that the Commission responds to these challenges appropriately.

In order to develop media literacy, we implemented some significant projects in 2019 together with the Media Academy and the Ministry of Education.

Last year, the Department of Media Literacy implemented 5 highly important projects to protect our children from online threats. Hello Ruby, Happy Onlife and Media Economics have been taught in Georgian schools for a year now. We have successfully conducted two competitions for high school students - True or Invented, which develops critical analysis skills among adolescents and teaches them how to identify false information.

The Media Academy works in three directions to address the main challenge of the free and modern society. It is extremely important that the media responds appropriately to modern challenges along with the public. The Media Academy through the Media School and Media Criticism helps journalists deal with this challenge. In order to improve professional skills of media representatives, last year the Media School carried out a fruitful work and trained more than 120 journalists. Also in 2019, the Media Criticism platform was launched, which helps journalists and producers to develop professionally. Media Criticism is a guide for the public to distinguish high-quality and low-quality media products. The purpose of Media Criticism is helping media professionals as well as the broader spectrum of our society to critically evaluate information and, ultimately, promoting informed choice, since only a properly informed citizen is able to make the best choice.

Media Lab - Media Academy's third subdivision - started to work in 2019. In 2020 it will become a place where we will help startups with interesting and innovative ideas in the field of digital media to implement their projects. We believe that such a complex approach is going to bring desired results.

2019 was a year full of significant achievements and successes for the telecommunications sector. First of all, I will focus on the main indicators of market development, since the dynamics of recent years show that the telecommunications market is developing strenuously.

In 2019, revenues received by authorized persons in the field of electronic communications amounted to 1,185 million GEL. It is especially important that the number of fixed broadband Internet subscribers increases every year. While in 2018 penetration into this market was 74.2%, in 2019 this figure increased to 80.8%. Such an increase in the number of subscribers indicates just how fast the field of electronic communications is developing.

The last year has also been fruitful in terms of liberalization of the fixed and wholesale markets. I can boldly claim that in recent years we have made revolutionary decisions in this direction. Liberalization of the fixed market is the most necessary condition for creating a competitive environment in the area of electronic communications, provision of high-quality telecommunication services and protection of consumer interests.

In accordance with our decisions, the cost of wholesale Internet services for small and medium-sized operators decreased by 10 times, the tariffs for wholesale services of access to global Internet resources were halved, the wholesale global Internet tariff was significantly decreased, the tariffs for interconnection in mobile and fixed networks were reduced by 4 times, we have also set new upper limit rates for interconnection services for companies with significant power. All our decisions to liberalize the wholesale market are aimed at improving the market, increasing competition and strengthening small and medium-sized operators. All these steps, will ultimately benefit consumers, who, due to increased competition, will receive high-quality Internet at a more affordable price.

With regards to the mobile communications market liberalization, another challenge facing the Commission in 2019 was admission of virtual operators to this market, which is a prerequisite for the field's development. Admission of virtual operators to the market will increase competition. Following our decision, virtual operators without their own infrastructure will be able to freely use the infrastructure of existing large operators on the market. The entry of virtual operators into the market will maximize competition for mobile services, which is a guarantee that prices will not increase at the first stage, and in a relatively long term, this decision will increase availability of Internet services.

I also have to mention the field of broadcasting, as a pluralistic media environment and guaranteed freedom of speech are our main achievements. Today, Georgia has one of the most liberal media policies in Europe. This is confirmed by the fact that since 2012, anyone can start broadcasting with simple authorization in just 10 days. A good example of our liberal media policy are the events in the broadcasting media in 2019. Dozens of people left the Rustavi 2 TV channel after the company was returned to its former owner by the decision of the European Court of Human Rights. The Communications Commission granted authorization to people who left the channel in the shortest possible time, without any delay, and two new TV broadcasters appeared on the media market without any obstacles.

Today, we have more than 100 TV channels, diverse media and a great many choices, which is important for the development of the country, because the pluralistic media environment is the foundation of a democratic society.

Here, I would like to mention the broadcast advertising market, which is extremely important for the development of television media. The volume of the Georgian advertising market is currently insufficient for 100 broadcasters. In addition, there are new trends in the advertising market, which I have been talking about for three years. In the modern world, where new technologies are being introduced on a daily basis, with the development of digital media, advertising revenues are flowing from traditional media into new media, and this figure is growing every year. This trend is observed all over Europe, which is why I would like once again to urge broadcasters, their managers, to keep pace with modern challenges and develop digital platforms.

Finally, I would like to thank each and every employee of the Communications Commission, each member of my team for all the projects and successes that we achieved together in 2019. For us, these achievements are truly laudable, but we are also well aware that there are still greater challenges ahead. The telecommunications sector is changing and developing rapidly almost every day, and the efficient introduction of new technologies is one of the most necessary prerequisites for the country's economic development. That is why our team continues to work actively in order to develop the field even further.

SHEAMOTSME.GE

“Sheamotsme.ge” - on March 20, 2019, a video clip of various genres appeared on social media, informing customers about important news. Information campaign “Sheamotsme.ge” spread on the Internet quickly and information about Internet quality control mechanism rapidly reached hundreds of thousands of users.

For the first time in Georgia, the Communications Commission has developed a unique mechanism for controlling the quality of the Internet in order to protect the interests of users, which gives any user possibility to measure the speed and quality of the fixed Internet, to check how much the quality of the delivered Internet corresponds to that provided for under the terms of the contract between him and the provider company. The Internet quality control mechanism allows both the users and the Communications Commission to monitor 24 hours a day how well companies fulfill their obligations to subscribers. In case of violation, in order to provide high-quality Internet services, the Commission takes measures against Internet providers in accordance with the law.

In order to improve the situation in the fixed Internet market and to make the quality and speed of the Internet adequate to the price paid by users, the Communications Commission carried out active works - adopted a resolution defining the quality indicators of Internet services and determined methodological rules for checking them. All stakeholders were involved in the process. In order to ensure the proper quality of the provision of Internet services, the companies were imposed with new obligations providing for bringing contracts with subscribers in accordance with the resolution.

In order to ensure reliability and accuracy of verification, the Commission has collaborated with the American company Visualware. The quality of Internet services is measured just by Visualware equipment, which allows measuring simultaneously 5 important parameters of the fixed Internet:

What parameters do we measure?
The parameters of the fixed Internet provided for by the contract between you and the provider company:
- Speed - minimum, actual and maximum download speed;
- Gitter - quality parameters of audio and video streaming during Internet connection;
- Delay - a parameter that checks the time delay between sending and receiving information between the client and the Internet provider;
- Packet Lost Ratio - percentage of lost data between sent and received information.

Given that protection of users is a top priority for the Communications Commission, the Commission has launched a large-scale public awareness campaign about the project. As part of the Internet quality control campaign Sheamotsme.ge, 6 video clips were posted on social media. In total 3,700,000 Internet users have watched the video clips. As part of the campaign, a total of 4,900,000 users received information, as well as videos, with supporting posts and banners through social media. As a result of this campaign, Internet users already know that, if necessary, they can enter the program Sheamotsme.ge at any time and check the quality and speed of the Internet, and in case of any defects, they can easily send a complaint from the same website to the Communications Commission, which will act within the law and help solve the problem.

As part of the campaign

Sheamotsme.ge

video clips and banners had
4 900 000 views

500 000 Internet users have logged into

Sheamotsme.ge

As already mentioned, a number of obligations have been imposed on the provider companies before setting in motion the Internet quality control. First of all this envisaged signing of new agreements with subscribers. According to the obligations, the contract with the users should specify in detail what services the subscribers pay for, what services they should receive and what rights they have. Simultaneously with signing of these agreements, naturally, the companies also worked to eliminate technical shortcomings and prepared for launching the Internet quality control mechanism, as it is confirmed by the number of tests performed. Although 3,700,000 Internet users received information about Sheamotsme.ge as part of the campaign and more than half a million visitors visited the site, in 2019 a total of 38,623 Internet quality tests were conducted with 392 complaints filed.

In 2019 38,623 tests were conducted on sheamotsme.ge

Most of the complaints are related to optical and WiFi technologies

392 complaints have been registered and resolved

24-hour internet quality control is performed

Media Literacy

Along with getting high-quality Internet services, it is important to know how to use the Internet correctly and safely, as well as how to protect ourselves and our children, the next generation from the harmful effects of the Internet, how to deal with cybercrime and protect adolescents from cyberbullying. To solve these problems, the most important weapon is a citizen armed with knowledge. In order to increase the awareness of our citizens, children, parents and teachers and develop important skills such as critical thinking and creativity, the Communications Commission in 2019, in close cooperation with the Ministry of Education, Science, Culture and Sports taking into account European experience and successful practice, has implemented very important projects.

"Hello Ruby" – "Adventures in Coding" and "Journey Inside the Computer" – is a series of Finnish books, which are included as textbooks in Georgian schools and help elementary school students to master the basics of programming and computer science. In 2019, 8 clubs were established in 5 schools, including three public and two private schools. It should be noted that based on demand, in each school 2-3 clubs were created instead of one, and more than 800 students of the 3rd and 4th grades have studied the basics of computer science using the books of "Hello Ruby". "Hello Ruby" is a series of Finnish children's books recognized and successful in 25 countries, the aim of which is to develop critical thinking and analysis skills among primary school children. "Hello Ruby" books have been translated and published in 25 languages, including English, German, French, Italian, Estonian, Japanese and now Georgian. "Hello Ruby" is very popular all over the world, and in New York elementary school, students learn the basics of programming using these books.

The Communications Commission, together with the Ministry of Education, Science, Culture and Sports, has introduced a series of "Hello Ruby" - successful books in the world in public and private schools of Georgia as part of a new education reform. With the help of Finnish books, students master the basics of computer science in public schools in clubs, and in private schools as part of the curriculum.

60
teachers have been retrained.

Over 800 students have studied through "Hello Ruby"

By decision of the author of "Hello Ruby", Linda Liukas[1], the Communications Commission received a license to publish books in Georgian. According to the invitation of Communications Commission, Linda Liukas arrived in Georgia to train teachers. The author conducted certified training for more than 60 teachers and introduced them the method of teaching of the book herself.

[1]Linda Liukas is the author of the book series "Hello Ruby", a 33-year-old Finnish programmer who was named as one of Europe's 50 best women technology workers by Forbes magazine in 2018, and the European Commission called her the Finnish champion in digital technology.

Happy Onlife - is an online application and a board game for adolescents, the purpose of which is to teach children safe and responsible usage of digital media through the game, also, critical evaluation and analysis of online content. Happy Onlife, recognized as a successful application in 8 EU countries, helps parents and teachers to be actively in charge of developing children's media literacy skills and protect them from cyberbullying. Happy Onlife is considered as one of the most effective media literacy projects, adapted and available in 9 European languages. The Communications Commission has created Georgian version of the application, that catapulted into the spotlight in a short period of time. This is confirmed by the active involvement of high school students.

600,000 people received information about Happy Onlife

700 students have been trained through "Happy Onlife"

Over 7,000 students played with "Happy Onlife" app

In addition to the online application, the Communications Commission created the "Happy Onlife" board game in Georgian and, in collaboration with the Ministry of Education, introduced it to Georgian schools. The representatives of the Commission's Media Literacy Development Department, conducted training on the proper use of the application and the board games in 10 schools of Georgia. A total of 700 students attended "Happy Onlife" training. The online application is designed for both - primary and high school students.

Due to the fact that the online application has been very popular in Georgia since the day of its appearance, according to the decision of the European Commission, in 2020 it will be updated and 150 new questions will be added. The commission, in cooperation with the Ministry of Education, plans to create a training manual and a module as well. Trainings will be held for more than 100 teachers of public and private schools, students and parents.

True or Invented? – A competition for high school students, aimed at developing media literacy skills in adolescents - critical and logical thinking, analysis and verification of facts. As part of the competition, adolescents have to discover and analyze the spread false information (Fake News), identify the source and the real facts.

In 2019, the Commission successfully carried out a competition twice . According to the terms of the first competition, only students of grades 10 and 11 participated. Due to the high involvement and demand from the participants, 9th grade students were given the opportunity to present their works, which resulted in the triple number of participants in the second competition.

True or Invented? 20 students took part in the first competition. The number of participants tripled in the second competition - 60 competition works were submitted to the Commission.

According to the terms of the competition, students had to complete the task individually, find false information - "Fake news" disseminated in the Georgian media space (Internet, television, print media, etc.), which was related to the incident in Georgia and still was not verified as fake information. They had to present a way of identification, an appropriate source and simultaneously find out real facts.

To present the assignment, students had to choose the format themselves - video or multimedia work, presentation or other alternative creative form. The competition works were evaluated by a competent jury.

The Commission awarded the four winners of the first competition impressive prizes - MacBook Pro, iPhone XS, iPad Pro + Apple Pencil, and a two-week summer school program of Buckswood International School - Tbilisi.

Along with the competition, the Communications Commission added a training component on discovery of Fake News. Representatives of the Media Literacy Department conducted trainings on fact-checking and identifying false information in 10 public schools. Using the materials of BBC Academy, in the framework of interactive sessions, the children learned to analyze false information in the media and to verify the facts. These meetings also helped the children to prepare competition works.

As part of the campaign True or Invented!, the Communications Commission provided information about the project to 500,000 users

500 students took part in the interactive sessions

Media Economics - a short-term educational course for elementary school students on the principles of digital media economics - a project to promote the development of media literacy, recognized by Evens Foundation as the best platform. This is a unique approach to the media economics and the media threat that focuses on teaching the principles of digital media economics. The target audience of the project is 10 to 15 years old adolescents. Students of Georgian schools in the form of interactive training learn to choose and use the media and, most importantly, receive information about the financial and economic aspects of digital media.

The training is carried out using multimedia platforms and the Internet, both in groups and individually, through practical and interactive works. The lesson plan was developed together with the author of the course, the director of the Zaffiria Media Education Center, Alessandra Falconi, and was specially adapted for Georgian schools.

The Communications Commission invited a well-known Italian expert to Georgia, who herself retrained about 60 Georgian teachers and instructors. At the working meeting the teachers got acquainted with the teaching methods of "Media Economics" and the syllabus of the project. As the scale increases in 2020, the project will be modified.

[2] True or Invented? - the winners of the competition and their works http://gncc.ge/ge/namdvili-tu-mogonili

“Our Internet is our choice - The Importance of Informed Confirmation in the Digital World” - the Communications Commission carried out a meeting in schools to protect adolescents from the harmful effects of the Internet. On the occasion of the World Safer Internet Day, an interactive two-stage workshop was held for the 5th grade students of public schools, including beneficiaries of a shelter for homeless children.

The training, which ensures the active involvement of children in the process, includes both theoretical and practical work on the importance of the safe use of the Internet, in the following areas:

- **Cyberbullying;**
- **Critical evaluation of a source of information;**
- **Communication with parents, teachers, adults;**
- **Protection of personal data online.**

More than 150 students have received information about the safe use of the Internet

“Online Platform of National Importance” - In order to develop media literacy, the Communications Commission together with the European Council, with the participation of State bodies, International and non-governmental organizations, as well as representatives of the scientific community, held the first large-scale working meeting in Georgia. Especially for this day, Martina Chapman[3], an expert on media literacy and the National Coordinator - Media Literacy Ireland visited Georgia.

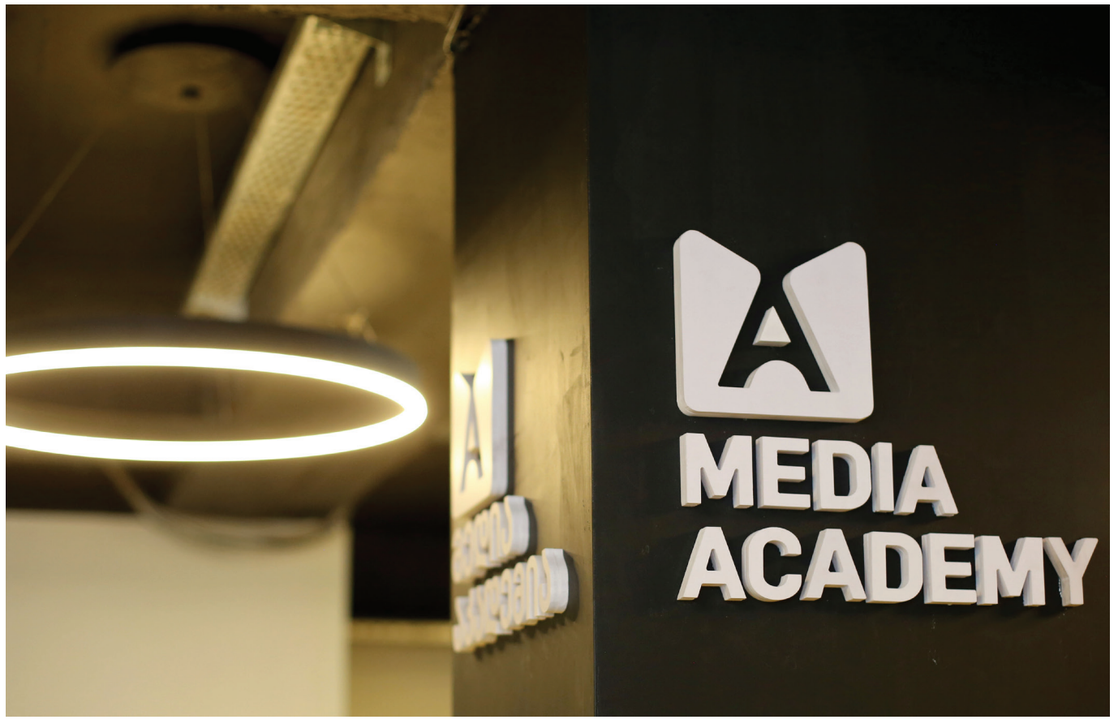
At the meeting, the Communications Commission presented several important initiatives to all interested parties working in the field of media literacy, in order to promote and develop media literacy in the country. At the initiative of the Commission, extended working meetings of a similar type on media literacy will be carried out twice a year.

In addition, thanks to the efforts of the Commission, a single online communication space, a kind of hub will be created, where information on projects carried out in the field of media literacy will be posted. This will be a platform where full information about media literacy will be available to everyone, to adolescents, as well as parents and teachers. An online platform of national importance Mediatsigniereba.ge will actively provide users with access to all media literacy issues in one space from 2020.

[3]Martina Chapman - the European Audiovisual Observatory, the Media Regulatory Authority Ireland, the UK Regulatory Authority and BBC. Consultant of the Communications Commission on the Media Literacy Strategy and Action Plan.

In 2019, the Media Academy established by the Communications Commission, began active work to develop media literacy in the country. The Media Academy collaborates closely with Bavarian regulatory authority (BLM) and shares its experience. To introduce the German model in the Media Academy, representatives of the Commission and the Media Academy have visited BLM twice, and BLM delegation visited Georgia to summarize the implemented projects and discuss future plans.[4] According to the evaluation of the president of BLM Siegfried Schneider and his German colleagues, the Media Academy has been working effectively during a short period of its existence and achieved significant results.

The Media Academy, like BLM, has been actively conducting seminars and trainings for journalists for over a year now. The Media Academy, which consists of three components, contributes to the development of media literacy in the society. The main target audience of the Media Academy along with the general public are journalists, producers and media managers. To this end, in 2019 the Media Academy actively carried out educational activities, creating and distributing educational products aimed at raising qualification of media representatives, including journalists, producers and media managers.



[4]The Communications Commission and the Media Academy are hosting Bavarian regulatory authority (BLM)
http://gncc.ge/ge/yvela-siaxle/komunikaciebis-komisia-da-mediaakademia-germaniis-mtavar-maregulirebel-komisias-blm-maspindzloben.page

YOUR GUIDE IN MEDIA

Media School - short-term and long-term courses for beginners, as well as current media managers, producers and journalists.

Media Lab - a laboratory that helps to support and fund startups in digital media. Opportunity for startuppers developing interesting projects on the field of digital media.

Media criticism - a platform that promotes professional development of journalists and producers themselves. An online space where quality and healthy media criticism is published. A guide for consumers to make out what kind of media product they consume.

MEDIA ACADEMY

Media criticism - what is written, what is conveyed, how it is covered – the society is often concerned. Freedom of the media means responsibility towards the society. Over the past years, Georgia has gone through an era of information vacuum, which today has been replaced by information chaos.

A need of impartial criticism of the media arose in the society, which would make it possible to critically analyze information. Since professionalism determines quality, and impartiality is a sign of quality in the media space, the goal of the Media Academy was to create such online platform. In the era of modern technologies, when information in the Internet and social networks is spreading at lightning speed, every day we come across fake news of various contents. It became necessary to provide society with high-level media criticism, which would create a professional and qualified information filter.

That is why the Media Academy of the Communications Commission has created Mediacritic.ge - a guide between the public and the media, which since 2019 has been offering professional and qualified, impartial media criticism. The purpose of media criticism is to promote a critical perception of information and, ultimately, a conscious and informed choice. The main task of the online media criticism platform is, on the one hand, to help the public, customers, distinguish which media products they consume, and, on the other hand, to promote the professional development of journalists and producers themselves.

In order to develop the direction of media criticism, the Media Academy, together with professional journalists and media experts has developed its own editorial code on which the criticism is based.

- **Accuracy of information;**
- **Impartiality and good faith;**
- **Public interest and accountability;**
- **Separation of facts and assessments;**
- **Balance;**
- **Inalienability of private life;**
- **Non-discrimination;**
- **Editorial independence;**
- **Trust.**

> These are the fundamental principles on which the editorial code of media criticism is based. Anyone who shares the principles of this code has the opportunity to create a qualified information filter and offer users of the media criticism platform impartial media criticism based on journalistic standards.

Provision of public professional analysis through the media criticism platform includes three directions:

Review – analytical direction of media criticism

Blog – a rubric for copyright products

Remark – focus on daily news

MEDIA SCHOOL

Media School - due to the fact that with the development of technology, consumers behavior changes and they are moving from the consumption of classic media products to consumption of multimedia products, media is facing great challenges in this direction.

The Media School runs short and long-term certified courses for both, beginners and current media managers, producers and journalists in order to improve their skills and increase their knowledge of multimedia content.

In 2019, the Media School conducted 11 training courses and trained more than 120 journalists, cameramen, photo reporters and producers, who, along with theoretical knowledge, gained practical experience.

The school has been practicing for more than a year, and during this time, thanks to various trainings conducted on its basis, representatives of leading television, radio and online media have acquired new skills, having mastered the trends of modern media.

> **The methods of social research and story-telling in the digital age**

How the methods of story-telling have changed in the digital age, how traditional journalism differs from multimedia narrative, how ordinary citizens became rivals of journalists – the journalists worked for three days with modern technologies, together with media expert Marina Vashakmadze and sociologist Iago Kachkachishvili. The first part of the study was devoted to a review of the principles of social research and the specifics of their use in the field of media, and the second part was devoted to the methods of narration in the digital age, the relationship between traditional journalism and new multimedia opportunities.

MEDIA SCHOOL

Information formats and marketing in radio

The two-day workshop, the first part of which was devoted to radio reporting, news and radio broadcasts, and the second part was devoted to the concept, strategy and marketing of radio. What is the modern radio, has the narrative technique changed, how are the programs created and what is the role of marketing - with these topics the Media Academy gave journalists possibility to deepen knowledge necessary for their activities. Participants were trained by experts Lela Kunchulia, Irina Tevdorashvili and Niko Nergadze.

Safety course for journalists

Safety course for the media – Journalists completed two-day training on the safe coverage of demonstrations. What is the danger of covering demonstrations and what kind of mistakes does the media make when covering emergencies? The experts informed reporters about the mandatory technical equipment for the safe work in a tense situation. During the training, the journalists had the opportunity to take part in a simulated interrogation and gain experience in this field as well. As part of the training, media representatives also learned about the rules of first aid. The training was conducted by photojournalist David Mdzinarishvili, SAFE Initiative risk management trainer Giorgi Kupatadze and security specialist Irakli Andronikashvili.

The technique of story-telling in social media

The journalists, together with social media expert Giorgi Gogua, worked using modern technologies to create multimedia products and effective forms of their placement on social platforms. The training included specific issues, such as strategy of coverage of topics and audience analysis, as well as story-telling methods that achieve a high level of audience involvement in social media.

Photojournalism

At a three-day photojournalism seminar, the journalists got acquainted with the basic principles of photography and photojournalism. How to take a photo, covering the news, how to prepare a photo report and to distinguish a real photo from a fake one - together with photojournalist David Mdzinarishvili, during practical exercises, the journalists strengthened their knowledge of preparing the photo report and discussed the principles of working with a photo camera.

The technique of narrative and dramaturgy

Narrative in the modern era, narrative drama and consistency - media representatives had been working together with journalists Marina Vashakmadze and playwright Basa Janikashvili for two days. Journalists got acquainted with the methods of story-telling in the digital era, the relationship between traditional journalism and new multimedia opportunities.

Public lectures are another important format of the Media School in which journalists have the opportunity to receive answers to questions from decision-maker experts of various fields and share experiences.

Foreign policy and the role of diplomacy in conflict resolution

How to cover international conflicts, what we need to know about diplomacy and Georgian-Russian relations. Zurab Abashidze, a diplomat and special representative of the Prime Minister of Georgia for relations with Russia, gave a public lecture on these topics at the Media Academy. What is the foreign policy of Georgia and what is the role of diplomatic world in resolving conflicts; what are the difficulties of negotiations between Abashidze and Karasin in Prague; what are the consequences of this format for the population living in the occupied territories of Georgia. As part of the lecture, besides Russian-Georgian relations, Zurab Abashidze also spoke about the prospects of Georgia's membership in the European Union and NATO.

How to cover business and economic news

How to cover economic events and analyze opportunities, and what is the role of business and the economics in our daily lives. Representatives of the media worked with Koba Gvenetadze, President of the National Bank, and Revaz Sakevarishvili, an expert of economics, on this question. Koba Gvenetadze talked with the journalists about macroeconomic trends in Georgia. Media representatives also got acquainted with the functions and tasks of the National Bank.

Brian Whitmore at Media School

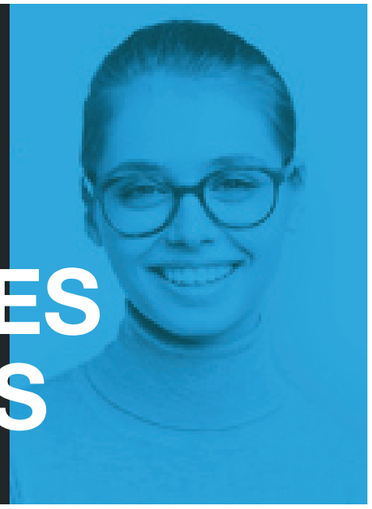
At the initiative of the Media Academy and the US Embassy in Georgia, political analyst Brian Whitmore spoke with managers, producers and anchors of media organizations about Russian propaganda and methods of dealing with it. Brian Whitmore is a senior fellow and director of the Russian program at the Center for European Policy Analysis (CEPA), which studies political processes in Central and Eastern Europe and Russia. For years Brian Whitmore has been working as a Senior Analyst at Radio Free Europe/Radio Liberty in Prague. He also worked as a foreign correspondent for The Boston Globe in Moscow and Prague;

"The Media Academy space impressed me a lot. This place reminded me of the BBC's Yekaterinburg and Bucharest schools where I have worked. Thank you very much for giving me the opportunity to work in Tbilisi again. I hope my involvement was fun and enjoyable. Good luck in developing your curriculum!" - Frank Williams

In order to train producers, the Media Academy has invited the well-known British expert Frank Williams, who has been working for BBC World Service and Radio Free Europe / Radio Liberty for many years. Williams currently lives in Prague and heads the Center for Media Skills.

Important issues were discussed during the workshop, such as: the specificity and responsibility of the producers' work; what does high-quality news consist of and what it should look like; how to provide a high standard product to the audience. At the same time, the workshop participants actively discussed the issues about how well the classical principles of journalism coincide with the challenges of new digital media.

NEW OPPORTUNITIES FOR STARTUPS



Media Lab - from 2020, the Media Academy will actively develop the third direction. This is a laboratory, an incubator and new opportunities for startups that will help to support and finance interesting projects in digital media. Startups that develop interesting projects in the field of digital media will have the opportunity to receive funding and implement projects in the Media Lab. The Media Lab will attract and create new opportunities for startups to ensure introduction of innovative, progressive and modern media products in Georgia and abroad.

The main goal of the Media Lab is to promote innovations in the field of media and communications, to attract creative and innovative people in the field of media and communications, to ensure the involvement of business and investors and to support creation of a strong startup community, to raise awareness between consumers of media products and producers about the possibilities and challenges in this area. The main objective of the Media Lab is to introduce and promote the development of projects in Georgia not only in Georgian, but also in the international market, for the development of a progressive, responsible and high-quality media environment.

The services that startupers will receive at the Media Lab:

- Common workspace;
- Incubation and financing of resident startups;
- Startup acceleration;
- Implementation of innovative projects.

In 2019 Media Academy created a Media Lab co-working space. This space can be used by designers, developers, UX UI designers, as well as startupers in the field of media and communications. Those who wish to use the co-workspace have to register on the official website Medialab.ge.

In 2019, the Media Academy created a special site for the Media Lab, which will be actively launched in 2020. From its part, the Media Lab website provides the latest information about the challenges and opportunities in the field for producers and consumers of media products.

In 2020, the Media Lab will implement projects itself aimed at developing media and communications fields, including the Media Lab Big Data processing, storage and exchange of information, as well as creation of projects using artificial intelligence.

5G technology development and promotion strategy

On a global scale, the introduction of 5th generation (5G) technology has become the main technology development path. Therefore, 5G technology plays an important role in the further development of the country and society. 5G is a new generation of wireless internet technology that, unlike existing technologies, gives customers possibility of faster navigation. 5G technology, along with speed, means more capacity, which allows thousands of devices to work simultaneously in a small space. The connectivity and capacity offered by 5G includes the potential of new, innovative services for the public sector and various industries.

5G is already in use and is being tested worldwide in different directions, including healthcare, agriculture and transportation. For example, a network was created in the UK using 5G, that helps patients and their families communicate with each other through virtual reality. It also allows doctors to remotely check whether patients are taking medications prescribed by doctors. Using 5G, medical students have the opportunity to undergo surgical practice and gain experience in virtual reality. A “smart ambulance” already works in a test mode, which explores how to treat patients as part of an emergency, through contacting hospital staff and paramedics.

5G technology is also used in agriculture. One example of this is autonomous agricultural equipment that checks soil using a video sensor and uses fertilizers and pesticides exactly where it is needed. The use of 5G helps to save resources, and also increases efficiency, including transportation. Transport networks, local organizations, and other government agencies can use 5G to improve public services such as parking, traffic, and outdoor lighting.

The commercial launch of 5G in Georgia is a big challenge, because launching a project with a timely and correct model will bring significant strategic and economic benefits to the country. Therefore, it is important for the Communications Commission, within its competence, to take timely steps and contribute to the development of the sector in this direction.

In line with this trend and market demands, the Communications Commission has developed a strategy to promote the development of 5G technology.[5] As part of the discussion of this document, together with the operators involved in the consultation process, all interested parties were given the opportunity to present their opinions and comments. Within the framework of the consulting regime, questions and corresponding answers regarding the strategic document were published on the official website of the Communications Commission. The document contains information about the plans, vision and goals of the Commission, including:

- **5G frequency spectrum release, coordination and harmonization plan;**
- **A list of expected obligations for the 5G spectrum licensing;**
- **Planned legislative changes that will affect the development of 5G in Georgia;**
- **Examples of future use of 5G in Georgia.**

Along with the approval of this document, the Commission held a tender. The winning company “Ernst & Young”, on the basis of the world best practices, should calculate the cost of the frequency spectrum by business modeling approach. The Commission will inform the operators and stakeholders about the results in 2020. Due to the high importance of the development of the new generation technologies, the Communications Commission plans to hold an auction for 5G spectrum in 2020.

[5] Public discussion of 5G development promotion document
http://gncc.ge/ge/regulation/sakonsultacio-dokumentebi/5g-ganvitarebis-xelshewyobis-dokumentis-sadjaro-ganxilva.page
http://5g.gov.ge/

Tariff policy

In 2019, the Communications Commission responded to significant challenges and made the most important decisions for liberalization of the electronic communications market. However, despite the liberalization of the wholesale market and the reduction of tariffs for mobile and fixed networks, operators with significant power tried to abuse power and raise prices for various tariff services.

Naturally, the Communications Commission intervened immediately and began to research the fixed and mobile communications market. According to the decision of the Commission, in order to protect the interests of consumers, the undertakings were required to stop the process of changing tariffs until the end of the survey. Following the Commission's appeal, Silknet suspended the announced price change, while Magticom did not take into account the Commission's recommendation, on the basis of which the Communications Commission launched an investigation. As part of the survey, the Commission was interested in how adequately the price change by the operator with significant power was taking place. A survey was conducted to determine the extent to which the price increase by the company was justified. The survey showed that there was no need to raise the price.

Magticom was forced to suspend the announced process of changing the service tariffs.

As a result of the respective market research, according to the decision of the Commission, Magticom was also forced suspend the increase of outbound call rates for mobile voice services with number of small market players.

The Communications Commission also imposed the company to retain the existing 25 GEL unlimited package.

As a result of the fixed and mobile services market research, the 24 Tetri tariff cap for voice retail services was also cancelled.

As for the retail market segment, as a result of the survey conducted by the Commission, retail market was assessed as competitive, and the need for regulation has not been identified.

The Communications Commission continues to study the retail segment of fixed internet services and, together with international consultants is intends to develop a model for separating the calculation of variable and fixed costs of retail services, by means of which the profitability of tariffs set by the operator for fixed Internet will be estimated.

Subscribers have retained Magti Fix service

In order to protect the interests of the population and ensure unlimited telephone communications, according to an unprecedented decision of the Communications Commission, more than 100 thousand Magti Fix subscribers are still provided with continuous telephone communications.
In June 2019, the company Magticom announced that after the expiration of CDMA license, it will no longer offer Magti Fix service to subscribers.

The cancellation of the Magti Fix service was especially important and problematic in the occupied territories, for residents of villages near the so-called border and mountainous areas. Due to the fact that it is fundamentally important for the Commission that all citizens should have unlimited access to telephone services, a decision was made and the CDMA license was extended for Magticom with special obligations acceptable to the company. The Commission gave Magticom a two-year term, so that during this period, in case of cancellation of Magti Fix service, the company should offer consumers an alternative service. Before that, thanks to the efforts of the Commission, the consumers retained Magti Fix service.

The cost of wholesale Internet services have been reduced by 10 times for small and medium-sized operators

In 2019, the regulation adopted by the Communications Commission came into force, the decision envisages establishment of a single tariff for all operators, in order to increase competition in the wholesale market.

As a result of the effective work of the Commission, the costs of wholesale Internet services decreased by about 10 times for small and medium-sized operators. In order to improve the competitive environment in the fixed Internet market, the Commission adopted unprecedented regulations that significantly reduced the costs of wholesale Internet services for small and medium-sized operators, which ultimately will make the Internet of better quality more accessible for consumers.

To support competition for fixed retail Internet, according to the Commission's decision, small and medium-sized operators obtained the opportunity to take advantage of the fiber-optic infrastructure of companies with significant power at reduced tariffs. Also, operators have opportunity to enter such regions where only one large company operates. All this allows the population to have a choice between several suppliers, taking into account the best offerings.

At the same time, according to the decision of the Commission, access of large operators infrastructure is ensured by non-discriminative obligations. This obligation also contributes to the absence of monopolies on market and increases competition. To achieve this goal, the Communications Commission has set a cost-oriented tariff, for this task Commission worked with PricewaterhouseCoopers Advisory. The tariff set by the Commission is the same for all wholesale market operators, which is a prerequisite for increasing competition in the market.

The tariff cap for global Internet has been reduced from 32 GEL to 9 GEL

The Communications Commission made an important decision regarding the global wholesale Internet market, which drastically reduced the price of the global Internet for wholesale services. The Commission set a tariff cap for authorized undertakings with significant market power and reduced the price from 32 GEL to 9 GEL per MB/s.

Regulations on access to global and local Internet resources is aimed at regulating wholesale prices for access to national and international Internet resources. In accordance with the regulation, operators who do not have direct access to international infrastructure have been given access, which ultimately affects the price of Internet provision for customers. Upon the regulation, which entered into force on August 1, 2019, the service fee reduced 3.5 times. By the same decision, a tariff was set for the authorized undertakings with significant market power for the access to wholesale services on Internet resources in Georgia, including YouTube, Google and other cached contents of international websites, at any point technically permitted in their own network -1 MB/s. - 0.50 GEL per month.

The table shows the offers of the largest providers of this service, Caucasus Online and Silknet, by years:

Capacity MB/s	Until 01.06.2017 (GEL[6])	From 01.06.2017 (GEL)	From 30.12.2017 (GEL)	From 01.08.2018 Caucasus Online (GEL)	From 01.08.2018 Silknet (GEL)	From 01.08.2019 Siknet Caucasus Online (GEL)
1 - 50	32	28	19	17	18	9
51 - 100	32	27	18	16	17	9
101 - 200	31	26	17	15	16	9
201 - 500	30	25	16	14	15	9
501 - 2000	29	23	15	13	14	9
2001 - 10000	29	22	14.5	12.5	-	9

The Communications Commission has reduced the tariff cap for global internet by 72%

[6] Gel - without VAT

Tariffs for interconnection in mobile and fixed networks have been reduced 4 times

In order to liberalize the mobile and fixed wholesale market, the Communications Commission has reduced the tariffs for interconnection in the mobile and fixed network 4 times. The calculation of the call termination tariff in mobile and fixed networks was carried out in accordance with the recommendations of the European Commission. The interconnection tariffs calculated by the LRIC[7] model came into force step by step.

The current tariff for interconnection in the mobile network has been reduced by 3.5 Tetri (including taxes) according to the following schedule.

Interconnection service	From July 1, 2018	From January 1, 2019
Call initiation, Tetri (without taxes)	2.16	1.44
Call termination, Tetri (without taxes)	1.81	0.75

The existing tariff for interconnection in the fixed network has been reduced by 2 Tetri (including taxes) according to the following schedule.

Interconnection service	From July 1, 2018	From January 1, 2019
Call initiation, at the local level, Tetri (without taxes)	1.04	0.38
Call initiation, at the transit level, Tetri (without taxes)	1.05	0.41
Call completion, at the local level, Tetri (without taxes)	0.99	0.28
Call completion, at the transit level, Tetri (without taxes)	1.01	0.32

[7] LRIC - a model of Long-Run Incremental Costs

Access to of the Mobile Virtual Network Operator (MVNO) to the market

Important decisions made by the Communications Commission in recent years have ensured competitive pricing in mobile telecommunications market of the country.
In order to improve competition and, therefore, to provide new services and offers to customers, the Commission has made the most important decision on enablement of the mobile virtual network operator to the market.

A Mobile Virtual Network Operator (MVNO) is a mobile service provider that does not have its own network and infrastructure and provides mobile services through another operator's network. In particular, a MVNO uses infrastructure of a network operator to provide mobile services to its subscribers. This decision gives companies opportunity to start operating in the mobile services market without significant financial costs, which will significantly increase competition in the market. The emergence of new players in the market will gradually affect both the quality of service and the price, and ultimately will benefit customers.

According to the decision of the Communications Commission, those wishing to access the mobile network operator's network are given the opportunity to provide mobile services to customers using the infrastructure of the mobile network operator. More specifically, by admitting a virtual operator to a mobile operator's network, new players have the opportunity to occupy the market segment. Consequently, the entry of new companies into the market will ensure the delivery of new, innovative products and expand the choice of mobile services for consumers.

The Communications Commission has taken into account the growing demand for access of a mobile virtual network operator (MVNO) and in order to determine the rules and responsibilities of access of a mobile virtual network operator to the mobile service market, developed a recommendation document together with the advisory company Price Water House Coopers Advisory, s.r.o ("PwC").

In order to facilitate MVNO's entry into the mobile service market, the Commission conducted a study and analysis of the corresponding segment of the wholesale mobile network service market and to allow MVNO's access to the mobile network operator's (MNO's) network, determined the specific obligations of operators with a significant market power. According to the decision of the Communications Commission, Magticom, Silknet and Veon Georgia were identified as authorized undertakings with significant marke power carrying out activities in the relevant segment of the wholesale market of mobile network services (voice, Internet, short message service "SMS"), and were imposed the obligation to give MVNOs access to their own networks.

Development of M2M and IoT services

M2M communication is the transfer of data or connectivity between devices, software-based applications, or between devices and applications automatically or with the limited human intervention, M2M stands for machine to machine connection.
IoT (the Internet of things) is the infrastructure which connects various devices and systems via identifiers and ensured data transfer and connection between them.

As a result of the development of broadband services and 5G technology, there is growing trend of M2M and IoT services in the world. In order to promote the development of these services, the regulators of communication services in developed countries have started to allocate a separate numbering resource for M2M and IoT services. This action is important to meet the growing demand for M2M and IoT services, to be able to evaluate and predict the development of new technologies and expected results and to monitor and analyze them independently of traditional services.

Based on the market development trends to meet current and future needs, the Communications Commission ensures the efficient use of numbering resources for electronic communications services. M2M/IoT services are qualitatively different from traditional mobile services. However, as we have already mentioned, with the development of technology, the demand for these services is growing significantly, that is why there is a need for their independent accounting and analysis. In line with the global trends, based on the analysis of the current situation in Georgia and a study of the best practices of European countries, the Communications Commission assessed the need to allocate a separate numbering resource for M2M / IoT services.

As a result of the analysis conducted and feedback received from interested parties in scope of public consultations, the Commission allocated 22 million numbers of 702-729 range for M2M/IoT services. According to the decision of the Commission, the deadline for replacing the numbering resource used by existing M2M/IoT subscribers was set for the authorized undertakings, it is December 1, 2022.

This change will give authorized undertakings the opportunity to efficiently record data on M2M/IoT services, develop tariff plans tailored to them, while the Commission will be able to obtain complete information, analyze it and evaluate the services development in order to promote competition, the development of modern technologies and innovative services in this market segment.

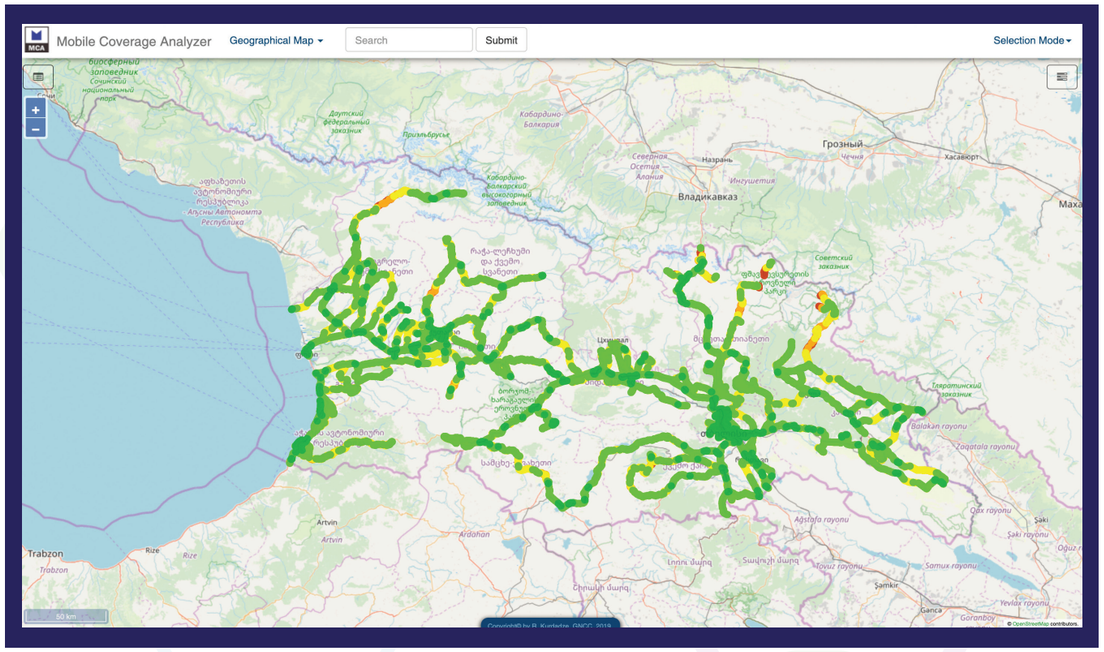
Numbering management system

The Communications Commission has developed a numbering management system - an automated online platform where the numbering resource is systematized. Any authorized undertaking has the opportunity to find information about the available numbering resource. Authorized undertaking, using this platform, can select the numbering resource online, indicate the type of use and fill out an application in the name of the Commission to obtain the corresponding resource, as well as continue and obtain a license to use the numbering resource.

Mobile telecommunication networks coverage analysis Portal

Network coverage, which became available to all citizens in 2019. mca.gncc.ge - is a completely new version of the geographical portal of mobile service quality, where subscribers have the opportunity to check the coverage / signal level of mobile telecommunication networks on a special map throughout Georgia.

A specialized geographic database was created, additional parameters were determined, statistical analysis mechanisms were introduced in accordance with geography, and adaptations were made for mobile devices. The goal of this project is to increase the transparency of the activities of cellular communication operators operating in Georgia, and to fully inform consumers about particular services and operation (coverage) zones. Data is available both in connection with a specific operator, and various technologies (GSM/UMTS/LTE), including the ability to test the minimum, average and maximum speeds.



Recommended quality indicators of mobile communication services

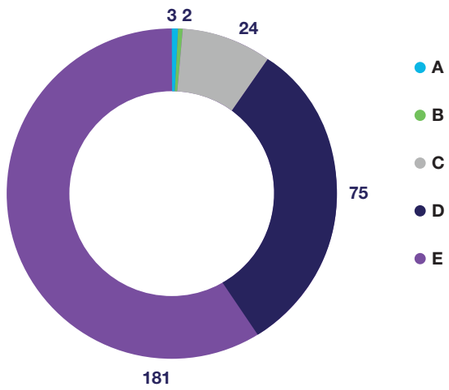
The Communications Commission has developed a document[8] on the rules determining and verifying the quality of mobile communication services. According to the document, the operator has to provide the service in accordance with the license conditions established by the Commission, taking into account the practice of EU member states and ETSI standards. This document is advisory in nature, however, it provides parallel measurements of all GSM/UMTS/LTE networks of operators operating in Georgia. The results of measuring the quality parameters of the provision of mobile communication services are published on the official website of the Communications Commission, and data on quality parameters (signal strength and technologies used by the service provider) are publicly available.

[8] http://gncc.ge/uploads/other/4/4294.pdf

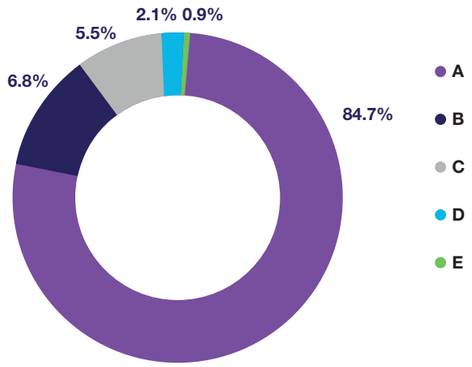
In 2019, there were 285 actors[9] in the field of electronic communications. Revenue received by the authorized undertakings[10] in the field of electronic communications amounted to 1,185 million GEL, of which 919 million GEL was retail revenue.

In this field, more than 100 million GEL was received by 3 persons (category A[11] companies), and the total income received by them amounted to 84.7% of the total revenue. And the total revenue of those who received less than 100,000 GEL in 2019 (181 persons of category E) amounted to 0.9% of the total income.

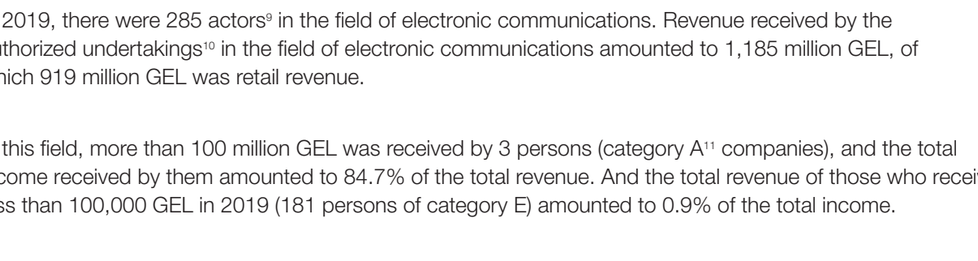
Number of persons working in the field of electronic communications according to segments



Distribution of revenues of persons operating in the field of electronic communications according to segments



Revenue received by authorized undertakings in electronic communications



	2016	2017	2018	2019
Retail revenue	760	798	846	919
Other communication and non-communication	390	422	391	266

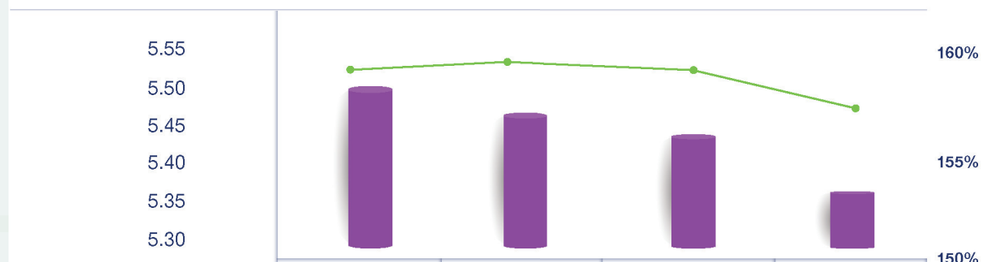
[9]An actor is a person, which had some kind of income from electronic communications during the year.
[10]In the report incomes are given without VAT and excise tax
[11]Traditionally, we consider the following categories:

Category	Income received during the year
A	More or equal to 100 million GEL
B	From 10 million to 100 million GEL
C	From 1 million to 10 million GEL
D	From 100,000 to 10 million GEL
E	less than 100,000 GEL

Mobile communications

In 2019, mobile penetration in Georgia is still high and amounts to 156%[12]. These data indicate that one consumer has more than one mobile number, which means that consumers know exactly the tariffs in the market and, if necessary, use a convenient network for different services.
The number of mobile subscribers[13] amounted to 5.38 million at the end of 2019[14].

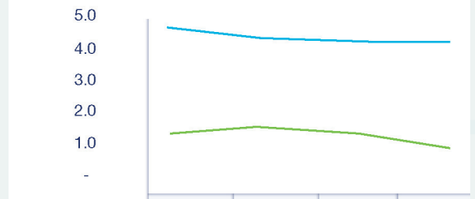
Number of mobile subscribers (million) and subscribers penetration



	2016	2017	2018	2019
Number of subscribers	5.52	5.50	5.46	5.38
Subscribers penetration	160%	159%	158%	156%

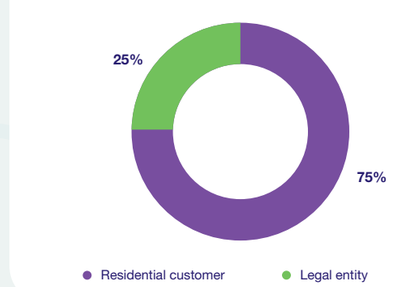
In the last quarter of 2019, the number of legal entity subscribers amounted to 25% of the total number of subscribers, which is a total of 1.3 million.

Number of subscribers by type (million)



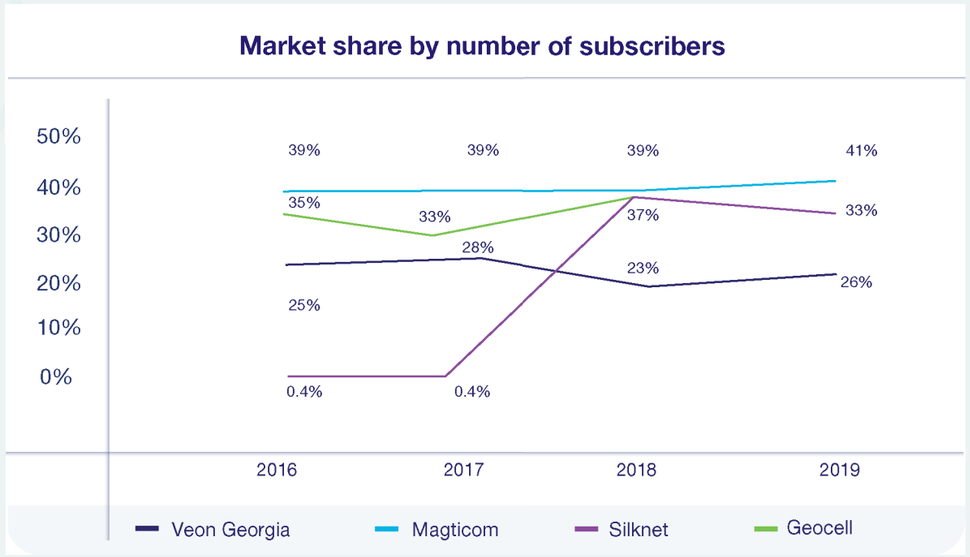
	2016	2017	2018	2019
Residential customer	4.2	4.1	4.0	4.0
Legal entity	1.3	1.4	1.5	1.3

Distribution of subscribers

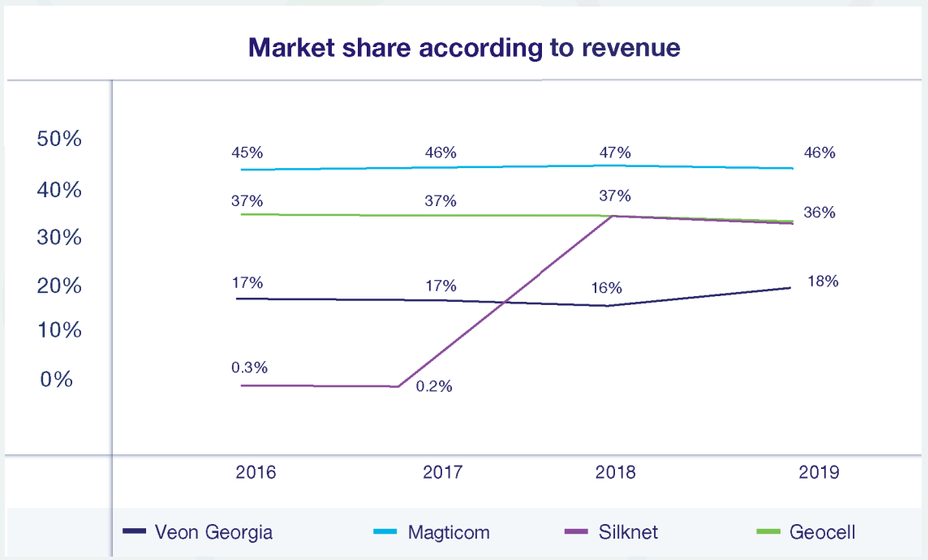


[12] The population of Georgia includes persons older than 5 years
[13] A subscriber is considered to be a SIM card, which has been used at least once during the quarter, or any service has been provided or a subscription fee has been paid (including employees of the company and excluding test cards).
[14] In 2019, due to the change in Silknet's billing system, the subscriber base of this operator was adjusted, which caused a slight decrease in the number of subscribers.

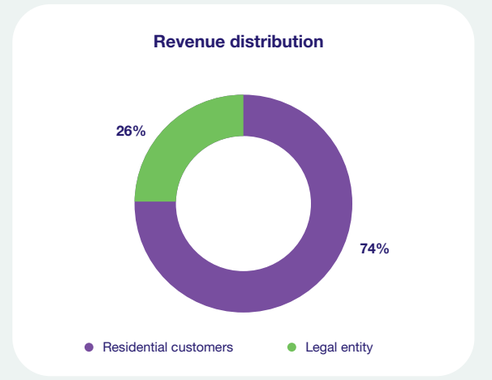
By the end of 2019, the market share of mobile operators in terms of the number of subscribers was distributed as follows: Magticom - 41%, Silknet[15] - 33%, and Veon Georgia - 26%.



In 2019, the retail revenue of mobile operators amounted to 499 million GEL, which is 3.8% - 18 million GEL more than the revenue received in 2018. Magticom's market share in retail revenue is 46%, Silknet - 36%, and Veon Georgia - 18%. Compared to 2018, Veon Georgia has increased its market share of revenue.

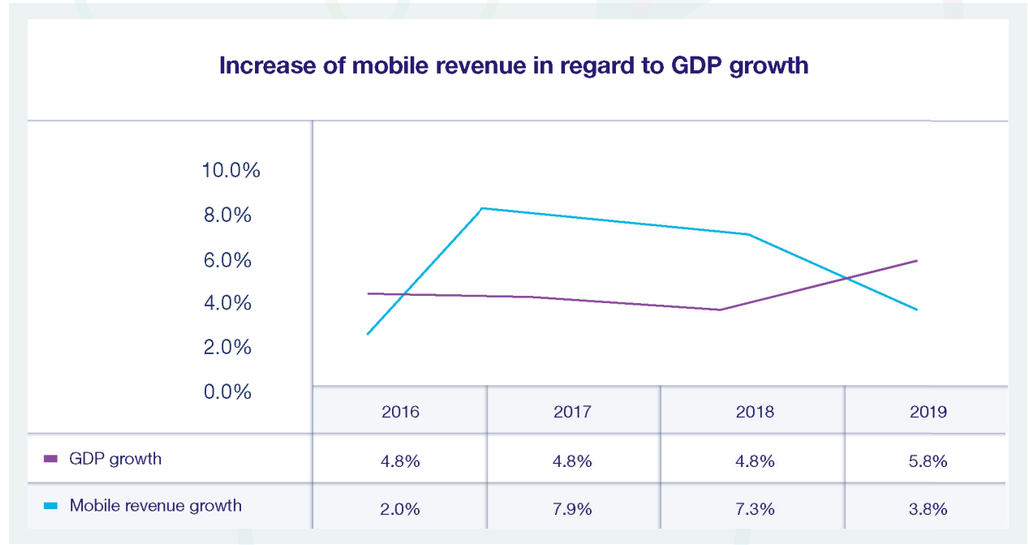


In 2019, 74% of mobile revenues were received by residential customers and 26% by legal entities. Revenues from legal entities are still characterized by a growing trend.



Mobile revenue in regard to GDP

In 2019, the rate of growth of mobile revenues in Georgia has decreased in relation to the GDP growth[17] rate. These data have changed compared to previous years when mobile revenue growth rates exceeded GDP growth[17] rate. According to the global trend, the growth rate of mobile revenues is lower in relation to the growth rate of global GDP. The decline of mobile revenue growth rate in Georgia is caused by the saturation of the market and increased competition.

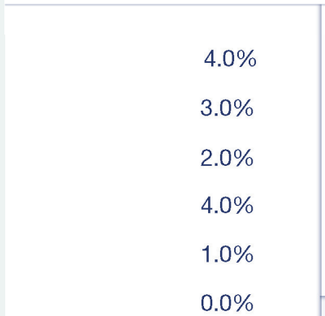


[15]At the end of 2018, Silknet and Geocell merged

[16]Source of data: National Statistics Office of Georgia

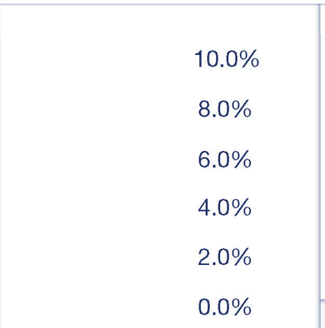
[17]https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG

Global mobile revenue growth in regard to global GDP growth



	2016	2017	2018	2019
GDP growth	2.5%	3.1%	3.0%	3.4%
Mobile revenue growth	3.3%	2.5%	1.5%	2.8%

The growth of mobile revenues globally and in Georgia



	2016	2017	2018	2019
Global revenue growth	3.3%	2.5%	1.5%	2.8%
Revenue growth in Georgia	2.0%	7.9%	7.3%	3.8%

ARPU[18]

According to the data of 2019, the average revenue received from one subscriber during the month (excluding VAT) was 8.6 GEL.

The average ARPU by years

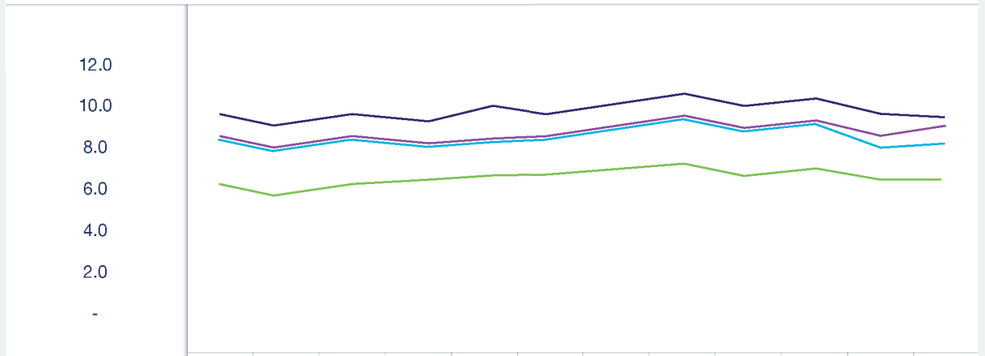
2016
7.1

2017
7.5

2018
8.3

2019
8.6

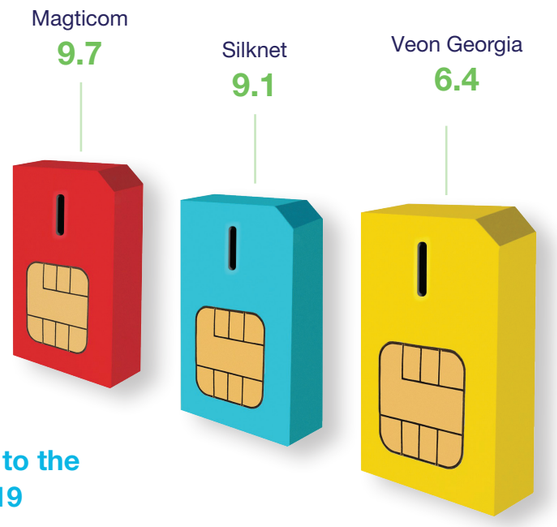
Monthly average ARPU for 2019



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Average ARPU	7.8	7.2	7.7	7.9	8.3	8.3	8.9	9.3	8.6	8.9	8.4	8.6
Magticom	9.4	8.7	9.2	9.1	9.5	9.5	10.1	10.4	9.8	10.1	9.5	9.6
Silknet	7.8	7.2	7.8	7.8	8.3	8.5	9.1	9.6	9.0	9.2	8.7	9.3
Veon Georgia	5.9	5.3	5.9	6.0	6.2	6.3	6.7	7.0	6.4	6.6	6.3	6.2

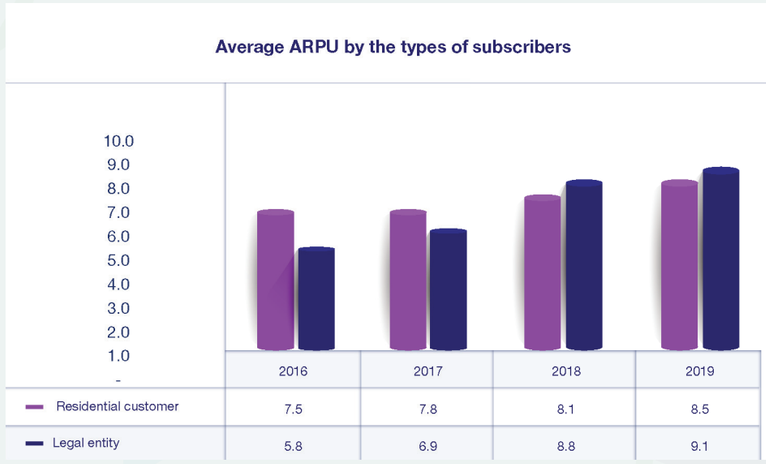
[18]ARPU – Average Revenue per User

In terms of ARPU, according to the data of the fourth quarter of 2019, MagtiCom has the highest ARPU, then Silknet, and Veon Georgia subscribers spend the smallest amount on mobile communications.



ARPU according to the companies in 2019

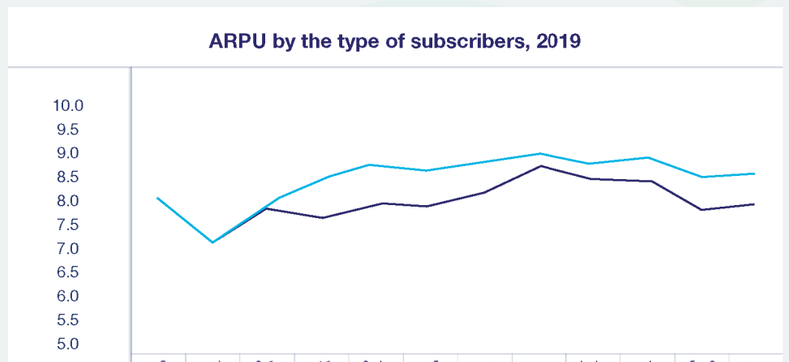
Average ARPU by the types of subscribers



	2016	2017	2018	2019
Residential customer	7.5	7.8	8.1	8.5
Legal entity	5.8	6.9	8.8	9.1

In 2019, ARPU of legal entity subscribers is increased and exceeds ARPU of residential customers, which is the result of tightening pricing regulation in 2018 and correcting the shortcomings associated with the consolidated tender for mobile services.

ARPU by the type of subscribers, 2019

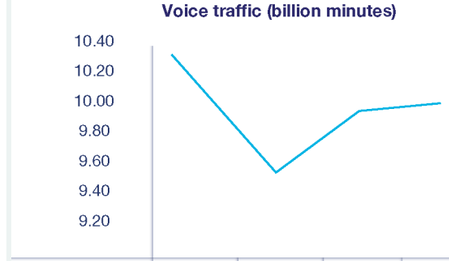


	იან	თებ	მარ	აპრ	მაისი	ივნ	ივლ	აგვ	სექტ	ოქტ	ნოემ	დეკ
Residential customer	7.8	7.2	7.7	7.7	8.1	8.2	8.9	9.2	8.6	8.7	8.2	8.5
Legal entity	7.8	7.2	7.8	8.4	8.8	8.7	9.1	9.4	8.8	9.4	8.8	9.1

Voice Traffic and MOU

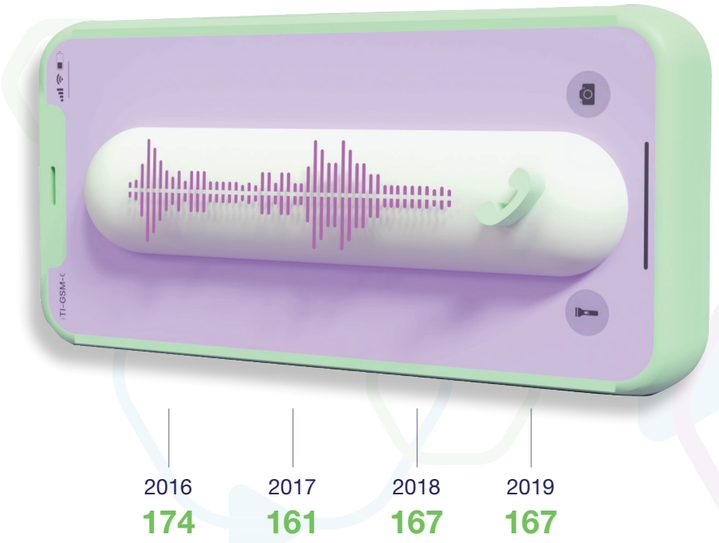
Compared to 2018, the total outgoing voice traffic increased by 0.4% in 2019 and amounted to 9.9 billion minutes. The MOU index remains the same. The average MOU for 2018 and 2019 was 167 minutes.

Voice traffic (billion minutes)

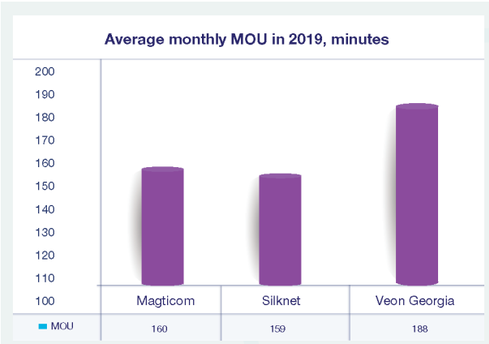


	2016	2017	2018	2019
Voice traffic	10.28	9.62	9.88	9.92

In 2019, each subscriber talks on average 167 minutes per month



Average monthly MOU in 2019, minutes



	Magticom	Silknet	Veon Georgia
MOU	160	159	188

According to mobile operators, the MOU data for the fourth quarter of 2019 are different. On average, Veon Georgia subscribers talk most of all per month, due to the relatively low tariffs offered by the company, followed by Magticom customers, and Silknet subscribers talk least of all.

[19]MOU – Minutes of Use - The average number of minutes spoken by a subscriber per month (only outgoing calls).

Mobile Internet

The number of mobile Internet users is growing rapidly, due to several important factors:

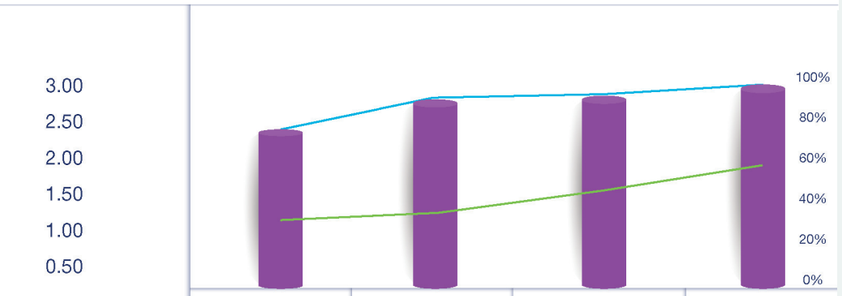
- The skills of the Georgian population in using modern technologies have improved, and the younger generation is actively using mobile Internet;
- The number of smartphones has increased, as well as its share among all types of mobile phones in the country;
- Increased demand for access to online information;
- The behavior of mobile users in terms of telecommunications service consumption is changing dynamically;
- More and more services are being transferred to the online digital space, which in itself contributes to the growth of consumption.

The number of mobile internet users is growing significantly every year - from 2016 to the end of 2019, the compound annual growth rate in the number of mobile Internet users was 9%.

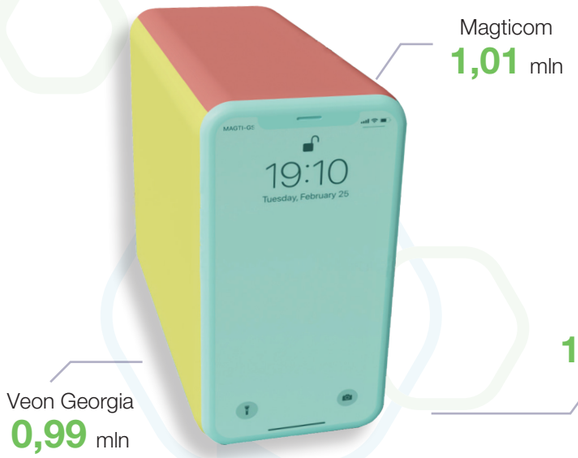
By the end of 2019, 3.2 million mobile network subscribers are already using the mobile Internet service.

The penetration of mobile internet users in relation to the population of Georgia[20] is even higher and by the end of 2019 it was 93%.

Mobile Internet subscribers, million

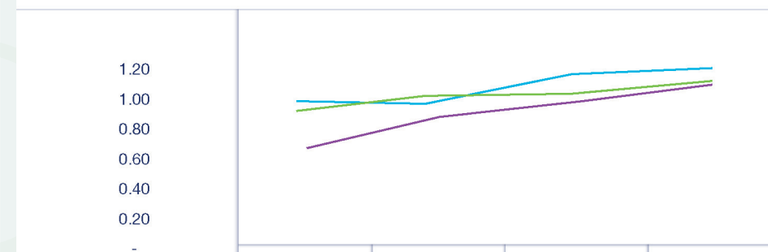


	2016	2017	2018	2019
Mobile Internet subscribers	2.47	2.60	2.95	3.2
Penetration in mob. subscribers	45%	47%	54%	59%
Penetration in the population	71%	75%	85%	93%



Number of mobile internet users by the end of 2019

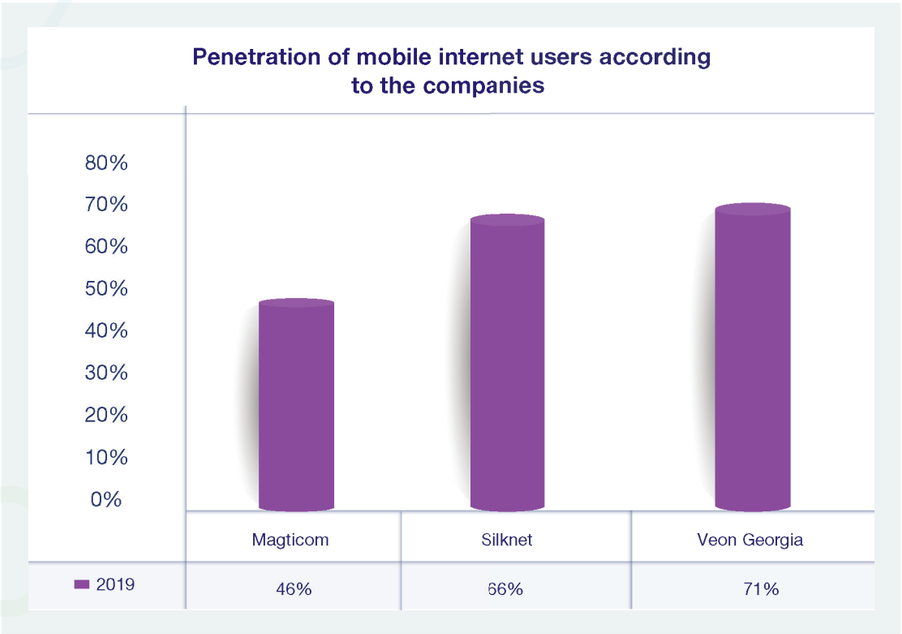
Mobile Internet subscribers (million)



	2016	2017	2018	2019
Magticom	0.93	0.98	0.98	1.01
Silknet	1.04	0.93	1.14	1.19
Veon Georgia	0.50	0.69	0.84	0.99

[20] The population of Georgia includes persons older than 5 years

However, in terms of companies, the share of mobile Internet users in the total number of mobile subscribers is different. Veon Georgia is in the first place, 71% of the company's subscribers use mobile internet. Such a high rate is due to the tariffs offered for the mobile Internet and the consumer segment. According to the same data, Silknet is in the second place with 66%, and MagtiCom is in the third place with 46%.



In 2019, mobile internet traffic is growing at a record pace. Mobile internet subscribers have consumed up to 86 thousand terabytes of mobile internet. This data is due to the increase in the number of mobile Internet users, as well as growth of a number of smartphones on the market and the development of 4G network and services. The compound annual growth rate of consumed Internet traffic from 2016 to the end of 2019 is 39%.

The compound annual growth rate of consumed mobile internet traffic is 39%

Mobile internet traffic (thousand terabytes)

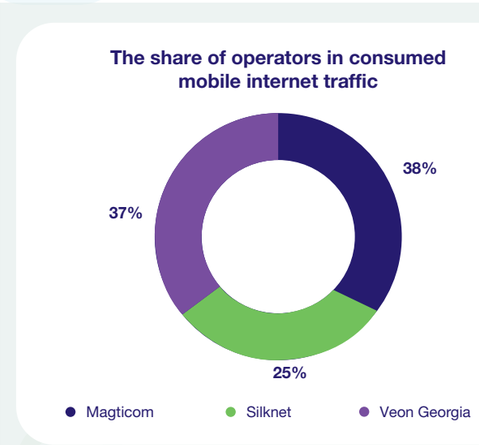
2016
32

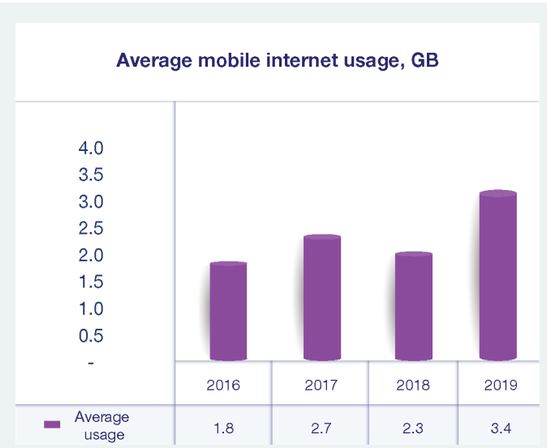
2017
60

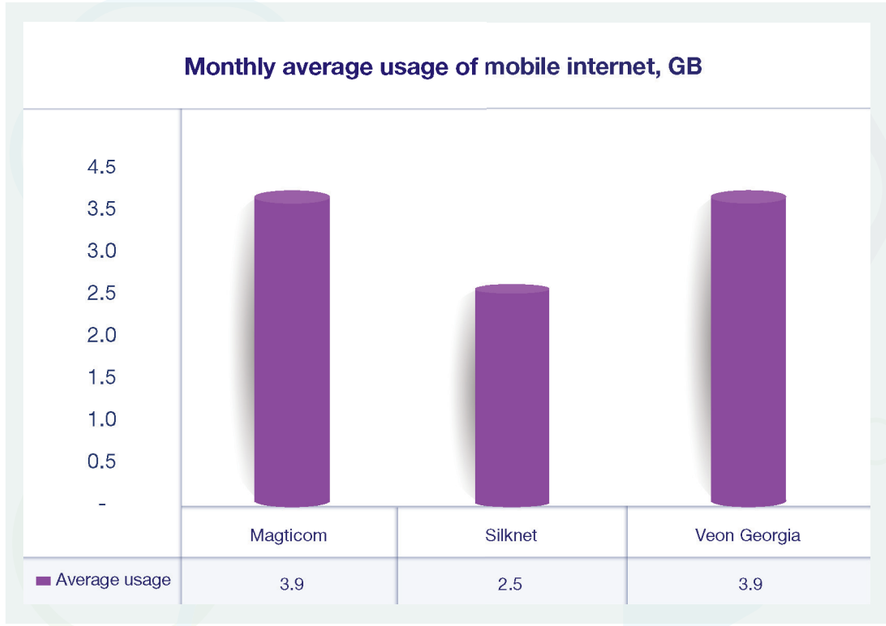
2018
62

2019
86

In 2019, the largest volume of Internet traffic was consumed by Magticom subscribers.
The average monthly consumption is 3.4 GB, which is 47% more than the previous year.
According to the data of the fourth quarter of 2019, the subscribers of MagtiCom and Veon Georgia consume an equal volume of Internet - 3.9 GB per month. Silknet subscribers use significantly less Internet traffic - 2.5 GB.







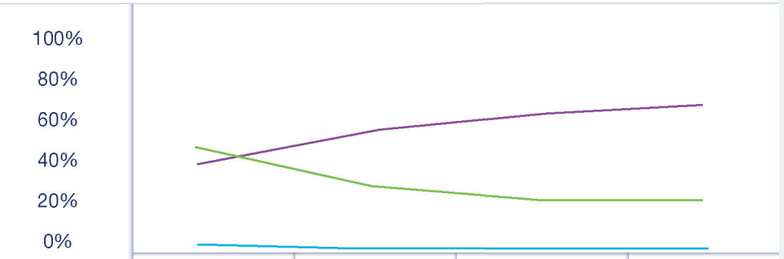
4G
77%

With the introduction of 4G technology, the amount of consumed internet traffic by 2G and 3G technologies is decreasing. In 2019, 77% of all mobile internet traffic falls on 4G technology.

2G
1%

3G
22%

Mobile traffic according to technology



	2016	2017	2018	2019
2G	4%	3%	2%	1%
3G	58%	41%	33%	22%
4G	38%	56%	65%	77%

Veon Georgia has the highest mobile Internet usage with 4G technology. According to the share of 4G traffic in the total volume of mobile internet traffic, Veon Georgia takes the first place, followed by MagtiCom and, finally, Silknet.

The share of 4G traffic in the company's total mobile internet traffic

Magticom
78%

Silknet
70%

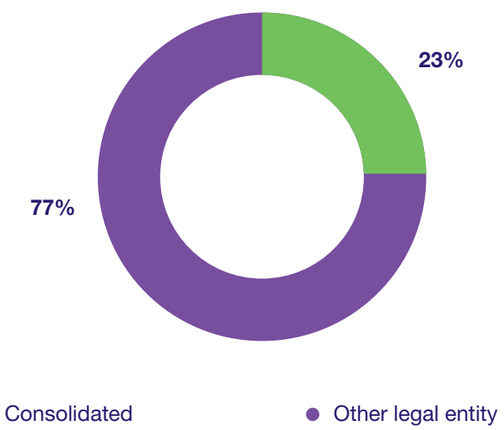
Veon Georgia
82%

2019 data of the state consolidated tender

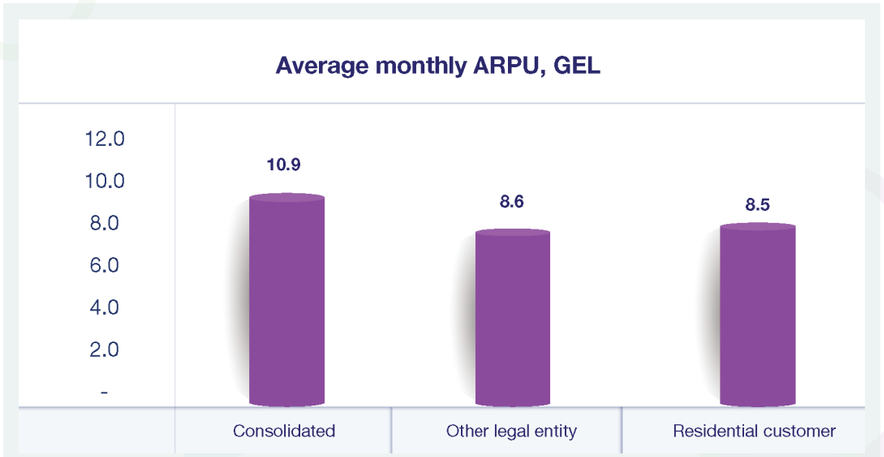
By the end of 2019, the number of active subscribers involved in the state consolidated tender was 288,000, which is 23% of the total number of legal entities.

Legal entity subscribers (thousand)

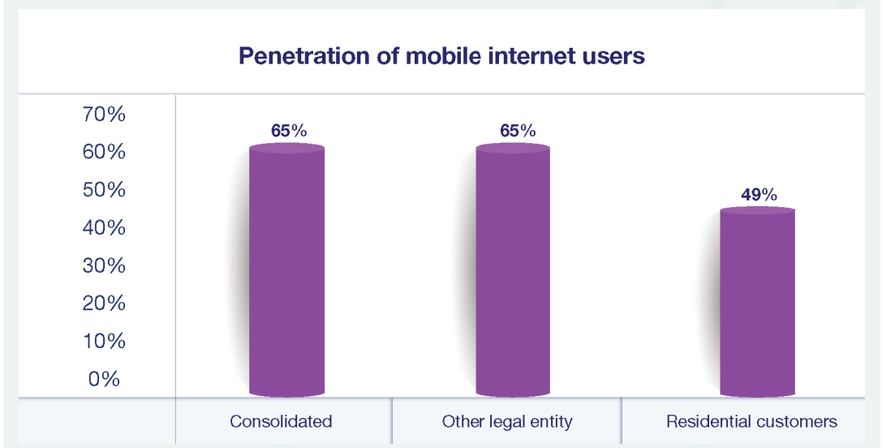
Distribution of legal entity subscribers



In 2019, from the total revenue of 130 million GEL received from legal entity subscribers, 36 million GEL was received from consolidated subscribers.

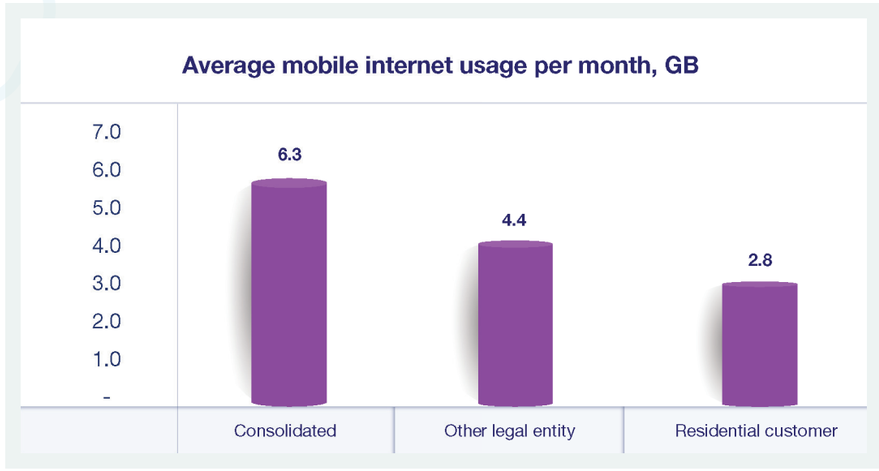


The monthly ARPU of the subscribers involved in the consolidated tender is on average 2 GEL higher than ARPU of other legal entities subscribers. The same difference - 2 GEL is between the ARPU of consolidated subscribers and the residential customers.

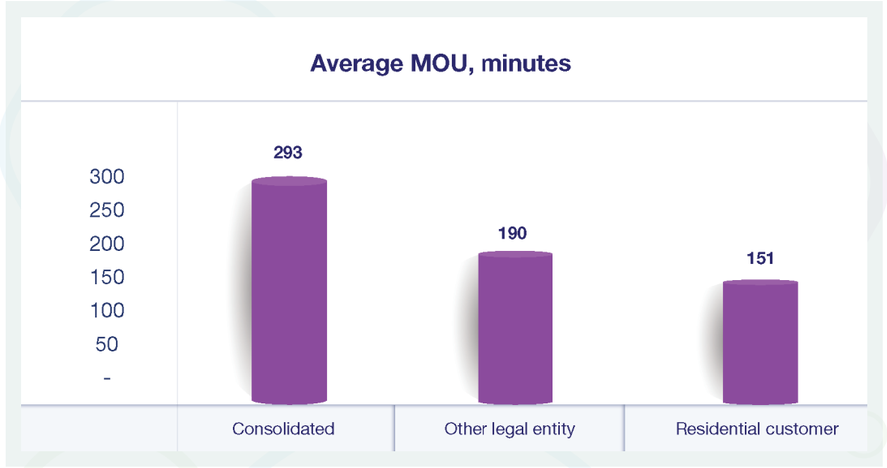


By the end of 2019, the penetration of mobile internet users among consolidated subscribers is 65%, while for other legal entity subscribers the figure is similarly 65%. The penetration of mobile internet users among residential customers is 49%.

Consolidated tender subscribers, compared to other legal entities and residential customers, consume a much larger amount of mobile internet.



Also, consolidated subscribers talk the most. In 2019, they spent an average of 293 minutes per month talking on mobile, while other legal entity subscribers - 190 minutes and residential customers - 151 minutes.



The behavior of subscribers involved in the consolidated tender significantly differs from the behavior of other types of subscribers. They make more use of mobile services, both voice and the Internet. Also, compared to the expenses of other subscribers, the average expense on mobile services per month is higher.

Roaming

Roaming service KPIs depend significantly on a season. In general, most users are recorded in the third quarter. Compared to 2018, the number of roamers from Georgia increased by 15% in the third quarter of 2019. Although the trend of roaming usage has declined, the number of travelers from Georgia in 2019 has increased significantly, which is reflected in the increase of the number of roamers. Also, the prices for certain directions have been significantly lowered and roaming has become more affordable.

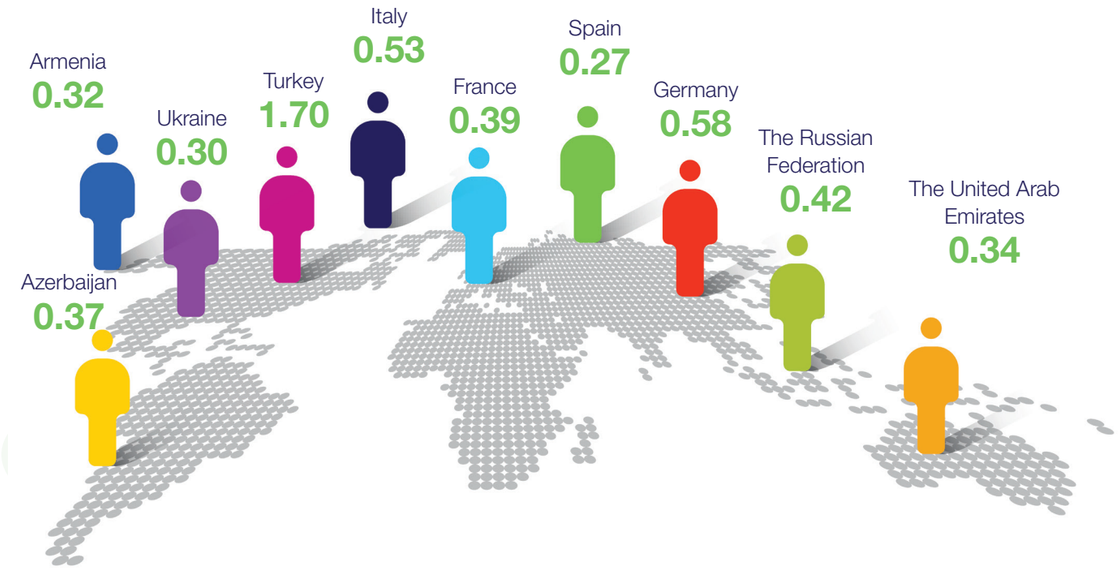
Number of outbound roamers

	I quarter	II quarter	III quarter	IV quarter
2016	118	145	204	155
2017	135	172	236	167
2018	109	146	187	146
2019	132	161	215	182

In the third quarter of 2019, during the busiest season, 4% of mobile subscribers used roaming services. The total revenue from roaming services in 2019 amounted to 26 million GEL, which is 5% of the total mobile retail revenue.

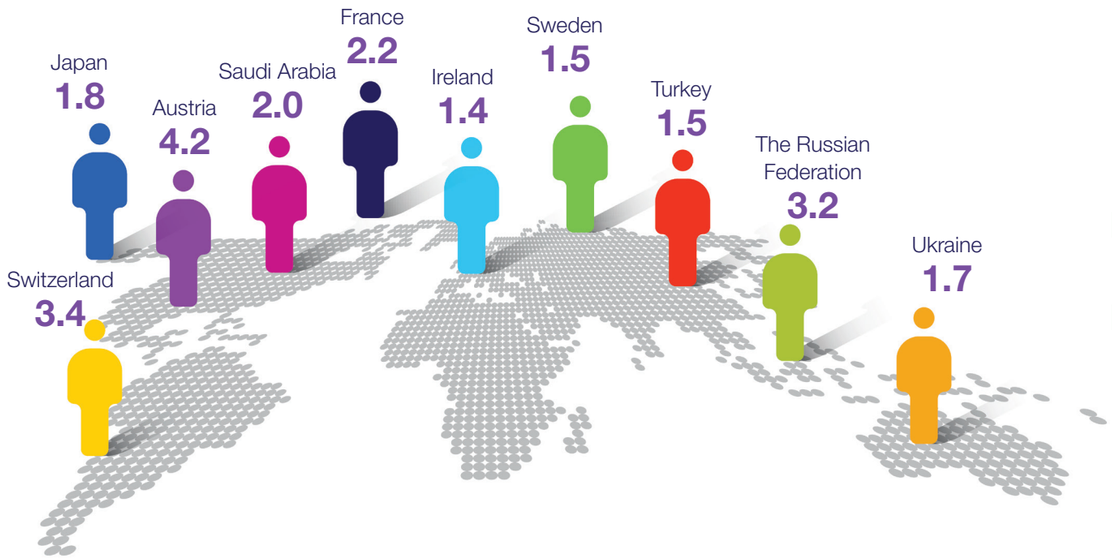
In 2019, the largest amount for roaming services – 1.7 million GEL, was spent by roamers leaving Georgia to Turkey, which is supported by the use of Turkey as a transit country to final destination. In addition to Turkey, roamers spent the most money in the following countries: Germany, Italy, the Russian Federation, France, Azerbaijan, the United Arab Emirates, Armenia, Ukraine and Spain.

Top 10 countries by expenses of Georgian roamers in 2019, million GEL



In 2019, during their stay in Georgia, the largest amount on roaming services - 4.2 million GEL, was spent by roamers from Austria. Next are roamers from Switzerland, the Russian Federation, France, Saudi Arabia, Japan, Ukraine, Turkey, Sweden and Ireland.

Top 10 countries by expenses of inbound roamers in 2019, million GEL



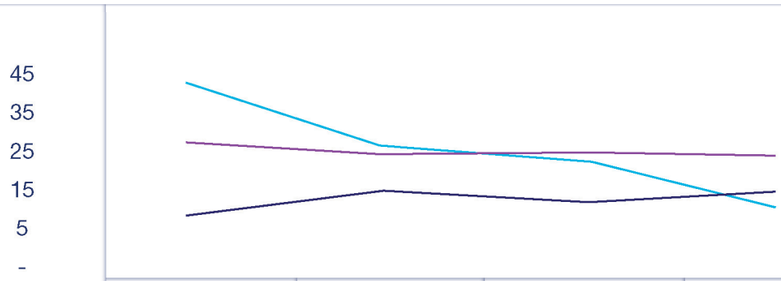
Mobile number portability

In 2019, 52 thousand numbers were ported between mobile operators networks, which is 3 thousand more than in 2018.

Amount of ported-in numbers, thousand

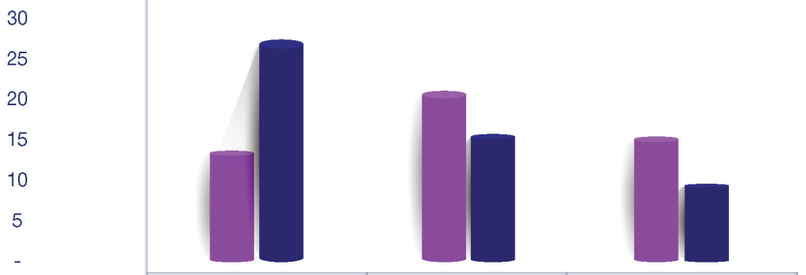
	2016	2017	2018	2019
Ported numbers	79	57	49	52

Amount of ported numbers, thousand



	2016	2017	2018	2019
Magticom	43	23	18	14
Silknet	26	21	18	21
Veon Georgia	10	14	13	17

Portability according to the operators in 2019, thousand



	Magricom	Silknet	Veon Georgia
Ported-in	14	21	17
Ported-out	27	15	9

Distribution of mobile devices according to manufacturers

Manufacturer	Quantity	%
Sumsung	1,928,389	36.2%
Other	1,271,093	23.9%
Apple	725,749	13.6%
Microsoft & Nokia	566,445	10.6%
HUAWEI	517,675	9.7%
Lenovo	121,015	2.3%
LG	53,868	1.0%
Sony/Erricson	50,861	1.0%
TCT	40,494	0.8%
HTC	30,803	0.6%
ZTE	20,243	0.4%

Important indices of mobile communications in 2019

The penetration of mobile users in relation to the population of Georgia is

156%

5.4
million SIM cards

The subscribers talk on a mobile phone for an average of

167 minutes per a month

Mobile internet usage is

3.4 GB per month

Mobile subscribers spend on average

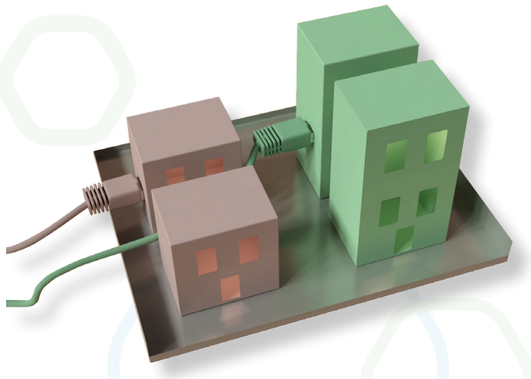
8.6 GEL per month

Residential customers Legal entities

Fixed broadband[21] internet

Fixed broadband internet in Georgia, as in previous years, are characterized by a steadily growing trend in terms of both the number of subscribers and the revenue. Fiber-optical technology is developing and its penetration is increasing in the total number of subscribers.
In 2019, as well as last year, the number of subscribers increased more in the regions than in the capital. The broadband internet service market in Tbilisi is almost saturated. In regional cities and villages, especially where the fiber-optic network is developing, the number of fixed broadband subscribers is growing significantly.

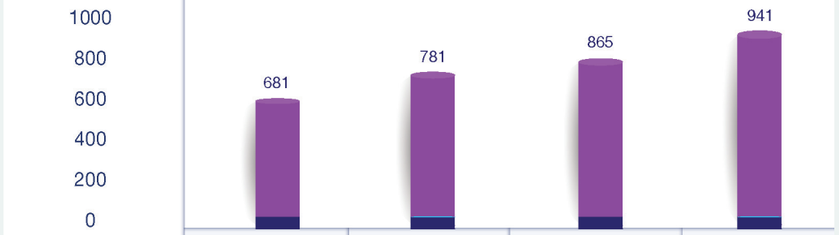
In the fourth quarter of 2019, the number of subscribers of the fixed broadband Internet reached to 941 thousand



Compared to 2018, the number of subscribers has increased by 8.8% - the number of residential subscribers by 9%, and the number of legal entity subscribers by 7%.

At the same time, the annual growth rate[22] of the last three years is 12% for residential subscribers and 8% for legal entity subscribers.

The number of subscribers (thousand)

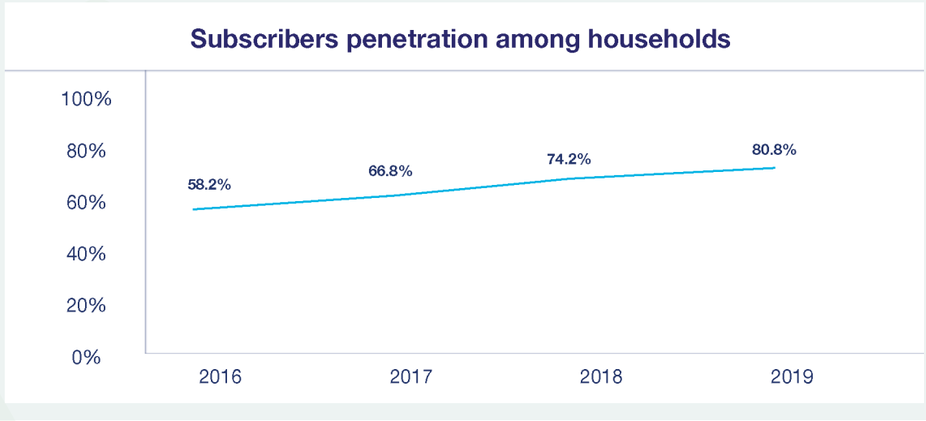


	2016	2017	2018	2019
Residential	645	741	823	896
Legal entity	36	40	42	45

[21]According to ITU, this is the Internet connection technology that allows data transmission at a speed of 256 kb/s or more.
[22]Compound Annual Growth Rate

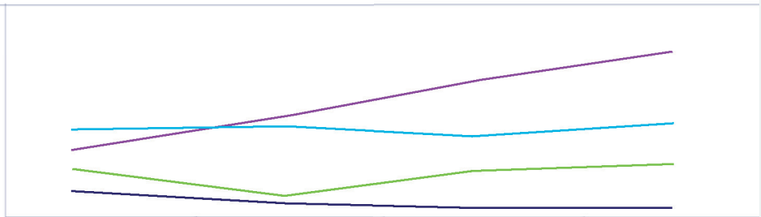
The share of residential subscribers in the total number is 95.3%, and the share of legal entity subscribers - 4.7%.

The number of residential subscribers increased by 73 thousand in 2019 and reached 896 thousand according to the data of the fourth quarter. Accordingly, the penetration of fixed broadband Internet subscribers among households[23] increased by 6.6% and this figure reached 80.8%.



In 2019, there was a significant growth rate in the number of residential subscribers of Magticom. During the year, the number of its subscribers increased by 18%, mainly due to the expansion of the fiber-optic network by the company. According to the number of residential subscribers, Silknet was in the second place, in 2019 the number of its subscribers increased by 2%.

The number of residential subscribers according to the companies (thousand)

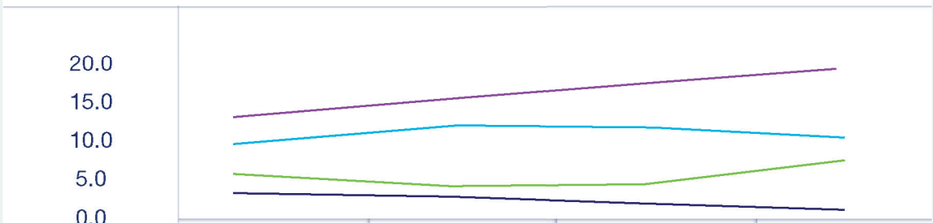


	2016	2017	2018	2019
Magticom[24]	188	287	365	430
Silknet	265	284	275	282
Akhali Kselebi Group[25]	84	70	65	65
Other	108	100	117	119
Total:	645	741	823	896

[23]The ratio of fixed broadband Internet residential subscriber number to the number of households in the country, in percentages
[24] Magticom's number of subscribers in 2016 includes Delta-Net's retail subscribers
[25]The group of "Akhali Kselebi" includes the number of subscribers of Akhali Kselebi, Akhteli and Georgian Central Communications Corporation. They are interdependent, affiliated entities.

In 2019, the number of Silknet legal entity subscribers increased by 11% and reached 19.8 thousand in the fourth quarter. The company ranks first in terms of the number of subscribers of this type. It is followed by Magticom with 13 thousand subscribers, but the number of its subscribers has decreased by 9% during the year. The reason of the decline is that since the second half of 2019, SkyTel has been providing Internet services to public schools in Georgia instead of Magticom. Consequently, the number of legal entity subscribers in the category "other" has significantly increased.

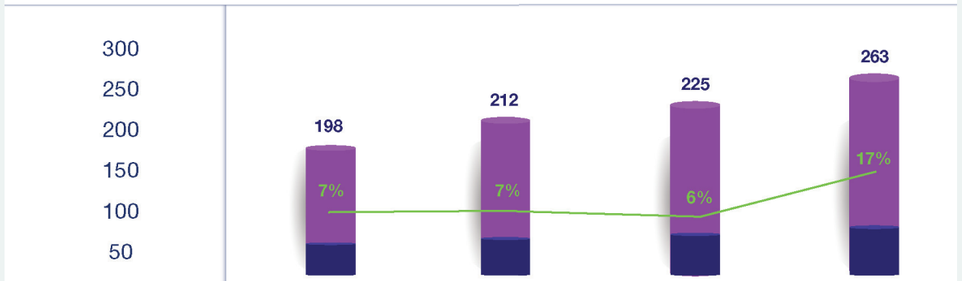
The number of legal entity subscribers according to the companies (thousand)



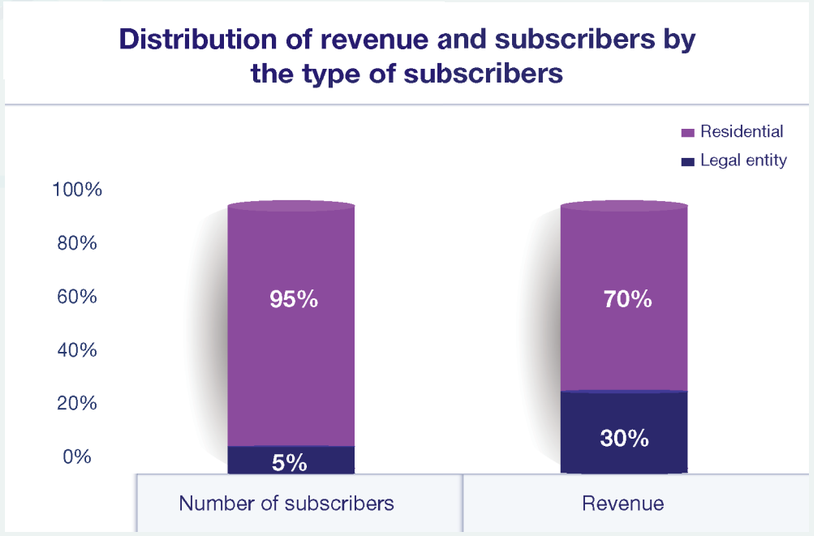
	2016	2017	2018	2019
Magticom	11.4	14.4	14.3	13.0
Silknet	14.3	15.7	17.9	19.8
Akhali Kselebi Group	4.0	4.1	3.9	3.7
Other	5.9	5.3	5.4	8.0
Total:	35.6	39.5	41.5	44.6

In 2019, compared to the previous year, retail revenue from fixed broadband Internet increased by 17% and amounted to 263 million GEL.

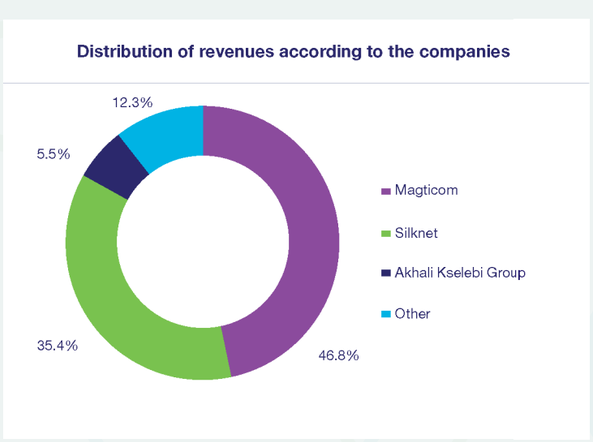
Retail revenue (million GEL)



	2016	2017	2018	2019
Residential	148	151	157	185
Legal entity	50	61	68	78
Change in total retail revenue	7%	7%	6%	17%

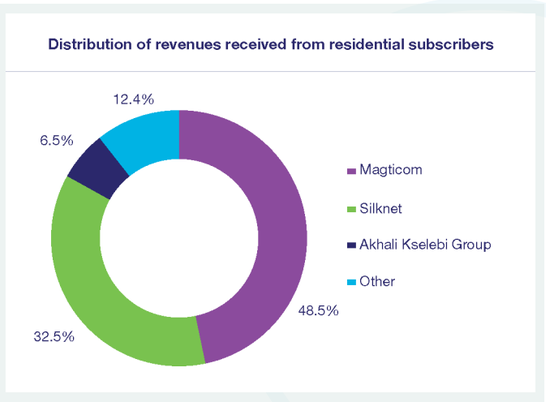


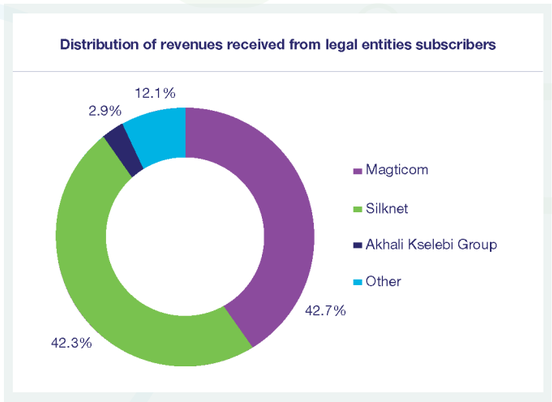
The revenue received from the residential subscribers is 70% of the total amount, while the number of the subscribers of this type is 95% of the total market. This indicates that the legal entity subscribers' service fee is significantly higher than the subscription fee paid by the residential subscribers.



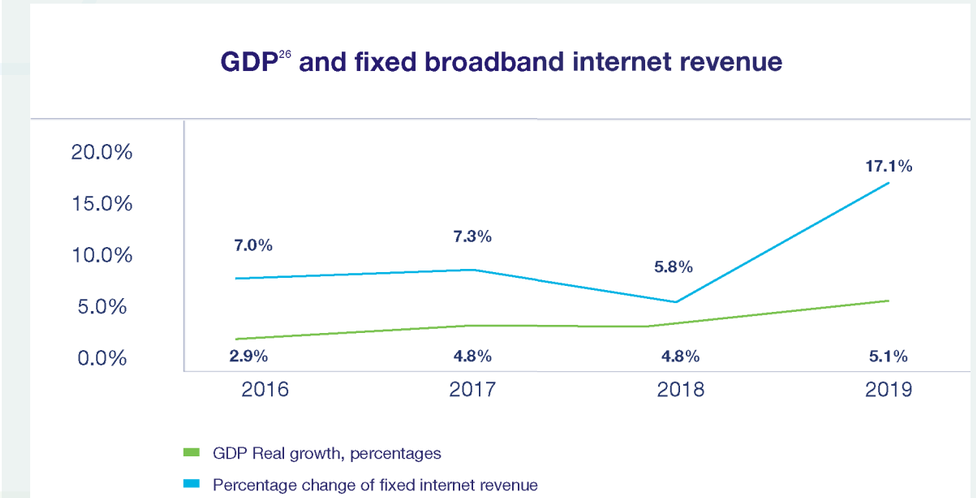
It should be noted that 88% of the revenue is generated by three market players, while the remaining 12% is distributed among136 companies. Magticom holds 46.8% of the market in terms of revenue, Silknet - 35.4% and Akhali Kselebi Group - 5.5%.

According to the shares of revenues received from residential and legal entity subscribers, taken separately, the sequence of the companies is the same as in the total distribution of revenues. Magticom's revenue share on residential segment is 49% and Silknet's share is - 33%, while on legal entity subscribers segment, Magticom's and Silknet's revenue shares are almost equal.



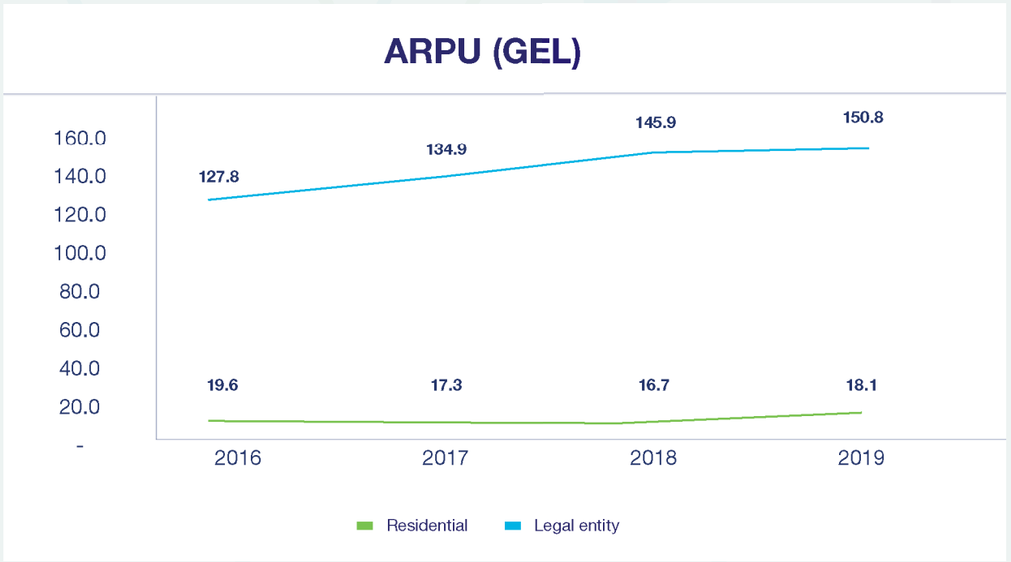


Fixed broadband Internet revenue and GDP growth rates are significantly different in 2019 compared to the previous three years. GDP real growth is 5.1%, while fixed broadband Internet revenue growth is 17.1%.



In the fourth quarter of 2019, the residential subscribers' ARPU (Average Revenue per User) reached 18.1 GEL, increased by 8% compared to previous year. The growth of ARPU is caused by so called "Repackaging" carried out by the large market players in the first half of 2019 – the companies have increased the speed and price offered by the most frequently used packages, which has increased the costs of the subscribers for Internet services.

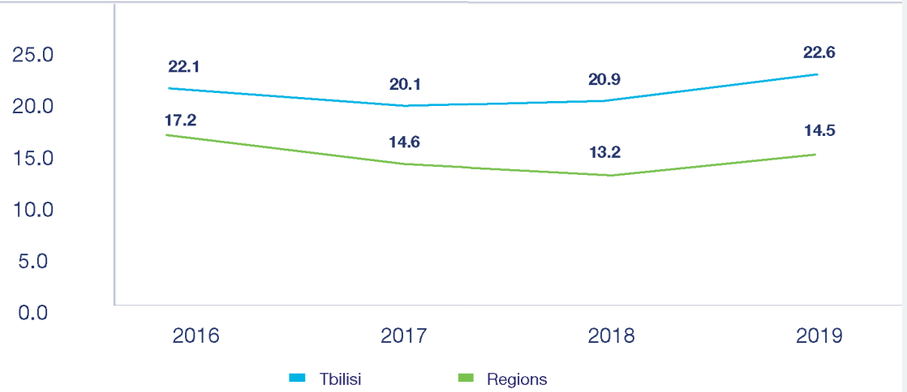
In recent years, ARPU of legal entities is characterized by growing trend. In 2019, ARPU increased by 3.3% compared to previous years and amounted to 151 GEL.



[26] Source - National Statistics Office of Georgia. The GDP growth rate for 2019 is the forecasted rate for the fourth quarter of the year.

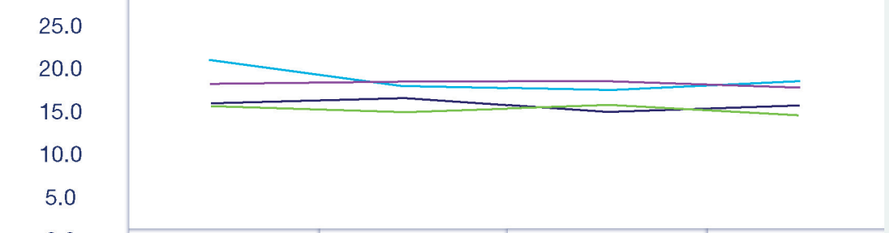
According to the data of the fourth quarter of 2019, ARPU of the residential subscribers in Tbilisi exceeds this indicator of Georgia regions by 57%. The average monthly revenue received from one subscriber per month in the capital increased by 8% compared to the previous year, while in the regions it increased by 10%.

ARPU of residential subscribers (GEL) in Tbilisi and the regions



ARPU of the residential subscribers is the highest for fiber-optic technology and it equals to 18.6 GEL. The average monthly cost of a subscriber for xDSL technology is 17.5 GEL per month, for Wi-Fi - 15.7 GEL, and for fixed LTE technology - 14.7 GEL.

ARPU of residential subscribers (GEL) by technologies



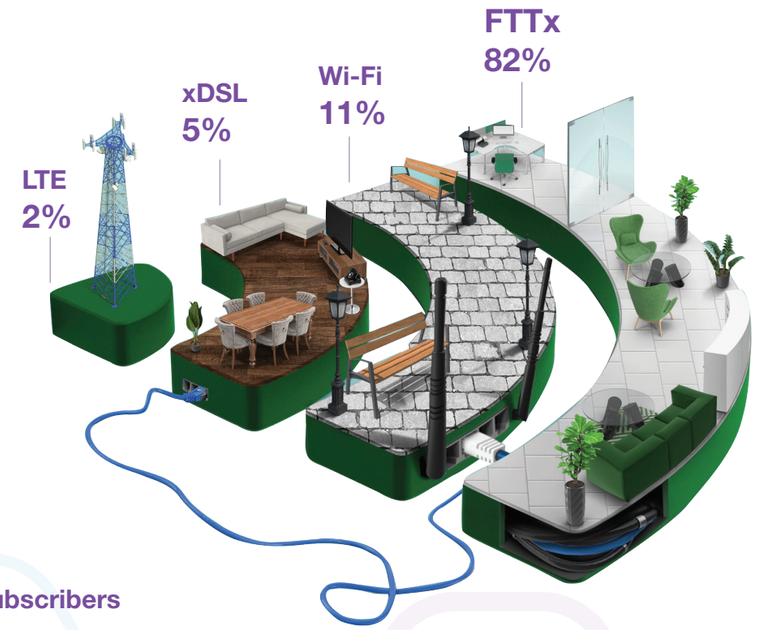
	2016	2017	2018	2019
FTTx	20.9	17.5	16.9	18.6
Wi-Fi	16.5	16.6	15.3	15.7
xDSL	18.8	17.6	17.4	17.5
Fixed LTE	16.3	14.9	15.7	14.7

According to the latest data of 2019, 141 entities provided fixed broadband services[27]. The services of fiber-optic technology were provided by 64 companies, WiFi – by 113 companies, xDSL – by 8 companies, fixed LTE technology – by 1.

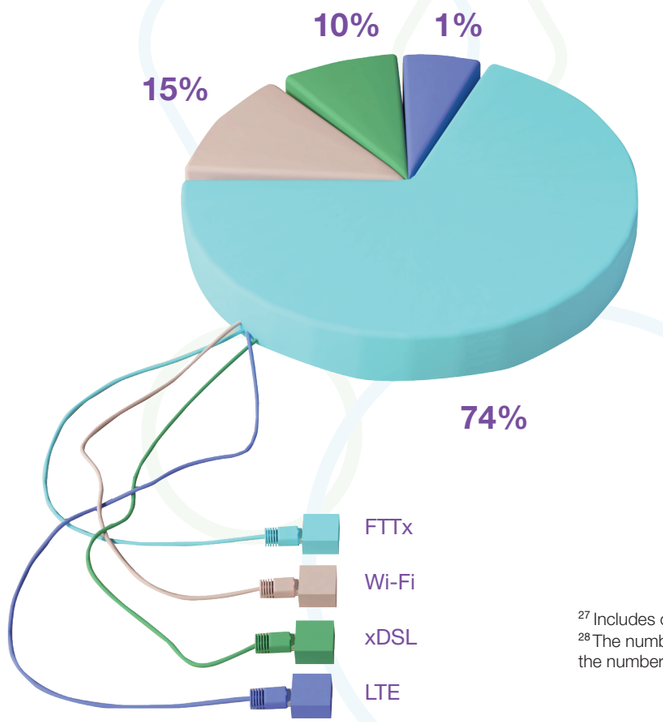
Distribution of residential subscribers by technologies

Most of the residential subscribers - 82% used fiber-optic Internet, followed by Wi-Fi technology - 11%, xDSL - 5% and fixed LTE - 2%.

In 2019, the penetration of fiber-optic technology subscribers among households in Georgia reached 67%.[28]



Distribution of legal entity subscribers by technologies

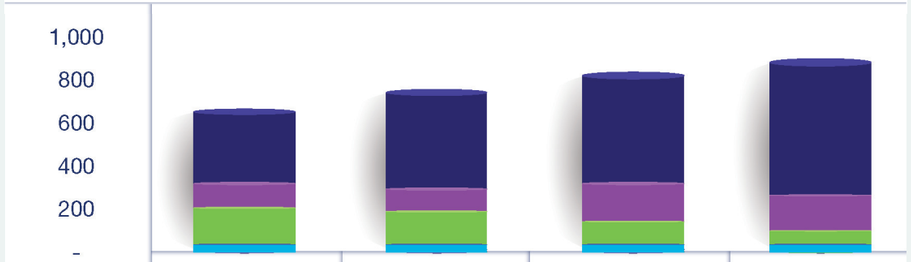


The distribution of legal entity subscribers by technologies slightly differs. Here Wi-Fi and xDSL technologies have relatively larger share than in the residential subscribers segment.

[27] Includes companies that had at least 1 subscriber.
[28] The number of fiber optic technology residential subscribers divided by the number of households of the country

During the last 3 years, the annual growth in the number of subscribers (residential and legal entity) of fiber-optic technology is 24%. According to the number of subscribers, it is followed by Wi-Fi technology, however, compared to the previous year, it has decreased by 8% due to the development of the fiber-optic Internet network and, consequently, its accessibility. Since 2016, the number of xDSL technology subscribers decreases on average by 33% per year.

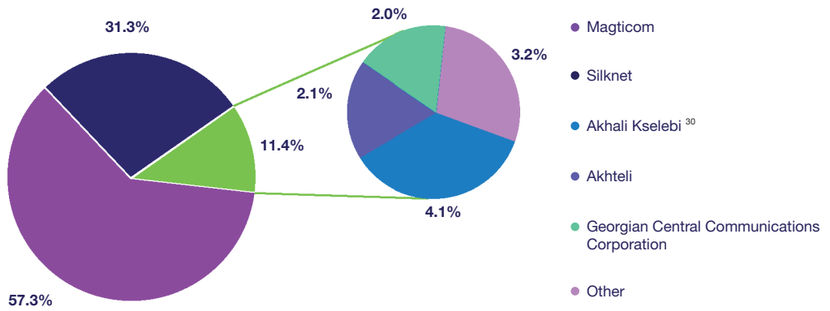
Number of subscribers by technologies (thousand)



	2016	2017	2018	2019
FTTx	403	541	653	771
Wi-Fi	97	96	112	103
xDSL	152	114	75	45
Fixed LTE	25	27	25	22

According to the data of the fourth quarter of 2019, 57% of (residential and legal entity) fiber-optic technology subscribers used Magticom services, 31% - Silknet services, and the share of other operators was 11%.

Distribution of fiber-optic technology subscribers



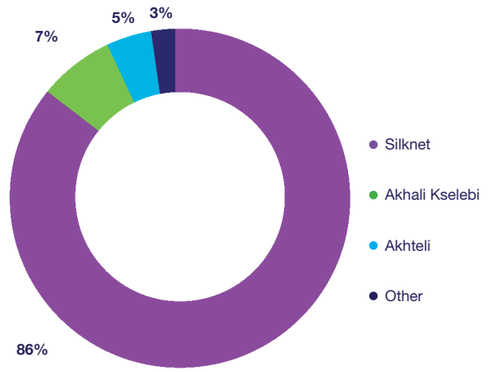
30

[29] CAGR – Compound Annual Growth Rate

[30] Akhali Kselebi, Akhteli and the Georgian Central Communications Corporation are interdependent, affiliated entities.

As for xDSL technology, 86% of subscribers were Silknet users, 7% - of Akhali Kselebi, 5% - of Akhteli, and 3% - of all other operators.

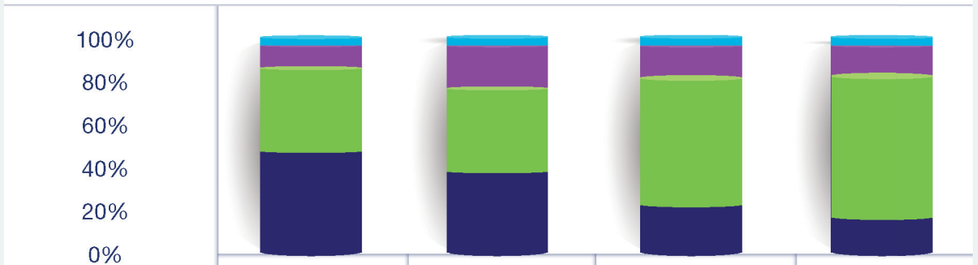
Distribution of xDSL technology subscribers



Unlike fiber-optic and xDSL technologies, the number of players in the market providing Internet services via Wi-Fi technology is much higher. In 2019, 113 companies provided Internet services to subscribers using Wi-Fi technology. As of the fourth quarter of 2019, the largest share of subscribers of this technology - 18%, was owned by SkyTel and GOLDNET (18.6 thousand subscribers), which are affiliated entities, followed by MAXNET with 9% (9.7 thousand subscribers) and Airconnect with 7% share of subscribers (6.7 thousand subscribers). 66% of subscribers were distributed in 109 companies, among them more than 1000 subscribers were only in 22 companies.

The development of fiber-optic technology allows subscribers to access higher speed internet services. At the end of 2019, the largest number of subscribers in Georgia used Internet services with the declared speed range[31] 10 Mb/s - 29 Mb/s. The share of these subscribers was 61%. Accordingly, the share of subscribers with a speed range of up to (including) 9 Mb/s is decreasing.

Distribution of the number of subscribers according to the declared speed ranges

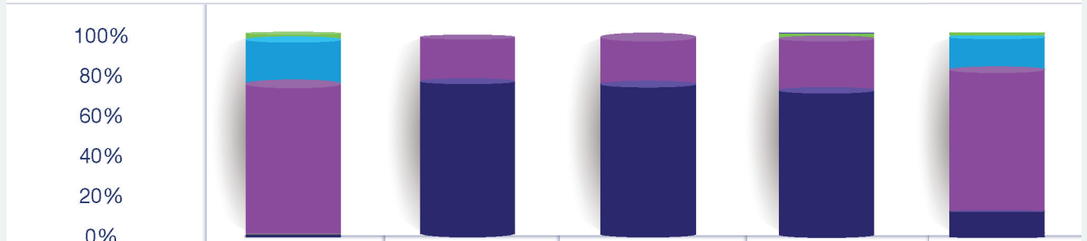


	2016	2017	2018	2019
100 MB/s and more	2%	3%	2%	2%
30 MB/s – 99 MB/s	15%	26%	19%	20%
10 MB/s – 29 MB/s	37%	37%	55%	61%
up to 9 MB/s, including	46%	34%	24%	17%

[31] When analyzing speeds in a fixed broadband Internet service, we mean the speeds declared by the Internet service companies offered to subscribers.

The share of subscribers with a speed range 10 MB/s - 29 MB/s is higher in fiber-optic technology and reaches 70%. In Fixed LTE, Wi-Fi and xDSL technologies, the range 1 MB/s - 9 MB/s prevails, which is due to the limitations and features of these technologies.

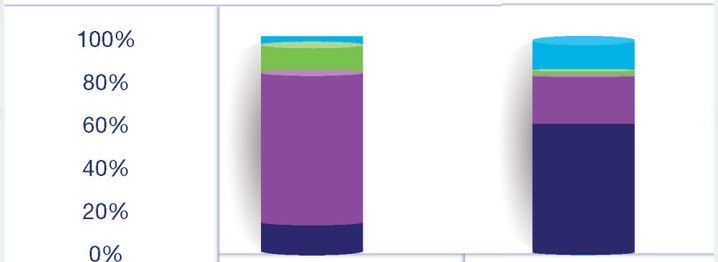
Distribution of the number of subscribers by technologies and speeds



	FTTx	Wi-Fi	xDSL	Fixed LTE	Total
100 MB/s and more	2%	0.04%	0%	0%	2%
30 MB/s – 99 MB/s	25%	1%	0%	2%	20%
10 MB/s – 29 MB/s	70%	18%	14%	24%	61%
up to 9 MB/s, including	3%	81%	86%	74%	17%

The distribution of the number of legal entity and residential subscribers according to the speed range of Internet services is different. For legal entities, the prevailing range is up to 9 MB/s (57%), and for residential - 10 MB/s - 29 MB/s (63%). It should be noted that in case of legal entity subscribers, companies declare speed of access to global Internet resources.

Distribution of the number of residential and legal entity subscribers according to the declared speeds



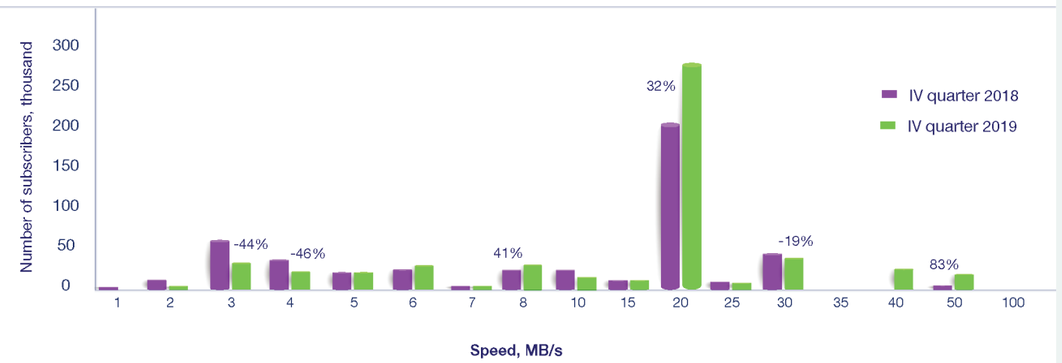
	Residential	Legal entity
100 MB/s and more	1%	21%
30 MB/s – 99 MB/s	21%	2%
10 MB/s – 29 MB/s	63%	20%
up to 9 MB/s, including	15%	57%

The analysis of the distribution of declared speeds among residential subscribers, separately and not by speed ranges, shows that compared to 2018, in Tbilisi the growth of subscribers with the Internet at a speed of 20 MB/s is especially high. The number of subscribers using Internet speed of 10 MB/s has sharply decreased. This is the result of changes of Internet service packages implemented by Internet service provider companies.

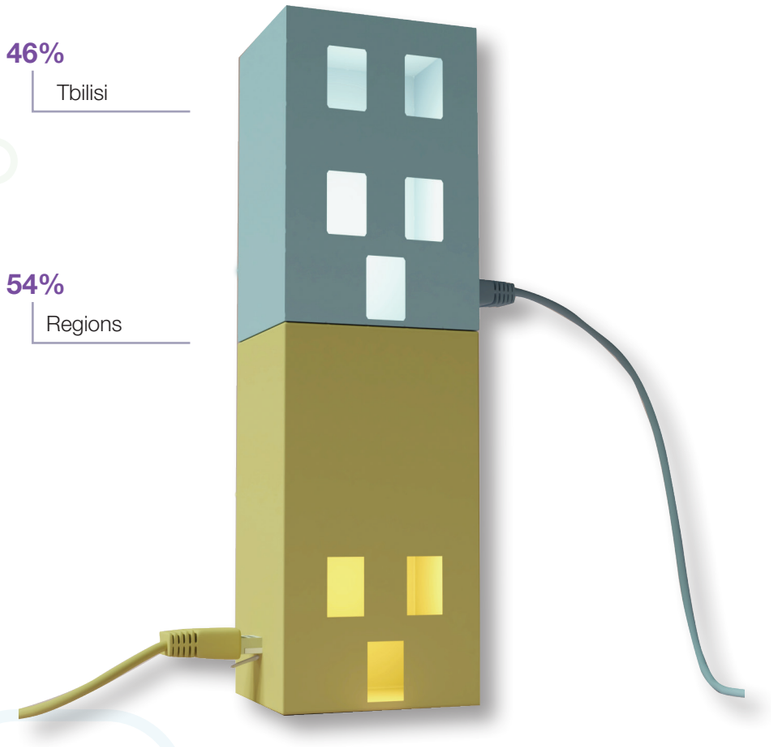
Distribution of residential subscribers according to the declared speeds - Tbilisi

In the fourth quarter of 2019, the number of subscribers using Internet services with a speed of 20 MB/s in the regions increased by 32%. The number of subscribers with a lower speed - 3-4 MB/s is decreasing.

Distribution of residential subscribers according to the declared speeds - regions

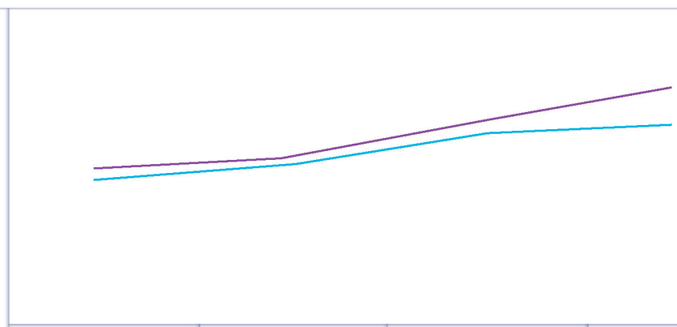


As of the fourth quarter of 2019, 46% of the subscribers of fixed broadband internet are in Tbilisi and 54% in the regions.



In 2019, compared to the previous year, there was 11% increase of the number of subscribers in the regions, while the number of subscribers in Tbilisi increased by 6%.

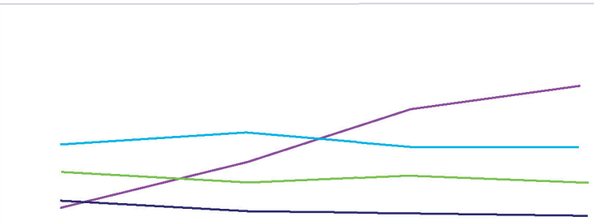
Subscribers' growth in Tbilisi and regions (number of subscribers, thousand)



	2016	2017	2018	2019
Tbilisi	337	385	407	431
Regions	344	396	458	510

As a result of acquisition of Delta Net by Magticom in 2017 and the active development of the fiber optic network in the regions during the same period, at the end of 2019 the number of Magticom subscribers increased by about 5 times compared to 2016.

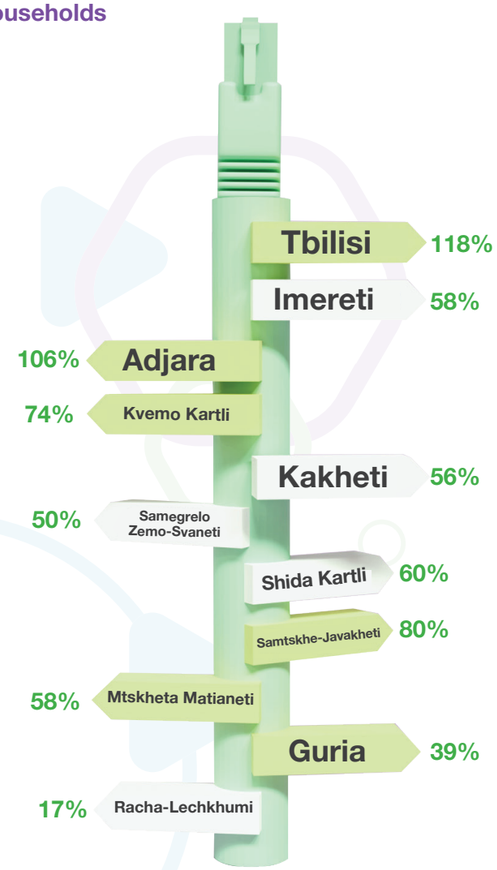
Number of subscribers in the regions (thousand)



	2016	2017	2018	2019
Magticom[32]	43	104	169	216
Silknet	145	160	145	145
Akhali Kselebi Group	54	41	34	33
Other	102	91	110	116
Total	344	396	458	510

The penetration of broadband internet services among households

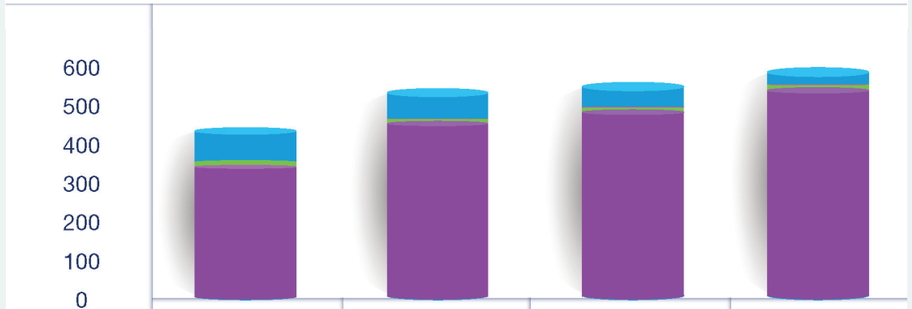
As of the fourth quarter of 2019, Internet penetration among households[33] in Tbilisi is 118%, due to the existence of several Internet services of different providers in the same family, internet services in leased real estates and difference between registered and actual residents numbers. In addition, since Internet services for legal entity subscribers are much more expensive than similar services for residential subscribers, small and medium-sized enterprises may be using Internet services, but not with a package of legal entity subscribers, and accordingly they are registered as residential subscribers. For these reasons, the penetration of the Internet among households, due to Batumi is high in Adjara - 106%. The lowest rates in the regions are in Racha-Lechkhumi and Kvemo Svaneti.



[32] In 2016 data, the number of Magticom subscribers includes the number of Delta-Net retail subscribers;
The Akhali Kselebi Group includes the number of subscribers of Akhali Kselebi, Akhteli and the Georgian Central Communications Corporation.
[33] The ratio of the number of subscribers per the number of households, in percentage terms

By the end of 2019, the number of fixed broadband Internet subscribers in five large cities of Georgia - Tbilisi, Kutaisi, Batumi, Rustavi and Poti, reached to 604 thousand people, which is 64% of the number of subscribers in the country. The development of fiber-optic networks has significantly reduced the number of xDSL technology subscribers in these cities, while the share of fiber-optic subscribers is 92%.

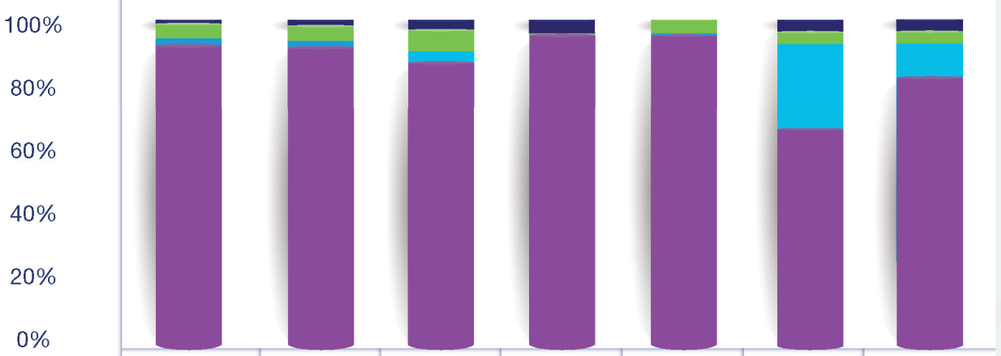
Number of subscribers according to technologies (FTTx, xDSL and WiFi) in 5 big cities of Georgia (thousand)



	2016	2017	2018	2019
xDSL	97	71	50	32
Wi-Fi	12	13	11	9
FTTx	348	440	494	553

It should be noted that the share of fiber-optic technology subscribers in all five big cities is more than 85% of the total number of broadband Internet service subscribers, and the largest share is recorded in Rustavi and Poti - 95%.

Distribution of subscribers by technologies in 5 large cities and other settlements of Georgia

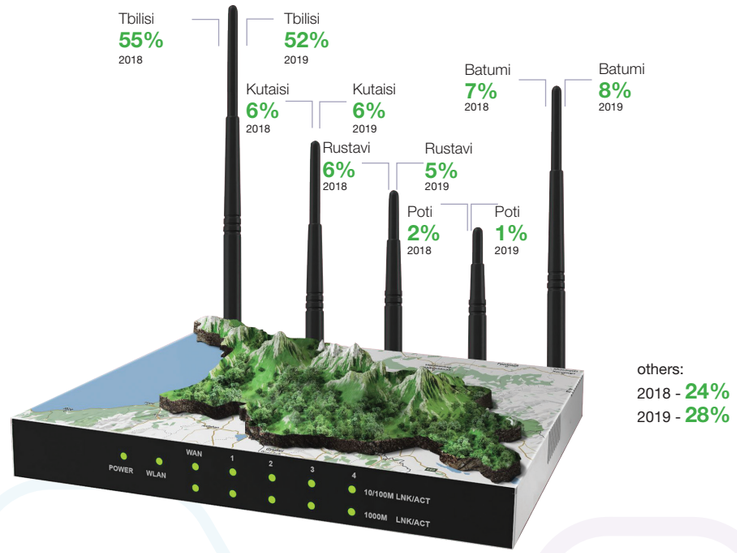


	Tbilisi	Kutaisi	Batumi	Rustavi	Poti	others	total
Fixed LTE	1%	2%	4%	4%	0%	3%	2%
xDSL	5%	6%	7%	1%	3%	4%	5%
Wi-Fi	1%	1%	4%	0%	2%	28%	11%
FTTx	93%	91%	85%	95%	95%	65%	82%

[34] There is no LTE technology in the diagram, as in the 2016-2017 data, this technology is not segregated according to settlements.

Most of the fiber-optic technology subscribers - 52%, are in Tbilisi. A total of 72% of users of the mentioned technology come from five large cities of Georgia (Tbilisi, Kutaisi, Batumi, Rustavi and Poti) and 28% from other cities, towns, and villages. The main reason for this distribution is the limited access to the relevant infrastructure in the regions, however the progress has been noticed. The share of fiber-optic technology subscribers outside the 5 largest cities of Georgia was 24% in 2018, and in 2019 this figure reached to 28%.

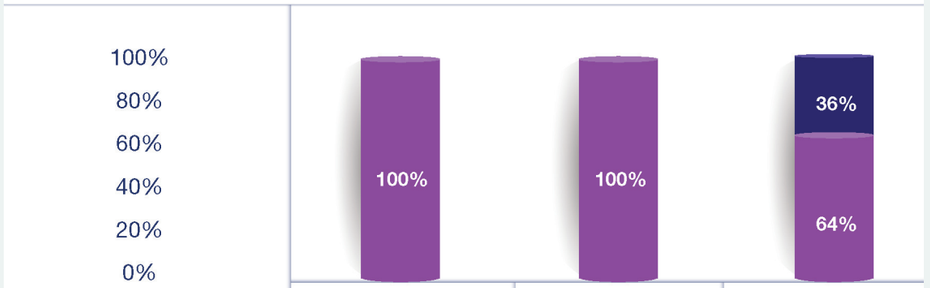
Distribution of fiber-optic technology subscribers



others:
2018 - **24%**
2019 - **28%**

Fixed broadband internet is available[35] in all cities and towns of Georgia. There are 3384 villages in Georgia, 64% of which have at least one internet service subscriber.

Internet access in settlements (table shows the number of settlements)

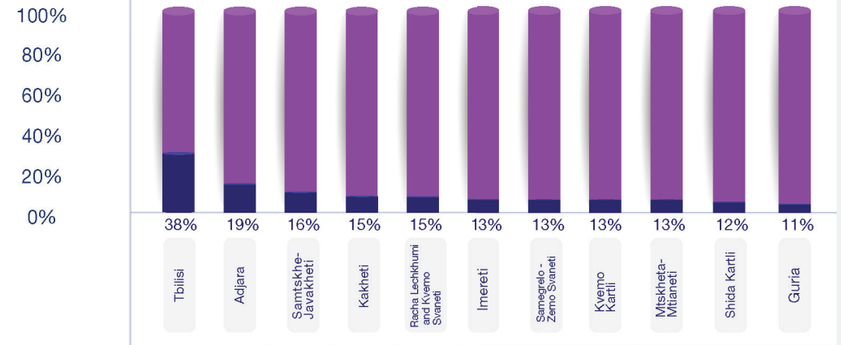


	City	Borough	Village
Not available	0	0	1220
Available	56	36	2164
Number of settlements	56	36	3384

[35] Considered the existence of at least 1 subscriber of fixed broadband internet in the settlement (residential or legal entity)

The number of business entities[36] operating in Georgia is about 182 thousand, while the number of legal entity subscribers of fixed broadband Internet is 45 thousand. This means that only 24% of business entities have internet services. The reason of this situation may be that services for legal entities are much more expensive than similar services for residential subscribers. Consequently, small and medium-sized businesses may use Internet services, but not a package of legal entity subscribers, but Internet services offers for residentials. According to these data, 38% of business entities operating in Tbilisi have Internet services. In the regions, the figure varies from 11% to 19%.

The number of operating business entities and the existence of fixed broadband internet among them



Has No internet	47,698	14,740	4,504	9,368	1,130	20,802	11,108	11,891	4,674	7,732	4,015
Has internet	29,714	3,381	842	1,631	192	3,210	1,655	1,744	672	1,039	484
Number of active business entities	77,412	18,121	5,346	10,999	1,322	24,012	12,763	13,635	5,346	8,771	4,499

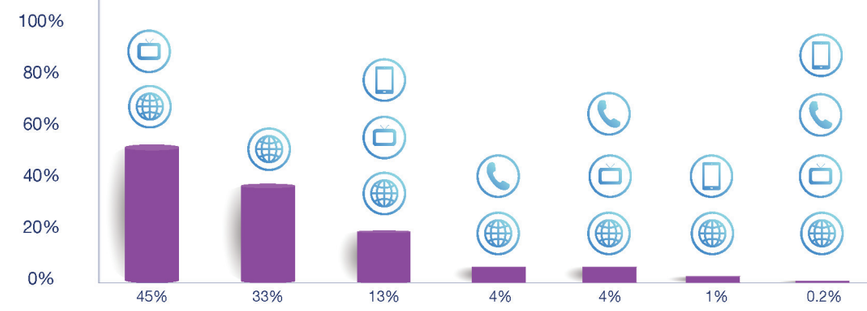
Consumption of other communication services in combination with fixed internet

In addition to the broadband Internet available in Georgia, subscribers also enjoy other services provided by the same service provider company. Service combinations are mainly offered by Silknet, Magticom and Akhali Kselebi Group.

[36] Source: National Statistics Office of Georgia

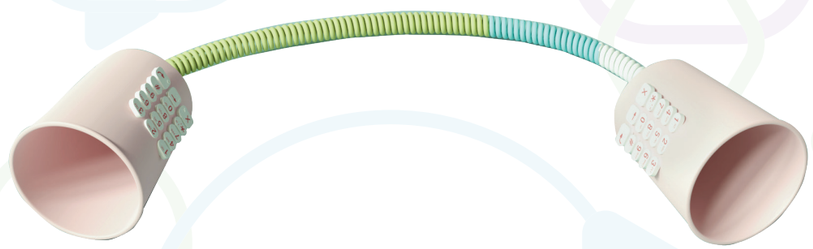
Internet services subscription on residential segment in combination with broadcasting transit (IPTV technology), fixed telephone services (PSTN and VoIP technology) and mobile services by December 2019 gives the following picture: The largest share of subscribers (45%) along with Internet services use transit broadcasting services[37]. The combination of three services is dominated by Internet, television and mobile services (13%). Four services of one provider are used by a small number of subscribers - 0.2%.

Fixed broadband internet subscription as a standalone and in combination with other services (Silknet, Magticom, Akhali Kselebi Group subscribers)



Fixed telephone service

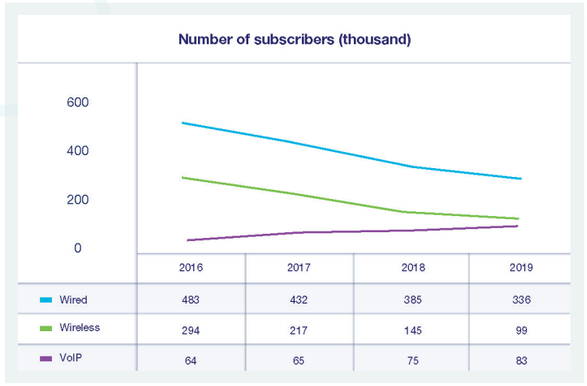
Wired, wireless (CDMA) and VoIP (Voice over Internet Protocol) technologies were used in the fixed telephone market in Georgia. According to the data of IV quarter of 2019, in total 24 companies were operating in the fixed telephone market. Fixed wired technology was provided by 9 authorized undertakings, wireless – by 2, and VoIP – by 21[38] authorized undertakings.



In the fourth quarter of 2019, the number of fixed telephone subscribers was 518 thousand. Compared to the same period in 2018, the number of subscribers decreased by 14%, by 87 thousand subscribers. The decrease of number of fixed telephone subscribers, respectively, revenues and traffic, is a trend in the world, which is mainly associated with the development of mobile services, Internet access and the growth of OTT (Over-The-Top) services.

[37] Subscribers of Silknet, Magticom and Akhali Kselebi Group participate in the analysis
[38] Some companies use simultaneously several technologies. Consequently, the sum of the number of operators by technologies does not equal the sum of the total number of operators

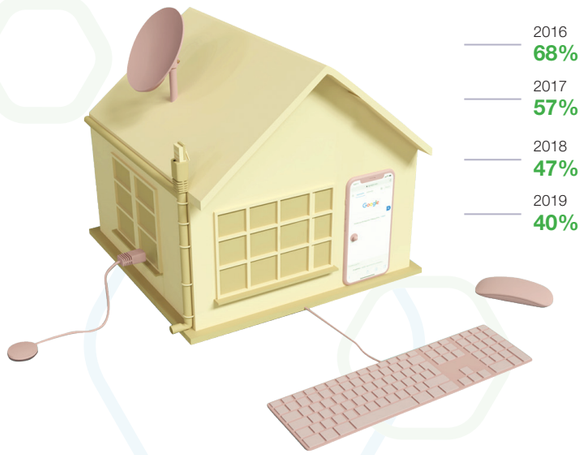
The number of subscribers has decreased on wired and wireless technology, while VoIP technology has increased.



Number of subscribers

2016 840 thousand | 2017 714 thousand | 2018 604 thousand | 2019 518 thousand

Penetration in households



2016 **68%**

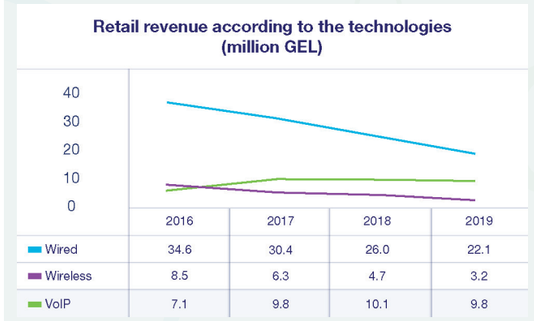
2017 **57%**

2018 **47%**

2019 **40%**

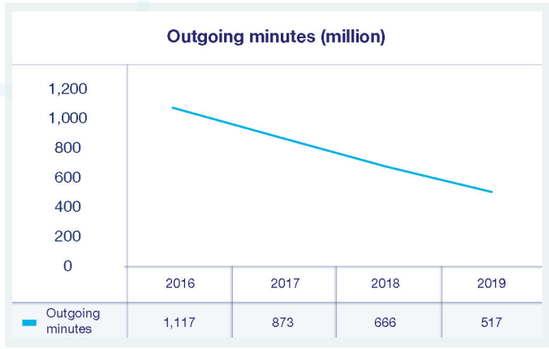
The penetration of fixed telephone subscribers among households is 40%[39] as of the fourth quarter of 2019. Last year, the figure was 47%. Unlike the conditions of mobile services, if the subscriber does not use a fixed service, the phone number / line will not be canceled in a short period of time, which more or less helps to maintain the number of subscribers. Otherwise, this figure would be even lower.

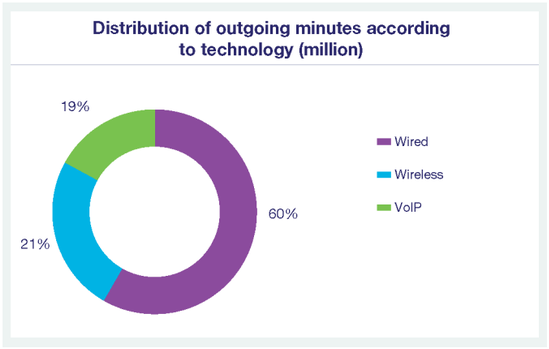
The total retail revenue of fixed telephone services is characterized by a downward trend.



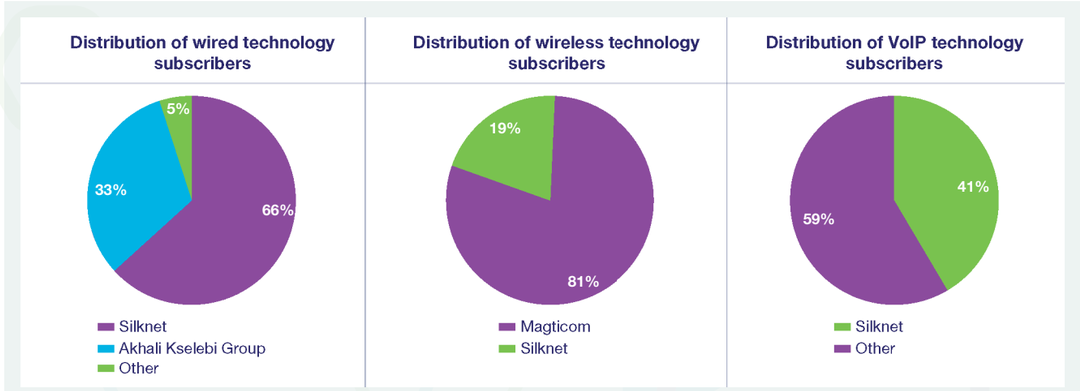
[39] The ratio of fixed telephone residential subscriber number to the number of households in the country, in percentages

The declining trend of outgoing traffic of fixed telephone services continues as well. While in 2018 it was 666 million minutes, in 2019 it was reduced by 22%, to 517 million minutes.



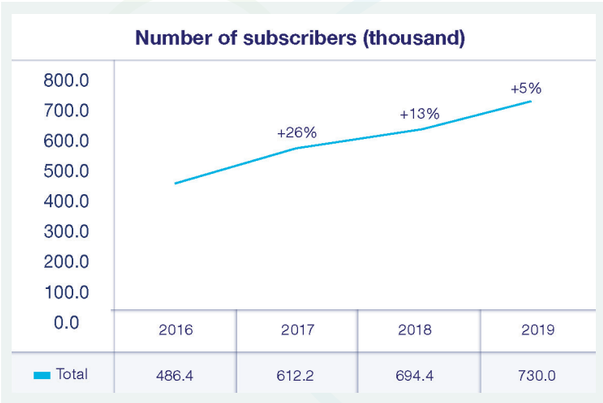


Silknet is leading according to the number of fixed wired and VoIP telephone subscribers. Magticom has a dominant share in fixed wireless technology. Besides Silknet, relatively large market players of VoIP technology are Geonet, Inex-phone and Myphone.

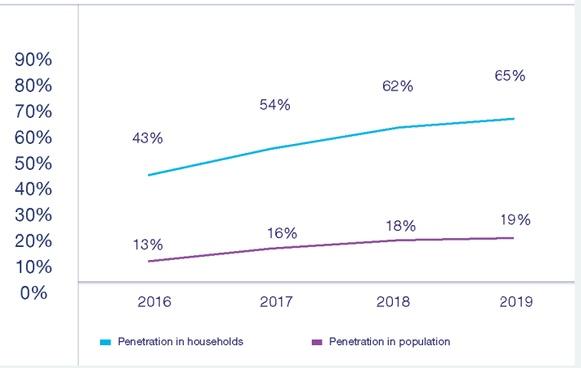


Broadcasting transit

According to the data of the last quarter of 2019, 730 thousand subscribers received broadcasting transit, which is 5% - 35.6 thousand more compared to the corresponding period of the previous year. According to the data of the last four years, the cumulative average growth rate of the number of subscribers is 14%.

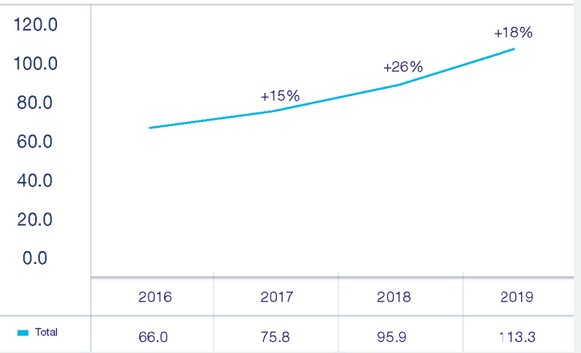


Subscriber penetration



Accordingly, the subscriber penetration has also increased - the penetration of broadcasting transit subscribers has reached 19% in total population[40] and 65% in households[41].

Retail revenues (million GEL)

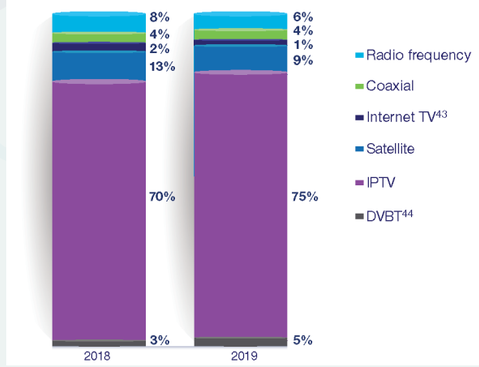


	2016	2017	2018	2019
Total	66.0	75.8	95.9	113.3

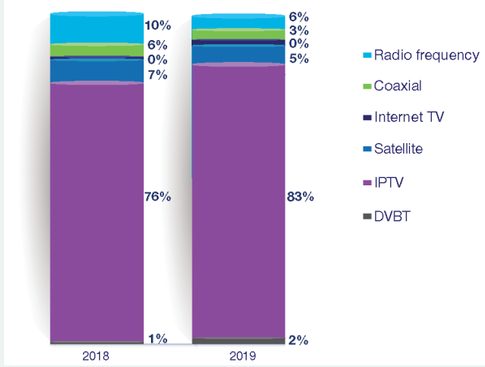
According to the last quarter of 2019, IPTV[42] technology is still the most common means of broadcasting transit. Compared to the previous year, its share increased by 5% and became 75%. IPTV's retail revenue also increased by 7% in total revenue and is 83%.

[40] The ratio of the number of subscribers of broadcasters in the number of the country's population
[41] The ratio of the number of subscribers of broadcasters in the number of households in the country
[42] IPTV - One of the types of broadcasting transit, during which the broadcast signal is transmitted to the networks using the Internet Protocol (IP)

Distribution of subscribers by technologies



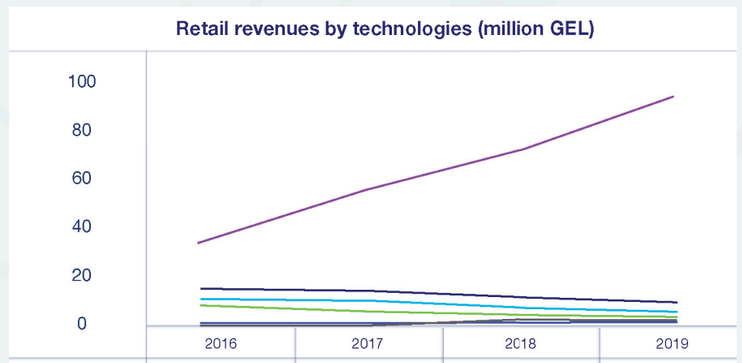
Distribution of retail revenues by technologies



Number of subscribers by technologies (thousand)

	2016	2017	2018	2019
IPTV	193.8	357.1	482.9	547.2
Satellite	120.3	116.2	93.6	69.1
Radio frequency	112.2	90.5	56.8	44.8
Coaxial	54.0	40.6	25.8	27.2
Internet TV	6.0	2.5	16.7	8.6
DVBT	0.1	5.3	18.8	33.2

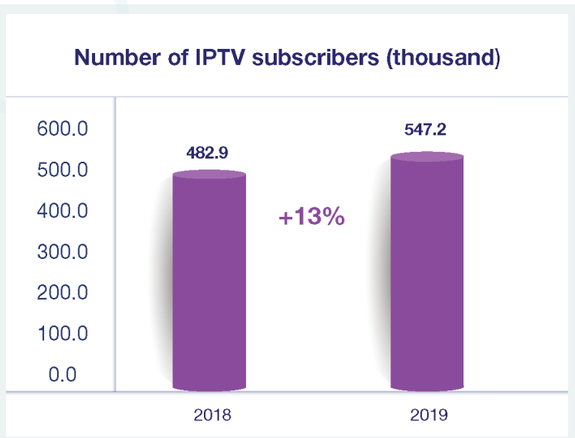
Retail revenues by technologies (million GEL)

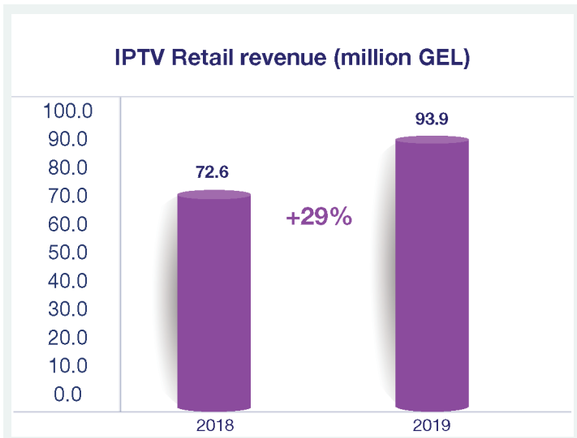


	2016	2017	2018	2019
IPTV	37.1	48.6	72.6	93.9
Satellite	7.2	7.5	6.9	6.0
Radio frequency	13.8	13.0	9.3	6.6
Coaxial	7.6	6.4	5.7	4.0
Internet TV	0.2	0.2	0.2	0.5
DVBT	0.0	0.1	1.2	2.3

[43] Internet TV - One of the types of broadcast transit, during which digital content of TV content is distributed via the Internet
[44] DVBT - One of the types of broadcast transit during which terrestrial digital TV broadcasting is carried out

According to the data of the last quarter of 2019, compared to the same data for 2018, the number of IPTV subscribers increased by 13%, and the retail revenues increased by 29%.

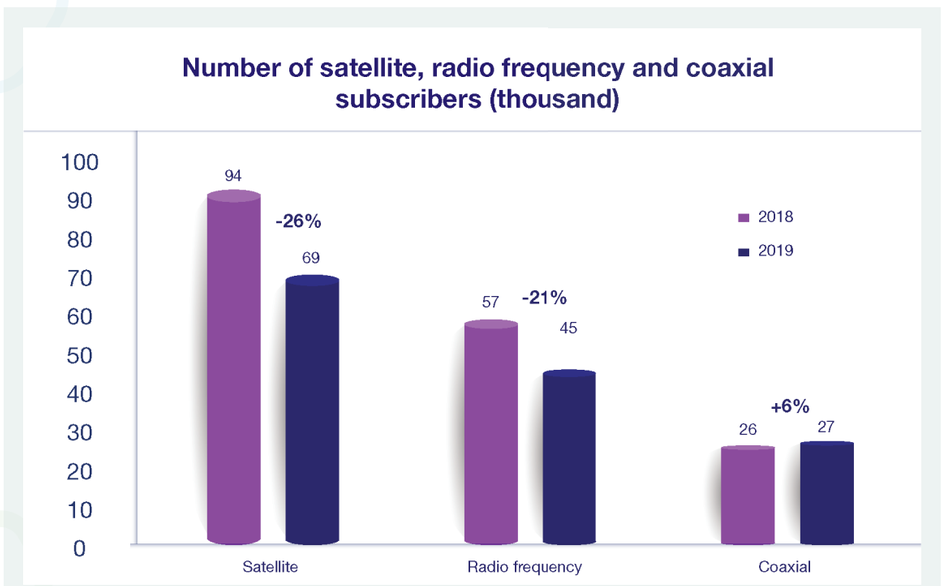




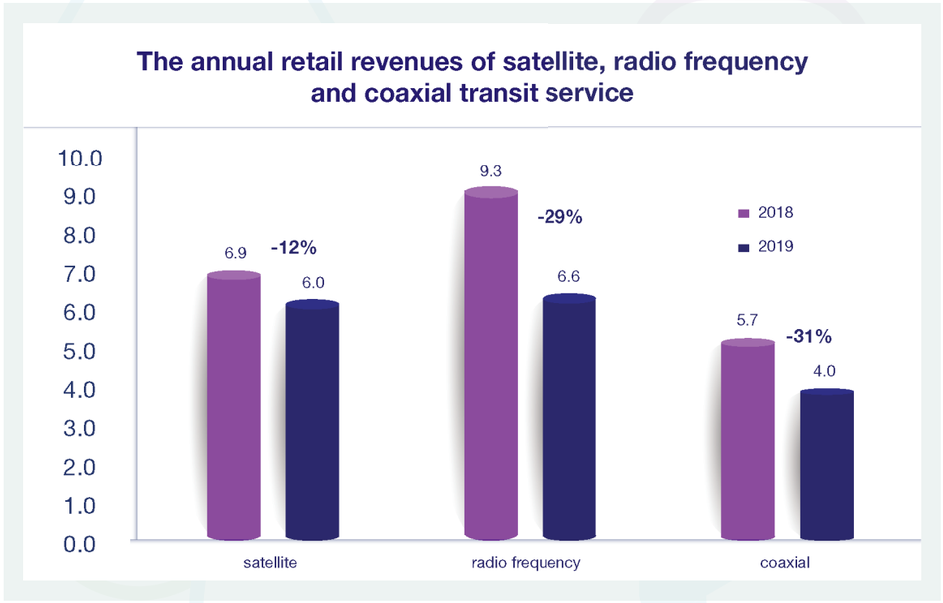
In the last quarter of 2019 IPTV services were mainly provided by two operators - Magticom (59%) and Silknet (36%).

Distribution of IPTV subscribers

According to the data of the last quarter of 2019, compared to the same data for 2018, the number of subscribers using transit satellite technologies dicreased by 26%, the number of subscribers of radio-frequency[46] decreased by 21%, the number of subscribers using transit coaxial technology increased by 6%.



The annual retail revenues of satellite, radio frequency and coaxial technology transit decreased: satellite - by 12%, radio frequency - by 29%, coaxial - by 31%.

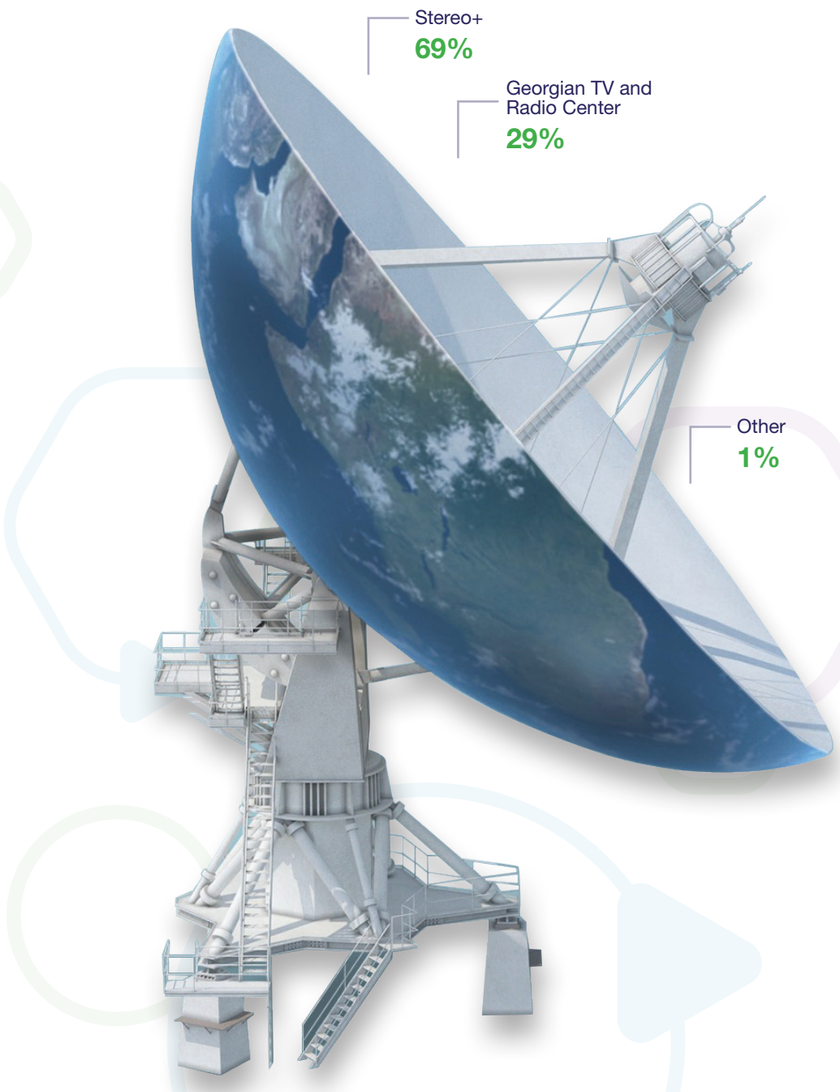


[45] Satellite Broadcasting - TV Broadcasting using terrestrial and orbital stations of satellite systems
[46] Radio Frequency Broadcasting - One of the types of broadcasting transit in which broadcasting is carried out by radio waves
[47] Coaxial Broadcasting - A type of broadcasting transit in which a broadcast signal is transmitted over a coaxial wire

Multiplex services

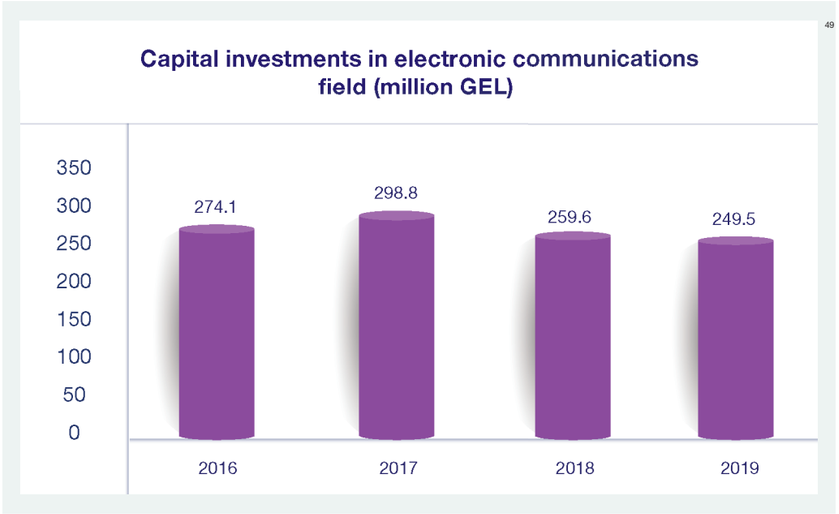
In December 2019, there were a total of 22 multiplex operators in Georgia, but only 10 operators received commercial revenue from the multiplex service in 2019, the rest of the operators distributed their own channels / channel and therefore did not provide commercial services through the multiplex.
The operators received 5.8 million GEL from the multiplex services during the year, the main part of which was generated by Stereo + and Georgian TV and Radio Center.

share of multiplex revenues



Capital investments in electronic communications

The amount of capital investment[48] in electronic communications in 2019 is 249.5 million GEL, which is 4% less compared to 2018.



[49]

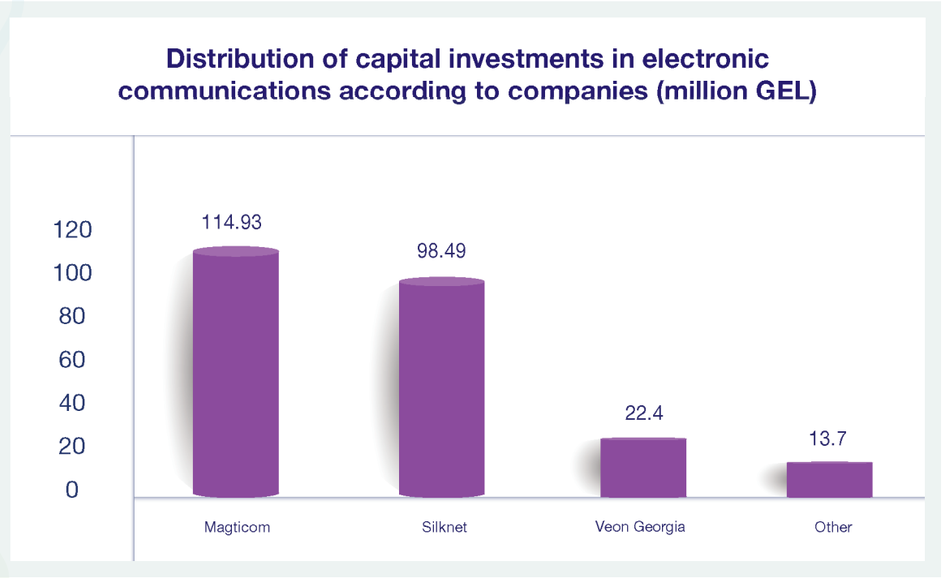
Over the past three years, in the field of electronic communications the share of capital investments in broadcasting transit services has been growing.

Distribution of capital investment in electronic communications by the network types

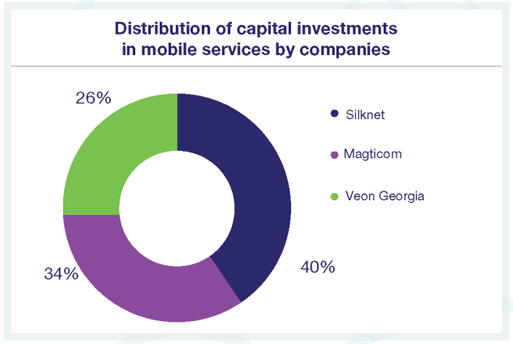
	2016	2017	2018	2019
Mobile communications network	59%	49%	35%	34%
Fixed wired service network	30%	40%	45%	43%
Fixed wireless service network	4%	2%	1%	0.4%
Broadcasting transit services	7%	9%	19%	22%

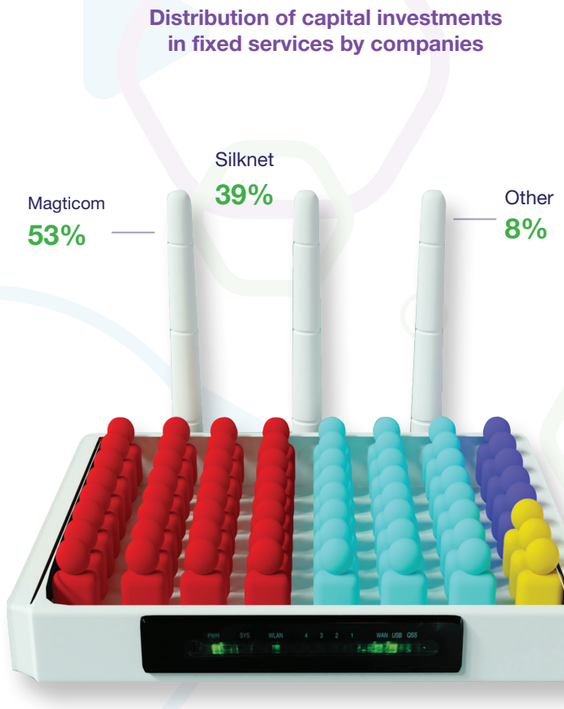
[48] Includes mobile and fixed (wired and wireless) service networks and the amount of investments in transit services
[49] Capital investments include data of companies whose annual revenues exceeded 1 million GEL and in total amounted to 91% of total electronic communications revenue in 2019.

According to the capital investments in electronic communications, the top three are Magticom, Silknet and Veon Georgia. The investment made by them is 95% of the total amount.

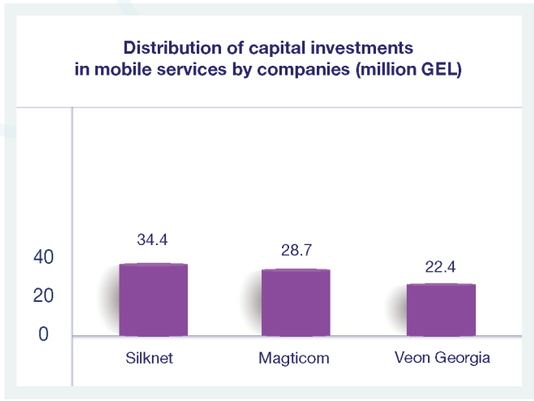


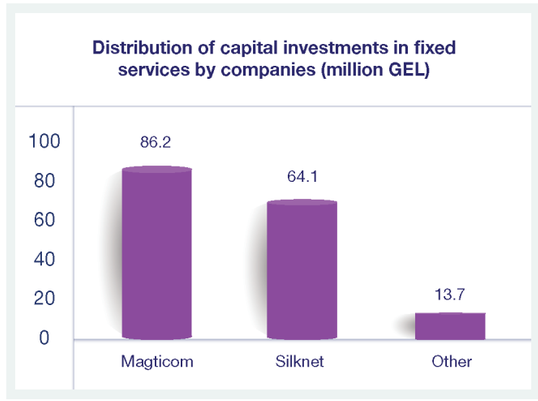
In 2019, the largest share of capital investment in mobile services comes from Silknet, while in the fixed services (fixed broadband, fixed telephone, broadcasting transit services) Magticom ranks first.



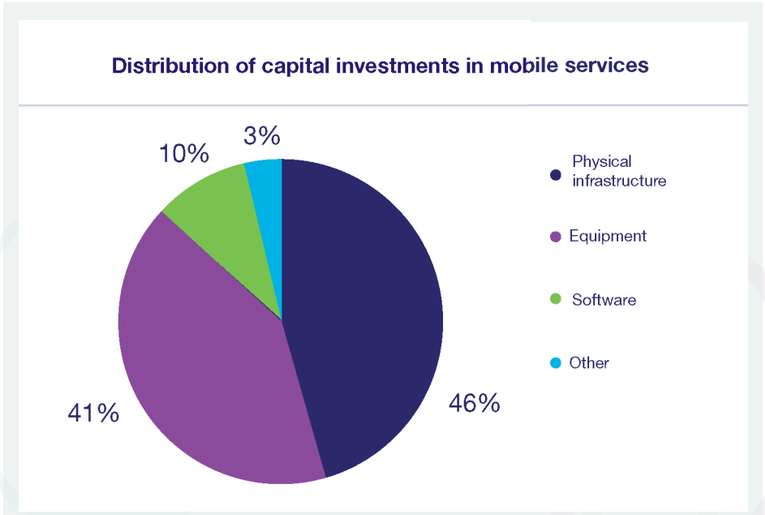


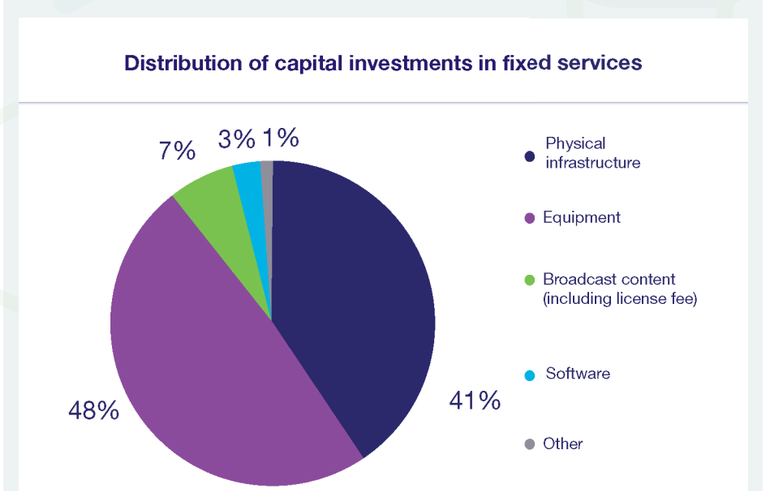
The amount of capital investments in mobile and fixed services by the companies are as follows:





According to the data of 2019, the most part of the capital investment goes to the physical infrastructure and equipment.





The media policy existing today in Georgia is one of the most liberal on a global scale for TV broadcasting. As a result of the amendments to the law in 2012, any residential or legal entity has the opportunity to start broadcasting without any obstacles within 10 days. The procedures for starting broadcasting are minimized, and instead of obtaining a license, only a simple authorization process is required. The authorization procedure is almost identical to registering on a website (e.g. entering and registering an email address and password).

Simplification of procedures and liberal policies have significantly increased the number of broadcasters, and today the media is more diverse. It should be noted that until 2012 it was almost impossible to obtain a license to start broadcasting, and there were only 4 national broadcasters in the country, including the Public Broadcaster.

According to the latest data of 2019

there were 20 national open-air broadcasters in the country

including the Public Broadcaster and Adjara TV

In 2019, a total of

100 channels were broadcasting in Georgia,

while until 2012 there were 54 televisions, including regional and cable broadcasters.

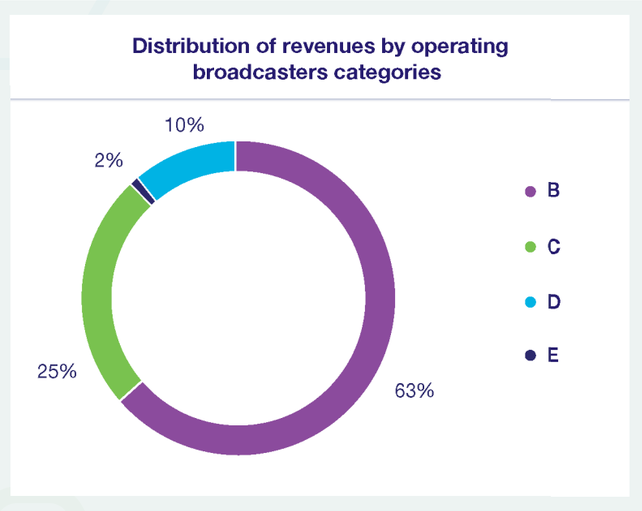
According to the data of the fourth quarter of 2019, there were

89 TV and 55 radio broadcasters in Georgia.

[50] An actor is an entity, which received revenue from broadcasting during the year
[51] There are the following categories:

Category	Revenue received during the year
A	More than or equal to 100 million GEL
B	From 10 million GEL to 100 million GEL
C	From 1 million GEL to 10 million GEL
D	From 100,000 GEL to 1 million GEL
E	Less than 100,000 GEL

In 2019, 110 actors[50] were registered in the broadcasting sector. Only 3 legal entities (category B[51] companies) received more than 10 million GEL from broadcasting, and their revenue amounted to 63% of the total revenue, while the revenue of those who received less than 100,000 GEL in 2019 (69 entities of category E) amounted to 2% of total revenue.



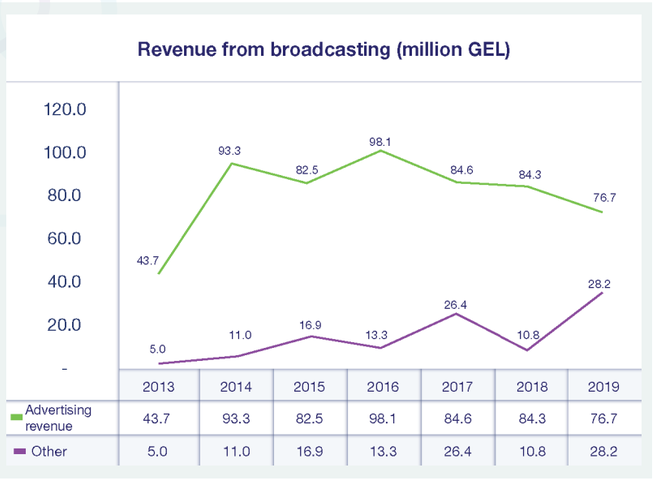
In 2019, the total revenue from broadcasting amounted to 104.8 million GEL, which was 95.1 million GEL in 2018.

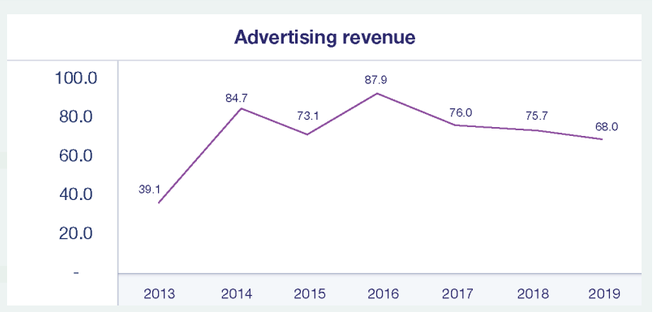
In total revenue 95.5 million GEL comes from TV broadcasters, and 9.3 million GEL - from radio.

Revenues from broadcasting (million GEL)

2013	43.6
2014	94.6
2015	86.1
2016	98.8
2017	100.4
2018	85.5
2019	95.5

2013	5.1
2014	9.7
2015	13.2
2016	12.1
2017	10.6
2018	9.6
2019	9.3





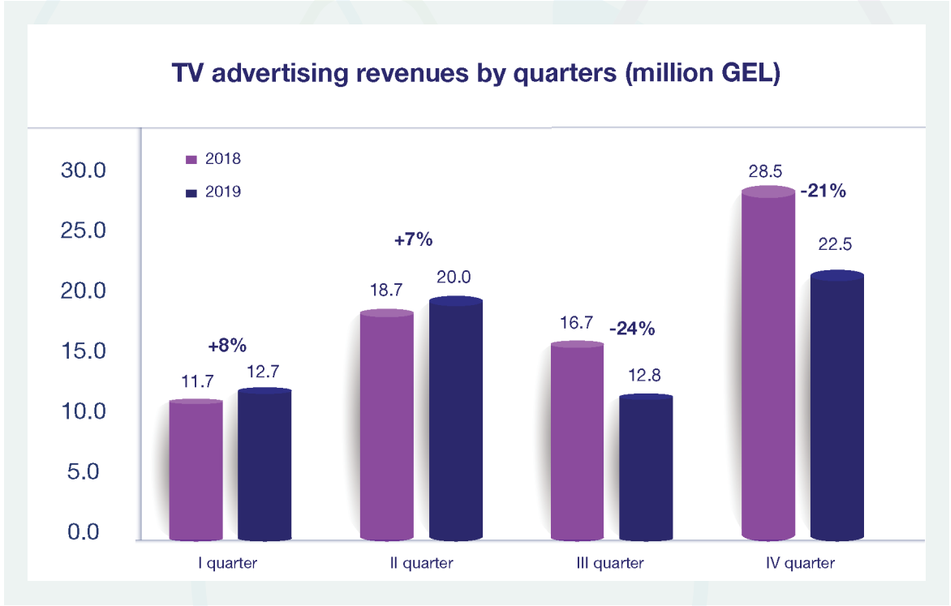
The total advertising revenue from broadcasting in 2019 amounted to 76.7 million GEL, in which the total advertising revenue of TV broadcasters amounted to 68.0 million GEL.

TV advertising revenues trend was characterized by growing dynamics in the first half of 2019. In particular, the advertising revenue of TV broadcasters in I and II quarters increased by 7-8% compared to the same period of the last year. The decline of TV advertising revenue began in the third quarter of 2019. The decrease of advertising revenue was caused by a three-months delay of the company Rustavi-2 broadcasting. It should be noted that the Strasbourg Court of Human Rights upheld the decision of the Supreme Court of Georgia on the transfer of the TV company to Kibar Khalvashi and company “Panorama”. After the decision of the Strasbourg court, part of the journalists left TV company Rustavi-2, which caused crisis on the channel and Rustavi-2 stopped broadcasting for three months.

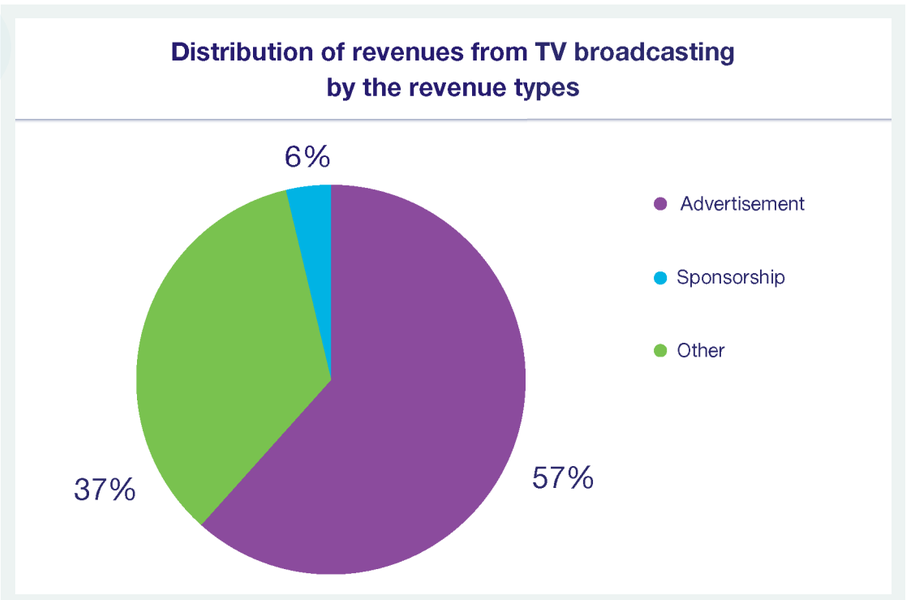
Due to the fact that the broadcasting company Rustavi 2 along with the TV company Imedi owned 80% of the advertising revenue, the three-months delay of broadcasting of one of the largest players in the market had a significant impact on the advertising market.

In particular, the three-months delay of broadcasting of TV company Rustavi-2 has changed the agenda and behavior of advertising companies. Due to the fact that Rustavi 2, along with Imedi, not only occupied 80% of the market, but also held a leading position in television ratings, by the end of the year major advertising companies stopped spending planned advertising budget on the channel. Based on the TV ratings, advertisers did not transfer the advertising budget to other channels. It was this circumstance that affected the advertising revenues of 2019.

Accordingly, advertising revenue of TV company Rustavi 2 decreased by 37% in the third quarter of 2019, and by 59% in the fourth quarter. In 2019, the TV advertising revenue was 7.7 million GEL less, and Rustavi-2 advertising revenue was 8.2 million GEL less. Consequently, the decrease of revenue from advertising broadcasting in 2019 falls entirely on Rustavi 2. Moreover, if it were not for the events associated with Rustavi 2, revenue from TV advertising would continue to grow in 2019.

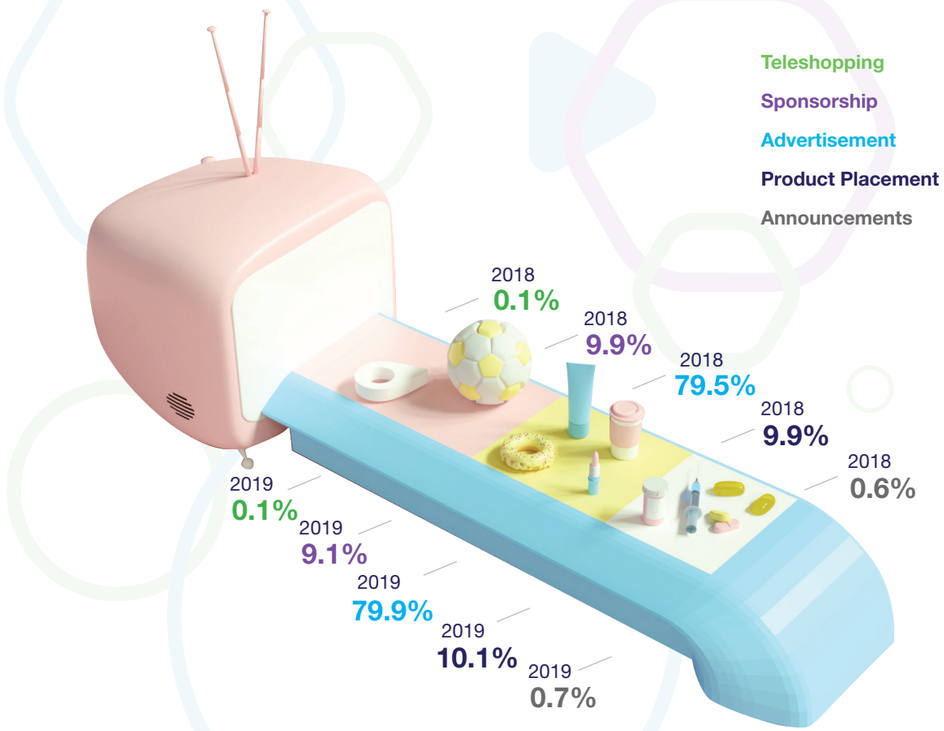


It should be noted that the main source of total[52] revenue received by TV broadcasters - 63.4% of total revenue, was advertising and sponsorship.



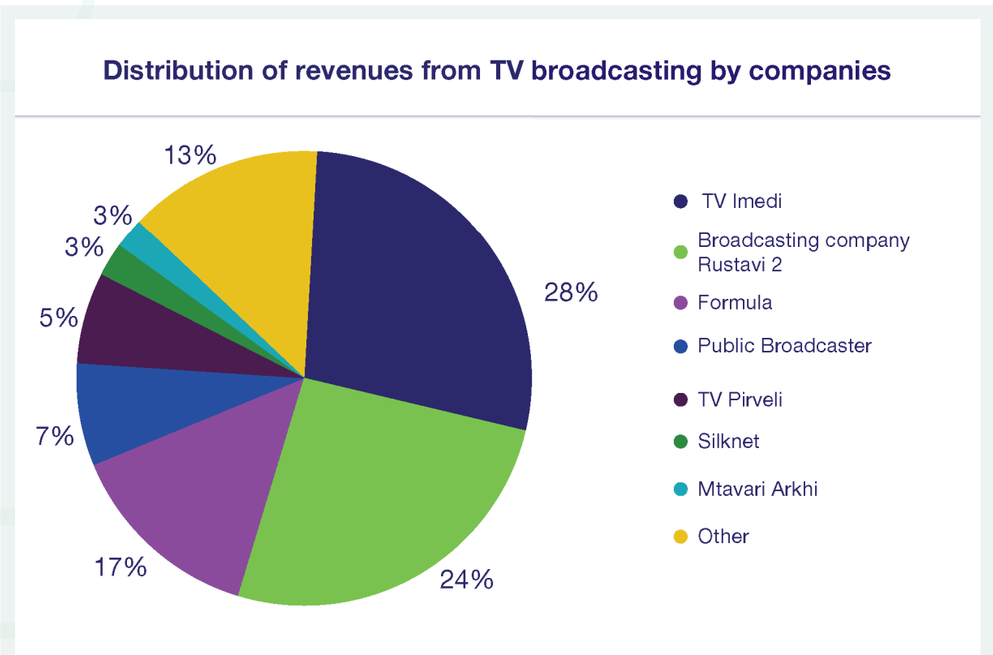
The main sources of total advertising revenue received by TV broadcasters were advertising, product placement, and sponsorship.

Distribution of revenues from TV broadcasting by advertising categories

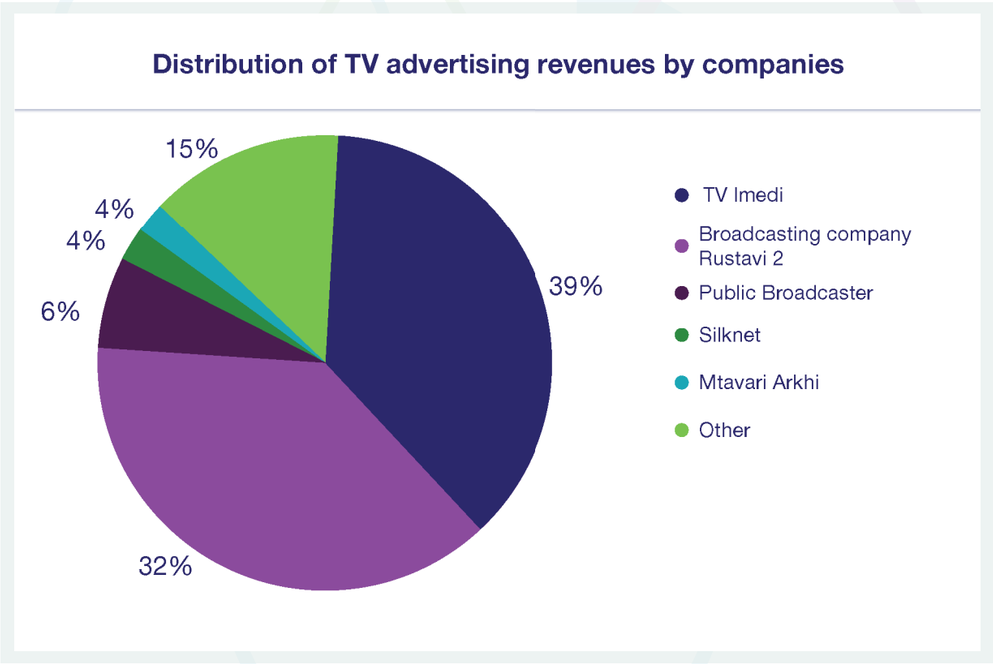


[52] All types of revenues, except for the state financing

According to the amount of revenues received from TV broadcasting, in 2019 the largest share was held by TV Imedi - 28%, followed by Rustavi 2 - 24%, Formula - 17%, Public Broadcaster - 7%, TV Pirveli - 4%, Silknet and Mtavari Arkhi - 3-3%. The total share of other broadcasters' revenues was 13%.



According to the amount of TV advertising[53] revenues, in 2019 the largest share was held by TV Imedi - 39%. It was followed by Rustavi 2 - 32%, TV Pirveli - 6%, Silknet - 4% and Mtavari Arkhi - 4%, and the total share of other broadcasters' advertising revenues was 15%.



[53] Advertising: commercial advertising, sponsorship, product placement, TV shopping, announcements

Watching in live and rewind modes

In 2019, one person watched TV on average about 387 minutes a day. It should be noted that from year to year the number of people using the rewind function increases.

Average TV watching time during the day per person (minutes)

Live mode

2017	2018	2019
381	381	387

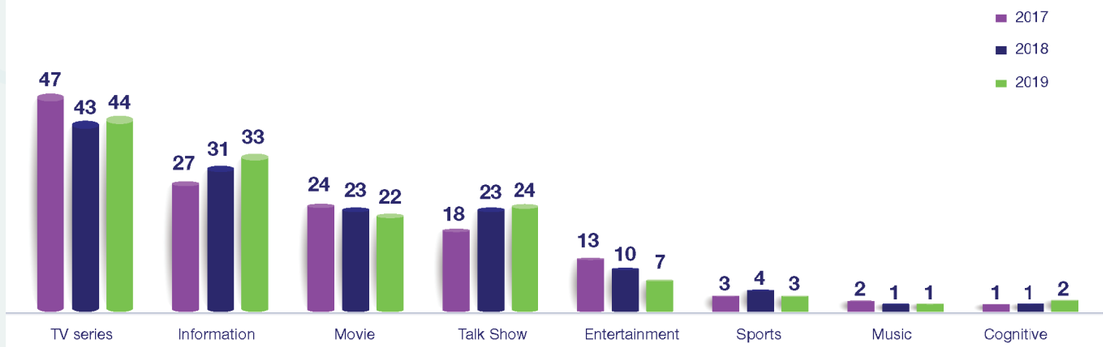
Rewind mode

2017	2018	2019
16	24	25

From 387 minutes spent watching TV in a live mode, one person spends an average of 44 minutes a day watching TV series. This time is 3 minutes less than in 2017.

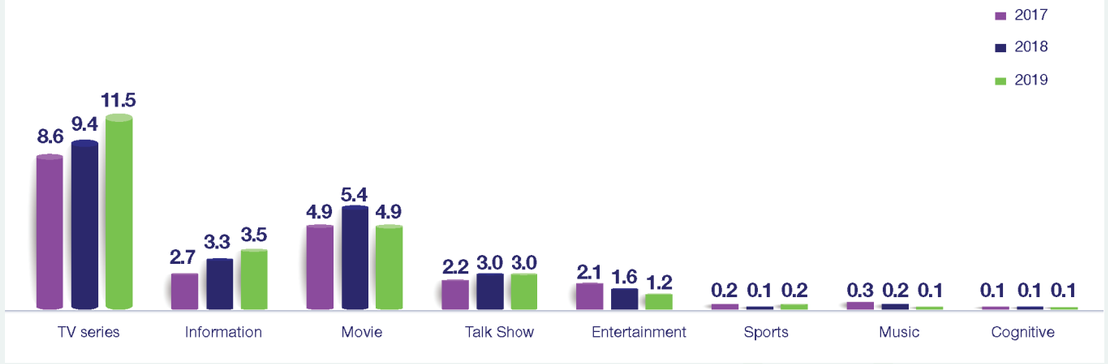
In 2019, compared with 2017, the time of watching news programs and talk shows increased by 6 minutes.

Average time of watching TV in live mode per day by one person according to genres



Generally people use rewind function most often for TV series, which is 3 minutes more than in 2017, and 2 minutes more than in 2018.

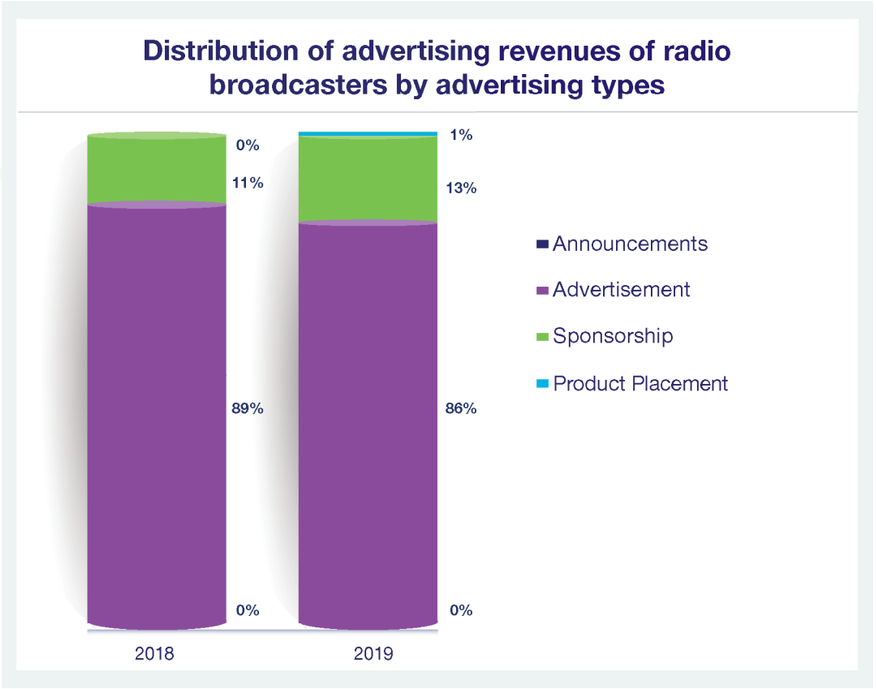
Average time of watching TV in rewind mode per day by one person according to genres



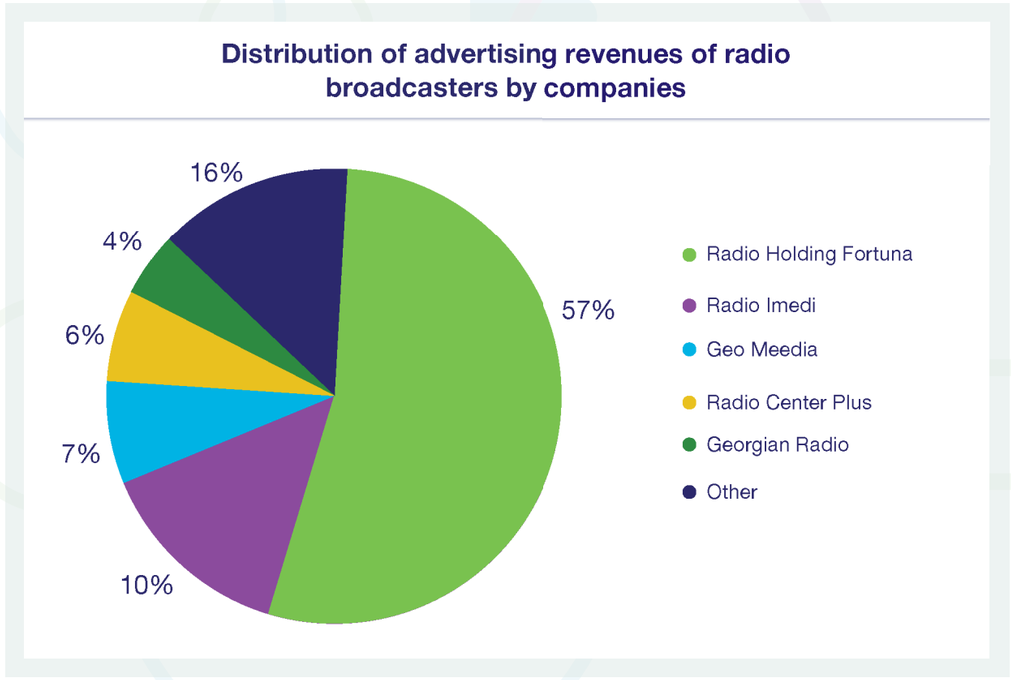
Radio advertising revenues (million GEL)

Advertising revenues for radio broadcasters have increased. In 2019, the advertising revenue received by radio broadcasters amounted to 8.8 million GEL, which was 8.6 million GEL in 2018.

The main share of the advertising revenues of radio broadcasters - 99% - was advertising and sponsorship, and a very small share included product placement and advertising.

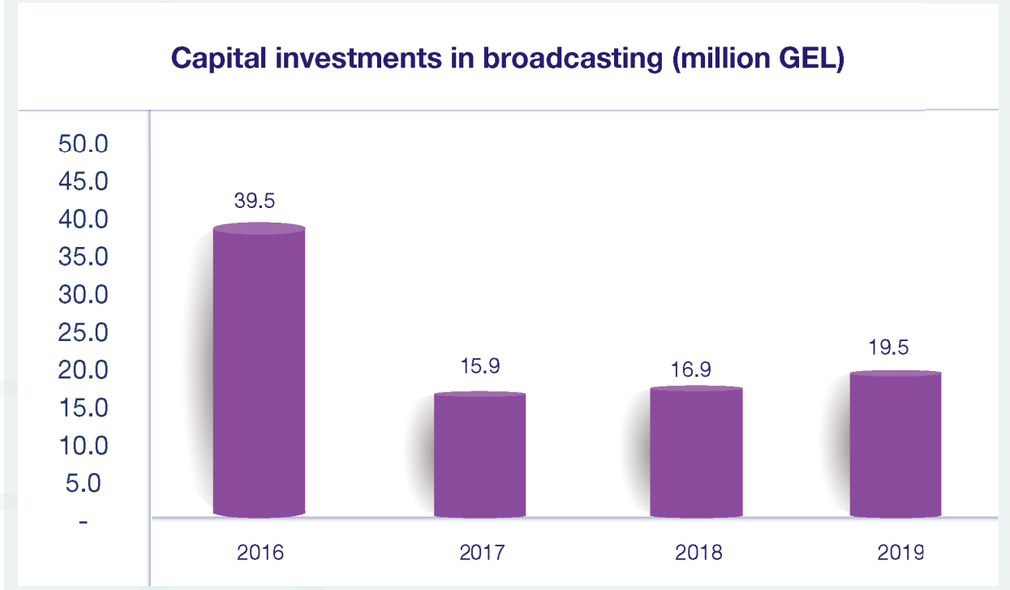


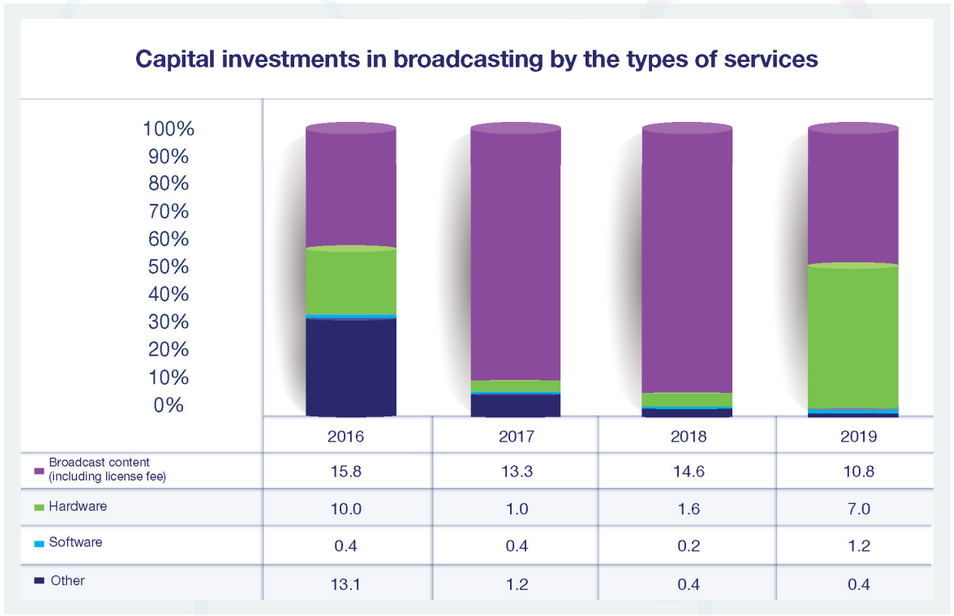
In terms of the amount of advertising revenues received from radio broadcasting, in 2019 the largest share - 56% was received by Radio Holding Fortuna, followed by Radio Imedi with 11%, Geo Media and Georgian Radio with 5-5% share. The total share of advertising revenues for other radio broadcasters was 23%.



Capital investments in broadcasting

In 2019, the amount of capital investments[54] in broadcasting amounted to 19.5 million GEL, which is 16% more than in the same period of 2018.





	2016	2017	2018	2019
Broadcast content (including license fee)	15.8	13.3	14.6	10.8
Hardware	10.0	1.0	1.6	7.0
Software	0.4	0.4	0.2	1.2
Other	13.1	1.2	0.4	0.4

[54] Capital investments include data of companies whose annual revenues made more than 80% of total revenue in 2019. Data of the Public Broadcaster is not included

Contributions to the state budget

In 2019, the amount paid by broadcasters to the state budget of Georgia as taxes[55] amounted to 19,418,812 GEL, and the amount paid by authorized and / or licensed entities in accordance with the Law of Georgia on Electronic Communications was 314,673,139 GEL. As for the revenues from licensing, in 2019, 15,435,627 GEL was transferred from the field of communications to the state budget. 82,780 GEL was added to the budget as fines[56] for administrative offenses. In total, 349,610,358 GEL was transferred from the communications sector to the state budget in 2019.

[55] Income tax, profit tax, VAT, excise tax, import tax, property tax, land tax (agricultural-non-agricultural)
[56] Administrative fines, see Appendix 8

Pre-election media monitoring

The Communications Commission, in accordance with the Resolution on “the Participation of the Media in the Pre-Election Process and the Rules of its Use”, conducts monitoring of the pre-election media and publishes the results.

In 2019, the Commission monitored the media for the pre-election period of midterm elections in a 24-hour mode, from March 31 to June 9, taking into account the second round of the elections. More than 20 TV channels, including all the general broadcasters, the Public Broadcaster and the Public Broadcaster Adjara TV, were monitored.

In the process of media monitoring, the Commission’s subjects of observation were pre-election advertisements, pre-election debates, news and current affairs programs, as well as pre-election agitation and public opinion polls.

During the monitoring process, a detailed analysis was carried out on the fair and transparent distribution of pre-election paid and free political advertisements in the broadcasting companies. During the reporting period, in the process of monitoring news and current affairs programs, as well as pre-election debates, the main attention was paid to the time allotted by broadcasting companies to qualified electoral subjects and the coverage of their pre-election activities.

The subject of the observation was also the coverage by the broadcaster of the activities of political subjects that were not qualified electoral subjects, but participated in the elections.

The results of the monitoring provided information on the time allotted directly or indirectly to electoral subjects in the news programs. In the case of the directly allotted time, cases are analyzed when the electoral subject or candidate directly speaks or participates in the program. And in the case of the time allotted indirectly, the time allotted by the broadcaster to the electoral subject or the candidate and his/her supporters is analyzed.

In the monitoring results, information was also examined from a gender point of view, in particular, the total time allotted by individual broadcasters to women and men politicians in the framework of news programs.

In the pre-election period of Georgian parliamentary midterm elections in 2019, the Commission published two media monitoring reports[57].

During the reporting period, the Commission focused on several key issues:

- **Registration of so-called technical candidates by qualified electoral subjects;**
- **Increase of the limit of free political / pre-election advertising by broadcasters;**
- **Publication of public opinion polls by violation of the rules;**
- **Participation of members of political unions in programs hosted on broadcasting networks;**
- **Electoral candidates in non-political programs;**
- **Provision of pre-election debates by broadcasters.**

In case of non-fulfillment of the obligations by broadcasters in accordance with the applicable legislation, in the absence of objective circumstances, the Communications Commission studied each specific issue and took measures provided for by law.

In the pre-election period of Georgian parliamentary midterm elections of 2019, the Commission drew up five protocols on administrative offenses for violating the rules of publishing public opinion polls.

[57] http://gncc.ge/ge/regulation/broadcasting/elections/shualeduri-archevnebi-2019

Legal content

In the field of intellectual property and copyright protection, the Communications Commission, within its competence, has been actively working with stakeholders and interested organizations for many years.

The Commission actually managed to completely clear services of the broadcasters and cable companies of illegal and pirated content (intellectual property). The Commission's crucial role in preventing the distribution of illegal content was noted in a letter of thanks received from American film studios. In the same letter, American film studios asked the Commission for help to clear the Internet of illegal content as well. The commission started the cleansing process of the Internet space from pirated content more than a year ago.

As a result of monitoring, the Communications Commission periodically provides Internet providers with a list of websites that host illegal content (films and TV series) and asks them to take appropriate measures based on "the regulations on the provision of services and consumer protection in electronic communications field".

It is important to take measures in a timely manner, since posting audiovisual content on the Internet by violating copyrights causes serious financial damage for companies that have purchased this content and legally offer it to their customers. In order to solve this problem and clear the Internet space from illegal content, the Communications Commission is actively collaborating with all stakeholders so that the content posted on the websites gradually becomes completely legal.

Package of Amendments to the Law of Georgia on Broadcasting

Georgia has an obligation to comply with EU Directive 2010/13/EU[58] on Audiovisual Media Services in accordance with the Association Agreement. In order to fulfill this obligation, the Communications Commission worked on the package of amendments to the Law of Georgia on Broadcasting with the experts invited by the European Commission and the EBRD. The Commission submitted the package of amendments to the Parliament of Georgia on December 28, 2018, but the law-making process has not been initiated yet. The European Bank for Reconstruction and Development (EBRD) participated in the drafting of the amendments, along with international companies such as Grant Thornton, Analysys Mason and Pierstone. Jean-François Furnémont, the Belgian media expert who has served for many years as the chairman of the Belgian media Regulatory Authority and the chairman of the European Platform for Regulatory Authorities (EPRA), also worked with the Commission on the package of amendments, funded by the European Commission.

According to the current legislation of Georgia on Broadcasting, violations related to hate speech are considered only within the self-regulatory bodies and the decisions made within the framework of the broadcasters' self-regulation mechanism are not subject to appeal. According to the report of European experts, Georgian legislation does not comply with the European directive, since such an important issue as hate speech must be regulated by the State Agency, in particular, the Communications Commission.

The recommendations of European experts were forwarded to both broadcasters and non-governmental organizations working in the field of media. In view of the feedback received from broadcasters and NGOs, as well as to increase the effectiveness of the self-regulatory mechanism itself, the Commission left the discussion of hate speech issues in the proposed package to the self-regulatory bodies, which contradicts the European directive.

Correspondingly, according to the bill submitted to the Parliament today, the issues of hate speech still remain within the competence of the self-regulatory body of broadcasters. The decision of the Commission to leave the issues related to hate speech within the framework of self-regulation is an important precondition for increasing the efficiency of the self-regulation mechanism in Georgia. However, as noted above, this decision of the Commission contradicts the European Directive, which directly urges the states to regulate hate speech.

It should be noted that according to the information kept with the Commission, in the last 5 years, only 10 complaints related to hate speech have been filed with the self-regulatory mechanisms of broadcasters, which also indicates the inefficiency of the mechanism.

[58] The Directive 2010/13 / EC of the European Parliament and the Council of 10 March 2010 on the coordination of certain rules regarding the provision of audiovisual media services in accordance to the laws, regulations or administrative acts of member states

Changes to the legislation in the field of electronic communications

The 19-month twinning project "Supporting the Georgian National Communications Commission (GNCC) in developing of its electronic communications regulatory framework and operational capacities in line with EU regulatory framework" has been successfully completed. Within the framework of the project, 35 documents have been prepared, envisaging gradual approximation of the Georgian legislation with the EU directives and regulations. The twinning project has facilitated process of compliance of Georgian telecommunications legislative framework with the EU regulatory framework, which will ensure a competitive environment for all market players in the Georgian electronic communications sector.

As part of the project, guidelines have been developed that provide practical legislative recommendations and ensure implementation of the best practices of the European Union. Draft resolutions on approval of public consultation rules and approval of general permits have been developed, as well as draft amendments to the "Regulations on the rules of for the provision of services and protection of consumer rights". A draft resolution of the Government of Georgia regarding the placement of radio equipment in the market was submitted to the Ministry of Economy and Sustainable Development of Georgia.

Based on the amendments to the Law of Georgia on Electronic Communications, within the framework of the twinning project, the following drafts were developed:

- The draft resolution on the approval of procedures and rules for conducting public consultations;
- The draft resolution on approval of a general permit;
- The draft amendments to the Resolution No 3 of the Georgian National Communications Commission of March 17, 2006 on the approval of Regulations on rules for the provision of services and consumer protection in the field of electronic communications; The draft resolution of the Government of Georgia - "Technical Regulation on Radio Equipment" in accordance with the harmonization of the laws of the Member States regarding the placement of radio equipment on the market and the repeal of Directive 1999 / 5 / EC in accordance with Directive 53 / EU Directive 53 / EC of 16 April 2014;
- The three-year action plan for Internet management and network security.

Also, a draft amendment to the "Regulations on Rules for provision of electronic communications services and consumer protection" was prepared, regarding the basic conditions for the provision of international roaming services, customer awareness, network management, alternative offers, avoiding "bill shock" and fees.

The twinning project consisted of six components, including:

- Improving the regulatory framework of the Commission;
- Promoting the development of fixed and wireless broadband services;
- Identification of relevant markets and operators with significant market power;
- Improving the frequency spectrum assignment mechanism;
- Internet management and network security;
- National / international roaming regulations.

The project was funded by the European Union. The main partner from the European Union was the Communications Regulatory Authority of the Republic of Lithuania, and the co-partners were the Ministry of Economy and Energy of the Federal Republic of Germany and the Office of Electronic Communications of the Republic of Poland.

Telecom and telecom ready infrastructure sharing draft law

In order to develop broadband infrastructure and promote competition in the market, the Communications Commission, together with international partners, has developed Telecom and Telecom Ready Infrastructure sharing draft law. The project was implemented with the support of the World Bank, the European Bank for Reconstruction and Development (EBRD) and the European Union.

Telecom and telecom ready infrastructure sharing law facilitates cooperation between different sectors, including energy, water supply or transportation. The synergistic effect of this collaboration will ultimately provide consumers with high-quality services at affordable prices.

Based on this goal, the Communications Commission, with the support of the World Bank, adopting the experiences of Portugal, Poland and Lithuania, drafted a bill in 2019. It should be noted that it was the experience gained by the Portuguese Regulatory Commission that formed the basis of the European directive. The purpose of the bill is to promote the development and construction of high-speed electronic communications networks, which is possible both through the sharing existing physical infrastructure, and by reducing the cost of building new infrastructure. It should be noted that sharing physical infrastructure potentially leads to a reduction of total costs by 15-30%. This is, mainly possible by avoiding investment into the duplicated infrastructure that subsequently reduces capital costs by about 60%.

Telecommunications operators, as well as stakeholders were actively involved in the project development process. The Communications Commission has already submitted the document to the Ministry of Economy and Sustainable Development of Georgia.

Communications Commission - Chair of EaPeReg

Since 2015, during 2019, the Commission was the chair of EaPeReg (an independent platform for the Eastern Partnership Electronic Communications Regulator) for the second time. The Communications Commission headed the network together with the Latvian regulatory authority.

During 2019, under the chairmanship of the Commission, working meetings were successfully held on the following topics: 5G ecosystem - standards, directions, auctions and challenges, as well as issues related to the introduction of RLAH[59] and national roaming.

The Communications Commission, with the participation of the Eastern Partnership (EaPeReg) and the EU Electronic Communications Regulatory Authority (BEREC) carried out a two-day conference in Tbilisi. In the history of the organization, the chairmen of 19 regulatory commissions met for the first time in Georgia. At the two-day meeting, challenges and future plans in the field of electronic communications were discussed. The conference was attended by Jeremy Godfrey, Chairman of the Body of European Regulators for Electronic Communications.

Representatives of the leading European countries discussed the strategy of introducing 5th generation (5G) mobile internet technology, the rules for issuing licenses and announcing auctions, and outlined future plans. This issue is especially important, as 5G is a completely new technology, the implementation of which Georgia plans together with leading European countries, and in this regard, it holds leading positions.

For its part, the Communications Commission shared its experience with the representatives of the regulatory bodies of the Eastern Partnership member states on introduction and implementation of the Internet quality monitoring.
In addition, this year a joint summit of 4 independent platforms of electronic communications regulatory bodies (BEREC, EMERG, EaPeReg, REGULATEL[60]) was carried out with the participation of the Commission, where the Commission made a presentation on the Internetization of mountainous regions of Georgia and the Commission's role in this project.

At the summit, the chairmen of BEREC and EaPeReg of 2019 signed a Memorandum of Cooperation, which includes participation of BEREC and EaPeReg in annual meetings, discussion of strategic issues and agreement on further cooperation, as well as joint working groups and sharing of information.
With the direct participation of the Communications Commission, a memorandum of cooperation has been developed between the ITU and EaPeReg, the main purpose of which is to conduct joint events. The chairmanship of the Commission during 2019 was rated with the highest score by the European Commission and EaPeReg.

[59] RLAH - Roam Like At Home
[60] REGULATEL - Association of Electronic Communications Regulators of Latin Countries
[61] The Irish Electronic Communications Regulatory Authority (ComReg), the Chair of BEREC 2019 and the Commission, the Chairman of EsPeReg 2019.

International activities

- Within the framework of the EaPeReg network “Spectrum Expert Working Group (SEWG)”, meetings were held in Minsk and Kishinev, which were attended by experts from 15 different countries. The meetings gave the Commission the opportunity to develop a working version of the International Coordination Agreement project regarding to the technical specifications in the border regions of 700 MHz and 3.4-3.8 GHz, which will contribute to efficient and rapid technological development while modernizing wireless access to cellular communications networks. The main issues of the group activities are the implementation of mobile communication networks based on LTE technologies, as well as the introduction of digital television and digital dividends. When discussing coordination issues, the goal of the group is to develop effective mechanisms. SEWG actively works on the implementation of modern (5G) communication networks and the development of a future introduction strategy.

- Sergo Shavgulidze, the member of the Advisory Board of the Communications Commission, was elected for a second four-year term as the Vice-Chairman of the study group 5 (SG5 ITU-R) of the International Telecommunication Union (ITU). ITU-R study groups operating during the period between assemblies are formed at world radiocommunication assemblies. Their purpose is to develop draft recommendations, which are subsequently reviewed and approved by ITU Member States. ITU-R SG5 studies terrestrial services, in particular systems and networks for fixed, mobile, radiodetermination, amateur and amateur-satellite services.

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