ANNUAL REPORT

2018

საქართველოს კომუნიკაციების ეროვნული კომისია
GEORGIAN NATIONAL COMMUNICATIONS COMMISSION

ANNUAL REPORT OF THE GEORGIAN NATIONAL COMMUNICATIONS COMMISSION

2018

CONTENT

Kakha Bekauri - Chairman of the Georgian National Communications Commission

The year 2018 was proved to be fruitful and loaded with interesting challenges, achievements and success for the telecommunications field.

First of all, I would like to focus on the main indicators of market success and development. Dynamics of recent years illustrates that telecommunications market is developing drastically, which is essential for the rapid development of this field. These dynamics continued in 2018 and were noticeable in the revenues. Namely, revenues received by the authorized undertakings in the field of electronic communications last year amounted to 1,237 million GEL whereas in 2017 the amount equaled 1,220 million GEL. Besides the fact that revenues of companies operating in the electronic communications field are dynamically increasing year-by-year, it is especially important to notice, that the number of fixed broadband internet subscribers is growing. In 2017 the rate of penetration at the mentioned market was 66.4% and in 2018 this figure increased up to 73.6%. This indicator is the exact measuring tool to identify how intensively the electronic communications market is growing and developing on annual basis.

An interesting trend is observed in TV advertising revenues. In the first quarter of 2019, compared with the similar period in 2018, the 8% growth was reported at the TV-advertising market. In the first quarter of 2019, the broadcasters' revenues equaled to 14,288,379 GEL whereas in 2018, this number was 13,393,523 Gel. As for advertising revenues, in 2018 broadcasters received 83,845,826.48 GEL compared with 84,087,810.68 GEL in 2017. TV advertising revenues are not constantly increasing and are more or less at the same level. However, having the stable situation on the Georgian broadcasting market is worth noting. It also needs to be taken into consideration that, according to recent research, a similar situation is reported in 27 European countries based on the fact, that in the era of modern technologies, digital media is developing on everyday basis and advertising money is diverted from traditional media to the digital media. Talking this trend into consideration, I believe, that all broadcasters should face new challenges and develop digital platforms.

2018 was interesting, full of innovations and challenges for the Commission. Introducing the internet quality monitoring system was one of the significant projects worth emphasizing, provided that this project affects each citizen and ensures quality internet service for them. The Commission started working on this system in the beginning of 2018 and as a result of efficient work, from March 20, 2019 residential subscribers were provided the simple, one click instrument which enables them to measure the speed and quality parameters of fixed internet service and possibility to check to what extent the ISP fulfills the terms and conditions envisaged by the agreement. The internet quality monitoring system enables all subscribers to check whether they receive the service commensurate with the paid amount at any convenient time and in case of incompliance, the Commission shall apply measures envisaged by legislation thus strictly protecting users' rights. The activities of the Commission are focused on protecting the rights of users of telecommunications services and the interests of our society. The Commission shall continue to make active and considerable steps in this direction.

The year 2018 was indeed exceptional for the commission. Our organization acquired new function conferred by legislative changes and a very significant one for the country, namely, the development of Media Literacy. I can proudly state that in one year we achieved impressive results. To be more specific, last year, based on the European experience and best practices, the Media Literacy strategy and the action plan have been approved, the department of Media Literacy Development was created, which shall work on the issues related to the development of Media Literacy in our society. In addition, also to meet the same challenge of developing Media Literacy, the Non-entrepreneurial (non-commercial) Legal Entity Media Academy was established by the Commission. Its main objective is to provide special capacity building possibilities for the media, journalists, producers and media managers.

In 2019 five significant projects shall be implemented to promote the development of Media Literacy within Georgian society. I would like to take this opportunity to emphasize the project which was very successful right from the start. The Worldwide acclaimed Finnish book series "Hello Ruby", translated and published in 25 other languages, was published in Georgian language. Within a short period of time, the commission welcomed Ms. Linda Liukas to Georgia, the author of the abovementioned Finnish book series. Ms. Liukas was named by Forbes, as one of top 50 women in the technologies sphere and recognized by the European Commission as the "Digital

Champion". During her visit Ms. Liukas provided training for more than 60 teachers and trainers. Through active involvement and close cooperation with the Ministry of Education, and within the scope of the Ministry reform, public school of 3rd and 4th grades will study basics of computer sciences using "Hello Ruby" books from September, which is a significant milestone and success. Additionally, this book will be part of compulsory curriculum in two private schools of Tbilisi. I would like to express words of gratitude towards the Ministry of Education and Science and, personally thank the Minister, for his efficient and productive cooperation. In 2019 all the projects concerning the development of media literacy among the adolescents will be implemented in cooperation with the Ministry.

With regards to the Media Academy, it will be operating in three directions: Media School, Media Critic and Media Lab. The Media School shall offer media representatives short and long-term capacity building courses. Its main objective is to assist media in overcoming its current challenges of the modern and dynamic media environment with the view of following the trends existing in the world. With this purpose, in 2018 the American media manager Mitch Semel visited Georgia and provided a two-day master class for 50 media managers. In addition together with Mr. Semel, we conducted several trainings, which were attended by both national and regional media representatives. We plan to be even more active in the direction of capacity building in the future.

I would also like to mention about the Media Critic platform, which, on the one hand, will assist journalists and producers in their professional development whereas, and on the other hand, it shall help residential subscribers to differentiate between high and low quality media products. It is a challenge of next year to create and launch a high quality professional media critic platform, thus Media Academy and our team are actively working in this direction.

Another challenge for 2019 is the Media Lab – the laboratory, which shall promote support and funding of digital media startups. This will be the place where start-uppers with interesting and innovative ideas for the development of digital media will be supported, funded and provided assistance for the implementation of the projects.

Last year proved to be extremely productive in terms of fixed and wholesale market liberalization. I am proud and fully confident with the revolutionary decisions we made in this respect. Liberalization of the fixed market in the field of electronic communications is the most relevant, efficient and necessary pre-condition for creating the competitive environment, providing high quality telecommunications services and protecting the interests of residential subscribers.

In 2018 based on the Commission decision and active work of our team, wholesale internet service expenditures of small and medium-size operators decreased by 8 times. The decision made by the commission is unprecedented and entered into force in 2019. I am sure that this decision will support the development of small and medium-size businesses, what will eventually be beneficial for the market and the customers to get high quality internet at a more accessible and competitive prices in conditions of increased competition.

In 2018 another essential decision on the wholesale access tariffs was made, as a result of which tariff to global internet resources halved. In addition, the process continued in 2019 and on the basis of the decision made in May, the wholesale tariff of global internet was reduced at record rate - from 32 to 9 GEL.

A key decision was made in the direction of liberalization of mobile and fixed telephone wholesale markets. Interconnection rates of mobile and fixed services were calculated based on LRIC (long run incremental cost) model, according to which FTRs and MTRs decreased four fold, the decision envisaged relevant glide path. Upper marginal rate was set on interconnection services for the companies with significant market power, which were reduced from 3.5 Tetri to 0.75 Tetri for the mobile network, whereas for the fixed network from 2 Tetri to 0.75 Tetri. All the decisions that have been made with the vision of liberalization of the wholesale market are aimed towards making the market healthier, increasing competition and strengthening SMEs. As it was already mentioned, the final aim of these decisions is to increase quality of services and reduce prices, which, as a whole, serves to protect residential subscriber rights.

In terms of mobile market liberalization, challenge for the Commission in 2019 is adopting rules/regulations for MVNO (mobile virtual network operator) access, which is an essential precondition for the promotion of competition in the field. MVNOs entering the market, will increase competition substantially. After the adoption of rules and regulations, MVNOs shall be able to get access to existing mobile network operator infrastructure more easily. Entrance of MVNOs on the market will increase competition for mobile services, which shall be the guarantee of competition and stable prices for a shorter period, while for a relatively longer-term period, it shall promote price decrease. These days there is not enough competition at the telecommunications market on mobile voice services and one of the priorities for me, as the chairman of the Commission, is to address this issue quickly, efficiently and for the benefit of the interests of users.

One more wide scale project and a great challenge of 2019 is the development of the strategy for the introduction and development of 5G technology and services. We started working on the strategy document last year. The whole world is actively working on introduction of 5G technology and we also have the ambition to ensure Georgia is constantly in the avant-garde of introducing new technologies. Therefore, the fact that Georgia is planning to introduce 5G in the same time frames as the developed European countries is something to be proud of. In May the Commission, in cooperation with the European Commission and Cecoforma, the contractor of the European Commission, arranged a meeting of Heads of EaPeReg (Eastern Partnership Electronic Communications Networks) Members and Advisers, as well as the 13th Plenary Meeting of EaPeReg and thematic Workshop on Regulatory Issues on 5G Ecosystem. BEREC Chair for 2019 attended the Meeting of Heads and the Plenary. The fact that Georgia once again was represented as the country with leading positions in this direction is of utmost importance. The given outcomes in respect with the international direction are the result of our efficient work.

At the end I would like to thank each employee for all those projects and achievements which we reported in 2018. These outcomes are indeed what our team is proud of. However, we do also realize the challenges ahead.

The field of telecommunications is developing day-by-day and rapid and efficient introduction of new technologies is one of the essential preconditions of the country's development. Therefore, the Commission – our team continues to support the development of telecom sector and I believe we will turn every challenge into a real outcome.

Media Literacy

From January 1, 2018, based on the amendments to the Law of Georgia on Broadcasting, news function of development of Media Literacy, was imposed on GNCC. With the view of developing Media Literacy in the country and raising awareness within the society, together with the British expert Martina Chapman[1], GNCC developed ML development strategy and the action plan encompassing EU experience, which shall be implemented four main directions.

First direction is the level of awareness about ML with the involvement of the public, parents and teachers, protecting against harmful developing their critical and creative methodology.

The ML Development Department was established at the Commission with this purpose working actively. For developing Media Literacy in 2019 the Commission will implement five significant projects which have been selected as a result of studying best practices of EU countries and assessing efficiency:

- "Adventures in Coding" and "Journey Inside the Computer" - a series of books "Hello Ruby" aims teaching the basics of computer sciences to primary school children and developing the skills of critical assessment and analysis among adolescent. This is the opportunity to use technologies through playing, imagination and fantasy. The book has been translated and published in 25 languages, including, English, German, French, Italian, Estonian and Japanese. "Hello Ruby" enjoys great popularity worldwide and in schools of New York and Europe it is the textbook of basics of programming. On the basis of the decision of the author, the Georgian National Communications Commission was awarded the license of publishing the series of Finnish books in the Georgian language. 3rd and 4th grade schoolchildren of selected 3 state and 2 private schools will study basics of programming with the world acclaimed book within the scope of the reform of the Ministry of Education from September 2019. The Finnish author of "Hello Ruby" is Linda Lukas was named among top 50 women operating in the sphere of technologies by Forbes.
- "Happy Onlife" – online application and the board game for adolescents designed with support of European Commission. The aim of the application is to ensure safe and responsible use of digital media through playing which helps children study and assess and analyze critically online content. The given application is regarded as one of the most efficient projects related with ML and adapted and available in 9 foreign languages. The Georgian version of the application will be developed within the scope of the project.
- The Economy of Media – the educational short-term course for primary school students to study the principles of digital media economy - the project is aimed at supporting the development of Media Literacy was recognized by the organization "Evens Foundation" as the best platform. The project aims at making sure that children study interactively how to select and use media means and, most importantly, obtain information about financial and economic aspects of media.
- Media Literacy competition for high school students – the aim of the project is to develop the skills of critical thinking, checking facts, analyzing and assessing among adolescents. Within the scope of the project, adolescents will have the opportunity to discover and analyze disseminated fake news, identify the source and define real facts.
- Nationwide Online Platform for supporting Media Literacy development, will unite various components of MLand be adapted to the needs of the target groups.

1 Martina Chapman is a British independent expert and consultant in the area of media literacy and digital technology. She was the one who laid the foundation of developing media literacy in Great Britain and Ireland. She designed the guidebook for the union of European regulators and the European platform of regulators on what media literacy should be like and how it should be supported and developed. Throughout many years she was operating in the field of broadcasting. Since 2013 she serves as the director, founder and consultant of "Mercury Insights". Besides, she is the consultant of the audio-visual observatory of Europe, Irish media regulator, Great Britain regulator and BBC. She is the member of the academy of Eurovision and an executive director of media literacy in BBC.

Media Academy

With the view of developing and supporting media literacy in the country the Commission established the non-entrepreneurial legal entity of media literacy “Media Academy” and appointed David Kakabadze[2] as its executive director.

“Media Academy” will be working on developing three significant components of media literacy which are related with the media, journalists, producers and media managers:

“The Media School” - provided that together with technological development residential subscriber behavior changes and classical media moves from using media products to utilizing multimedia, this creates great challenges for the media. The Media School will be working in respect with raising the level of knowledge and qualification of multimedia content through its short and long term courses for both beginning and operating managers, producers and journalists. In 2018 the Commission started a specialized course of the famous media manager for media representatives. By the invitation of the Commission, the American expert Mitch Semel[3] visited Georgia for two weeks and besides journalists, conducted training to the Commission employees. The training “Story Telling and Reporting in Social Media” was also held. Together with experienced trainers, the journalists and editors worked on developing multimedia products using modern technologies and effective ways of publishing on social platforms. Practical work included such specific issues as the strategy of reporting on various topics and audience analysis, such methods of storytelling which ensure high level of audience involvement in social media.

2 David Kakabadze – headed the Georgian service of “Radio Liberty” for 13 tears in Munich and Prague. Kakabadze also carried out pedagogical activities at Tbilisi State University and headed the Goethe Cabinet at the same university.
3 Mitch Semel – the American media expert, professor of Long Island University, for years headed CNN, CBSand Public Broadcasting Service.

MEDIA CRITIC

“Media Criticism” – will be the platform to support the journalists and producers to develop professionally. The online space shall provide high quality, professional media criticism platform. On the other hand, media criticism will serve as the guide for the residential subscriber to identify what kind of media product is being used.

MEDIA LAB

“Media Lab” – the laboratory which will facilitate supporting and funding startups in digital media. The start-uppers who will develop interesting projects in respect with digital media will be given the opportunity to get funding at the media lab and implement interesting projects.

Big Data

The “Big Data” project will play one of principle roles in developing the media laboratory which will start practical activities in 2019. To implement this project, the Commission started its preparatory activities more than a year ago. Data collection and processing methods were designed. ICT indicators were developed which are significant for the analysis and assessment of telecom market development. The second stage is in progress which implies identification of trends and indicators for various fields which themselves are significant for economic development. In respect with the given project, the International Telecommunications Union (ITU) expressed its full support to the Commission and together with a special working group of the United Nations, got actively involved in project implementation both financially and in terms of providing expert support.

Quality of Service monitoring system

With the view of protecting the interests of the users, the Georgian National Communications Commission developed the mechanism of internet quality control by means of which any user is given the opportunity to measure the speed and quality of fixed internet, check to what extent the quality of provided internet corresponds with the terms and conditions envisaged by the agreement concluded between a subscriber and a provider company. The internet quality monitoring system enables both the user and GNCC to observe whether the obligations of ISPs towards subscribers are met properly. In case of violation, the Commission shall apply measures define by law.

To ensure improvement of the existing situation on the fixed internet market and make sure that quality of internet is adequate to the price paid by the user, the communications Commission carried out active work during one year - adopted a resolution on the basis of which quality indicators of internet service were defined and methodological rules of inspecting them were set. All interested parties were involved in the mentioned process. With the view of ensuring respective quality of internet, new obligations were imposed on the companies which envisaged bringing the agreements with subscribers in compliance with the resolution.

With the view of ensuring credibility and preciseness of control, the Commission cooperates with the American company “Visualware”. The quality of internet is checked by means of their equipment. This will enable the Commission to measure 5 parameters of fixed internet at the same time: download speed, upload speed, packet loss, Jitter and latency.

In 2018 the Commission created the online platform for mobile telecommunications networks coverage analysis which will be publicly available for all citizens in 2019. Interested parties will be able to check the level of the signal/coverage of mobile telecommunications networks throughout Georgia via this tool, on a special map. Data will be available both in terms of particular operator and various technologies (GSM/UMTS/LTE), including, the possibility to check the minimum, medium and maximum speed by the subscriber.

Liberalization of mobile and fixed wholesale market

Wholesale internet service costs of small and medium sized operators is decreased by 7-8 times

In 2018 internet wholesale service expenditures of the small and medium size operators decreased by 7-8 times as a result of active operation of the Georgian National Communications Commission. With the view of improving the competitive environment on the fixed internet market, the Commission adopted new regulations which shall reduce the expenditure of wholesale internet service for small and medium size operators. The decision made by the Commission is unprecedented and, eventually, it will make better quality internet more available for the subscribers. On the basis of the decision made by the Commission on December 6, 2018, in order to promote competition on the retail fixed internet market, small and medium-size operators will be able to access the fiber-optic infrastructure of companies with significant market power (SMP) at a more accessible price. Also, operators are given the opportunity to enter such regions where currently only one large company is present. All this will give the population the opportunity to choose between several suppliers offering better terms and conditions suitable for them.

Besides, access to SMPs infrastructure must be provided on non-discriminatory basis. This obligation shall eliminate/limit the appearance of monopolies on the market and increase competition.

To achieve the mentioned goal, the Georgian National Communications Commission set the cost-oriented tariffs in cooperation with "Pricewaterhouse Coopers Advisory" (Slovakia Branch). The tariff set by the Commission will be the same for all operators at the wholesale market, which is the pre-condition of competition on the market.

The given regulation will enter into force on January 15, 2019.

New rate for Weighted Average Cost of Capital (WACC) was approved

In parallel with free access for liberalizing of wholesale market, WACC for telecommunications network services was approved. On the basis of the decision of November 22, 2018, the Commission defined the unified rate of the weighted average cost of capital ("WACC") for telecommunication networks services.

Principles of calculating the weighted average cost of capital for the mobile and fixed networks submitted by the consulting company "Pricewaterhouse Coopers Advisory" to the Commission are in full compliance with the best practice defined by the regulatory bodies of the European telecommunications sector. The Weighted Average Cost of Capital (WACC) for the mobile, fixed and Next Generation Access (NGA) network was defined at the rate of 14.95 percent.

Wholesale service tariffs for access to internet global resources halved

With the view of market liberalization, tariffs of wholesale services of access to internet global resources halved as a result of work of the Commission with authorized persons supplying wholesale services for access to internet global resources. The table illustrates offers of the largest service providers “Caucasus Online” and “Silknet”.

Capacity Mb/s	Before June 1, 2017 (GEL[4])	From June 1, 2017 (GEL)	From December 30, 2017 (GEL)	From August 1, 2018 „Caucasus Online“ (GEL)	From August 1, 2018 „Silknet“ (GEL)
1-50	32	28	19	17	18
51-100	32	27	18	16	17
101-200	31	26	17	15	16
201-500	30	25	16	14	15
501-2 000	29	23	15	13	14
2 001-10 000	29	22	14.5	12.5	-

Interconnection rates in the mobile and fixed network decreased four fold

On the basis of the decision N 684/19 of September 7, 2017, with the view of liberalization of mobile and fixed wholesale market, the Commission made a decision to reduce interconnection rates in mobile and fixed network by 4 times. Calculation of call termination in the mobile and fixed network was carried out according to the recommendation N2009/396/EC of March 7, 2009 of the European Commission. Interconnection rates calculated by the LRIC[5] model entered into force gradually.

The glide path to reduce the existing interconnection rate for the mobile network - 3.5 Tetri (tax inclusive) was approved:

Service of interconnection	From July 1, 2018	From January 1, 2019
Call origination, Tetri (tax excluding)	2.16	1.44
Call termination (tax excluding)	1.81	0.75

4 GEL – VAT excluded
5 LRIC –Long run Incremental cost

The glide path to reduce existing interconnection rate for the fixed network- 2 Tetri (tax inclusive) was approved:

Service of interconnection	From July 1, 2018	From January 1, 2019
Call origination at the local level, Tetri (Tax excluded)	1.04	0.38
Call origination at the transit level, Tetri (Tax excluded)	1.05	0.41
Call termination at the local level, Tetri (Tax excluded)	0.99	0.28
Call termination at the transit level, Tetri (Tax excluded)	1.01	0.32

Tariff Policy

Despite wholesale market liberalization and cheaper tariffs for mobile and fixed network, in 2018 the attempt to abuse their market position and increase prices was observed from the operators having significant market power. However, as a result of instant actions of the Commission, price increase plans were not implemented. At the beginning of 2018, “Magticom” announced more expansive mobile tariff plans. However, having assumed possible cross subsidization, the Commission started market analysis which forced “Magticom” to stop the change process.

With the view of maintaining proper tariff policy and protect the interests of users, the Georgian National Communications Commission assessed services offered by mobile operators within the governmental tender for mobile services. As a result of analysis it was concluded that “Magticom” and “Geocell” cross-subsidized services provided within this tender, therefore both companies were violating the law of Georgia on Electronic Communications.

Within the scope of investigating the issue, the Communications Commission requested from “Magticom” and “Geocell” (currently “Silknet”) the financial information including costs and revenues accounted for the services provided within the tender. As a result of analysis of the information submitted by companies, it was determined that within the scope of the tender the costs incurred significantly exceeded the revenues received from the service. According to the decision made by the Commission, a written warning was given to “Magticom” and “Geocell” due to the failure to comply with a specific obligation of accounting separation.

We hereby emphasized that on the basis of decisions N240/9 of May 21, 2010 and N26/9 of January 25, 2011 of the Georgian National Communications Commission, “Geocell” and “Magticom” were imposed the obligation not to pursue actions limiting competition and subsidizing tariff preferences at the expense of other residential subscribers.

Besides, the Commission detected violations within the scope of the so-called “FREEVOLUTION” package offered by Ltd “Veon Georgia”, the expenditures of which exceeded the revenues of the same packages by approximately four times. The Commission obliged the company to ensure compliance of the tariff imposed on mobile voice service with the requirement defined by the legislation of Georgia and the decision of the Commission.

Consolidation of fixed and mobile networks

The tendency of consolidation and convergence of fixed and mobile networks can be observed both in the whole world and Georgia. During recent years, mobile network operators became more interested in fixed internet services whereas ISPs did so in terms of mobile services.

In 2018, the Georgian National Communications Commission gave prior approval to Silknet to purchase the 100% share of Geocell and imposed whole range of responsibilities on the companies in order to protect the interests of residential subscribers and the market.

With the view of protecting the rights of residential subscribers, the Commission obliged the parties to inform the residential subscribers individually one month in advance about any changes, which might affect the terms and conditions of subscribers. As for the companies, they also have to inform the Georgian National Communications Commission one month in advance about the changes, so that the Commission has a reasonable time period for deciding on the necessity to study the issues and provide respective feedback.

Besides, taking into consideration the protection of rights of residential subscribers, the Commission imposed the obligation over companies not to restrict the freedom of choice of subscribers and to have the opportunity to received mobile or fixed electronic communication service at the reasonable, non-discriminative and accessible price, independent of any other services.

As for the wholesale service market, taking into consideration specific obligations imposed by the Commission, the parties will not be able to restrict competition at the mentioned market. To be more specific, they will not be able to worsen the price terms and conditions at the wholesale services market. As for the retail service market, acquisition of Geocell by “Silknet” is compatible with competition at this market.

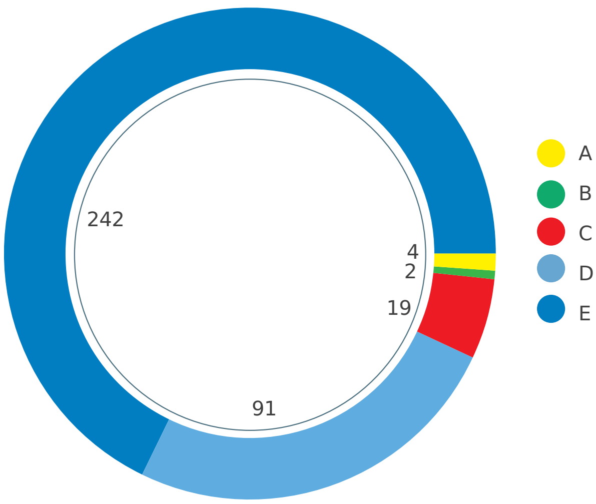
In 2017 “Silknet” acquired operational assets of the authorized company “Global Contact Consulting” for transit of broadcasting.

In 2016 “Magticom” acquired retail assets of ISP “Caucasus Online” whereas in 2017 it purchased assets of ISP “Delta Com” and operates under its own brand.

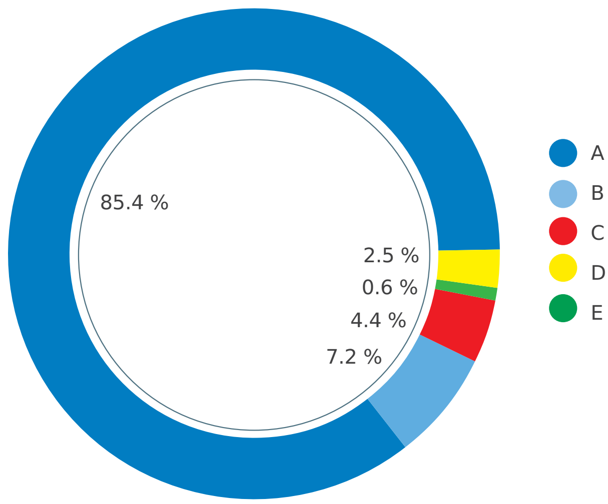
Development trends in the Field of Electronic Communications

In 2018, 358[6] authorized persons were registered in the field of electronic communications. Only 4 generated the revenue worth more than 100 million GEL in the field (Companies of A category) and the total revenues received by them reached 88.4% of overall revenue. As for the total revenue of the authorized persons who received less than 100,000 GEL in 2018, (242 persons of Category E), it amounted to 0.6 % of total revenues.

Number of entities operating in the field of electronic communications by segments

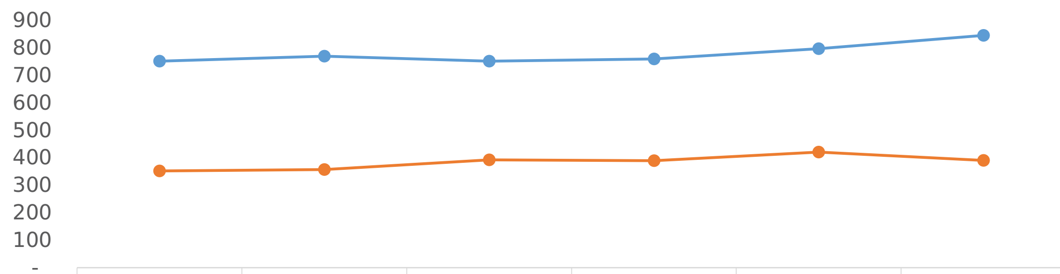


Revenue distribution of entities operating in the field of electronic communications by segments



The amount of revenues of authorized persons in electronic communications in 2018 equals 1.237 million Gel out of which the retail revenue amounted to 846 million GEL.

Revenues received by authorized persons in electronic communications (million GEL)



	2013	2014	2015	2016	2017	2018
Retail revenues	752	771	753	760	798	846
Other communication and non-communication revenues	353	358	394	390	422	391

6 The person who received any kind of revenues form electronic communications is considered to be an actor
7 Revenues in the report are given VAT and Excise Tax exclusive
8 Traditionally, the following categories are discussed:

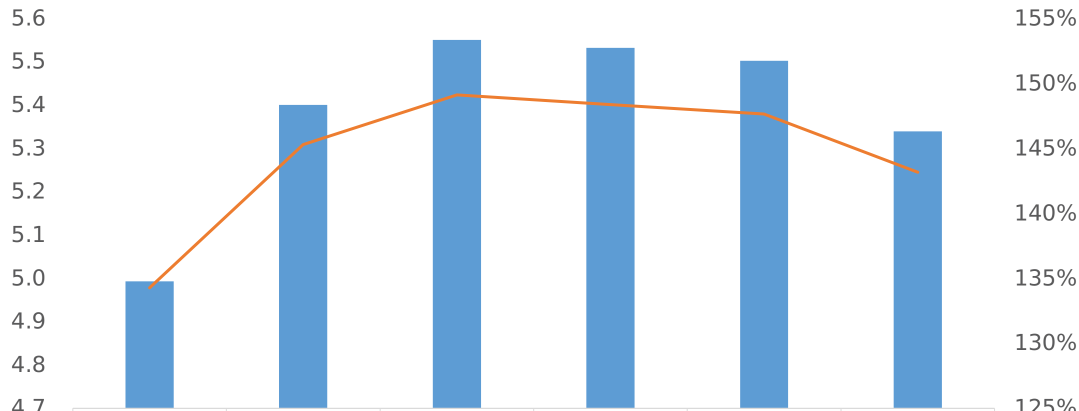
Category	Revenue received during the year
A	More of equal to 100 million GEL
B	From 10 million to 100 million GEL
C	From 1 million to 10 million GEL
D	From 100,000 GEL to 1 million GEL
E	Less than 100,000 GEL

Mobile communications

Penetration of mobile services in Georgia is high and amounts to 143%. To be more specific, one residential subscriber has more than one SIM card, which means that the residential subscriber is aware of the available offers and, uses the networks available for him/her for various services.

The number of mobile subscribers[9] at the end of 2018 (IV quarter) amounted to 5.3 M[10].

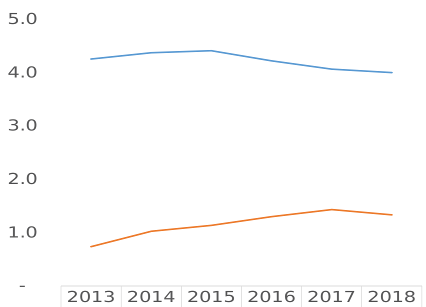
The number of mobile subscribers (Million) and penetration



	2013	2014	2015	2016	2017	2018
Subscribers	5.0	5.4	5.6	5.5	5.5	5.3
Penetration	134%	145%	149%	148%	148%	143%

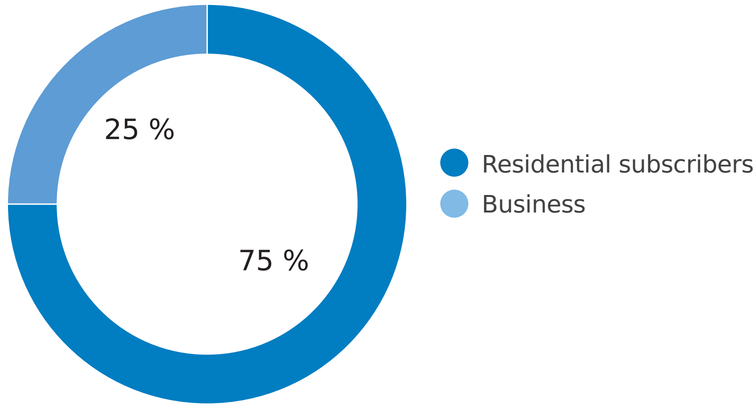
The number of business subscribers in the last quarter of 2018 reached 25 % of the total number of mobile subscribers, which overall equals to 1.333 million.

Number of subscribers (million)



	2013	2014	2015	2016	2017	2018
residential subsc.	4.3	4.4	4.4	4.2	4.1	4.0
businesses	0.7	1.0	1.1	1.3	1.4	1.3

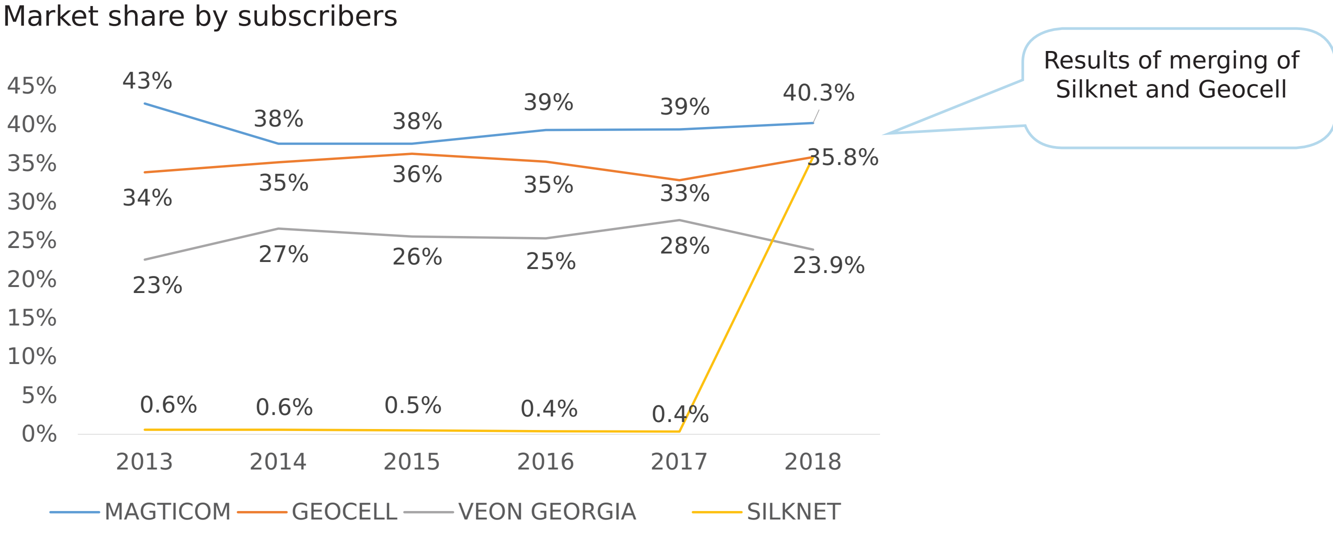
Division of subscribers



9 Subscriber - SIM card, which, during the corresponding period (month, quarter) have used company services at least once (made or received call, sent or received SMS/MMS), used internet or other value added service, or were charged a subscription fee
10 In 2018, due to billing system upgrades, some mobile operators updated subscriber databases which were incorrectly submitted

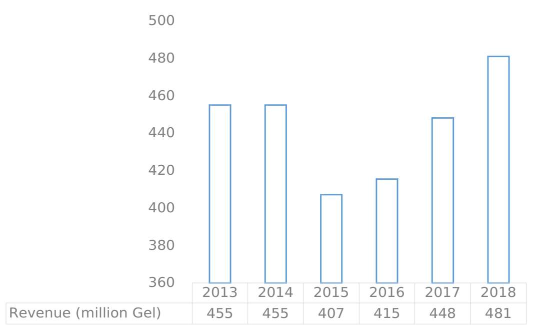
At the end of 2018, the market share of mobile operators by subscribers was as follows: “Magticom’s” market share increased and amounted to 40.3% whereas that of “Silknet”|Geocell”[11] and “Veon Georgia” was 35.8% and 23.9%, respectively.

Market share by subscribers

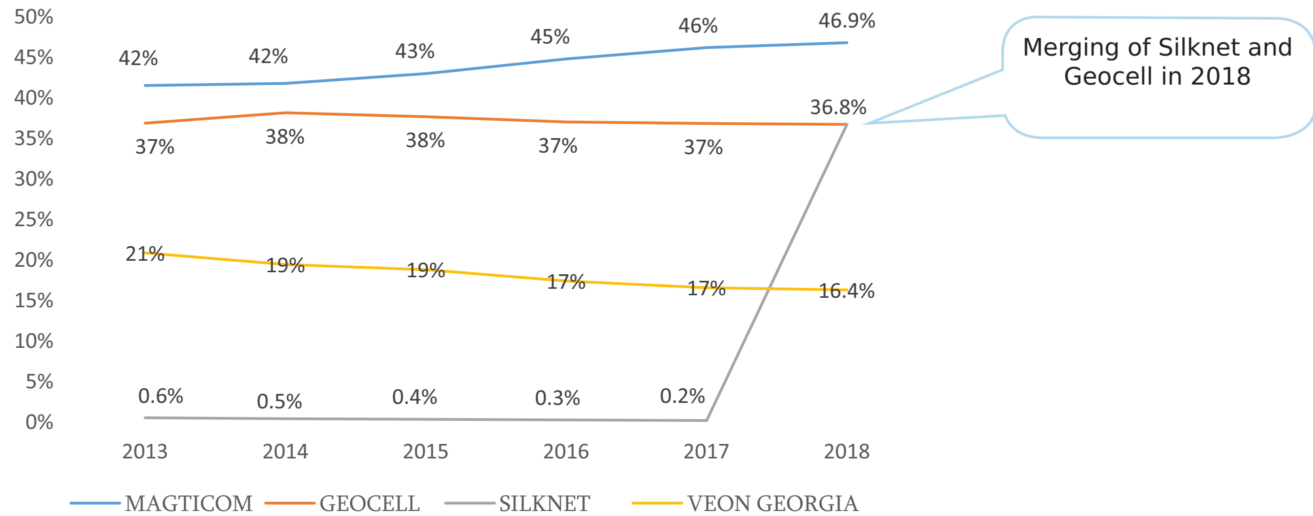


In 2018, retail revenues of mobile operators amounted to 481 million GEL, which exceeds the retail revenues received in 2017 by 7.3% (32.7 million GEL). In respect with retail revenues, the market share of “Magticom” was 46.9% whereas those of “Silknet|Geocell“ and “Veon Georgia” - 36.7% and 16.4%, respectively.

Retail revenue (million, GEL)



Market share by retail revenues



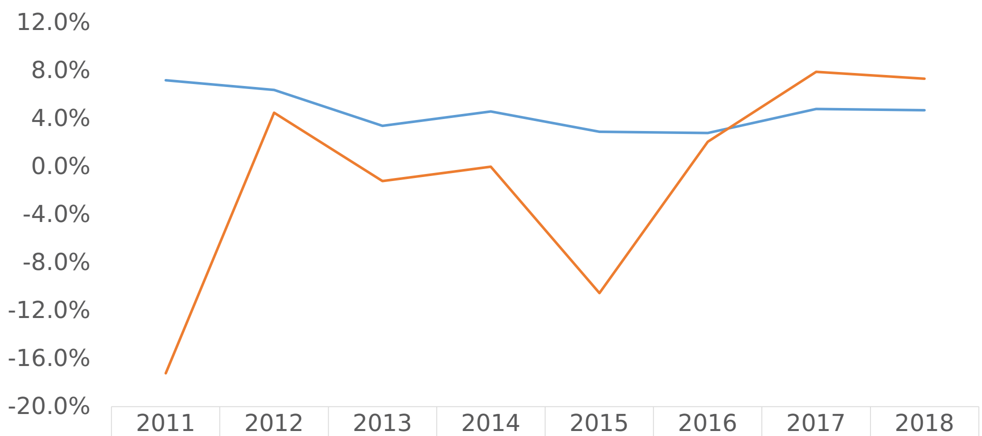
11 “Silknet” and “Geocell” merged at the end of 2018.

Mobile revenue in respect with GDP

The growth rate of mobile revenue in Georgia in 2017 and 2018 exceeds the growth rate of GDP[12], which is not in compliance with the global[13] trend, where from 2016 a decreasing trend is observed in mobile revenue at the background of the global GDP growth[14] whereas in Georgia, it is vice versa. The mentioned growth is partially caused by the abolition of the excise tax on mobile services. Substantial decrease of revenues in 2011, with strengthening positions of “Veon Georgia” at the market is related with intensifying competition.

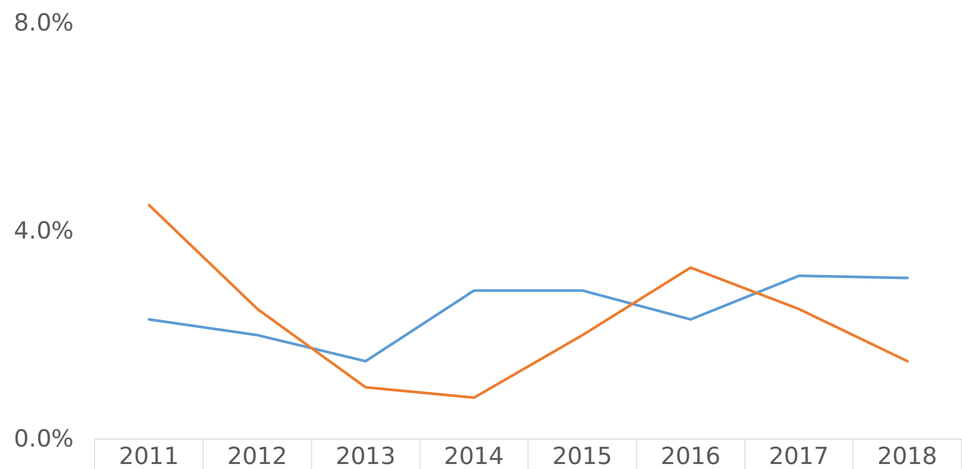
Decline in revenues in 2015 is caused by the decreased interconnection rates which were reduced from 0.05 Gel to 0.035 Gel. As a result, operators reduced the tariffs on mobile voice services.

Increase of mobile revenue against GDP growth



	2011	2012	2013	2014	2015	2016	2017	2018
GDP growth	7.2%	6.4%	3.4%	4.6%	2.9%	2.8%	4.8%	4.7%
Increase of mobile revenue	-17.2%	4.5%	-1.2%	0.002%	-10.5%	2.1%	7.9%	7.3%

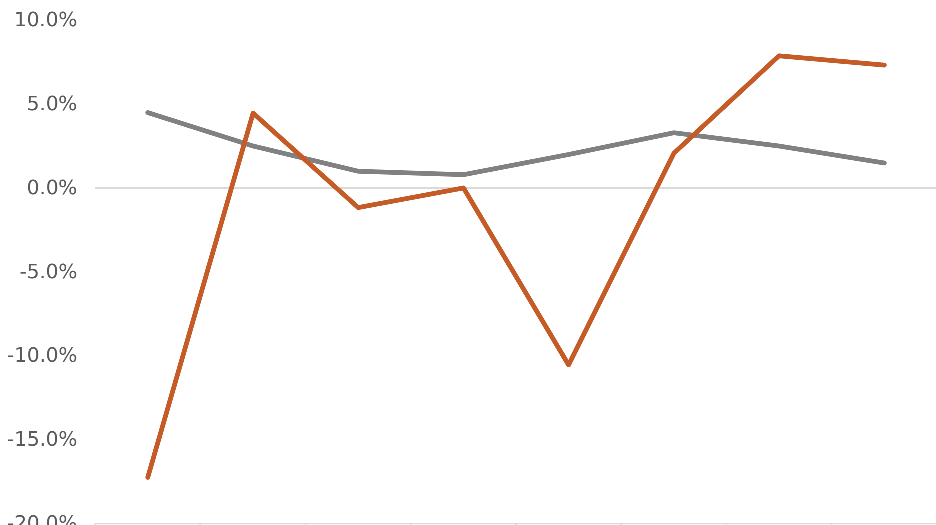
Global mobile revenue growth against global GDP growth



	2011	2012	2013	2014	2015	2016	2017	2018
GDP growth	2.3%	2%	1.5%	2.9%	2.9%	2.3%	3.1%	3.1%
Increase of mobile revenue	4.5%	2.5%	1%	0.8%	2.0%	3.3%	2.5%	1.5%

12 Source of data: National Statistics Office of Georgia
13 http://bit.ly/2vT07DK (www.gsmaintelligence.com)
14 http://bit.ly/2JxlpiG (data.worldbank.org)

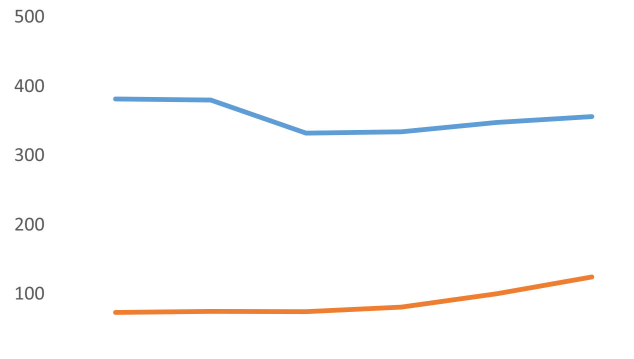
Mobile revenue increase globally and in Georgia



	2011	2012	2013	2014	2015	2016	2017	2018
Global growth of revenue	4.5%	2.5%	1.0%	0.8%	2.0%	3.3%	2.5%	1.5%
Revenue growth in Georgia	-17.2%	4.5%	-1.2%	0.002%	-10.5%	2.1%	7.9%	7.3%

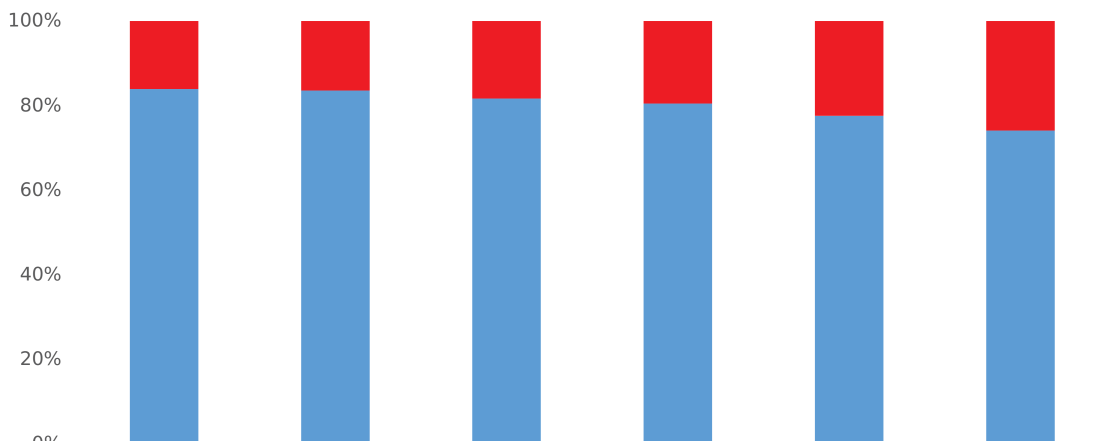
In 2018, 74 % (356 million) of mobile revenues were generated by the residential subscribers whereas 26% (125 million) was by the businesses. A stable growth tendency was observed in the revenues received from businesses from 2015.

Revenue by the type of subscriber (million)



	2013	2014	2015	2016	2017	2018
Residential subscribers	382	380	332	334	348	356
Business	73	75	75	81	100	125

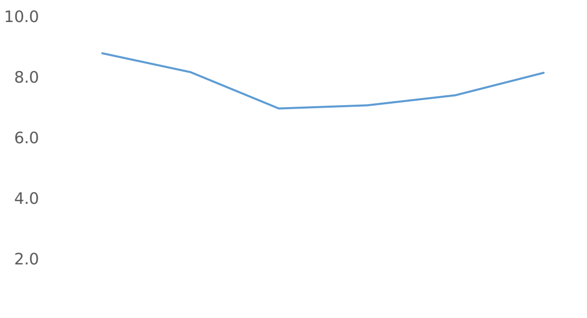
Revenue distribution by the type of subscribers



	2013	2014	2015	2016	2017	2018
Business	16%	16%	18%	20%	22%	26%
Residential subscribers	84%	84%	82%	80%	78%	74%

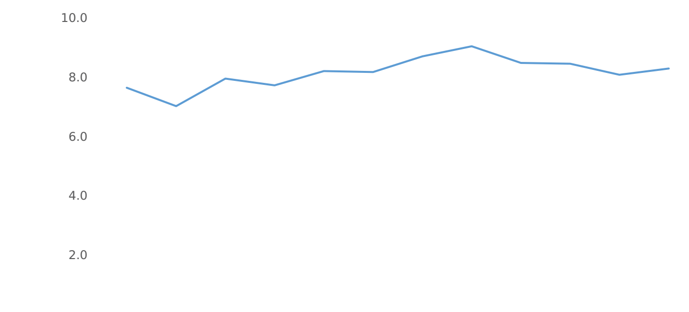
According to the data of 2018, during the month the ARPU[15] – Average Revenue per User (excluding VAT and excise tax) amounted to 8.2 Gel. Compared with 2017, this number increased by 0.80 GEL.

Average monthly ARPU by years



	2013	2014	2015	2016	2017	2018
ARPU	8.8	8.2	7.0	7.1	7.4	8.2

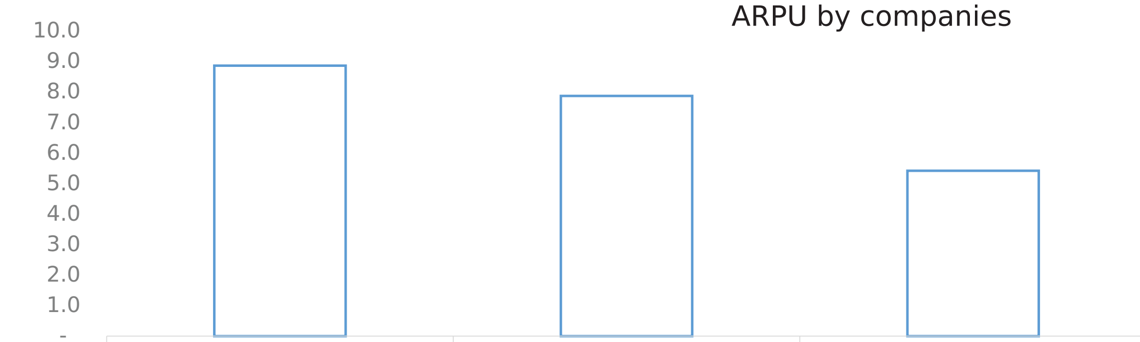
Average ARPU of 2018



	jan, 2018	feb, 2018	mar, 2018	apr, 2018	may, 2018	jun, 2018	jul, 2018	aug, 2018	sep, 2018	oct, 2018	nov, 2018	dec, 2018
Average ARPU	7.7	7.0	8.0	7.7	8.2	8.2	8.7	9.1	8.5	8.5	8.1	8.3

According to the data of IV quarter, the highest ARPU in respect with operators was reported by Magticom, followed by Silknet|Geocell whereas the smallest amount was spent on mobile connection by the subscribers of Veon Georgia.

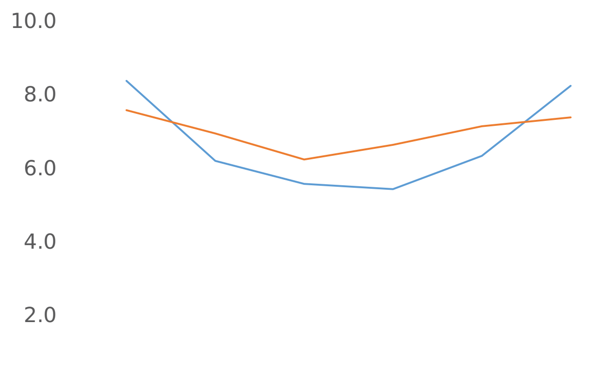
ARPU by companies



	MAGTICOM	SILKNET|GEOCELL	VEON GEORGIA
2018-Q4	8.9	7.9	5.4

ARPU by the type of subscribers

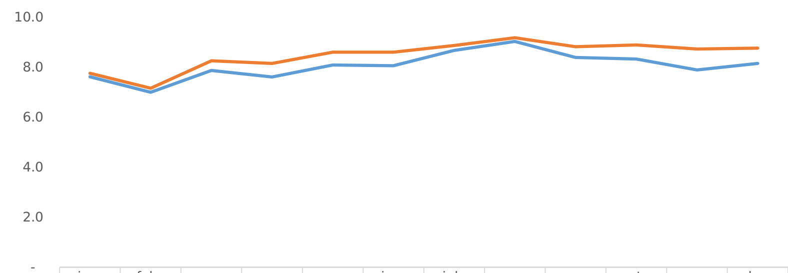
The ARPU of business subscribers in 2018 increased and for the first time in recent years exceeded the ARPU of residential subscribers, which is the result of stricter pricing regulations and improving the drawbacks related with the government tender for mobile communication services.



	2013	2014	2015	2016	2017	2018
Business	8.4	6.2	5.6	5.4	6.3	8.3
Residential subscr.	7.6	7.0	6.2	6.6	7.2	7.4

15 In the report - ARPU (Average Revenue per User) is shown excluding VAT and excise tax

2018 ARPU by the type of subscriber



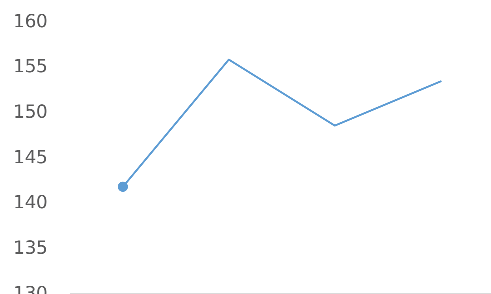
	jan, 2018	feb, 2018	mar, 2018	apr, 2018	may, 2018	jun, 2018	jul, 2018	aug, 2018	sep, 2018	oct, 2018	nov, 2018	dec, 2018
residential subsc.	7.6	7.0	7.9	7.6	8.1	8.1	8.7	9.0	8.4	8.3	7.9	8.2
business	7.8	7.2	8.3	8.2	8.6	8.6	8.9	9.2	8.8	8.9	8.7	8.8

In 2018 the total outgoing voice traffic amounted to 9.9 billion minutes. Compared with 2017, traffic increased by 2.7%. Respectively, the MOU[16] increased too. In the IV quarter of 2017 it amounted to 149 minutes and in IV quarter of 2018 this number increased to 153 minutes.

Voice traffic (billion minutes)

	2015	2016	2017	2018
Traffic	9.4	10.3	9.6	9.9

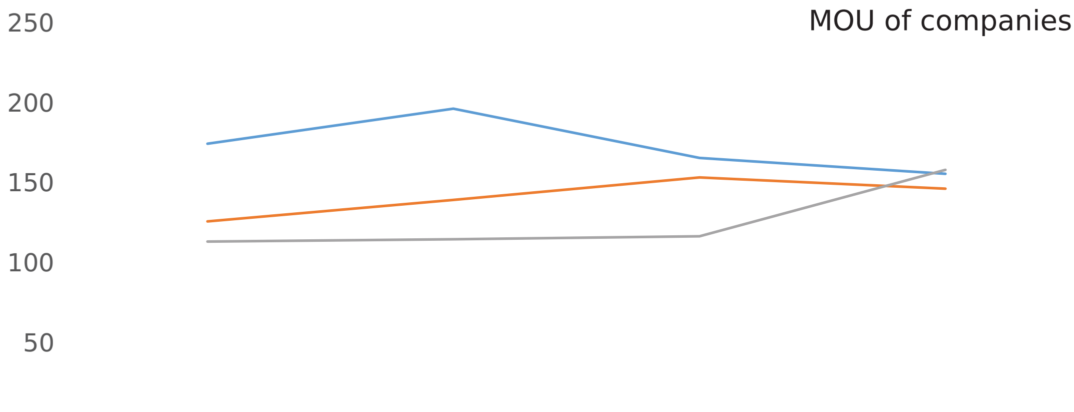
MOU



	2015	2016	2017	2018
MOU	142	156	149	153

In respect with mobile operators, the MOU data of IV quarter of 2018 are different: on average, the “Veon Georgia” subscribers talk the most which is due to relatively low tariffs offered by the company. This is followed by “Magticom” subscribers and those of Silknet|Geocell talk the least. Different from the previous periods, the amount of minutes used by subscribers of all three companies in 2018 is almost identical.

MOU of companies



	2015	2016	2017	2018
MAGTICOM	175	197	166	156
SILKNET|GEOCELL	126	140	154	147
VEON GEORGIA	114	115	117	159

16 MOU – Minutes of Use – average minutes used per subscriber per month (outgoing calls only)

Mobile internet

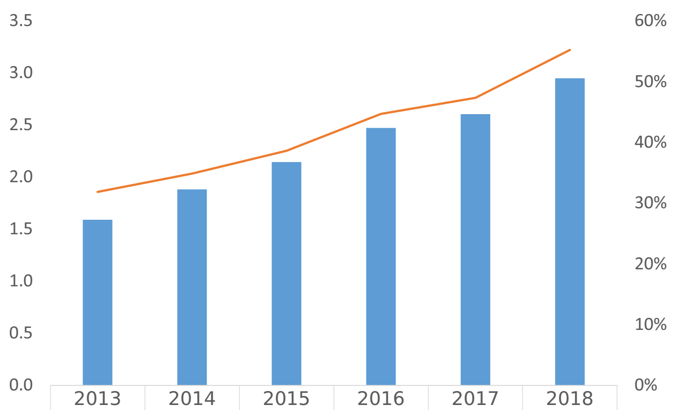
The number of users of mobile internet is increasing rapidly which is caused by several significant factors:

- Skills of using modern technologies are improved and young generation actively uses mobile internet;
- Both the number and share of smart phones among all types of mobile phones in the country increased;
- The demand on online access of information increased;
- Mobile user behavior constantly and dynamically changes in respect with telecommunications service use;
- More and more services move to online/digital environment which itself contributes to the higher consumption.

The number of mobile internet users is increasing significantly on annual basis – from 2013 to the end of 2018 the average annual growth rate of the mobile internet users reached 6 %. In the last quarter of 2018, 55.2% (2.95 million) of mobile network subscribers used mobile internet service.

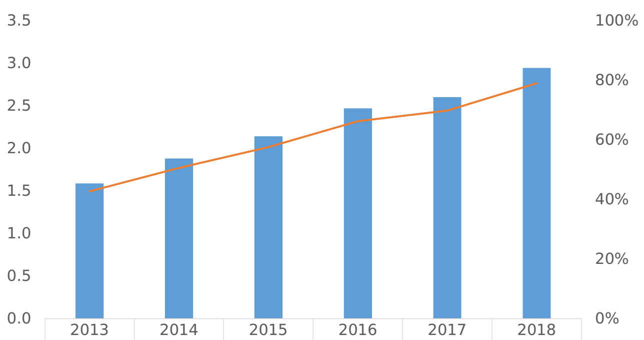
The indicator of mobile internet user density in respect with the population of Georgia is even higher and amounted to 79 % by the end of 2018.

Mobile internet users (million) and penetration in total mobile users



	2013	2014	2015	2016	2017	2018
Mob. internet users	1.6	1.9	2.1	2.5	2.6	2.9
Penetration	32%	35%	39%	45%	47%	55%

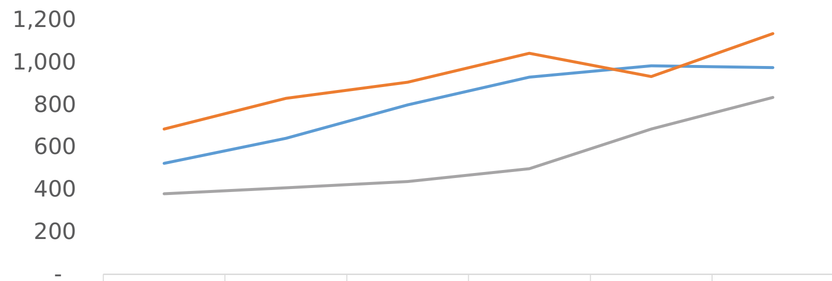
Penetration of mobile internet



	2013	2014	2015	2016	2017	2018
Mob. internet users	1.6	1.9	2.1	2.5	2.6	2.9
Penetration in Georgia	43%	51%	58%	66%	70%	79%

By the end of 2018, the highest number of mobile internet users was reported by “Silknet|Geocell“ -1.136 million, followed by Magticom - 976 thousand and “Veon Georgia” - 836 thousand.

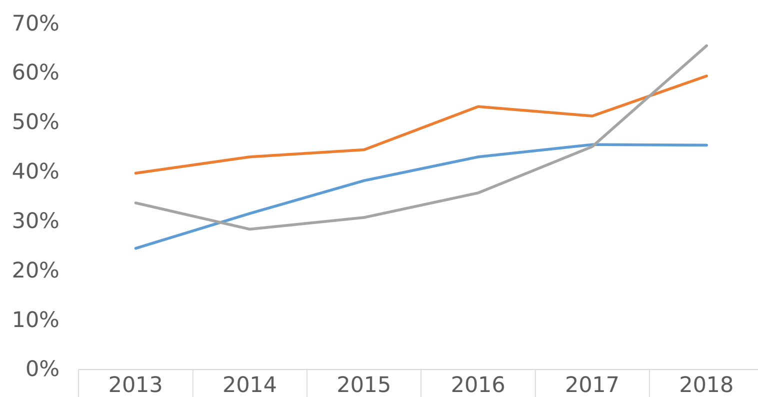
Mobile internet subscribers by company (thousand)



	2013	2014	2015	2016	2017	2018
MAGTICOM	524	643	799	931	985	976
SILKNET|GEOCELL	686	830	907	1,044	934	1,136
VEON GEORGIA	381	408	438	498	685	836

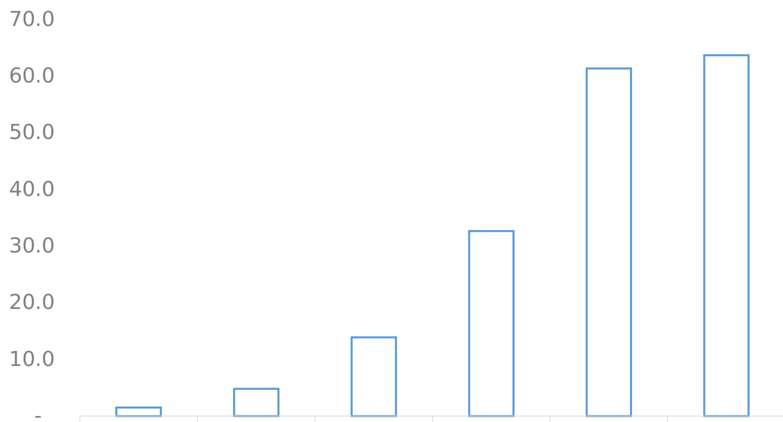
However, the share of mobile internet users in the total number of subscribers are different: “Veon Georgia” is at the first place with 66 % of its subscribers using mobile internet. Such a high indicator could be caused by the tariffs offered for mobile internet and the segment of users. According to the same data, Silknet/Geocell is second with 59 % and Magticom third - 45 %.

Mobile internet subscribers/users by company (thousand)



	2013	2014	2015	2016	2017	2018
MAGTICOM	25%	32%	38%	43%	46%	45%
SILKNET|GEOCELL	40%	43%	44%	53%	51%	59%
VEON GEORGIA	34%	28%	31%	36%	45%	66%

Mobile internet traffic (thousand Terabytes)

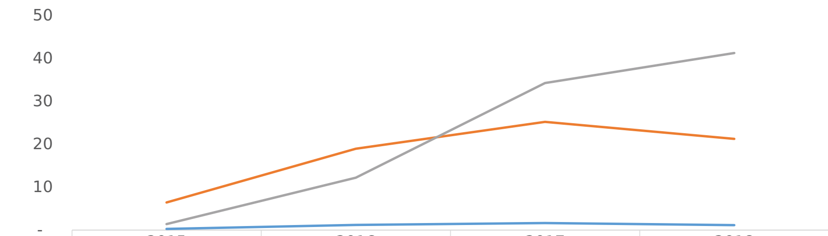


2013	2014	2015	2016	2017	2018
1.5	4.8	13.9	32.6	61.4	63.7

Throughout the last years mobile internet traffic has been increasing at the record speed. In 2018 subscribers of mobile internet used more than 63 thousand Terabytes of internet. This can be caused by the increased number of mobile internet users, the availability and the amount of new generation smartphones and the development of 4G service.

In 2015, together with the introduction of 4G technology, the amount of 2G and 3G internet traffic decreases. In 2018, 4G internet traffic already accounts for 65 % (41 thousand terabytes) of total mobile internet traffic.

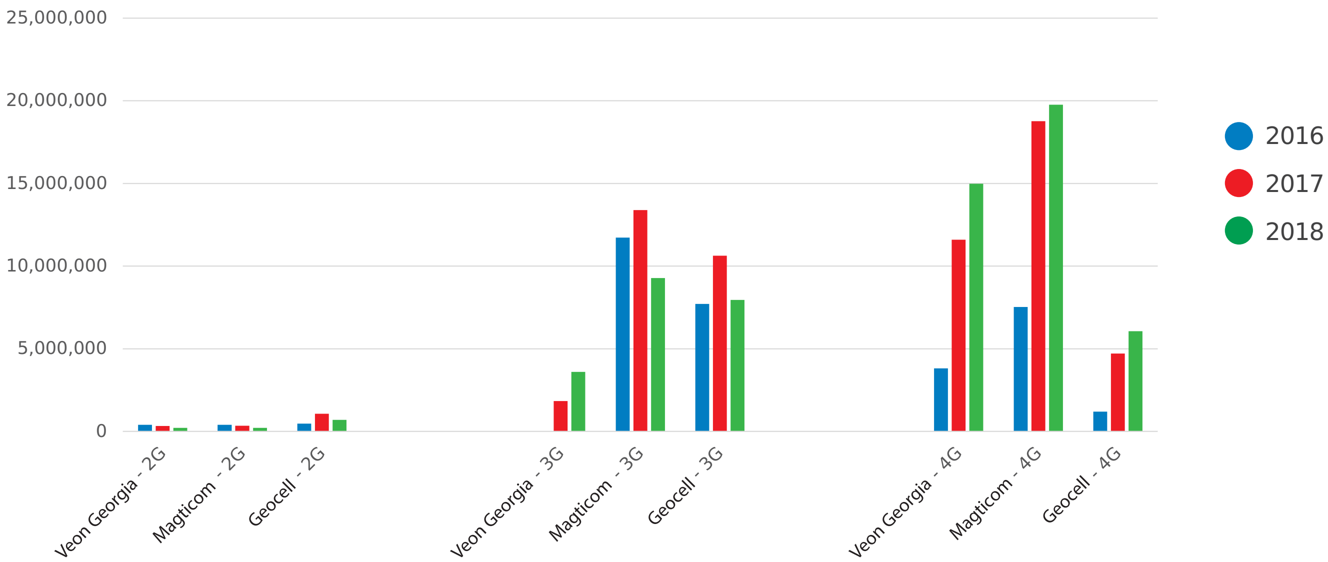
Internet traffic (thousand Terabytes)



	2015	2016	2017	2018
2G	0.3	1	2	1
3G	6	19	25	21
4G	1	12	34	41

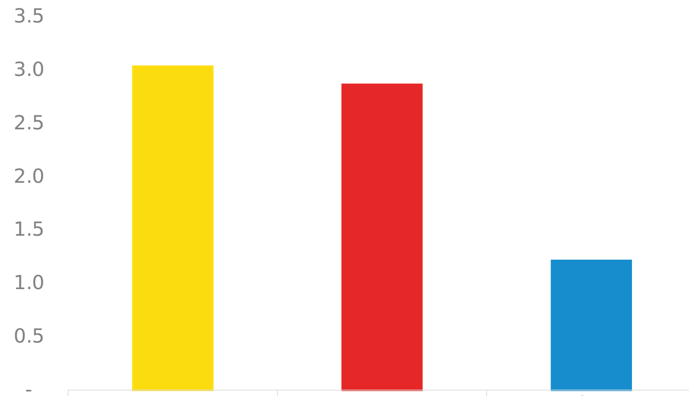
In 2018, similar to the previous period, increased internet traffic is again result of mainly 4G internet consumption. It is worth mentioning that together with the saturation of the mobile market, in 2018 the growth rate of mobile internet traffic declines. In 2018 distribution of internet traffic by technologies and operators was as follows:

Internet traffic by technologies and companies (terabit)



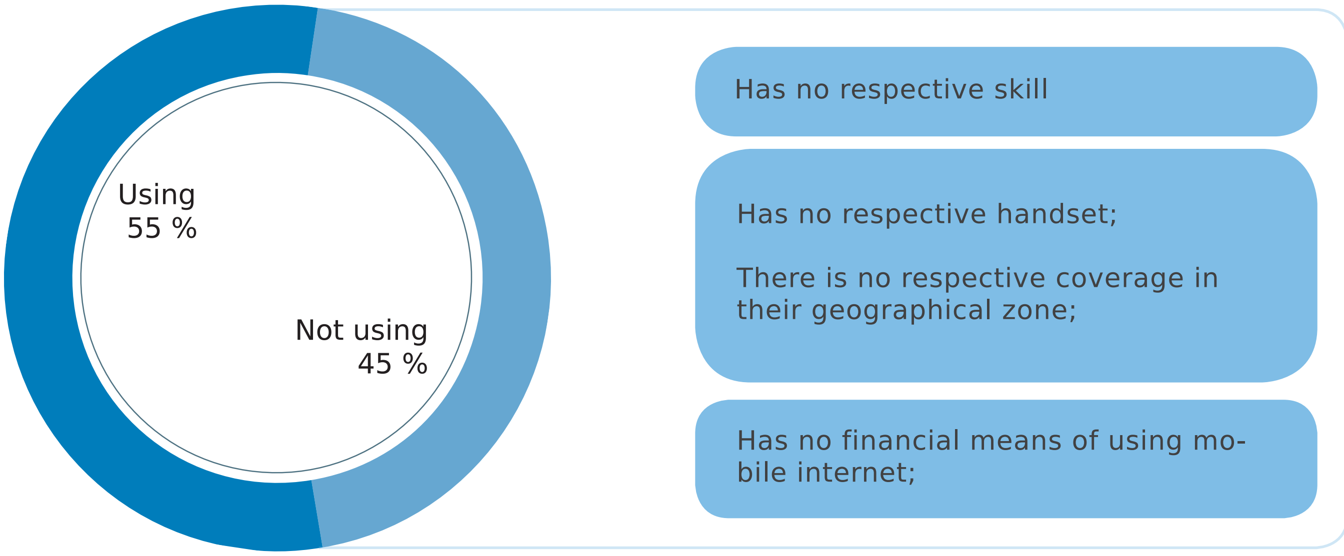
Average use of 4 G internet per month (GB)

"Veon Georgia" has the highest average monthly usage of mobile internet by 4G technology - 3 GB, followed by "Magticom - 2.9 GB and Silknet|Geocell – 1.2 GB.



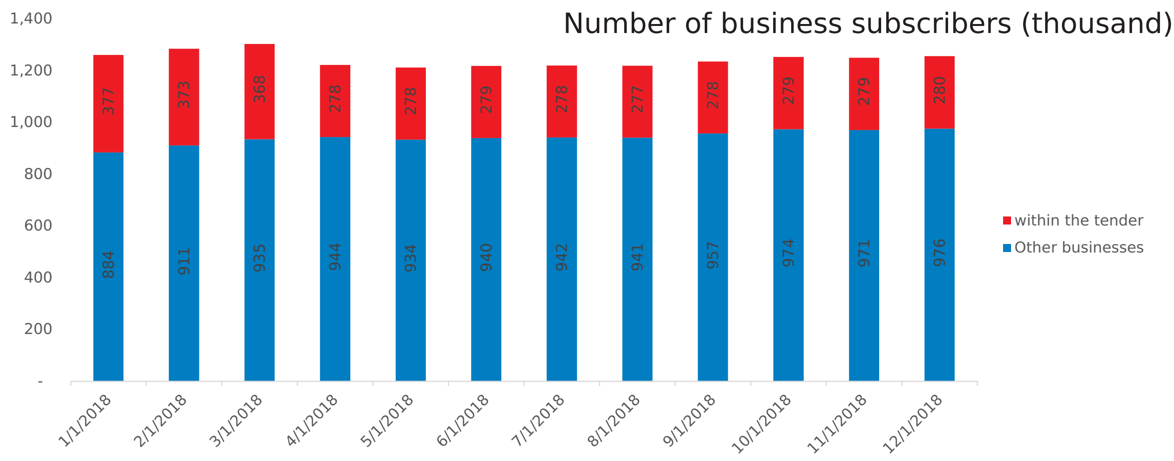
	VEON GEORGIA	MAGTICOM	SILKNET|GEOCELL
2018-Q4	3.0	2.9	1.2

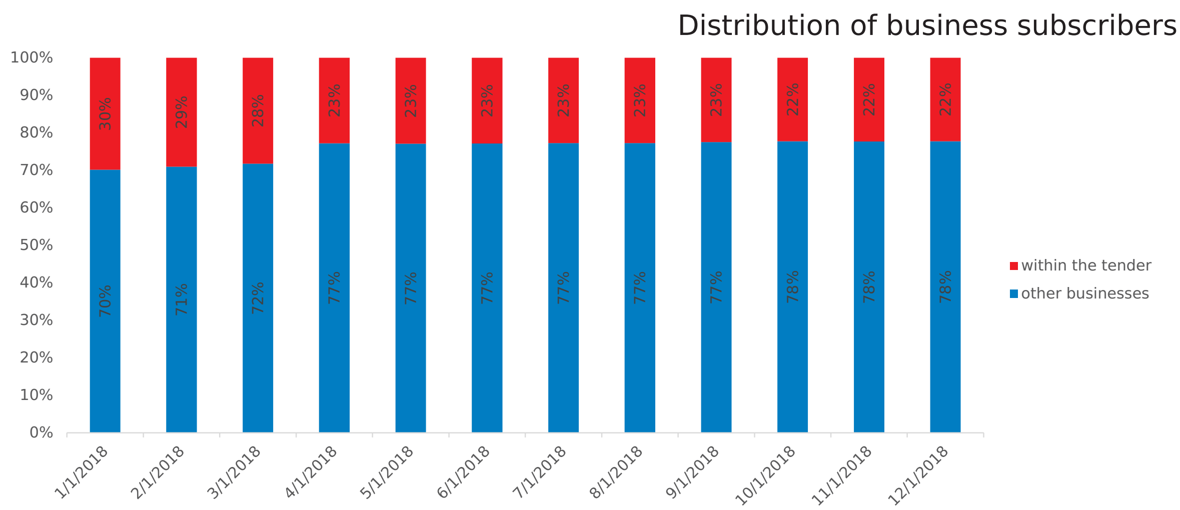
Despite the annual growth of users of mobile internet, there is a large number of subscribers which do not/cannot use mobile internet for a number of reasons.



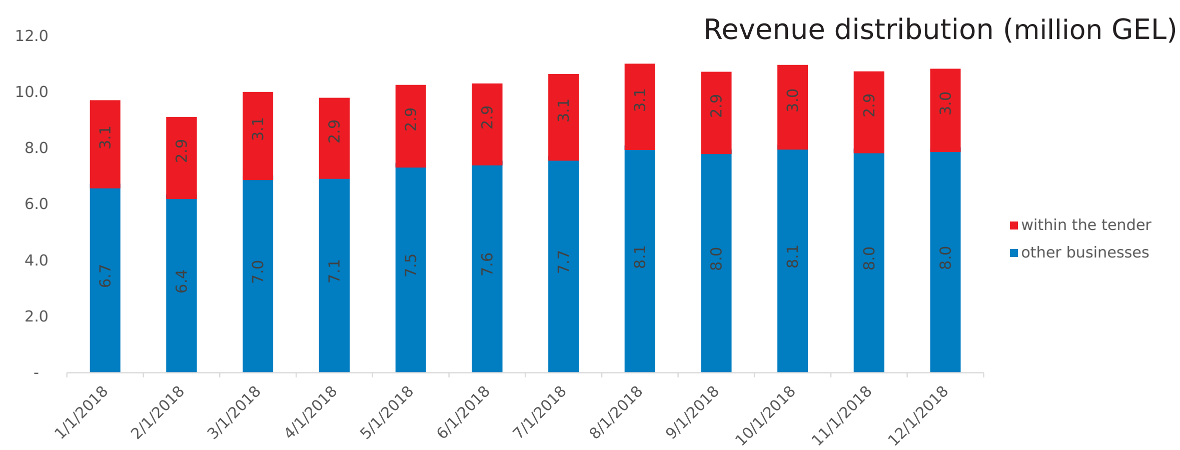
2018 data of the state consolidated tender

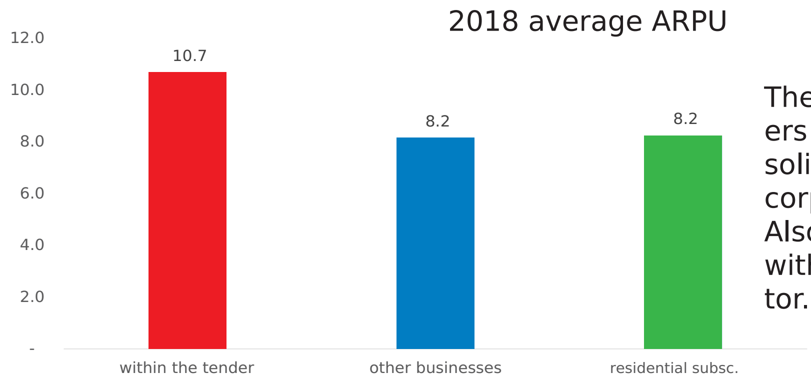
By the end of 2018, the number of active subscribers connected within the scope of state consolidated tender reached 280 000, which is 22 % of the total corporate subscribers.
At the beginning of 2018, the Commission determined that within the scope of consolidated tender, mobile service prices were set incorrectly and contradicted the law. Within the scope of the tender, as a result of making the rules of subscriber connection and pricing policy more stringent, tariffs changed, which was reflected in the number of subscribers within the scope of the tender and relevant residential subscriber behavior.





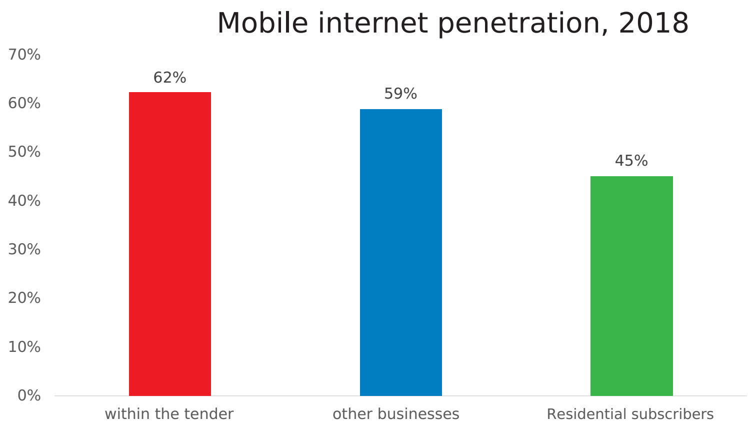
In 2018, out of the total revenue (125 million GEL) received form corporate subscribers, 36 million GEL were received from the subscribers connected within the scope of the consolidated tender.

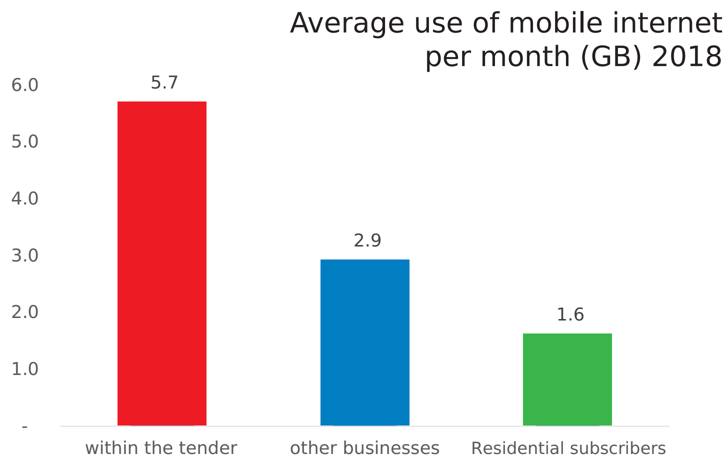




The monthly ARPU (10.7 GEL) of subscribers connected within the scope of the consolidated tender exceeds the ARPU of other corporate subscribers by 2 GEL on average. Also, there is a 2- GEL difference in respect with the residential subscriber ARPU indicator.

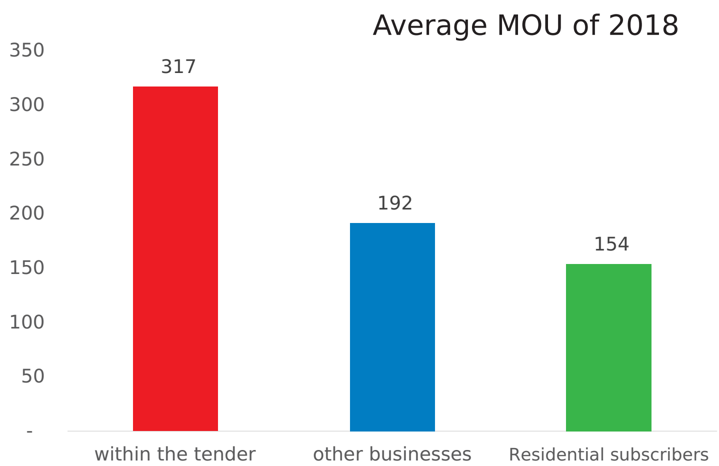
Mobile internet penetration among the subscribers connected within the scope of the governmental tender by the end of 2018, amounted to 62% whereas it reached 59 % for other subscribers. As for the residential subscribers, penetration is reported at 45%.





Subscribers connected within the scope of the tender, consume almost two times more mobile internet than other business subscribers, and three times more mobile internet than residential subscribers.

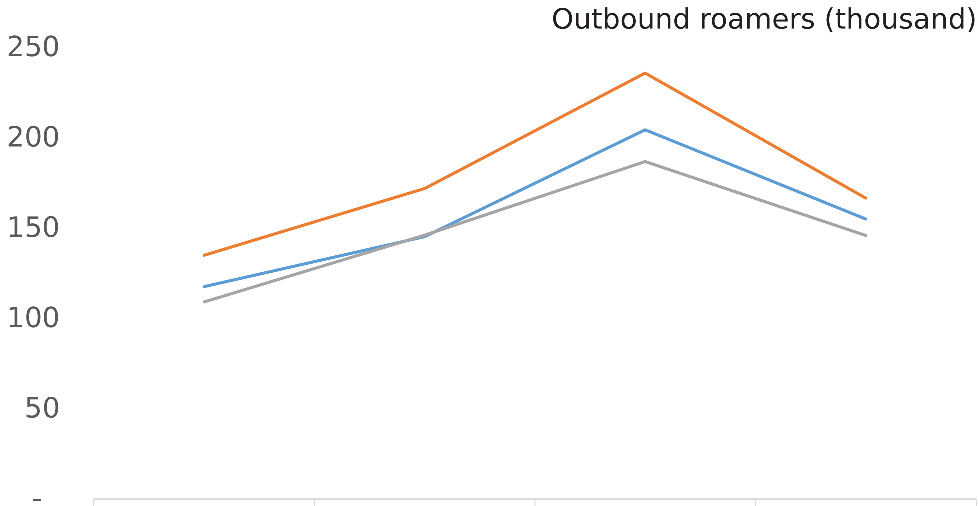
Subscribers connected within the scope of the consolidated tender use voice services the most. In 2018, on average, they consumed 317 minutes to mobile phone conversations compared with other business subscribers – 192 minutes and residential subscribers – 154 minutes.



Behavior of subscribers connected within the scope of tender significantly differs from the behavior of other types of subscribers. They use mobile services - voice and internet – more. Also, their average monthly expenses on mobile services is much higher compared with the expenditure of other subscribers.

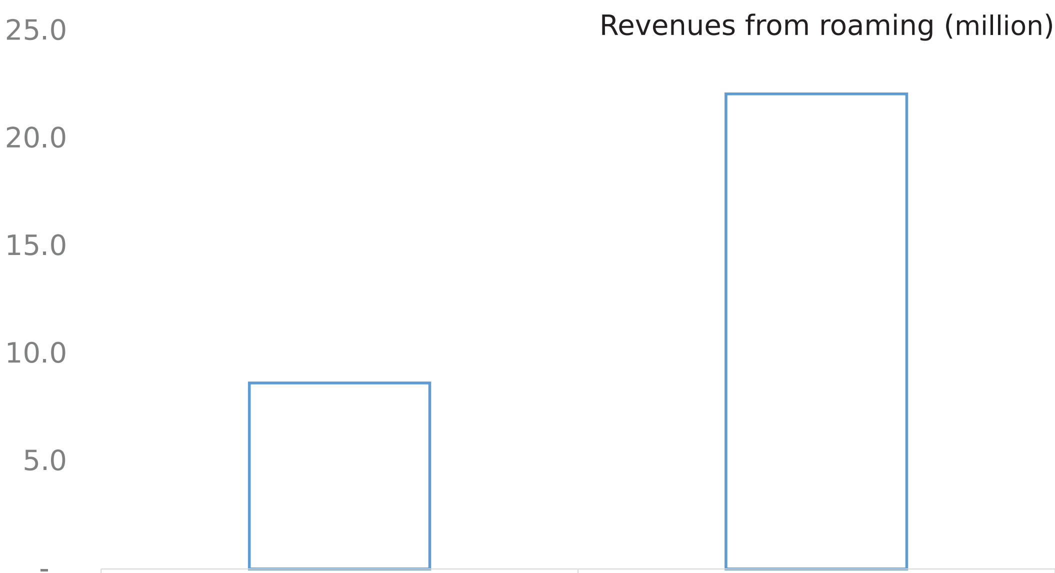
Roaming

Roaming service indicators are significantly dependent on the season. III quarter reports the most number of subscribers. Compared with 2017, in III quarter of 2018 a 21 %-decrease is observed in the number of outbound roamers. This is, presumably, caused by the high roaming service prices and availability of alternative services/means. With the view of minimizing the expenditure, subscribers use the OTT services, such as, Viber, WhatsUp and Facebook messenger. The use of OTT applications is available free of charge when connected to the Wi-Fi network, which these days is largely available at the airports, stations, transport, hotels, etc. Therefore, in case of the Wi-Fi network coverage during travelling, roaming services are not used at all.



	I Quarter	II Quarter	III Quarter	IV Quarter
2016	118	145	204	155
2017	135	172	236	167
2018	109	146	187	146

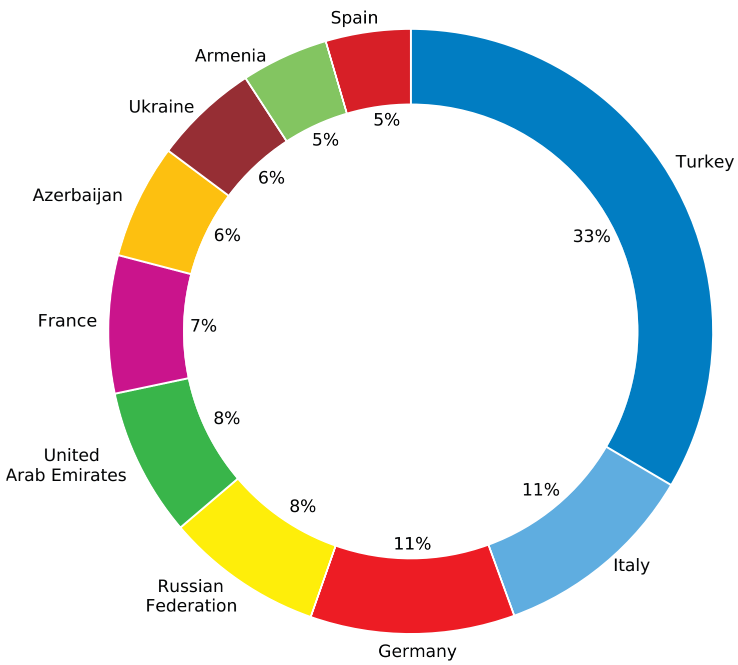
In the III quarter of 2018, during the busiest season, 3 % of subscribers used the roaming service. Overall, revenue from roaming services in 2018 reached 30.7 million GEL, which equals 6.4 % of total retail revenues.



	Outbound	Inbound
2018	8.6	22.1

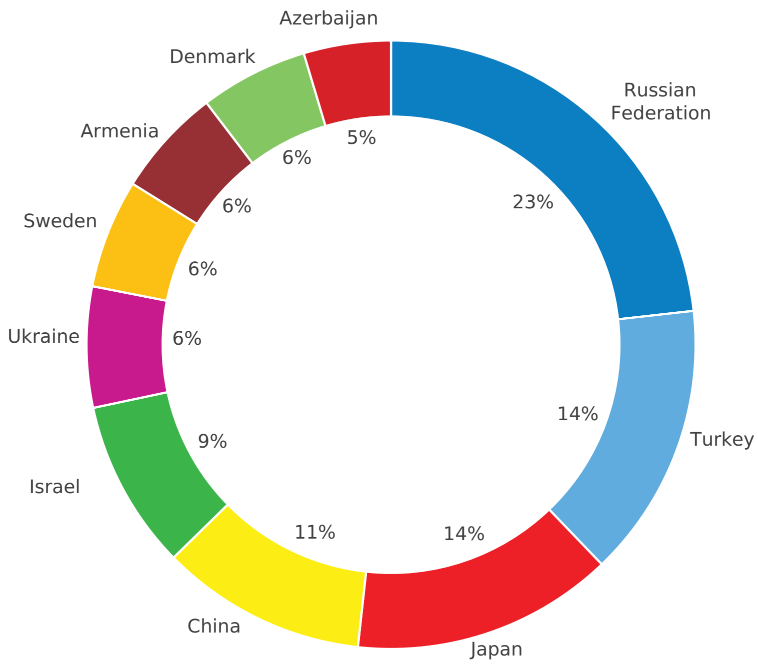
The most amount of money – 1.9 million GEL in 2018 – was spent on roaming services in Turkey by the outbound roamers, which could be caused by using Turkey, as a transit country, to the final destination. Except Turkey, majority of roamers were reported in the following countries: Italy, Germany, Russia, United Arab Emirates, France, Azerbaijan, Ukraine, Armenia and Spain.

10 countries for the roamers of Georgia (thousand GEL) in 2018



Inbound Roamers arriving from Russia, compared to other roamers spend the most on mobile services while being in Georgia - in 2018, 2.8 million GEL were spent. It is followed by Turkey, Japan, China, Israel, Ukraine, Sweden, Armenia, Denmark and Azerbaijan.

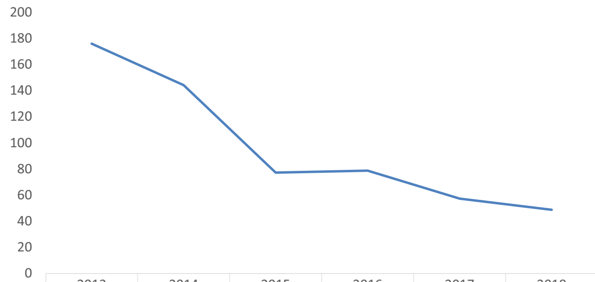
Inbound Roamers of 10 countries (thousand GEL)



Portability of mobile numbers

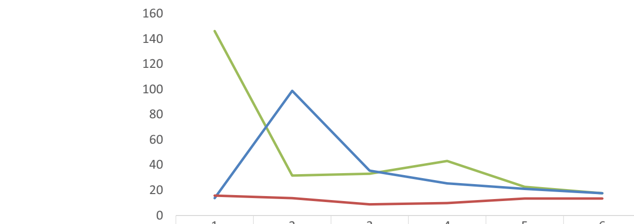
49 thousand numbers were ported between the mobile operator networks in 2018 which, compared with 2017 - this number is smaller by 8 thousand. It is worth mentioning that, for instance, in Ireland, where approximately the same number of subscribers is reported as in Georgia, throughout the year more than 300 thousand[17] subscribers use number portability services.

Ported numbers (thousand)



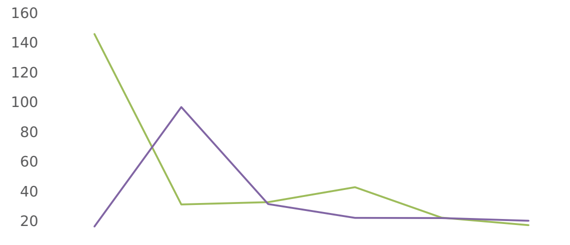
	2013	2014	2015	2016	2017	2018
Amount	176	144	77	79	57	49

The amount of ported back numbers (thousand)



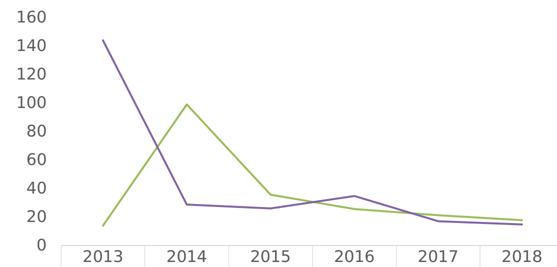
	1	2	3	4	5	6
MAGTICOM	146	32	33	43	23	18
SILKNET|GEOCELL	14	99	36	26	21	18
MOBITEL	16	14	9	10	14	14

Ported numbers: Magticom (thousand)



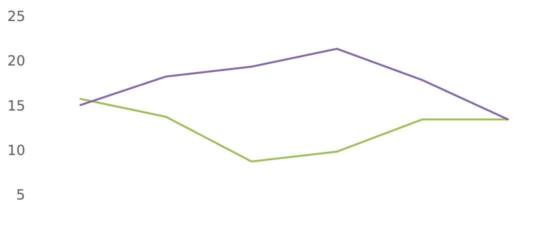
	2013	2014	2015	2016	2017	2018
Received	146	32	33	43	23	18
Ported out	17	97	32	23	22	21

The amount of ported numbers Silknet|Geocell (thousand)



	2013	2014	2015	2016	2017	2018
Received	14	99	36	26	21	18
Moved	144	29	26	35	17	15

The amount of ported numbers: Veon Georgia (thousand)



	2013	2014	2015	2016	2017	2018
Received	16	14	9	10	14	14
Moved	15	18	19	21	18	14

17 Source: 2017 annual report of the ComReg Irish telecom regulator

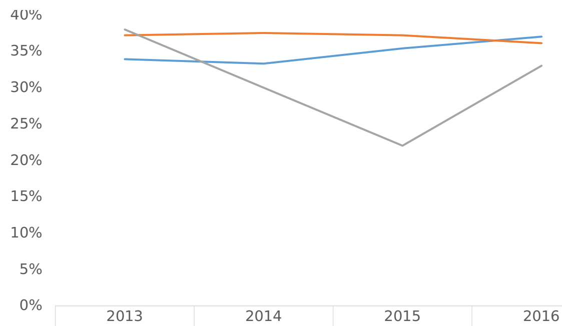
Mobile devices by manufacturer

Producer	Amount	%
Samsung	1,736,455	33.77%
Other	1,076,353	20.93%
Microsoft/Nokia	729,379	14.19%
Apple	665,475	12.94%
HUAWEI	502,646	9.78%
Lenovo	172,102	3.35%
LG	67,906	1.32%
Sony/Ericsson	67,201	1.31%
TCT	57,104	1.11%
HTC	43,356	0.84%
ZTE	23,500	0.46%

According to GSM association data, the EBITDA indicator trend of the telecommunications sector for developed countries is increasing whereas for the developing ones, it is decreasing.

The EBITDA indicator for the operators in Georgia is characterized by the increasing trend and by the end of 2016, the average EBITDA equals 33%.

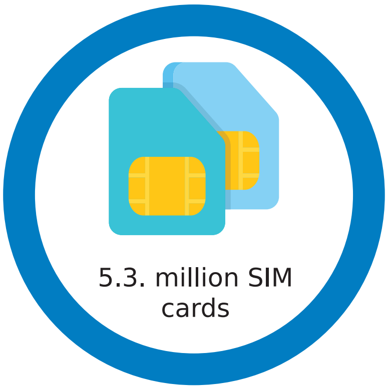
EBITDA Indicator



	2013	2014	2015	2016
Developed countries	34%	33%	35%	37%
Developing countries	37%	38%	37%	36%
Georgia	38%	30%	22%	33%

Significant Indicators of Mobile Communications of 2018:

Penetration of mobile subscribers of Georgia equals 143 %

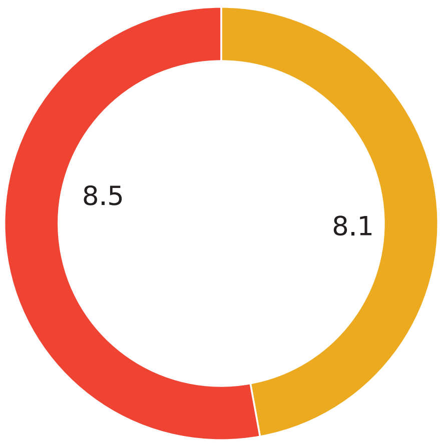


On average, subscribers talk 153 minutes per month

Average usage of 4 G mobile internet per subscriber, per month is 2.3 GB

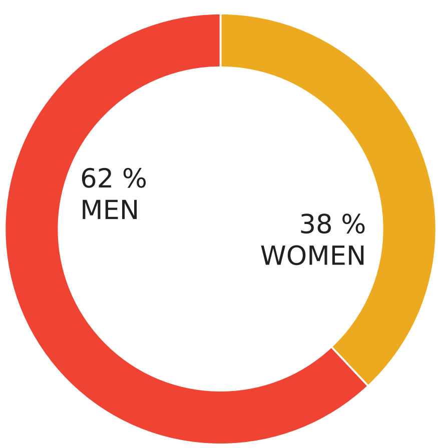
On average, subscribers spend 8 GEL per month for mobile services

BUSINESS



RESIDENTAL SUBSCRIBERS

10,838 persons are employed in the com-munications sphere



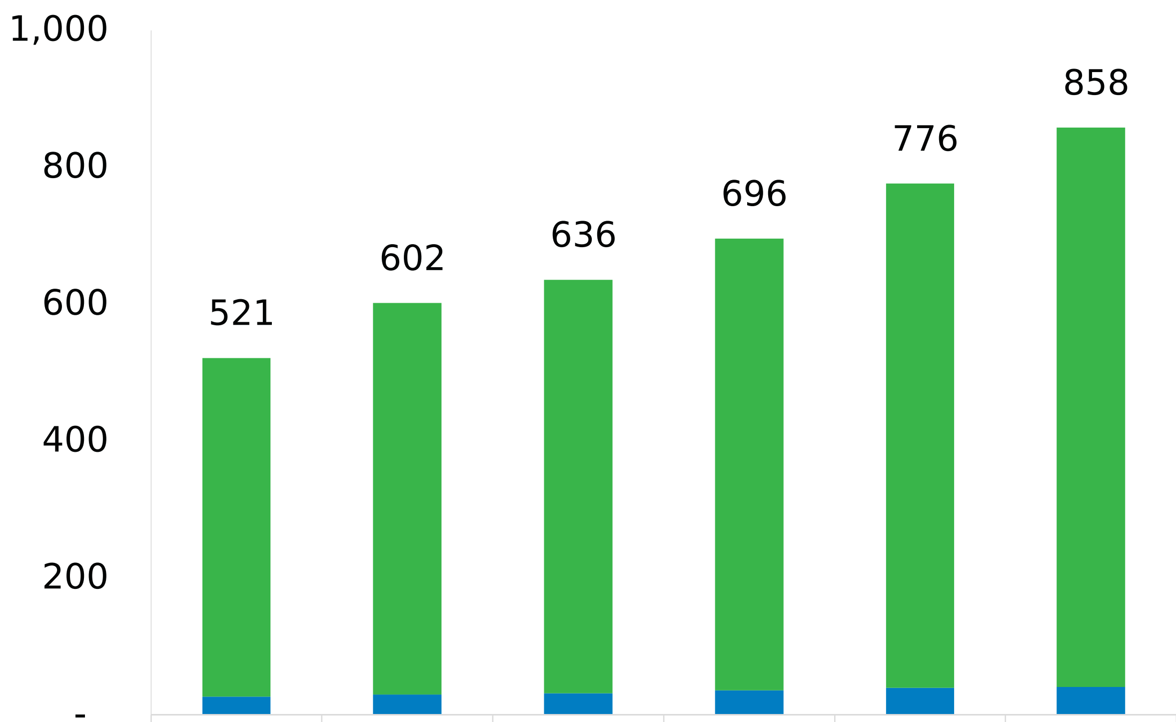
Fixed broadband[18] internet service

Similar to past years, fixed broadband internet services in Georgia are characterized by a stable increasing trend in terms of both the number of subscribers and revenues. FTTx technology is developing and its penetration in the total number of subscribers is increasing. In 2018, compared with previous years, regions reported more increasing indicators, than the capital city. The market of broadband internet service in Tbilisi is almost saturated. As for the regional cities and villages, especially, where Fiber technology became available, the number of fixed broadband service subscribers significantly increased.

As of the IV quarter of 2018, the number of fixed broadband service subscribers reached 858 thousand. Compared with the end of 2017, the number of subscribers increased by 10.6% (82 thousand subscribers), that of residental subscribers – by 11 % and business ones – 4 %.

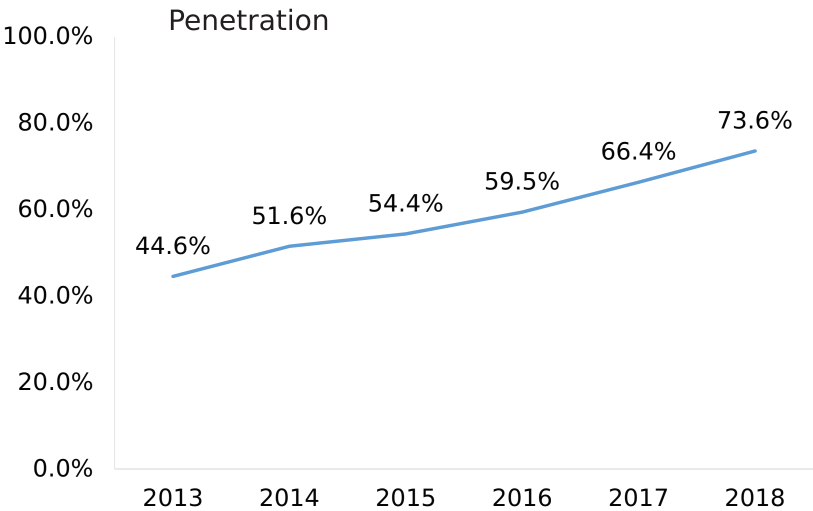
Besides, throughout the last 5 years the rate of annual growth[19] for residental subscriberss amounts to 11% whereas for business ones, it is 9%.

Number of subscribers (thousand)



	2013	2014	2015	2016	2017	2018
Residential subs.	494	572	604	660	737	817
Business	27	30	32	36	39	41

18 According to the ITU definition, this is the technology which enables data transmission at the rate of 256 kb/sec or more
19 Annual growth rate (CAGR – Compound Annual Growth Rate)

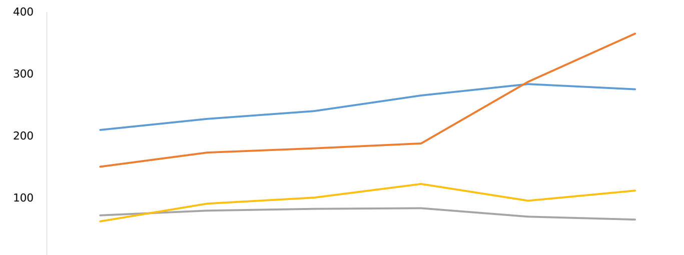


The share of residential subscribers and business subscribers in the total number is 95.2% and 4.8 %, respectively.

The number of residential subscriber subscribers in 2018 increased by 80 thousand and according to the data of IV quarter, reached 817 thousand. Respectively, the density of subscribers of fixed broadband internet service increased by 7.2% on household[20] and this indicator was 73.6%.

In 2018, "Magticom" reported a significant growth rate of residential subscribers. The number of its subscribers grew by 27 % which is mainly due to the expansion of the fiber-optic network by the company. Silknet held the second place by the number of residential subscribers. However, in 2018 the total number of its subscribers decreased by 3 %. This is caused by the development of fiber-optic networks in regions and migration of xDSL subscribers to FTTx services.

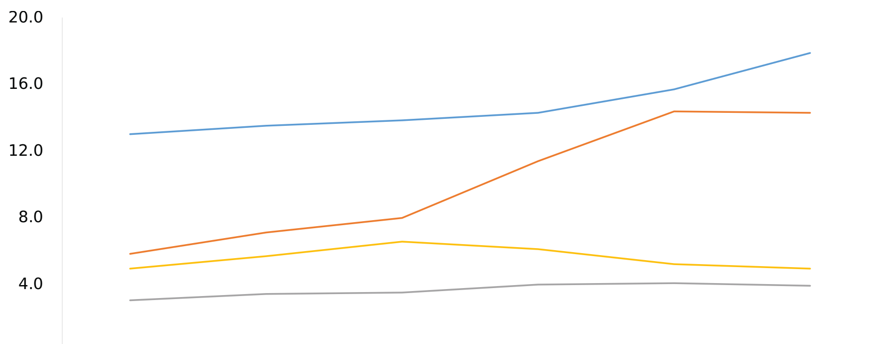
The number of residential subscribers by companies (thousand)



	2013	2014	2015	2016	2017	2018
SILKNET	210	228	240	265	284	275
MAGTICOM[21]	150	173	180	188	287	365
AKHALI KSELEBI GROUP[22]	72	80	82	84	70	65
OTHER	62	91	101	123	96	112
TOTAL:	495	572	604	660	737	817

In 2018, the number of businesses subscribed to "Silknet" increased by 14 % and as of the IV quarter, reached 17.9 thousand. The company is leading in terms of such type of subscribers, followed by "Magticom" (14.3 thousand). However, throughout the year the number of its subscribers has not increased.

The number of business subscribers by company (in thousand)

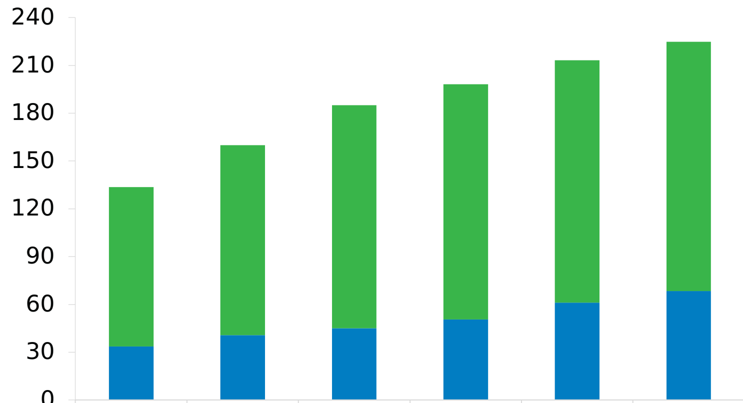


	2013	2014	2015	2016	2017	2018
SILKNET	13.0	13.5	13.8	14.3	15.7	17.9
MAGTICOM	5.8	7.1	8.0	11.4	14.4	14.3
AKHALI KSELEBI GROUP	3.0	3.4	3.5	4.0	4.1	3.9
OTHER	4.9	5.7	6.6	6.1	5.2	4.9
TOTAL:	26.8	29.7	31.9	35.8	39.3	41.0

20 Number of Fixed broadband residential subscribers divided by the number of households
21 In the data of 2013-2015/16 the number of retail subscribers of "Caucasus Online" and "Delta Net" is included in the Magticom number of subscribers
22 The number of subscribers of "Akhali kselebi", "Akhtel" and "Central Communications Company" are united in the "Akhali Kselebi" group

The increasing trend of retail revenues from fixed broadband internet services is retained. In 2018, the retail revenue amounted to 225 million GEL, which exceeds the 2017 indicator by 5.7%.

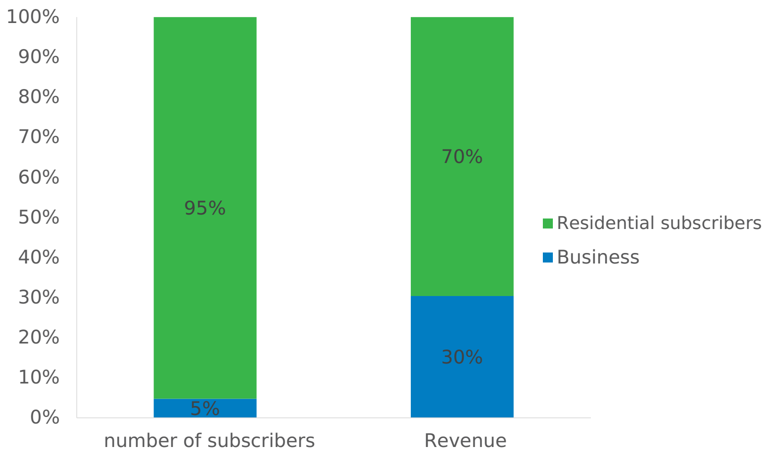
Retail revenue (million GEL)



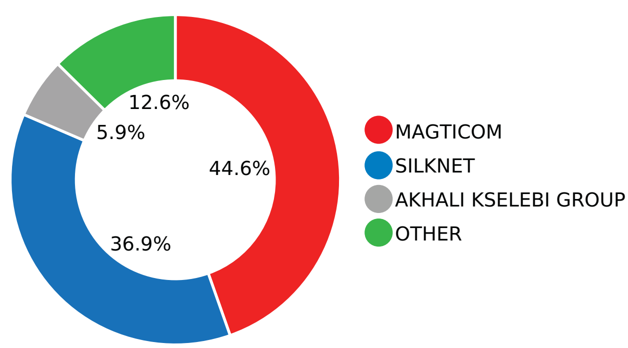
	2013	2014	2015	2016	2017	2018
Residential	100	119	140	148	152	156
Business	34	41	45	51	61	69
Total	134	160	185	198	213	225

The revenue received from residential subscribers amounts to 70 % of total revenue whereas the number of such subscribers equals 95 % of the total market. This indicates that the service fee of business subscribers significantly exceeds the subscription fee paid by residential subscribers.

Distribution of revenue and subscribers by the type of subscriber



Revenue distribution by company



It is worth mentioning that 3 companies generate 87% of revenue whereas the remaining 13 % is distributed among 168 companies. Market shares by revenues are following: “Magticom” - 44.6%, Silknet - 36.9% and the “Akhali Kselebi Group” - 5.9%.

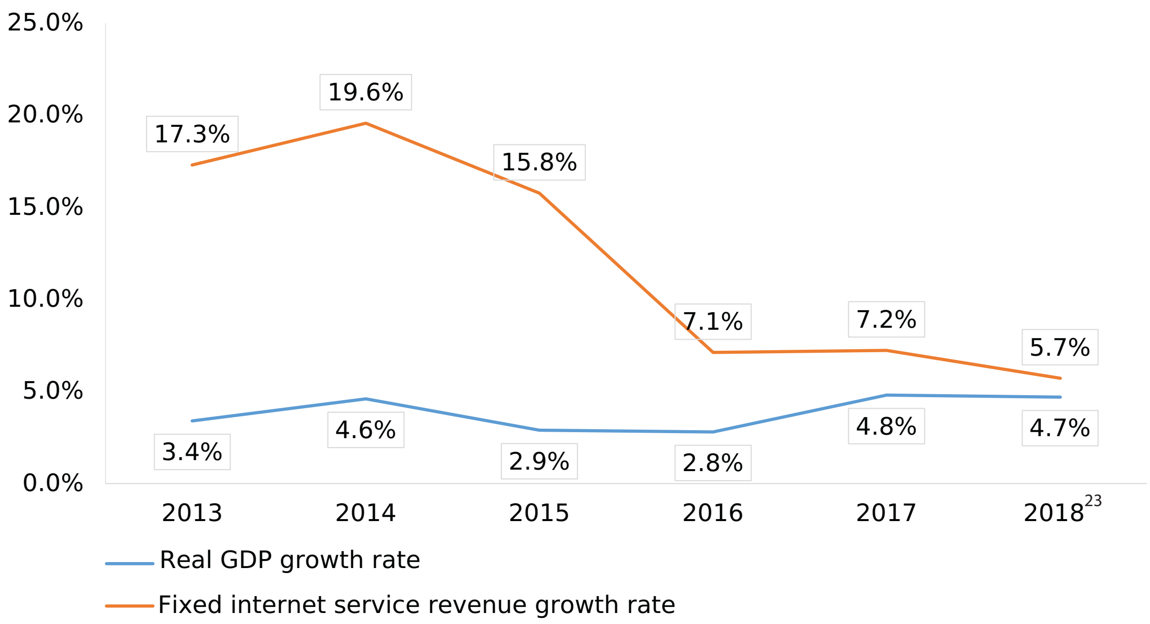
As for the shares of revenues received from residential subscribers and business subscribers separately, the companies' standings are the same as in the total distribution of revenue. The share of Magticom in the residential subscribers market is 43% and that of Silknet - 36% whereas for businesses, it is reported at 47% and 40%, respectively.

Revenue generated by Residental Subscribers

Revenue generated by Business Subscribers

The growth rates of fixed broadband revenue and GDP significantly differed in 2013-2015 whereas from 2016 the gap between mentioned indicators gets smaller. In 2018 the actual GDP growth equals 4.7% whereas the growth indicator of fixed broadband internet service revenue was 5.7%.

GDP and Fixed Broadband Internet Service revenue

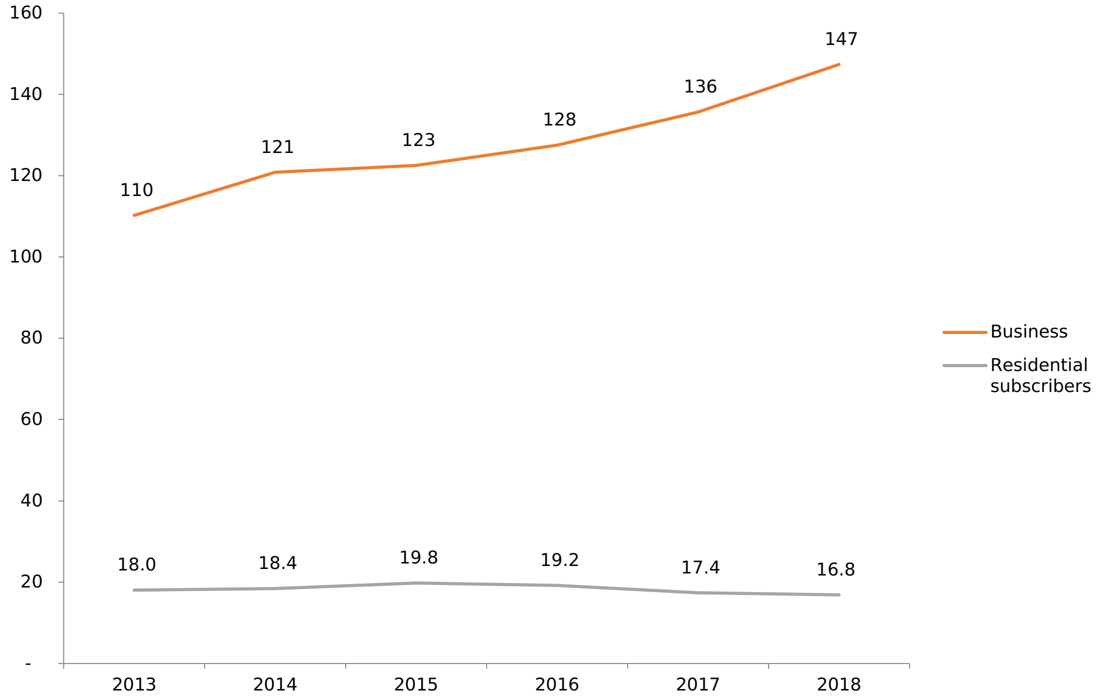


23 Source–National Statistics Office of Georgia, the percentage index of GDP growth of 2018 is forecasted

In the last years Residential ARPU (average revenue per subscriber per month) has a decreasing trend. In the IV quarter of 2018, ARPU was 16.8 GEL for internet service which, compared with the previous year, is 3 % less. Decline in ARPU is caused by the increased number of internet subscribers in the regions, where, compared with Tbilisi, relatively lower price offers and promotions[24] are available.

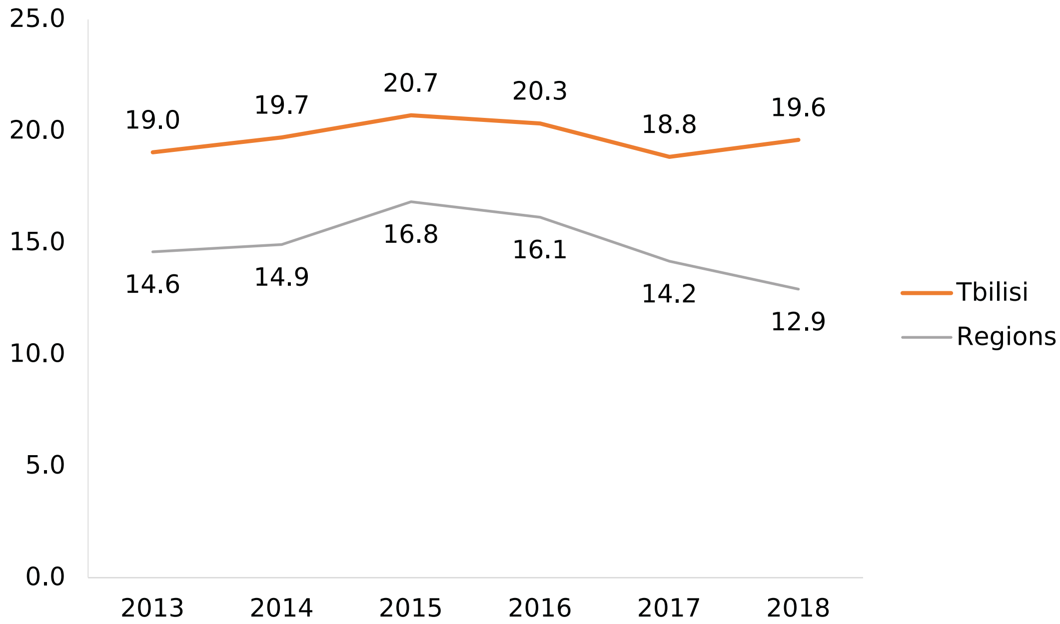
The ARPU of business subscribers is increasing during recent years. It increased by 8.6 % in 2018 and amounted to 147 GEL.

ARPU (GEL)



In IV quarter of 2018, the ARPU of residential subscribers in Tbilisi was 52 % more than in the regions whereas in 2017, this indicator was 33%.

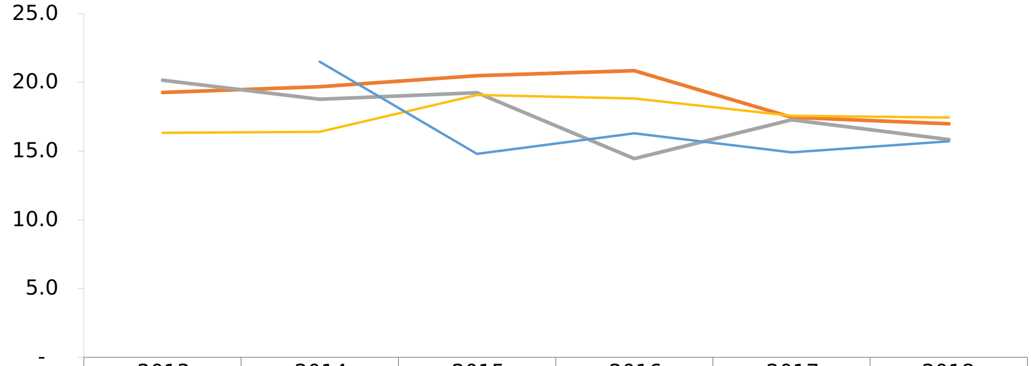
Residential subscriber ARPU (Gel) in Tbilisi and regions



24 E.g. one of the regional offers in this period envisaged the price for internet service which was approximately 40-45 % less than the standard one

The ARPU of residential subscriber for FTTx technology amounts to 17.0 GEL, that of Wi-Fi - 15.8 GEL, fixed LTE technology - 15.7 and the highest rate is reported for xDSL - 17.4 GEL.

ARPU (in GEL) of residential subscriber subscribers by technology



	2013	2014	2015	2016	2017	2018
Fiber	19.3	19.7	20.5	20.9	17.5	17.0
Wi-Fi	20.2	18.8	19.2	14.5 [25]	17.3	15.8
xDSL	16.3	16.4	19.1	18.8	17.6	17.4
LTE		21.5	14.8	16.3	14.9	15.7

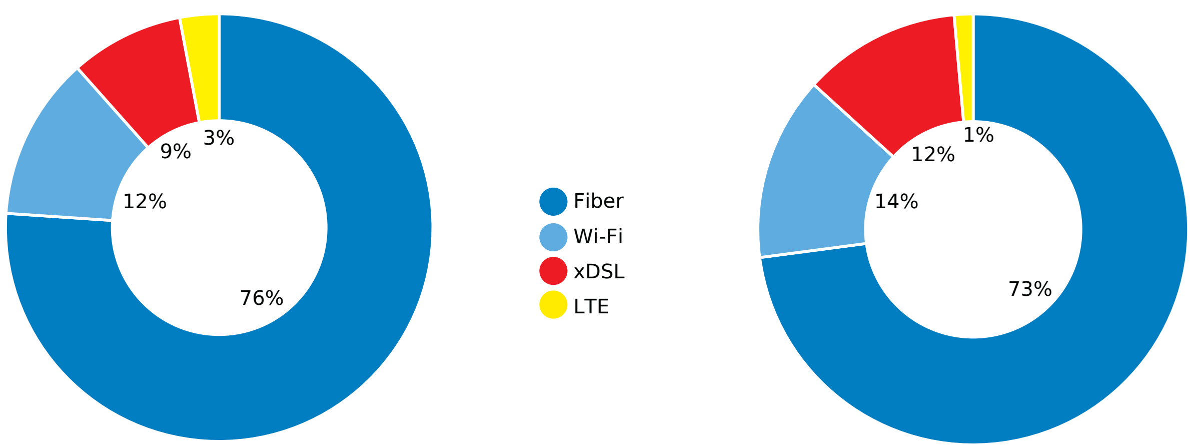
In 2018, overall, 143 companies provided the fixed broadband service, 42 companies provided via FTTX technology, 9 companies via - xDSL, 126 – via Wi-Fi technology, 1 - fixed LTE technology.

The majority of residential subscribers (76%) used FTTX technology, followed by 12% using Wi-Fi, 9% - xDSL service and 3% - fixed LTE service.

The given indicators are different for businesses. Namely, the Wi-Fi and xDSL account for higher share.

Distribution of residential subscribers by technology

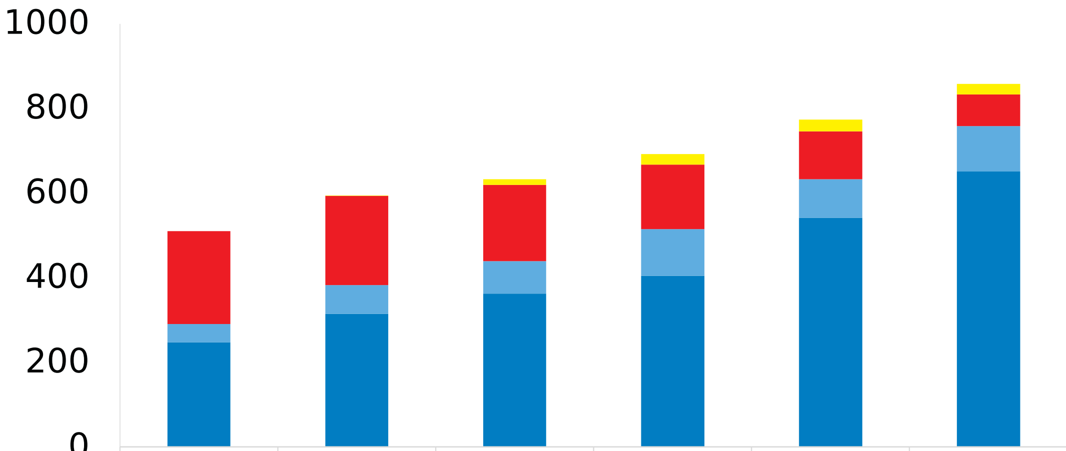
Distribution of business subscribers by technology



25 In 2016 significant decrease of ARPU for Wi-Fi technology is caused by the merger and acquisition of smaller companies, which leads to the increase of the number of quarterly subscribers in the database and, respectively, decreased the ARPU

In terms of dynamics, according to the technologies, subscriber distribution changes significantly. It is worth mentioning that throughout the last 5 years the annual growth[26] of FTTx subscribers was 21% whereas the number of xDSL subscribers decreased by 19 % per year. The number of Wi-Fi technology subscribers is increasing, mainly in the regions, where the FTTx network is not widely available. In 2018 the number of Wi-Fi technology subscribers reached 107 thousand, exceeded the xDSL technology subscriber number by 32 thousand and holds the second place among the technologies by subscribers number. One of the reasons of the above-mentioned may be the fact that the speed provided by Wi-Fi technology and its quality are much better than those of xDSL technology

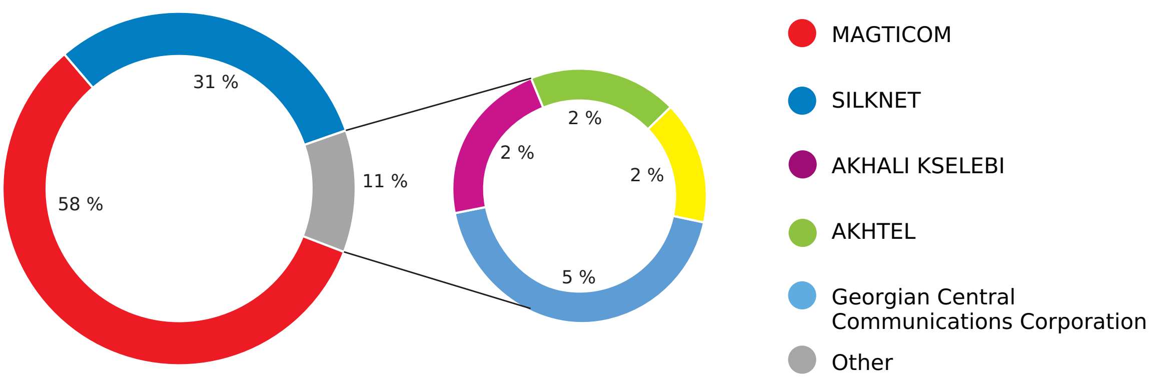
The number of subscribers by technology (in thousands)



	2013	2014	2015	2016	2017	2018
LTE	0	0.15	13	25	27	25
xDSL	220	211	180	152	114	75
Wi-Fi	43	69	77	111	91	107
Fiber	247	314	362	404	541	651

According to the data of IV quarter of 2018, 58 % of the FTTx subscribers used Magticom services, 31% – Silknet and the total share of other operators amounted to 11%.

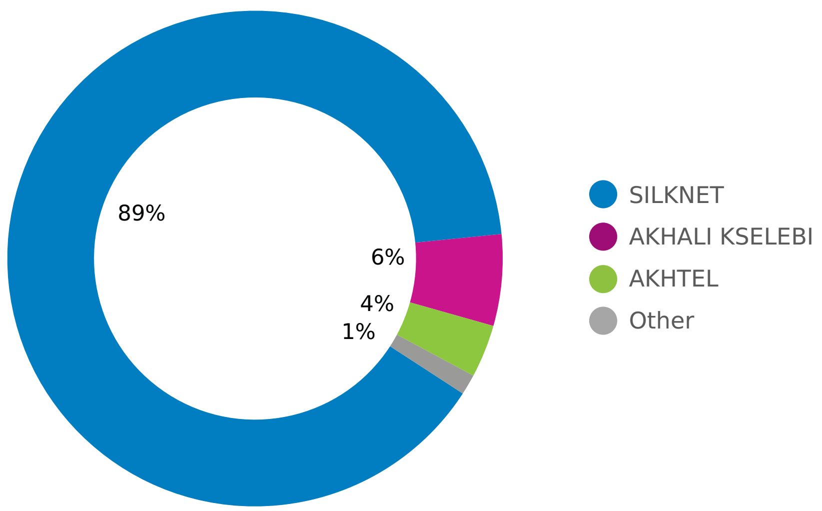
Distribution of Fiber technology subscribers



26 *Annual growth rate (CAGR – Compound Annual Growth Rate)*

As for xDSL technology, 89% of subscribers used Silknet, 6 % - “Akhali Kselebi”[27], 4 % - “Akhtel” and the total share of all other operators reached 1%.

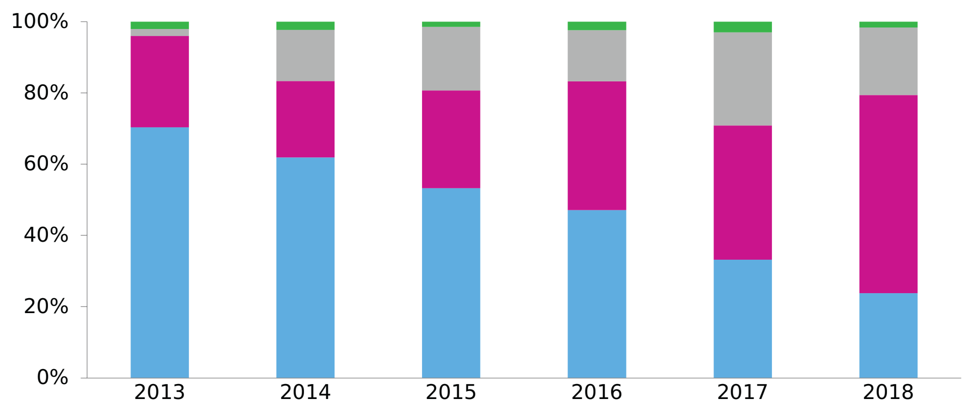
xDSL technology subscribers distribution



Different from FTTx and xDSL technologies, the number of subscribers for Wi-Fi technology by company is more or less equal. As of IV quarter of 2018, “Skytel” accounted for the biggest share of subscribers – 13 % (13, 787 subscribers) among Wi-Fi providers, followed by “Maxnet“ -5% (5,519 subscribers) and “Trialeti-net” (5% share - 5,134 subscribers) and the remaining 77% was distributed between 123 companies, out of which only 31 companies reported number of subscribers higher than 1000.

The development of FTTx technology enabled provision of internet service to subscribers at much higher speeds. In 2018, compared with 2017, the subscriber share of internet packages, the speed of which was within the range from 30 Mb/s to 99 Mb/s decreased. This is partially due to the growth of subscribers in regions where relatively lower speed internet packages are used.

Distribution of the number of subscribers by the range of advertised speeds



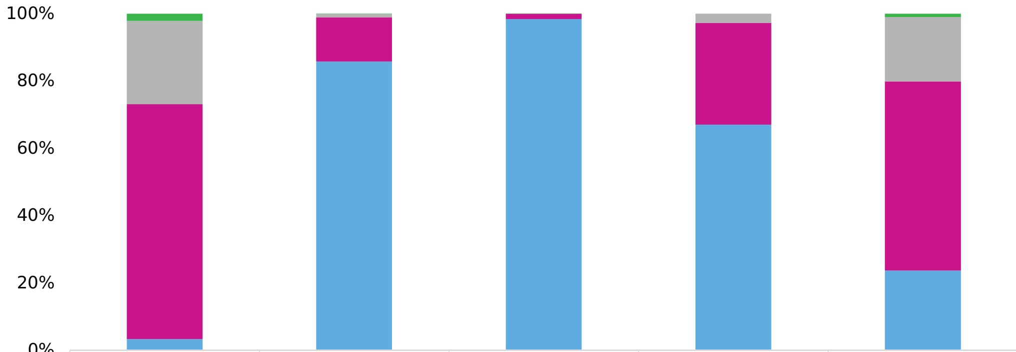
	2013	2014	2015	2016	2017	2018
100 Mb/s +	2%	2%	1%	2%	3%	1%
30 Mb/s -99 Mb/s	2%	14%	18%	14%	26%	19%
10 Mb/s -29 Mb/s	26%	21%	27%	36%	38%	56%
0-9 Mb/s	70%	62%	53%	47%	33%	24%

27 *“Akhali Kselebi” and “Akhtel” are inter-related affiliated entities*

At the end of 2018, most of subscribers in Georgia used internet service with advertised speeds between 10 Mb/s to 29 Mb/s. The share of these subscribers amounted to 56%.

The given indicator is higher, 70 % for FTTx technology whereas for other technologies it is much lower: 31 % for fixed LTE, 13% for Wi-Fi and an insignificant share of only 2 % for xDSL. The majority of users of fixed LTE, Wi-Fi and xDSL technologies use internet with speeds of 1 to 9 Mb/s, which is partially due to the technical limitations and characteristics of the latter.

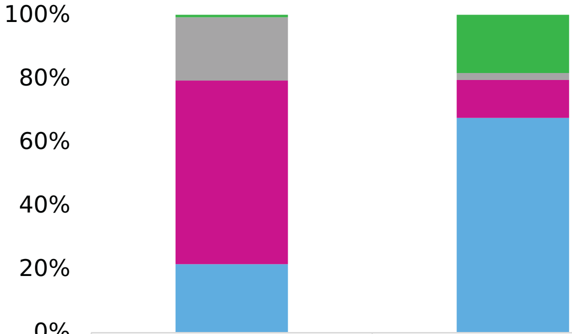
Distribution of the number of subscribers by technology and speed



	Fiber	Wi-Fi	xDSL	LTE	სულ
100 Mb/s +	2%	0%	0%	0%	1%
30 Mb/s -99 Mb/s	25%	1%	0%	3%	19%
10 Mb/s -29 Mb/s	70%	13%	2%	30%	56%
0-9 Mb/s	3%	86%	98%	67%	24%

Distribution of businesses and residential subscribers by the speeds is different. In case of businesses, the 0-9 Mb/s range dominates (68 %) whereas in the case of residential subscribers, it ranges between 10Mb/s and 29Mb/s (58%).

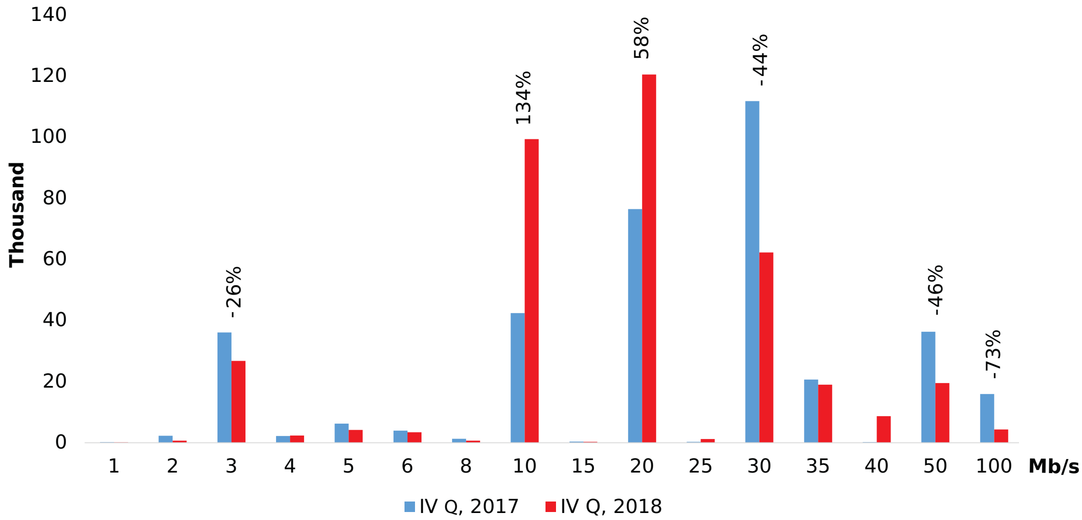
Distribution of the number of residential subscribers and business subscribers by advertised speeds



	Residential subscribers	Business
100 Mb/s +	1%	18%
30 Mb/s -99 Mb/s	20%	2%
10 Mb/s -29 Mb/s	58%	12%
0-9 Mb/s	21%	68%

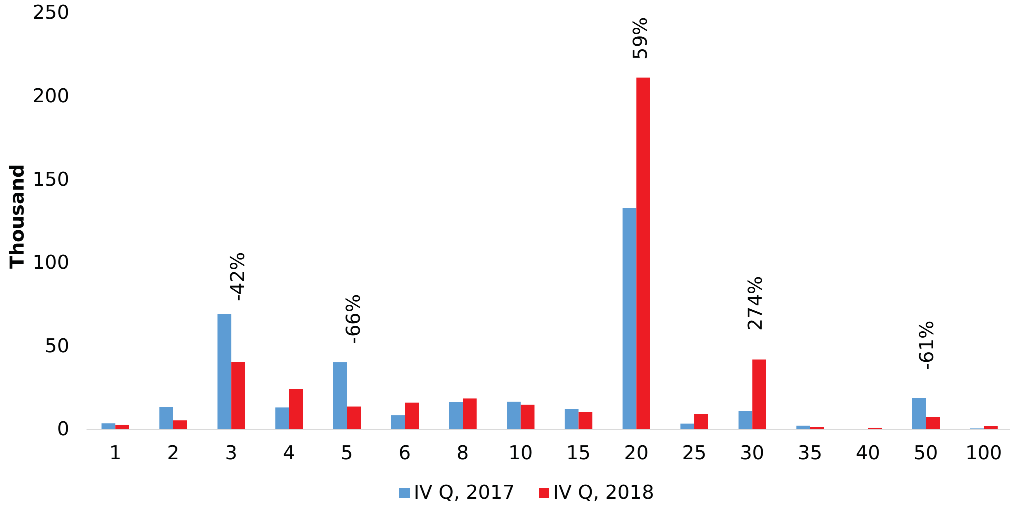
Analysis of distribution of residential subscribers by maximum speeds of internet connection demonstrates that, compared with 2017, growth of subscribers in Tbilisi is significantly higher for the 10 Mb/s and 20 Mb/s offers, whereas the number of 30Mb/s and 50 Mb/s speed subscribers decreased by 44% and 46%, respectively. This decrease is the result of the expiry of special promotions offered by ISPs.

Distribution of residential subscriber subscribers by the maximum speed of the package – Tbilisi – Mb/s



The effect of promotion offers available in regions was reflected in the growth of the number of subscribers using higher speed packages of 20 Mb/s and 30 Mb/s. Namely, the number of 20 Mb/s package subscribers increased by 59% whereas the number of 30 Mb/s subscribers almost tripled.

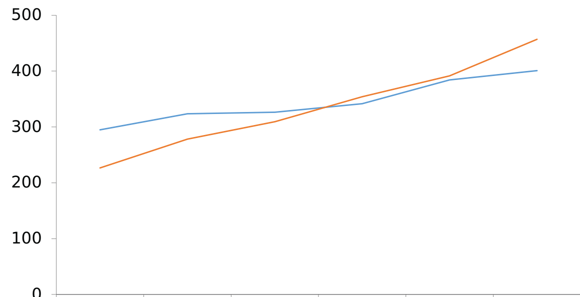
Distribution of residential subscribers by the maximum speeds package – regions Mb/s



As of IV quarter of 2018, 401 thousand (47 %) of subscribers of fixed broadband internet service are concentrated in Tbilisi compared with 457 thousand (53%) in the regions. In 2018, compared with the previous year, a significantly high subscriber growth rate - 17 % was reported in the regions whereas the number of subscribers in Tbilisi increased by 4 %.

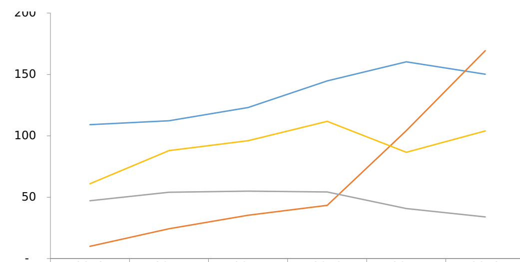
Distribution of the number of subscribers by companies in regions is interesting. As a result of acquisition of “Caucasus Online” and “Deltacom” by “Magticom” in 2016 and active development of the FTTx in regions, from the same period, its number of subscribers has increased by approximately 4 times, by the end of 2018, compared with 2016.

Growth tendency of subscribers in Tbilisi and regions (thousand)



	2013	2014	2015	2016	2017	2018
Tbilisi	295	323	326	342	384	401
Regions	227	278	309	354	392	457

The number of subscribers in the regions (thousand)

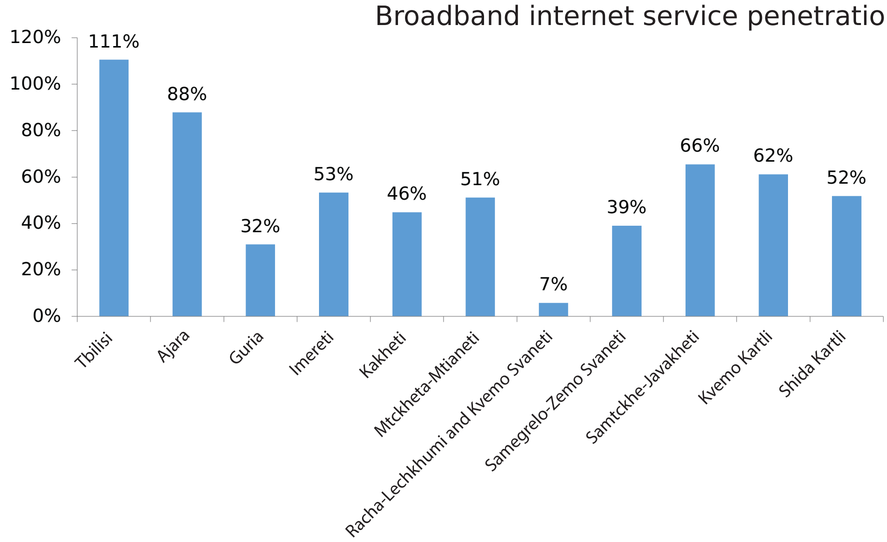


	2013	2014	2015	2016	2017	2018
SILKNET|GEOCELL	109	112	123	145	160	150
MAGTICOM [28]	10	24	35	43	104	169
AKHALI KSELEBI GROUP	47	54	55	54	41	34
Other	61	88	96	112	87	104
Total	227	278	309	354	392	457

Fixed Internet penetration (the ratio of the number of subscribers and households) in Tbilisi is 111%, which is caused by having several internet services in one household (from different providers), by internet service in the apartments and buildings that are rented out, by difference between registered and actually residing population number. Besides, provided that internet service for businesses is much more expensive than that for residential subscribers, it can be assumed, that small and medium size businesses subscribe to residential subscriber offers rather than business offers.

Internet service penetration by regions is significantly different. In Ajara the mentioned indicator reaches 88 % whereas in Racha-Lechkhumi and Lower Svaneti it only reaches 7 %. Internet penetration is especially low in Guria (32%) and Samegrelo-Upper Svaneti (39 %).

Broadband internet service penetration

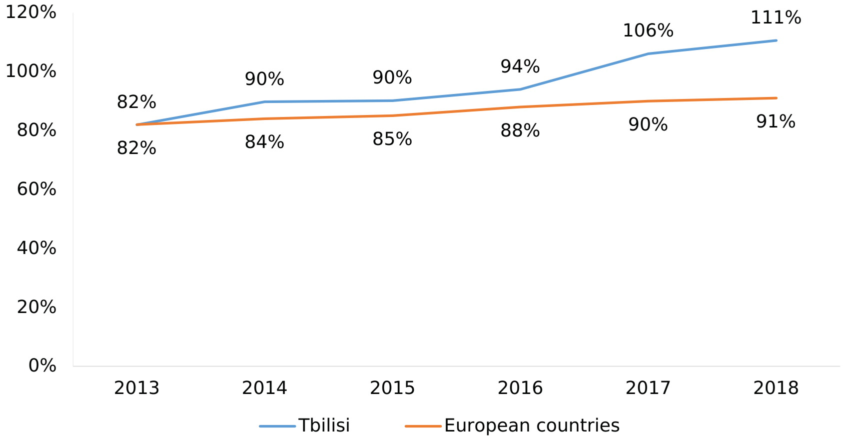


28 In the data of 2013-2015/16, Caucasus Online and Delta-Net retail subscriber number is included into the number of users as well as the number of subscribers connected to the following companies united in the “Group of Akhali Kselebi” – “Akhali Kselebi”, “Akhtel” and “Central Communications Company”

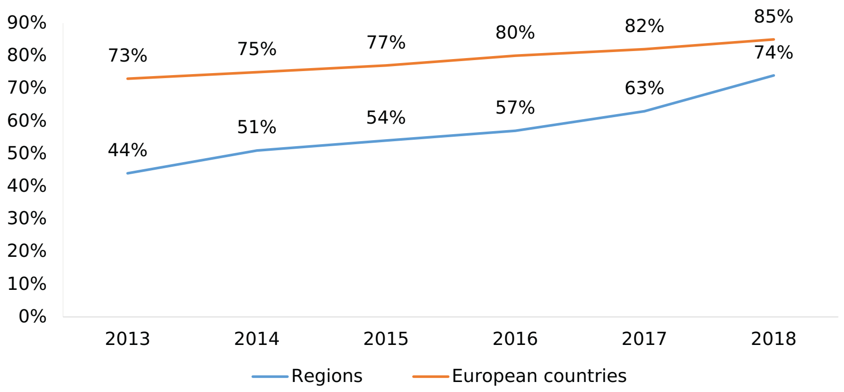
It is interesting to compare the penetration of internet services in Georgia with the same indicator of Europe[29].

From 2013 penetration of Tbilisi broadband internet service exceeds the same indicator of densely populated areas of the European countries. The situation is opposite outside the capital city. However, the growth rate in the regions of Georgia is higher than in European settlements with the same density.

Internet penetration in Tbilisi and 28 European countries
(in densely populated areas)



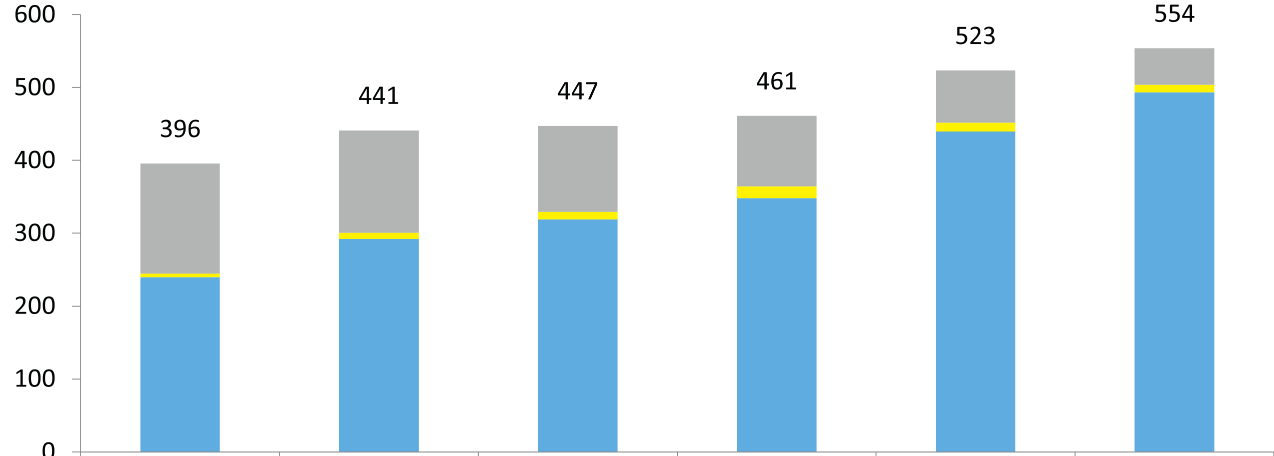
Internet penetration in the regions of Georgia and 28 European countries
(less populated areas)



29 *http://ec.europa.eu/eurostat*

At the end of 2018, the number of subscribers of FTTx technology in five large cities of Georgia: Tbilisi, Kutaisi, Batumi, Rustavi and Poti was 89 % of the total subscribers. Development of the FTTx networks and migration of xDSL technology users to FTTx since 2013 significantly decreased the number of subscribers of xDSL technology and its share at the end of 2018 was 9 %. The share of wireless broadband (Wi-Fi) internet service subscribers in these cities is insignificant and amounts to only 2%.

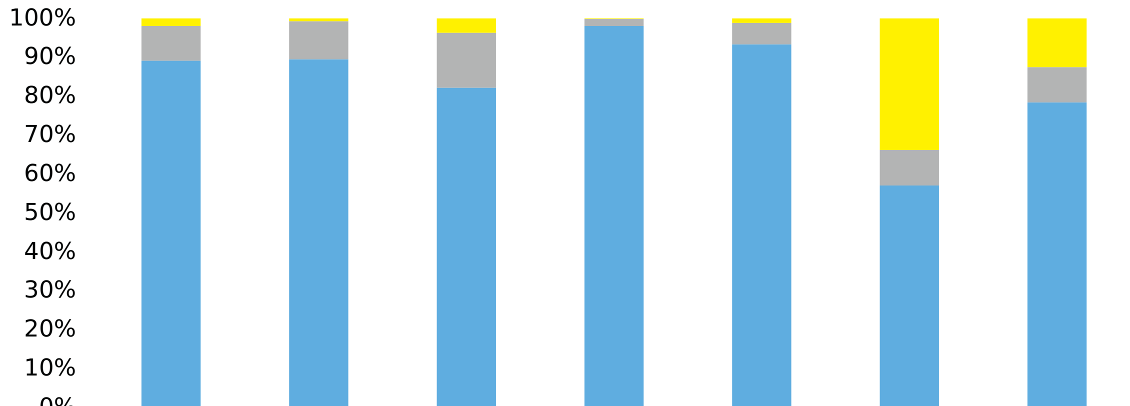
Distribution of subscribers by technology (FTTx, xDSL and Wi-Fi)
in 5 big cities of Georgia (thousand)



	2013	2014	2015	2016	2017	2018
xDSL	151	141	118	97	71	50
Wi-Fi	5	9	10	16	12	11
Fiber	240	292	319	348	440	493

It is worth noting that in all five large cities the share of FTTx technology subscribers in their total amount exceeds 80 % whereas the largest share - 98 % is reported in Rustavi.

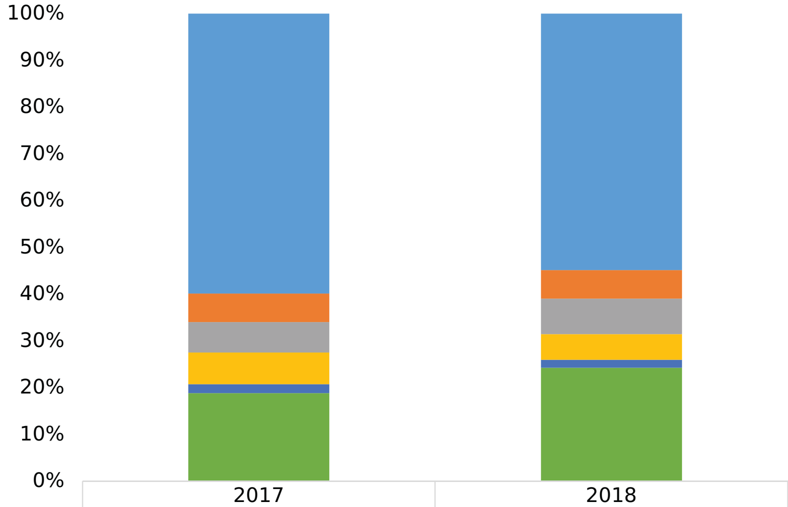
Number of subscribers by technology (FTTx, xDSL and Wi-Fi) in 5 big cities of Georgia (thousand)



	Tbilisi	Kutaisi	Batumi	Rustavi	Poti	Other	Total
Wi-Fi	2%	1%	4%	0%	1%	34%	13%
xDSL	9%	10%	14%	2%	5%	9%	9%
Fiber	89%	89%	82%	98%	93%	57%	78%

The largest portion of subscribers of FTTx technology – 55 % is reported in Tbilisi. Five large cities of Georgia (Tbilisi, Kutaisi, Batumi, Rustavi and Poti) account for 76 % of share, whereas this indicator for the rest of Georgia is just 24 %. The main cause of such distribution is limited availability of respective infrastructure in regions, though progress is observed. The share of subscribers of those of FTTx who are located outside 5 big cities of Georgia, amounted to 19 % in 2017, compared to 24 % in 2018.

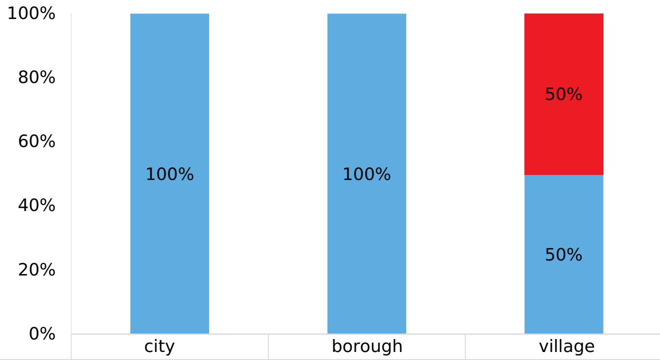
Distribution of FTTx technology subscribers



	2017	2018
Tbilisi	60%	55%
Kutaisi	6%	6%
Batumi	6%	8%
Rustavi	7%	5%
Poti	2%	2%
Other	19%	24%

Fixed broadband internet service is available[30] in all borough and settlements. As for the villages overall, there are 3388 villages and in 50% of these villages at least one subscriber of internet service is reported.

Internet availability in the settlements
(The chart illustrates the number of settlements)



	city	borough	village
Is not available	0	0	1703
Is available	56	35	1685
Number of settlements	56	35	3388

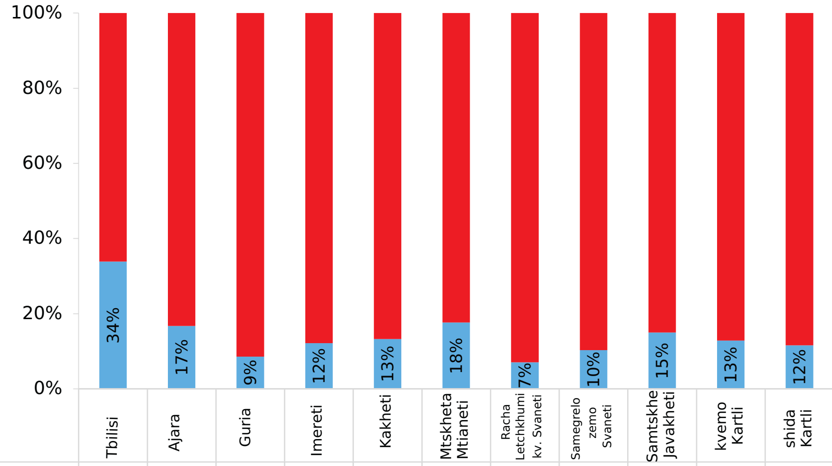
30 Availability implies existence (residental or business) of at least one internet service subscriber of fixed broadband internet in the settlement

The number of business entities registered and operating in Georgia[31] is approximately 180 thousand whereas business subscribers of fixed broadband internet service amounts to only 41 thousand.

This implies that only 23 % of businesses use internet service. The reason for that may be the fact that the service intended for businesses is much more expensive than similar service for residential subscribers. Respectively, SMEs might be subscribed to residential subscriber offers rather than business offers.

34 % of business entities registered and operating in Tbilisi have internet service. In terms of regions, the situation is quite poor in this respect in Racha-Lechkhumi and Lower Svaneti (7 %) and Guria (9 %).

The number of registered and operating business entities and those having fixed broadband internet service



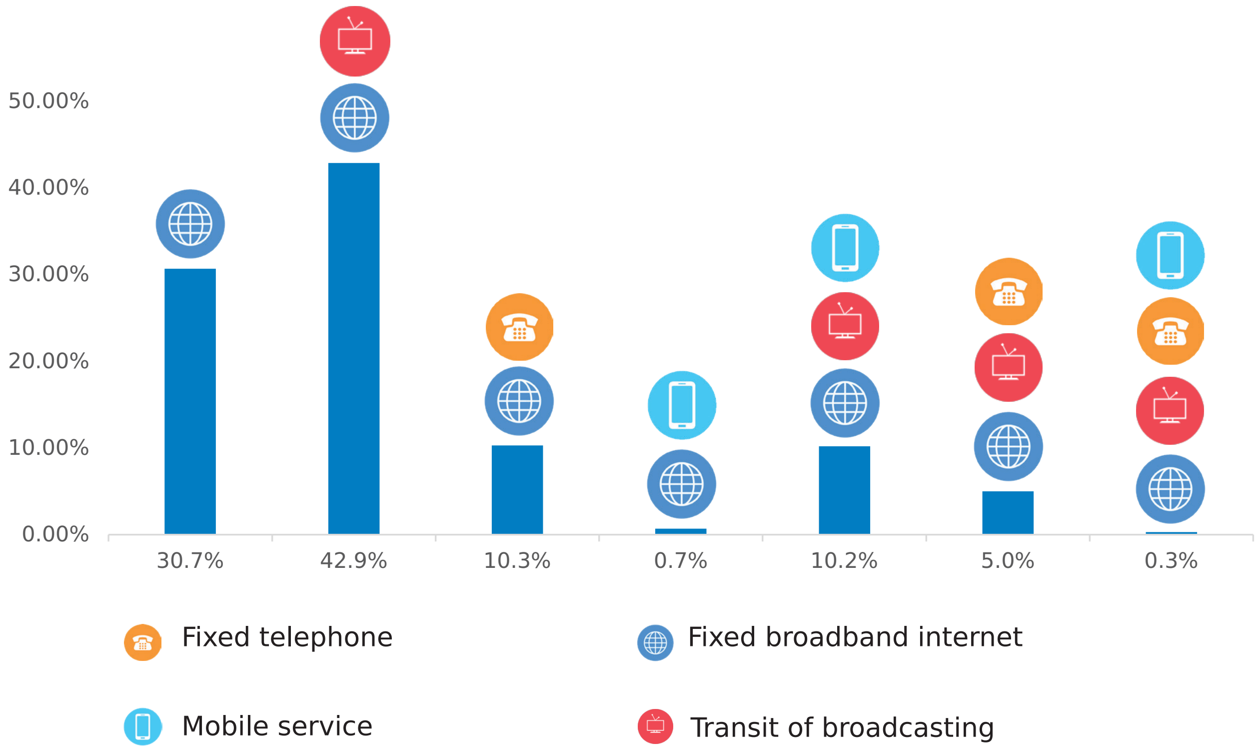
	Tbilisi	Ajara	Guria	Imereti	Kakheti	Mtskheta Mtianeti	Racha Letchkhumi kv. Svaneti	Samegrelo zemo Svaneti	Samtskhe Javakheti	kvemo Kartli	shida Kartli
Has no internet	50,753	15,136	4,313	21,460	9,609	2,663	1,219	11,799	4,651	11,814	7,726
Has internet	25,985	3,043	405	2,965	1,471	571	93	1,354	822	1,743	1,011
number of legal entities	76,738	18,179	4,718	24,425	11,080	3,234	1,312	13,153	5,473	13,557	8,737

31 Source: National Statistics Office of Georgia

Use of bundled services

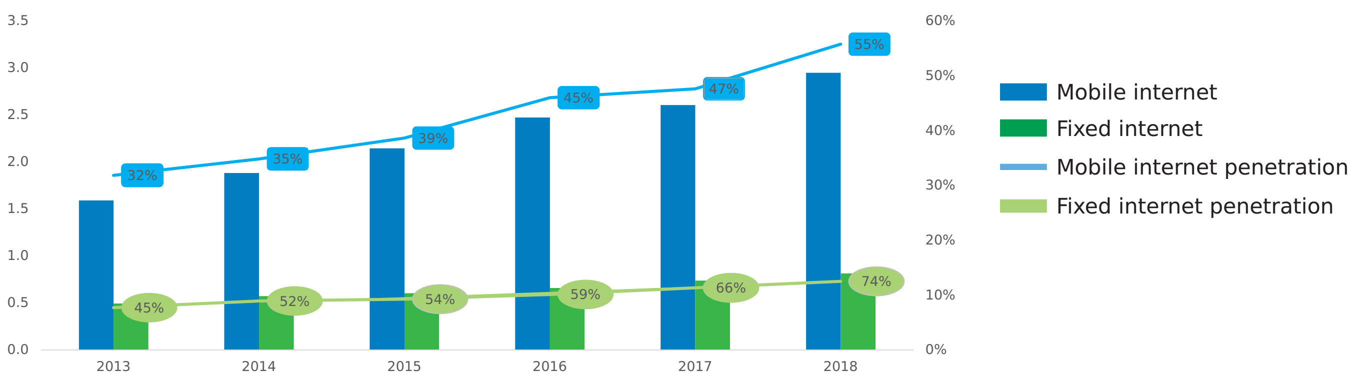
As of December 2018, the largest share of fixed broadband internet service subscribers in Georgia uses transit broadcasting service bundled with internet service of same ISP. The combination of internet, TV and mobile service dominates in the mixture of triple play bundles. An insignificant share of subscribers uses quad play services of one provider. Residential subscribers of Silknet, Magticom and the Akhali Kselebi group take part in the mentioned analysis. The IPTV, PSTN and mobile service are envisaged in other services.

Use of fixed broadband internet service separately and in combination with other services (Silknet, Magticom, Akhali Kselebi group subscribers)



The number of mobile and fixed internet subscribers increases on annual basis. By the end of 2018 mobile internet was used by 2.9 million subscribers; the number of fixed internet subscribers reached 858 thousand. In case of the mobile service, on average, subscriber annual growth rate was 6.3 % whereas in case of fixed internet (residential subscribers), it amounts to 11 %. According to the data of IV quarter of 2018, in total, the penetration of internet subscribers among mobile subscribers is 55 % whereas the penetration of fixed internet subscribers among equals 74 % for the same period.

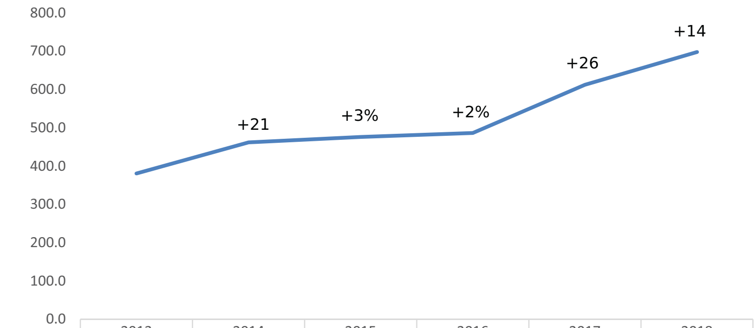
Penetration of mobile and fixed internet subscribers



Transit of broadcasting

In IV quarter of 2018, number of broadcasting transit subscribers was 698.1 thousand which, compared with the same period of the previous year, is 14 % higher (by 86,000 subscribers). The average annual growth of subscribers is 13 %.

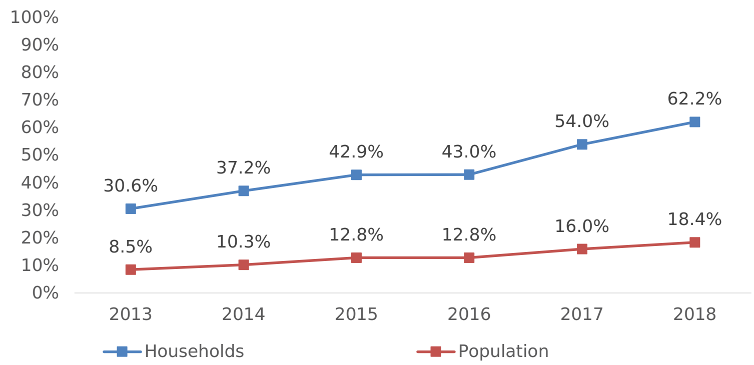
The number of subscribers (Thousand)



	2013	2014	2015	2016	2017	2018
Total	380.7	461.9	476.1	486.4	612.2	698.1

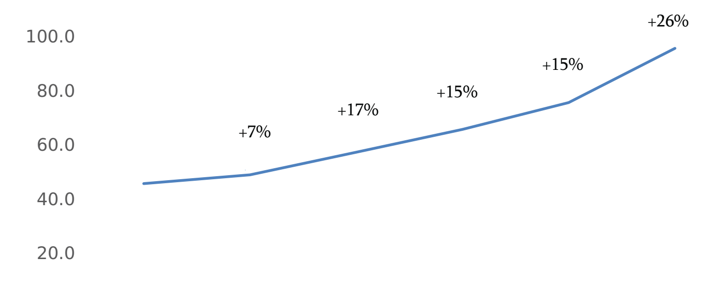
Respectively, penetration increased – it amounted to 18.4% and 62.2% for the population[32] and households[33], respectively.

Penetration



The retail revenues received from broadcasting transit services was 95.8 million GEL, which, compared with the previous year is 26 % higher (20 million GEL). The CAGR (cumulative average growth rate) of retail revenues was reported at 16 %, which significantly exceeds the indicators of the revenues received from other telecommunications services.

The amount of retail revenues (million GEL)

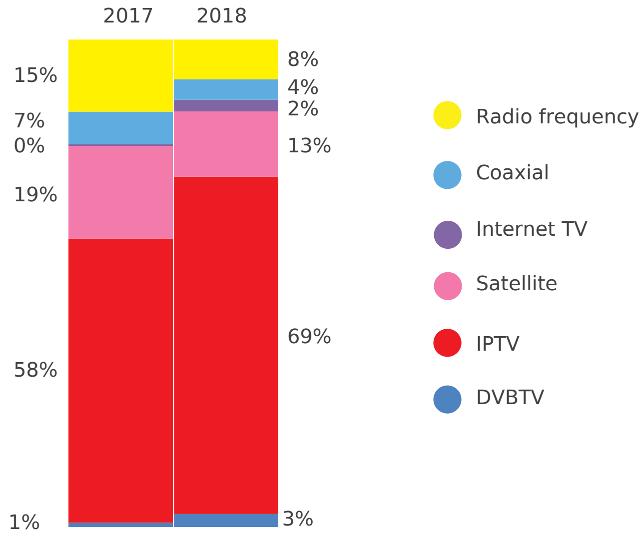


	2013	2014	2015	2016	2017	2018
Total	45.9	49.2	57.5	66.0	75.8	95.8

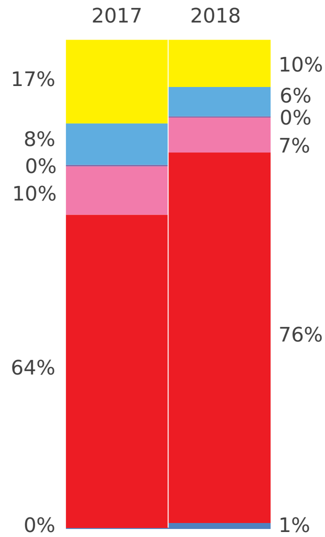
32 number of subscribers divided by population of the country
33 number of subscribers divided by number of housholds of the country

As of the IV quarter of 2018, IPTV technology is still the most popular means of broadcasting transit. Compared with the previous year, its share grew by 11 % and reached 69%. As for the IPTV retail revenue share, it grew by 12% and reached 76% of total broadcasting transit revenue.

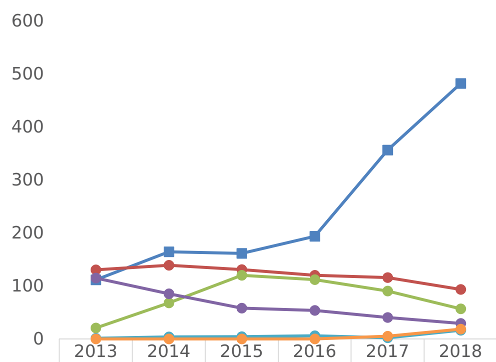
Distribution of the number of subscribers by technologies



Distribution of retail revenues by technology

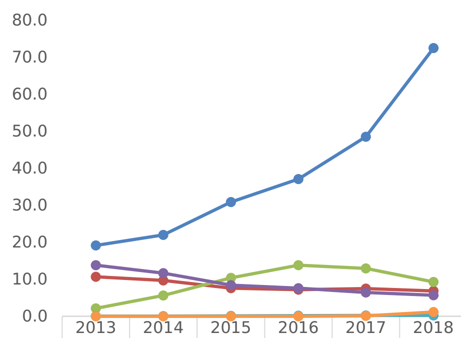


The number of subscribers by technology (thousand)



	2013	2014	2015	2016	2017	2018
IPTV	111.9	164.9	161.6	193.8	357.1	482.9
Satellite	130.8	139.4	131.0	120.3	116.2	93.6
Radio frequency	20.9	68.1	120.3	112.2	90.5	56.8
Coaxial	115.4	85.4	58.4	54.0	40.6	29.3
Internet TV	1.5	3.9	4.5	6.0	2.5	16.7
DVBT	-	0.1	0.1	0.1	5.3	18.8

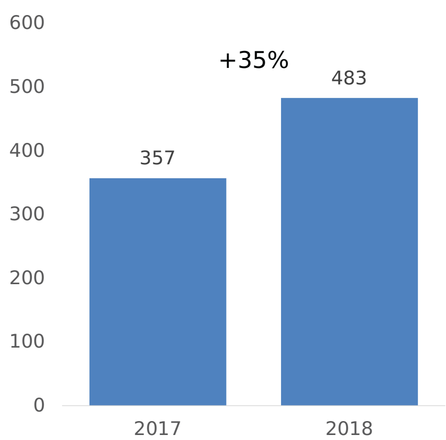
Retail revenues by technology (million GEL)



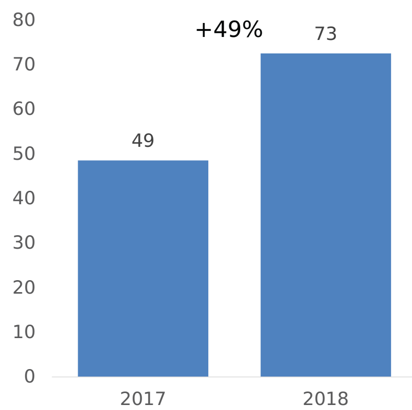
	2013	2014	2015	2016	2017	2018
IPTV	19.2	22.0	30.9	37.1	48.6	72.6
Satellite	10.7	9.7	7.6	7.2	7.5	6.9
Radio frequency	2.1	5.6	10.4	13.8	13.0	9.3
Coaxial	13.9	11.7	8.4	7.6	6.4	5.7
Internet TV	0.07	0.07	0.12	0.19	0.20	0.24
DVBT	-	0.01	0.01	0.01	0.13	1.18

As of the last quarter of 2018, compared with the same period of 2017, the number of IPTV subscribers increased by 35% whereas the amount of IPTV retail revenues increased by 49%.

The number of IPTV subscribers (thousand)

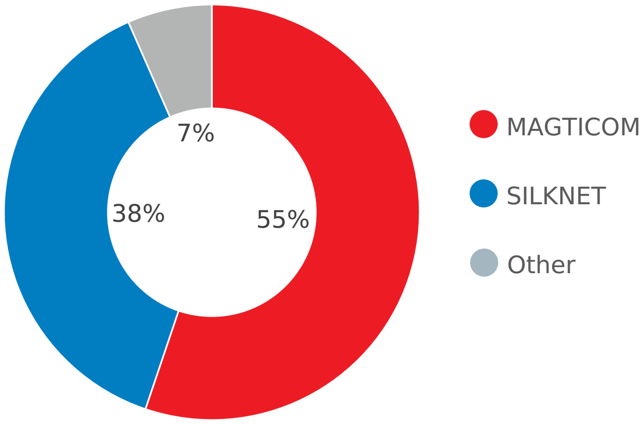


IPTV retail revenues (million GEL)



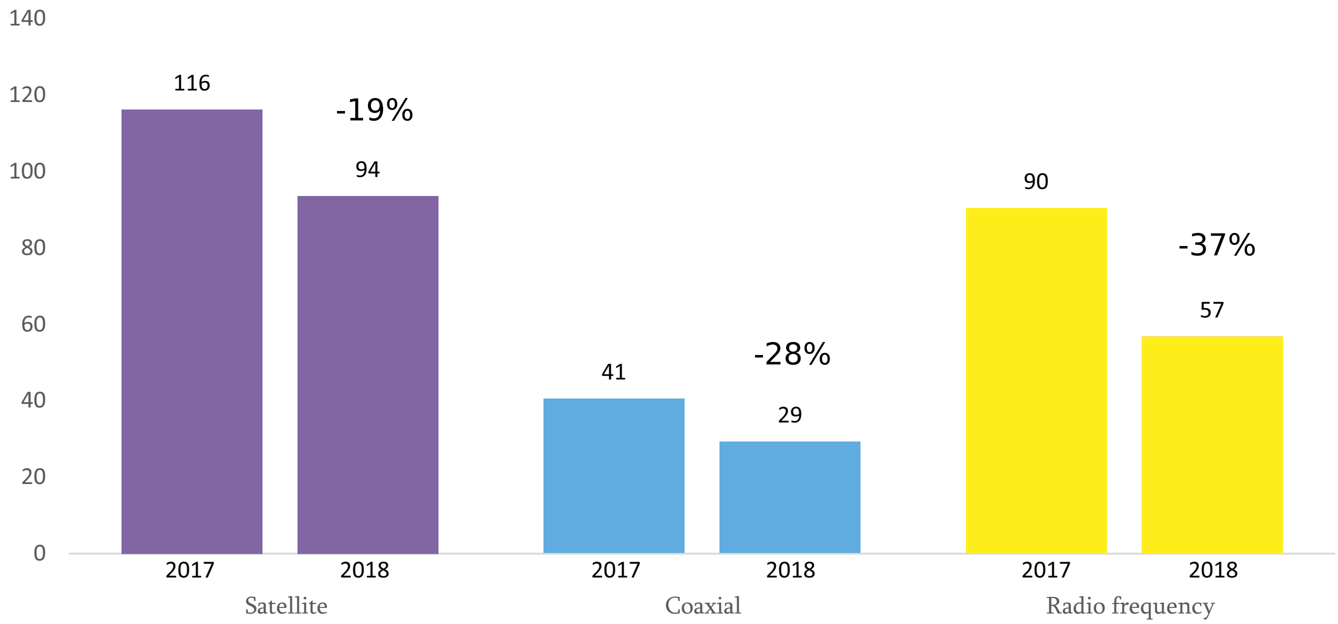
In the last quarter of 2018, IPTV service was mainly provided by two operators – Magticom (55%) and Silknet (38%).

Distribution of IPTV subscribers



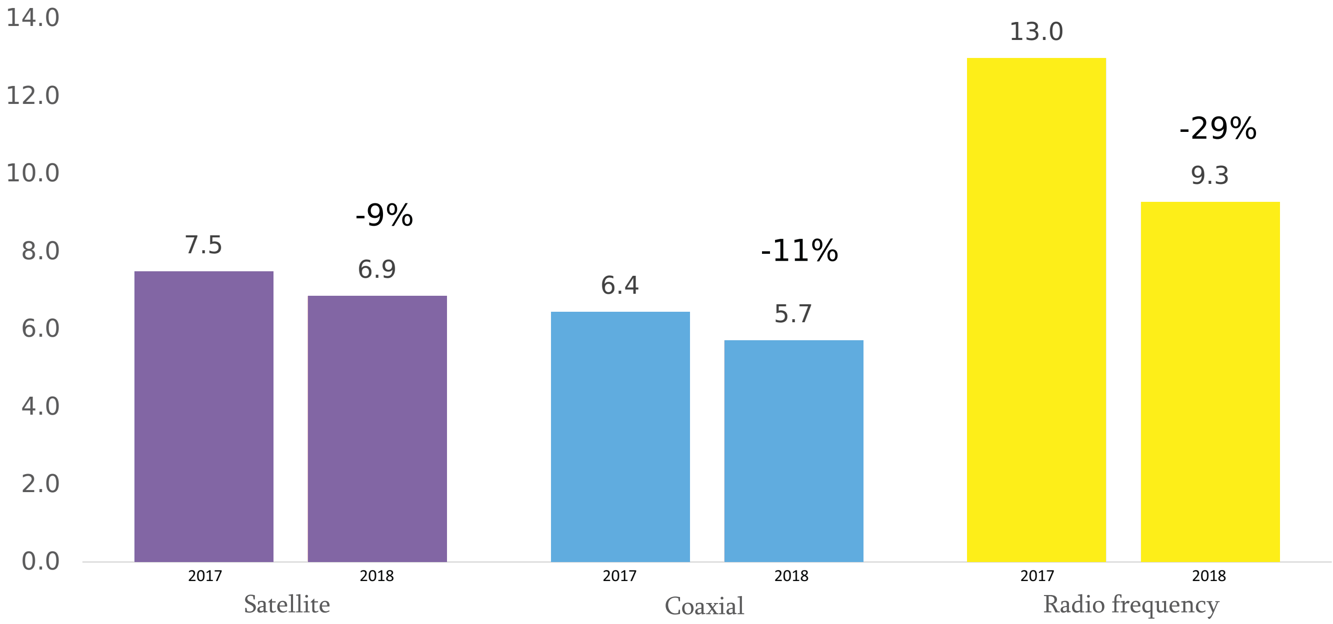
As of the data of last quarter of 2018, compared with a same period of 2017, the number of satellite technology subscribers decreased by 19 % whereas that of coaxial decreased – by 28%, and radio frequency technology decreased - by 37%.

The number of subscribers - satellite, coaxial and radio frequency technology (thousand)



Retail revenues from satellite, coaxial and radio frequency technology also declined: satellite – by 9 %, coaxial – 11 % and radio frequency – 29 %.

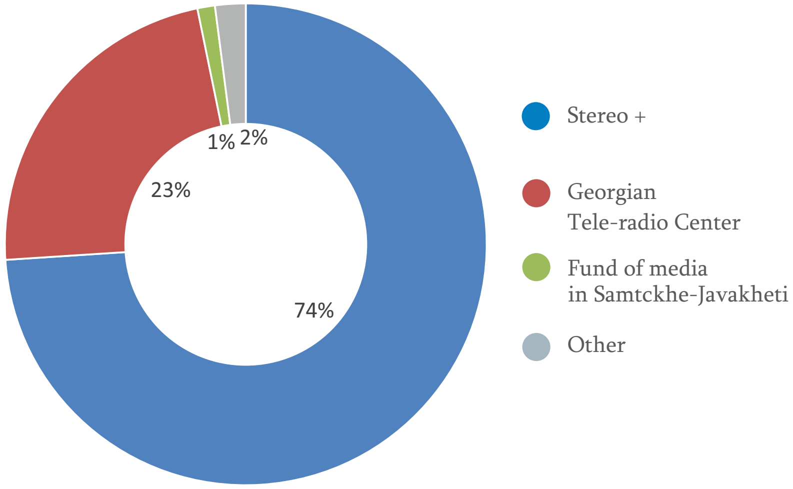
Retail revenues from satellite, coaxial and radio frequency technology transit service (million GEL)



In December 2018, overall, 28 multiplex operators were operating in Georgia. However, commercial revenue through multiplex service was received by only 11 operators; as for the remaining operators, they spread their own channel/channels and, respectively, did not carry out commercial services on multiplex.

Throughout the year, operators received revenues from multiplex service in the amount of 6.2 million GEL whereas "Stereo +" and "Georgian TV-Radio Center" account for the main part of it.

Distribution of revenues generated by multiplex operator



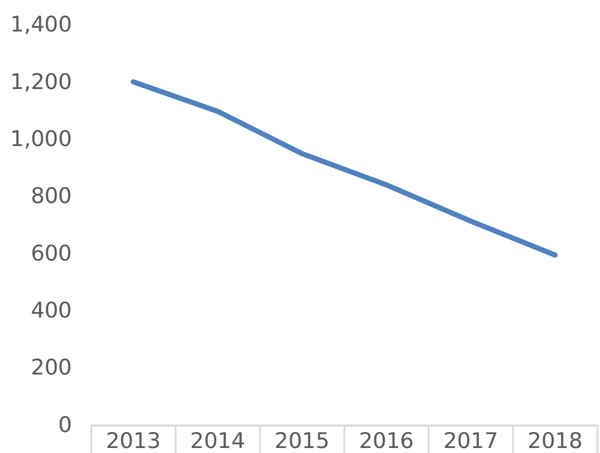
Fixed telephone service

PSTN, wireless (CDMA) and VoIP technologies were used in Georgia on the fixed telephone service market. In 2018 overall 30 companies offered f fixed telephone service. 9 authorized persons provided fixed PSTN technology services, 2 companies offered fixed wireless (CDMA) services and 30[34] offered VoIP services. 9 companies offered more than one technology: 7 companies with two technologies and only two offered all three technologies – "Silknet" and "Magticom".

In the IV quarter of 2018 the number of fixed telephone service subscribers was 594 thousand. Compared with the same period of 2017, this number decreased by 16, 7% (119 thousand subscribers). Reduction of fixed telephone subscribers (respectively, revenues and traffic) is the worldwide trend, which is mainly the result of mobile service development, internet availability and growth of use of OTT (Over-The-Top) services.

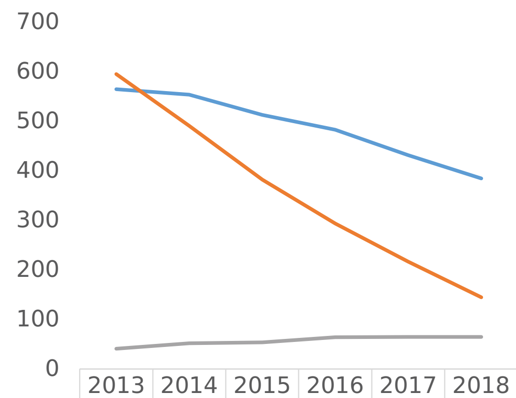
The number of subscribers reduced for PSTN and wireless technologies. The number did not decrease only for VoIP services, which is caused by the migration from other technologies to VoIP technology (mainly, in combination with other FTTx services within bundled offers).

The number of subscribers (thousand)



	2013	2014	2015	2016	2017	2018
subscribers	1,201	1,097	950	840	714	595

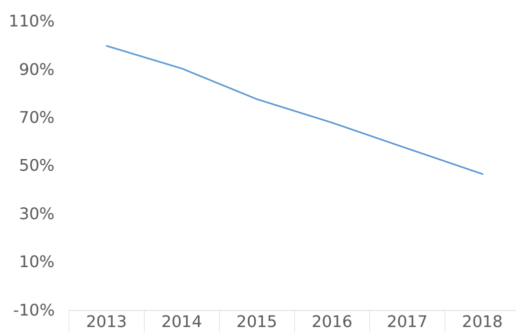
The number of subscribers (thousand)



	2013	2014	2015	2016	2017	2018
Wired	565	554	513	483	432	385
Wireless	595	491	382	294	217	145
VoIP	41	52	54	64	65	65

As of IV quarter of 2018, the penetration of fixed telephone services was 47%[35]. The same indicator last year amounted to 57%. Different from terms and conditions of mobile services, operators do not annul the telephone line of the subscriber in a short period of time in case of failure to use the service, which more or less promotes retention of subscribers. Otherwise, the given indicator would be even lower.

Penetration (by households)

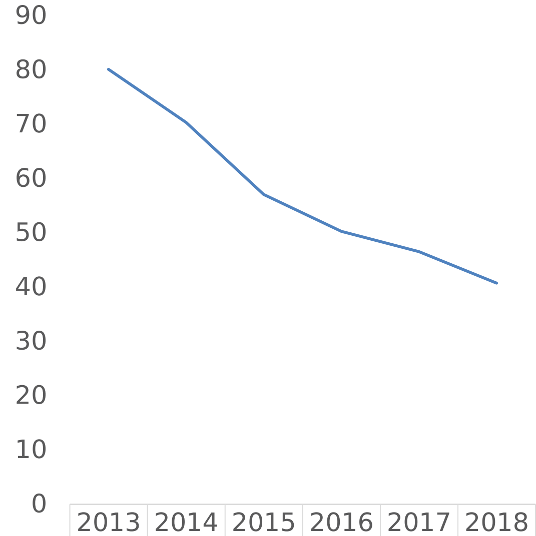


	2013	2014	2015	2016	2017	2018
penetration by households	100%	91%	78%	68%	57%	47%

34 Certain companies use several technologies at the same time. Respectively, by technology the sum of the number of operators is not equal to the sum of total active operators
35 Number of Fixed telephone service residential subscribers divided by number of households in the country.

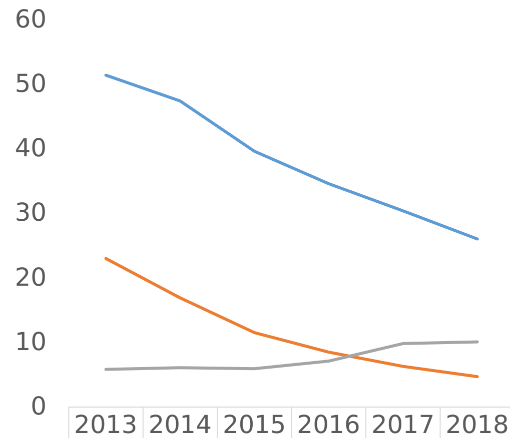
A decreasing trend is observed in the total retail revenue of fixed telephone service whereas the revenue of VoIP technology only is slightly increasing.

Retail Revenue (million Gel)



	2013	2014	2015	2016	2017	2018
Revenue	80.2	70.4	57.1	50.3	46.6	40.8

Retail Revenue (million Gel)



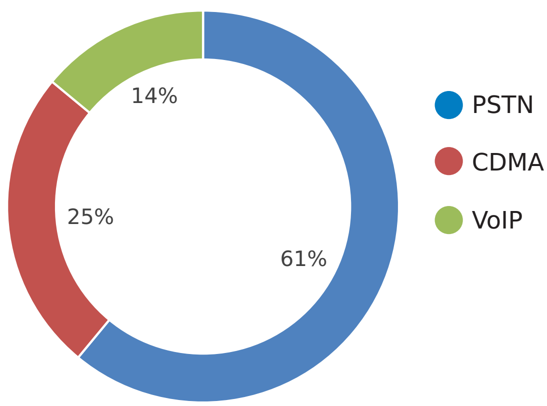
	2013	2014	2015	2016	2017	2018
Wired	51.4	47.4	39.6	34.6	30.4	26
Wireless	23	16.9	11.5	8.5	6.3	4.7
VoIP	5.8	6.1	5.9	7.1	9.8	10.1

Outgoing traffic of fixed telephone service in 2018 reduced even more. If in 2017 it amounted to 873 M minutes, in 2018 it amounted to 666 M minutes.

Outgoing minutes (million)

	2013	2014	2015	2016	2017	2018
Outgoing min.	2,048	1,728	1,341	1,117	873	666

Outgoing traffic by technology

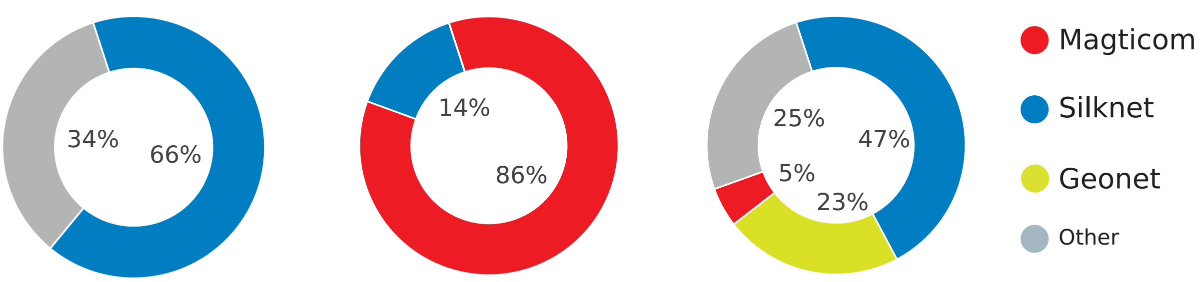


“Silknet” was leading with the number of PSTN service subscribers whereas “Magticom” held the dominant share of wireless fixed (CDMA) subscribers. Silknet was leading in respect with VoIP technology subscriber number with “Geonet” on the second place.

Distribution of PSTN subscribers

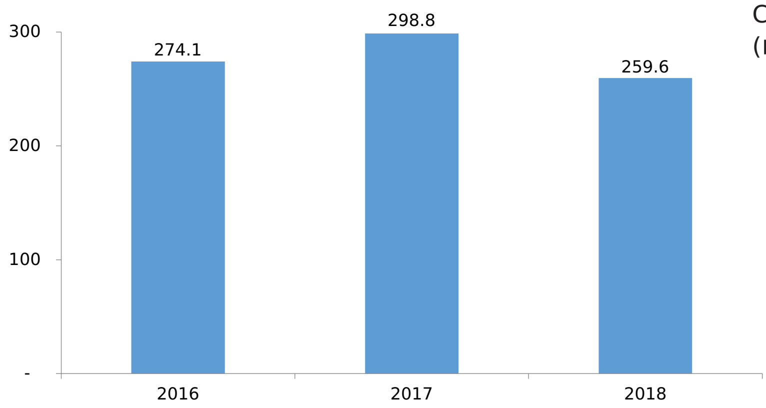
Distribution of fixed wireless subscribers

Distribution of VoIP subscribers



Capital investments in electronic communications

In 2018, the amount of capital investments in electronic communications equaled 259.6 million GEL, which is 13 % less than the same indicator of 2017.

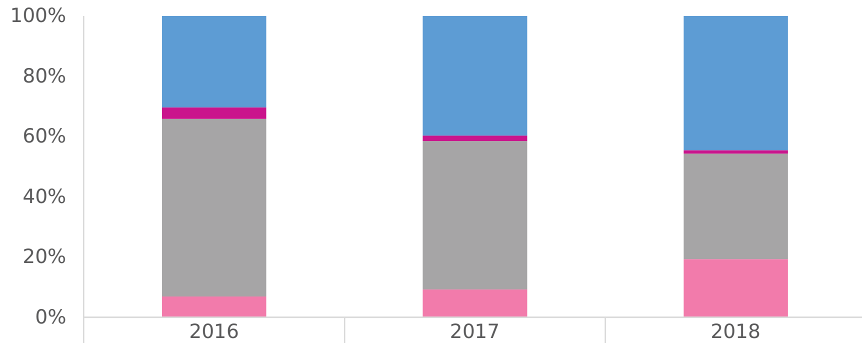


Capital investments in electronic communications (million GEL)

According to the data provided by the companies, in electronic communications, three companies are making major investments[36]: Ltd "Magticom", JSC Silknet" and Ltd "Veon Georgia". Investments made by them amounts to 92% of the total amount.

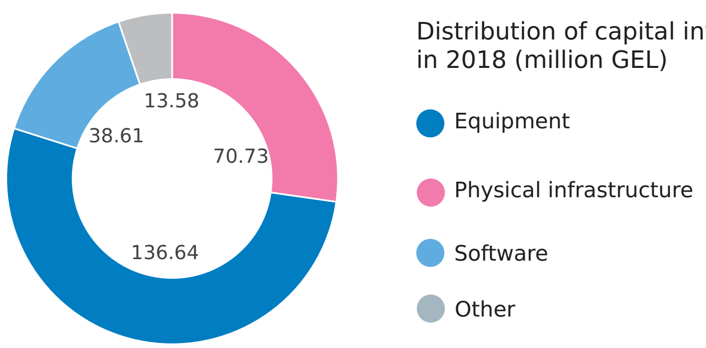
During the last three years, the share of capital investments of fixed wired and broadcasting transit service increased.

Distribution of capital investment in electronic communications by the type of network



	2016	2017	2018
Fixed cable service network	30%	40%	45%
Fixed wireless service network	4%	2%	1%
Mobile communication network	59%	49%	35%
Transit service of broadcasting	7%	9%	19%

According to the data of 2018, the largest share of capital investment 53% was made in electronic communications equipment.



Distribution of capital investment in electronic communications in 2018 (million GEL)

36 Capital investments include data on companies whose annual revenues are more than 80%

Harmonization of Georgian laws with the European Legislation

The package of amendments of the law of Georgia on Electronic Communications

The EBRD-funded project “Developing Electronic Communications Sector in Georgia”, ended in 2018. In the framework of the EU-Georgia Association Agreement, with a view to complying with the obligations undertaken by the country, the Commission, following recommendations of experts of EBRD, developed and sent to the Ministry of Economy and Sustainable Development of Georgia the package of amendments to the Law of Georgia on Electronic Communications which is fully commensurate with the European legislation. The draft law aims at supporting the development of the market of electronic communications. To provide the competitive environment in the sphere of electronic communications, significant guarantees need to be created and effective mechanisms of protecting the interests of users should be developed.

New regulations are defined according to the following directives by means of changes to be made into the law of Georgia on Electronic Communications:

- On a common regulatory framework for electronic communications networks and services;
- On the authorization of electronic communications networks and services;
- On access to, and interconnection of, electronic communications networks and associated facilities;
- On the processing of personal data and the protection of privacy in the electronic communications sector.

Change of current legislation in the field of electronic communications with support of the Twinning Project

With a view to harmonizing with the European legislation and regulations, the Commission shared the practice of EU Member states and within the scope of the “Twining Project” developed a number of draft regulations as follows:

- Draft regulation on approving the rules and procedures for carrying out public consultations;
- Draft resolution concerning the approving of general permission;
- Draft proposal of amendments to the Resolution N3 of March 17, 2006 of the Georgian National Communications Commission concerning the approval of the Regulations on the provision of services and on the protection of residential subscriber rights in the field of electronic communications;
- Draft resolution of the government of Georgia on approval of Technical Regulations of Radio Equipment in accordance with the Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the marking available on the market of radio equipment and repealing Directive 1999/5/EC. The draft resolution has already been submitted to the Ministry of Economy and Sustainable Development of Georgia;
- Three years action plan for approaching Internet Governance and network security issues.

The package of amendments of the law of Georgia on Broadcasting

Georgian National Communications Commission, with participation and recommendations of EBRD and EU experts studied the conformity of the Directive N2010/13/EU of the European Parliament and of the Council of March 10, 2010 on audiovisual media services with the Georgian legislation and submitted the package of legislative changes in respect with audiovisual media services to the parliament of Georgia.

The obligation of bringing the legislation of Georgia on audiovisual media services in compliance with the EU directive[37] 2010/13/EU is defined by appendix XXXIII of the Association Agreement. Full-scale analysis of legislation was made by EBRD, European Commission and European council experts in the area of broadcasting according to which recommendations were given to implement number of changes in the Georgian legislation in order to be in line with the European legislation.

The prepared package of amendments defines those rules that ensure media pluralism. It also envisages creation of equal conditions for new types of audiovisual media on the market and ensuring availability of media services for disabled people. The draft law ensures protection of minors from harmful effect and efficient response to the programs aimed at incitement of hatred based on various grounds.

37 EU Directive of March 10, 2010 of the European Parliament and 2010/13/EU of the Council of Europe on coordination of certain decrees envisaged by the rules, regulations or administrative acts of member states related with provision of audio-visual media service

Broadcasting

Pre-Election Monitoring

According to the Resolution of the Georgian National Communication Commission of August 15, 2012 on participation of media in pre-electoral process and rules of its application, the Commission has the obligation to procure the service necessary for conducting media monitoring or immediately carry out media monitoring and/or use the results of media monitoring carried out by international organizations with high public confidence and/or by the subjects of civil sector during election process and the results that are publicly available da relevant to these rules.

The commission provided 24-hour media monitoring of the pre-election period of 2018 Presidential elections, from August 28 to November 28, taking into consideration the second round of elections. The monitoring, which, together with the employees of the Commission, was carried out by specially selected monitors, was conducted for more than 40 TV channels, up to 40 radio broadcasters and newspapers funded from the central and local budget.

In the process of media monitoring, pre-election advertising, pre-election debates, news and Current affairs programs, the pre-election propaganda and public opinion polls were the subject of observation of the Commission.

During the monitoring detailed analysis was made regarding fair and transparent distribution of time for the pre-election paid and free political advertisements by the broadcasting companies. In the reporting period, in the process of monitoring of news and Current affairs programs, as well as pre-election debates, attention was focused on the time allocated for qualified electoral subjects and transmitting their pre-election activities by broadcasting companies. Coverage of the political subjects by the broadcasters, who were not qualified electoral subjects, but took part in the elections, was also monitored.

Media monitoring results include information about the time dedicated directly or indirectly to the election subjects in news programs in Prime Time as well as beyond it. The information is also provided in gender respect.

In the reporting period attention of the Commission, election subjects, media and the NGO sector was focused on several main issues:

- Public opinion polls conducted by the broadcasters;
- Airing political/pre-election advertisement by the broadcasters;
- Increasing the limit of free political/pre-election advertisement by the broadcasters;
- Law-compliance of political/pre-election advertisements;
- Registration of the so-called technical candidates by the qualified election subjects;
- Ensuring pre-election debates by broadcasters.

In the pre-election period of 2018 Presidential elections, the Commission published three detailed reports[38] of media monitoring.

The Commission studied every specific issue and took lawful measures for nonobservance of obligations under the current law by the broadcasters.

The protocols of administrative law violations drafted in the process of media monitoring of the pre-election period of 2018 Presidential elections by the TV-broadcasters:

Violation	Protocols
Violation of the rule of publishing public opinion poll results in the pre-election period	10 protocols
Failure to submit to the Commission obligatory information defined by the law	2 protocols
Failure to air the pre-election/political advertisement	2 protocols
Failure to provide the sign language translation	3 protocols
Debates of qualified subjects	3 protocols

Product Placement

At the beginning of 2018 the Commission adopted Guidelines on Product Placement[39]. The aim of adopting recommendations related with the issues of product placement was to inform the broadcasters and other interested parties about obligations envisaged by the current legislation of Georgia and rights and responsibilities of the Commission.

Priorities of radio broadcasting

In accordance with the legislation of Georgia on Broadcasting, once in two years the Commission defines priorities of radio broadcasting according to which competitions are announced in the area of radio broadcasting, winners are announced and licenses are issued to them. In 2018, the Commission approved radio broadcasting priorities as a result of public opinion poll[40], which are in force until June 7, 2020. On the basis of the decision of Commission in the given period, competitions to obtain licenses of private, generalist or specialized radio broadcasting and community broadcasting, will be announced separately taking into consideration license applications. Besides, competitions for operating radio broadcasters will be announced separately with the view of expanding the existing broadcasting area and establishing a new local broadcaster. Upon announcing the competition and assessing the broadcasting conceptions of license seekers, the Commission will be guided by the defined radio broadcasting priorities for every type of broadcasting (private and community) and the sub-type of private broadcasting (general and specialized). Competitions for community radio broadcasting will be announced in a separately allocated frequency. Besides, the Commission will be guided envisaging priority radio programs reflected in the public opinion poll when assessing the competition to obtain specialized radio broadcasting license.

38 http://bit.ly/2JHs7Cs (www.gncc.ge)
39 http://bit.ly/2JHtlO4 (www.gncc.ge)
40 http://bit.ly/30n7nGj (www.gncc.ge)

Analysis of Revenues from TV Advertising in 2012-2017

The Georgian National Communications Commission conducted analysis of the revenues of 2012-2017 TV advertising[41] and published the results in 2018. According to the analysis, as of 2012-2017, the revenue from TV advertising is increasing. Two biggest media holdings “TV Imedi” (TV company “Imedi”, “GDS” and “Maestro”) and “Broadcasting company Rustavi 2” (“Rustavi 2”, “Comedy”, “Marao”) account for 81% of advertising revenues.

In 2017 the mentioned two media holdings significantly changed the system of selling the advertising time, namely, the right of exclusive selling of advertising time on their own channels was transferred to the company “Intermedia”. The mentioned deal caused significant change of TV advertising revenues on the advertising market.

With the view of studying the TV broadcasters' advertising revenue, the Commission requested information from advertisers on advertising expenditures. As for the TV companies, it was requested to submit the information on the received revenues from the advertising time sold by them. Analysis of submitted information demonstrated that in certain cases, advertising agencies fees were 27 % whereas in others cases, this amount reached 33 %. Studying the amounts paid by these and other companies for advertising clearly illustrated that TV companies did not get total advertising revenues. Respectively, this amount was not reflected in their revenues. It is worth noting that before 2017, the service rate of advertising agencies fluctuated between 5-7 % whereas with the structure which was created in 2017, no less than 20 % of the total revenue of the additional advertising market remained beyond TV companies, except the mentioned 7 %. Respectively, the amounts that broadcasters earned were reduced rather than the advertising market.

Analysis demonstrated that 15,031,975 million GEL which TVs should have got but failed to do so, remained beyond broadcasters. This was due to the new structure of sales which companies established in 2017. It is worth mentioning that from 2018, they themselves refused selling advertising within the mentioned system and the same system does not operate now.
The change in the structure of revenue distribution at the advertising market was reported in IV quarter of 2015 too. However, the reason was different. This is demonstrated by the comparative analysis conducted within the quarterly scope of weighted rating points and revenues of companies in 2014-2015.

Namely, revenues of the first three quarters of 2015 (from commercial advertising and sponsorship) are equal to the same indicator of 2014 whereas revenues of IV quarter of 2015, compared with the similar period of 2014, get reduced by 34 %.

It appeared that different from the declared revenue of broadcasters, the trend of the so-called “wGRP” of IV quarter and the sum of three quarters of 2015 is similar. To be more specific, revenues of the first three quarters of 2014-2015 are correlated with the “wGRP” of the same period whereas in IV quarter it is missing from the overall picture. With the view of discovering the data of which TV company (companies) led to the mentioned non-standard tendency, advertising and sponsor revenues were given in terms of companies.

No reduction of revenues from advertising of “TV Imedi” was observed in IV quarter of 2015 whereas the revenue of “Rustavi 2” of IV quarter of 2015, compared with 2014, declined by 55 % whereas that of the first three quarters increased by 3 %. If we take into consideration the fact that no change was observed in the dynamics of revenues of three quarters of “Rustavi 2” and other TV channels, in IV quarter of 2015 company “Rustavi-2” should have obtained minimum 10 million Gel more revenue.

Market analysis demonstrated that, similar to the revenues of the TV advertising market in 2017, those of 2015 did not declined either. They are minimum 10 million Gel more compared with the information on revenues of companies submitted to the Commission.

41 2012-2017 TV advertising revenue analysis - http://gncc.ge/uploads/other/3/3001.pdf

Development trends of the field of broadcasting in 2018

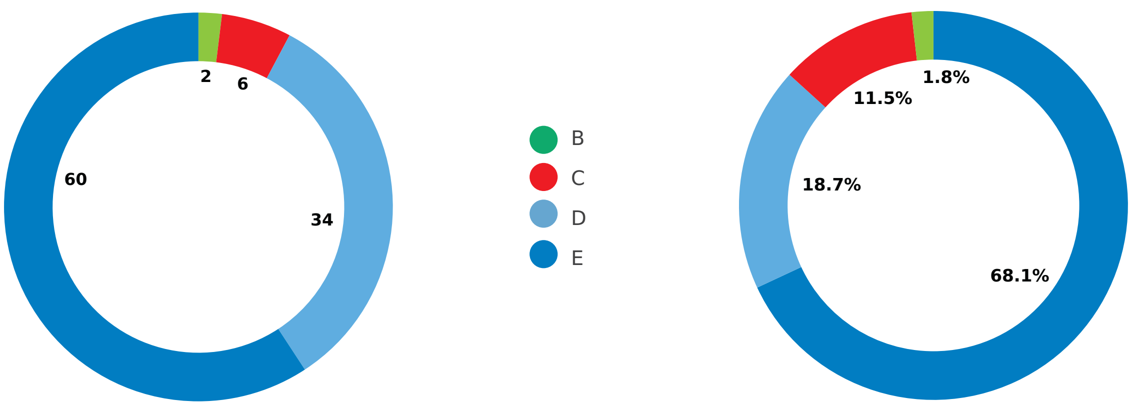
The existing media policy in Georgia is one of the liberal ones to carry out broadcasting throughout Europe. After the change of legislation in 2012, any physical or business is able to start broadcasting within the period of 10 days. As a result of the change of legislation, the mentioned sphere became fully deregulated. It is possible to start broadcasting without barriers. Procedures before starting broadcasting are brought to minimum and to receive TV broadcasting, instead of obtaining a license, it is necessary to go through a simple process of authorization. The authorization procedure is almost the same as registration on the website (e.g. entering e-mail address and password and registration) and within 10 days after making the application, it is possible to start broadcasting. Simplification of procedures and liberal politics significantly increased the number of broadcasters and today media is more varied. Let us remind that before 2012 it was impossible to obtain the license to start broadcasting and there were only 4 national broadcasters in the country (including, the public broadcaster). In 2018 this figure increased to 21 and there were 21 national Digital terrestrial broadcasters in the country. In 2018, overall, 98 TV broadcasters were registered in the country whereas before 2012, only 54 TV stations broadcasted (including regional and cable ones).

Overall, as of 2018, 57 radio stations broadcast in Georgia.

In 2018, 102 active companies[42] were identified in the area of broadcasting. The revenues of more than 10 million GEL was received from broadcasting by only two companies (B category[43] companies) and the total revenues received by them amounted to 68.1% whereas that of the business entities who received less than 100,000 GEL in 2018 (Category E 61 business entities) amounted to 1.8 % of total revenue.

The number of active broadcasters by segments

Distribution of revenues of active broadcasters by segments



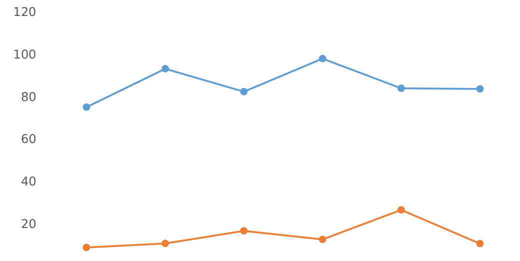
42 The person who had several types of revenues form broadcasting throughout the year is regarded as the active one
43 The following categories are regarded as traditional:

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

The total advertising revenue from broadcasting in 2018 amounted to 83.8 million Gel which compared to 2017 was 84.1 million Gel.

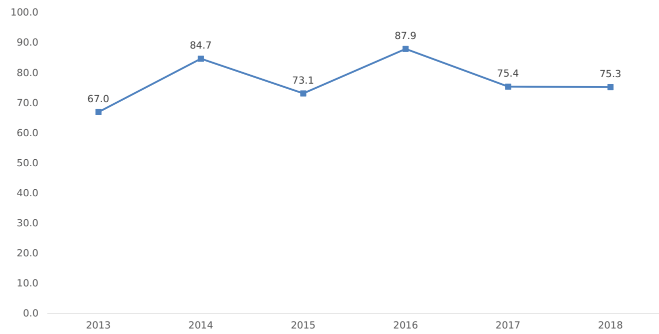
In 2018, the total advertising revenue of TV broadcasting reached 75.3 million GEL whereas this indicator was 75.4 M GEL in 2017.

Revenues received from broadcasting (million Gel)



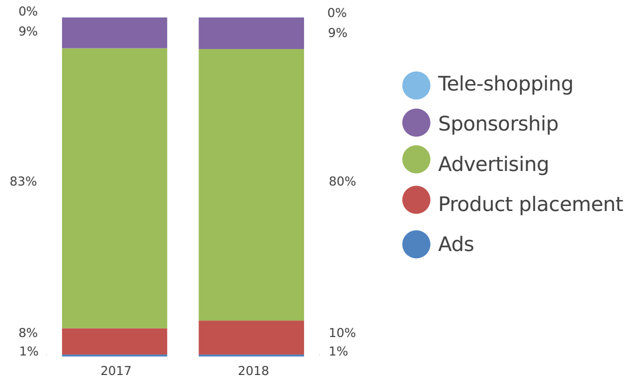
	2013	2014	2015	2016	2017	2018
Advertisement revenues	75.2	93.3	82.5	98.1	84.1	83.8
Other revenues	9.1	11	16.9	12.9	26.8	10.9

Advertising Revenues (million GEL)



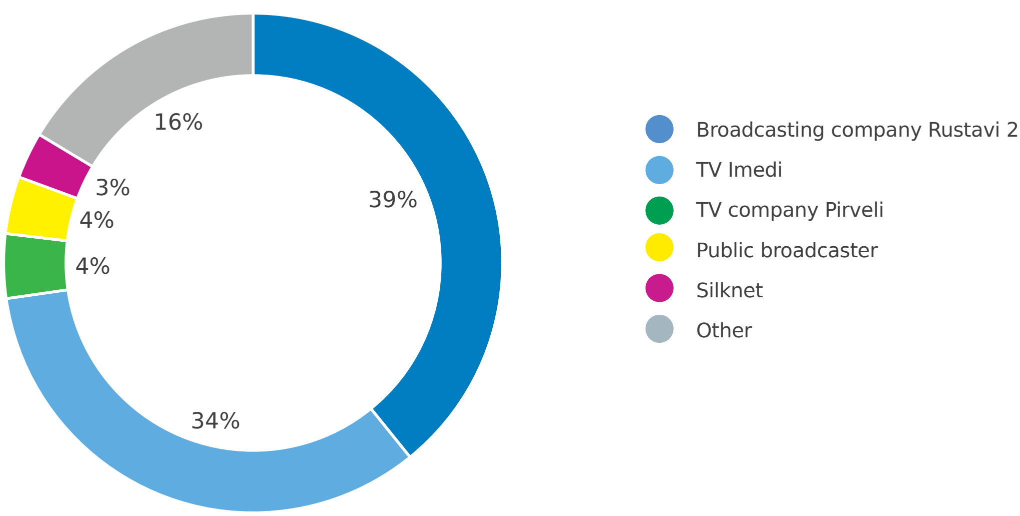
Advertisement, product placement and sponsorship serve as the main source of the total revenue from advertising. It is worth mentioning that the share of product placement in 2018 increased by 2 % compared with 2017.

Distribution of advertising revenues from broadcasting by the type of revenue



Rustavi 2[44] accounted for the largest share of advertising revenue from TV broadcasting in 2018 - 39%, followed by Imedi TV - 34%, TV Company Pirveli and the Public Broadcaster - 4-4%, "Silknet"[45] - 3%. The total share of advertising revenue of other TV companies amounted to 16 %.

Distribution of advertising revenue from TV broadcasting by companies

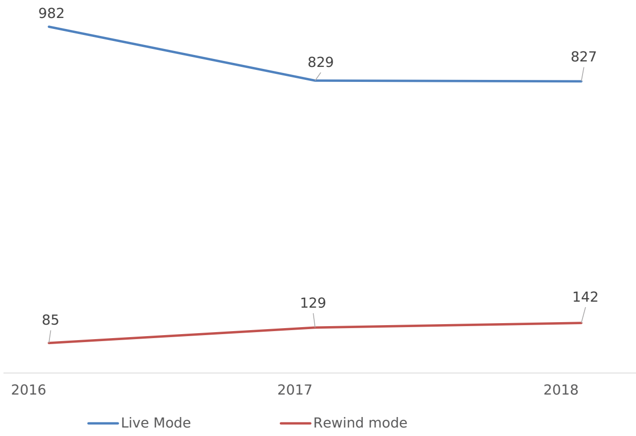


44 The following broadcasting channels are included into the "Rustavi 2" holding: Rustavi 2; "Third" and "Marao"
45 Silknet channels are: "Silknet Universal", "Silk Sport 1", "Silk Sport 2", "SilkSport 3", "Silk Kids", "Silk Kino" and "Silk Kino Collection"

Viewing behavior in direct/live and rewind mode

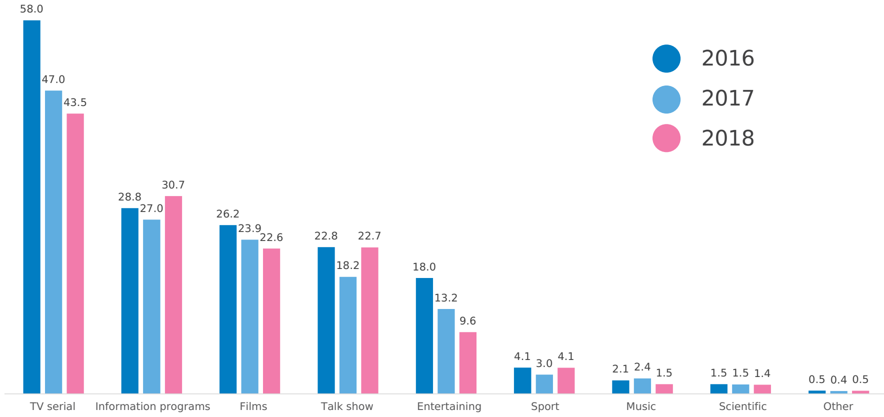
In 2018, on average, one person watched TV for 970 hours during the year. The decrease in live TV viewership compared to 2016 is worth noting. However, from year to year watching TV by using the time shift functions is increased.

Average TV watching rate per person throughout the year (in hours)

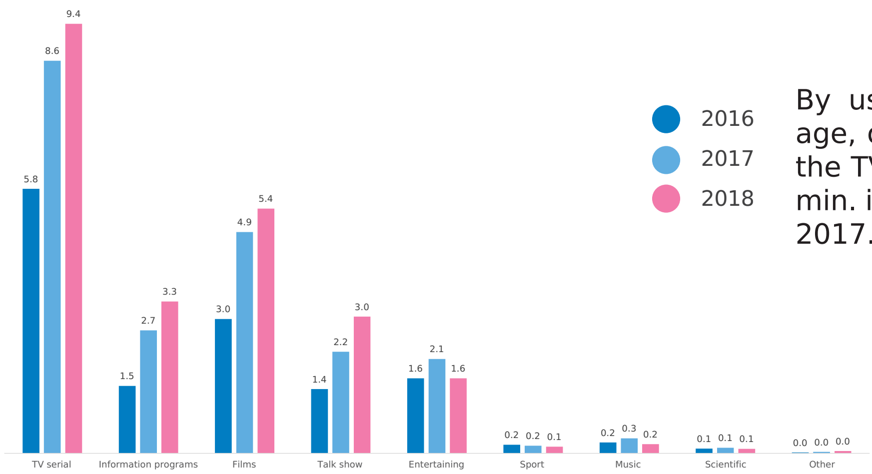


Out of 969 hours watching live broadcasting, on average, one person dedicates 43 minutes to TV serials. Compared with 2016, the mentioned time is 15 minutes less. In 2018, compared with 2016, the watching rate of information programs increased by 2 minutes. Compared with 2017, that of talk shows grew by 4.5 minutes.

The average watching rate of program genres in live per person, per day (hour)



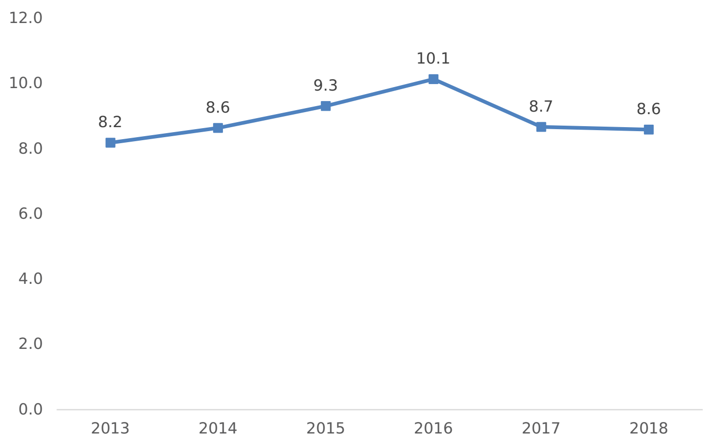
Watching programs on average by one person, per day, in the rewind mode (hour)



By using the rewind function, on average, one person most frequently rewinds the TV serial genre which, increased by 4 min. in 2016 and 1 minute compared with 2017.

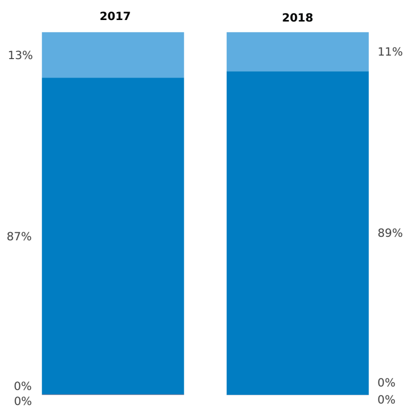
Generated advertising revenues by the radio broadcasters in 2018 amounted to 8.6 million GEL (in 2017 this indicator equaled 8.7 million GEL).

Radio advertising revenues (million GEL)



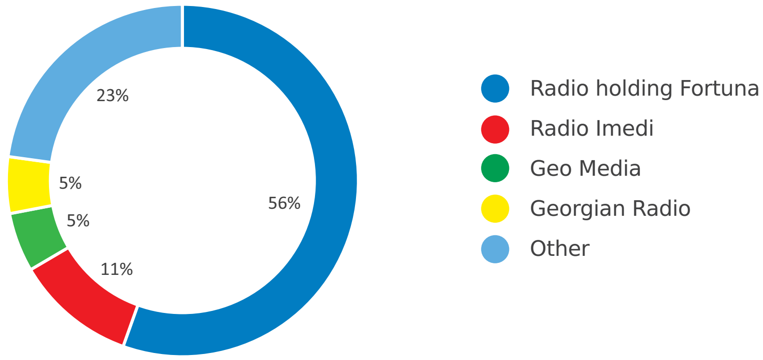
Advertising and sponsorship mainly accounted for the main share of radio broadcasters advertising revenue – almost 100% whereas a small share accounted for the product placement and adverts.

Distribution of advertising revenues of radio broadcasters by type



Advertising revenues from radio broadcasting by the amount were distributed as follows: in 2018 Radio Holding Fortuna accounted for the largest share - 56%, followed by Radio Imedi – 11 %, Geo Media and Georgian Radio - 5-5 %. The total amount of advertising revenues of other broadcasters reached 23 %.

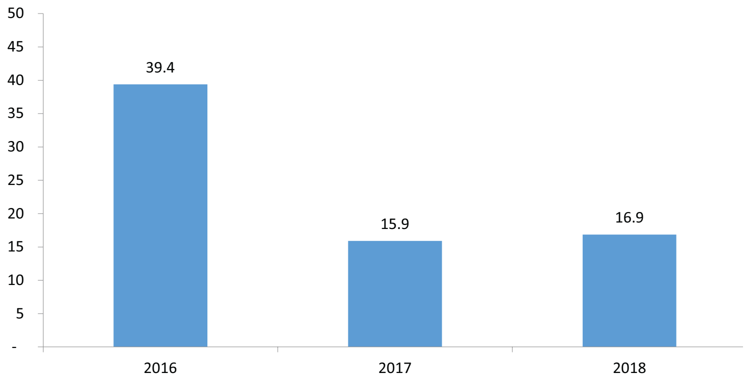
Distribution of revenues of radio broadcasters from advertising by companies



Capital investments made in broadcasting

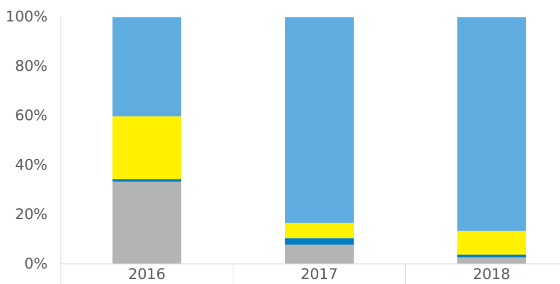
In 2018 the amount of capital investment[46] made in broadcasting was 16.9 million GEL, which exceeds by 6% the same indicator of 2017.

Capital investment (million GEL) made in broadcasting (TV, radio)



For the last two years content accounts for more than 80% of capital investment made in broadcasting.

Capital investment made in broadcasting by type of service



	2016	2017	2018
Broadcasting content (including license fee)	15.8	13.3	14.6
Equipment	10.0	1.0	1.6
Software	0.4	0.4	0.2
Other	13.1	1.2	0.4

Contributions to the State Budget

The amount of taxes[47] paid by broadcasters to the state budget of Georgia in 2018 equaled 19,900,370 GEL whereas the amount paid by authorized persons and/or license holders granted in accordance with the Law of Georgia on "Electronic Communications" amounted to 250,545,568 GEL. As for the revenues received from licensing, in 2018, overall, 12, 405, 992 GEL were paid to the state budget from the communications sector.

448, 749 GEL were transferred to the budget from fines paid for administrative violations.

Overall, 283,300,679 GEL were transferred in 2018 to the state budget from the communications sector.

46 Capital investments involve the data of those companies whose total annual revenues in 2018 reached more than 80 % of total revenue excluding the data of "Public Broadcaster".
47 Revenues tax, profit tax, VAT, excise tax, land tax (agricultural-non-agricultural)

International Cooperation

The EU-funded Twinning Project "Supporting the Georgian National Communications Commission in developing of its electronic communications regulatory framework and operational capacities in line with EU regulatory framework" was launched on December 12, 2017 and has been implemented by the Communications Regulatory Authority of the Republic of Lithuania in partnership with the German Federal Ministry of Economic Affairs and Energy and the Office of Electronic Communications of the Republic of Poland. The project consists of six components:

- In-depth review of regulatory framework of the Georgian National Communications Commission in order to come in line with the EU regulatory framework;
- Encourage fixed and wireless broadband development and develop respective regulations;
- Define relevant markets subject to preliminary regulation in the electronic communications sector;
- Develop methodology of radio frequency spectrum award;
- Enhance the role of the Commission in Internet Governance and network security issues;
- International roaming regulation.

Within the framework of the twinning project, along with significant works, analysis of the retail service market through allocated channels was carried out on the basis of which the Commission received a Decision 671/9 of December 6, 2018 on the results of research and analysis on the respective market segments of wholesale service through allocated channels. Draft changes were prepared on international roaming in the Regulations on the residential subscriber rights protection. The document covers main conditions of international roaming services, informing the residential subscribers, network management, alternative offers, evading "bill shock" and the fee issues.

- The Georgian National Communications Commission was elected as a Chair of the EaPeReg (Eastern Partnership Electronic Communications Regulators Network) for 2019. Thus, during 2019 GNCC will lead activities of EaPeReg together with the Network Vice-Chair – Public Utilities Commission of Latvia (SPRK). At the same time, the Commission will be responsible for chairing the EaPeReg "Spectrum Experts Working Group" (SEWG).

- Network activities throughout 2018 developed in the following directions: legislation harmonization and independence of the regulator, frequency coordination; reduction of roaming tariffs, broadband development- digest mapping of infrastructure and development of electronic communications markets.

- Main issues of the Spectrum Experts Working Group are: implementation of the mobile communications network based on LTE technology as well as supporting introduction of digital TV and digital dividends. When discussing the issues connected with coordination, the aim of the group is to develop efficient mechanisms. SEWG actively works on the modern 5G communications network implementation and developing future strategies of introduction. Within the scope of SEWG, respective data analysis was carried out in terms of the spectrum and licenses in Member States. The agreement was reached about the approaches of regional coordination. Issues of repeated planning or potential new distributing or transmitting channels of broadcasting have been developed. A new approach and future strategy of mobile services were developed in the 790-862 MHz range for ECS coordination. Besides, any modified change of the GE-06 plan is supported taking into consideration of future development.

- With the view of EU approximation, the Broadband and Benchmarking Experts Working Group (BBEWG) conducted comparative analysis of regulations of the Partner and EU countries in terms of statistical indicators and the regulatory framework and prepared reports on comparative analysis and statistical indicators of the regulatory framework[48].

- The project supporting the Roaming Experts Working Group (REWG) funded by the European Commission was finalized. With the assistance of consulting consortium legislation and roaming markets of Azerbaijan, Belarus, Moldova, Georgia, Armenia and Ukraine were studied. The Project Team issued recommendations on signing the Regional Roaming Agreement (RRA) between the Eastern Partnership countries and reducing roaming tariffs. On the basis of the mentioned agreement, REWG developed and approved the 2019-2020 Roadmap towards RRA. The roadmap defines the activities within the estimated timeframes to achieve the final goal of the REWG – sign the RRA, create the common space of roaming within the EaP and reduce the international roaming tariffs.

- During the reporting period “The European Dialogue on the Issues of Internet Governance” was carried out which was attended by more than 300 representatives of the European countries and the EU structures as well as the European Parliament and the associations of the European Telecommunications Network operators. Within the scope of EuroDIG 2018, issues of internet management and digital economy development were discussed, including, human rights protection in internet, freedom of expression, copyright protection, new regulations on data protection (GDPR), cyber security, access to internet and content and development of telecommunications infrastructure. The issues related to the community internetization, domain names, protecting juveniles in internet, digital economy, digital literacy and innovations, etc.

- .GE country code Top Level Domain and .გე Internationalized country code Top Level Domain zones – development trends and challenges were one of the main topics of the 14th Internet Governance Forum held in 2018. At the same time, within the scope of Geo-IGF 2018, the internet community international experts talked about the key issues such as: access to the internet and broadband gap – connectivity developments and future of community networks in Georgia, safe internet “puzzle“ and Georgia, internet content and copyrights - Georgia and EU, internet market – competition and other barriers as well as internet readiness of residential subscribers.

- With support of the Georgian National Communications Commission, the Advisory Board of .GE ccTLD Management was established. The main goal of Advisory Board is to increase transparency of management and registration of .GE ccTLD. The Board should ensure active involvement of interested entities in finalizing the .GE ccTLD regulations. It should also provide supervision of the administration process and identification of problems shortly, support the Registry to finalize procedures, improve the quality of service in the process of resolving the disputes and complaints.

- Within the scope of the Memorandum of Understanding between the RIPE Network Coordination Center (NCC) and the Commission signed in September 2017, the trainings related to the topic of “Internet Basics and Database Analytics” were held in several universities of Georgia.

- The Commission took part in the Council of Europe meetings of the MSI-JOQ Committee of experts on the quality of journalism in the digital age. The mentioned committee works on two main issues – media literacy in the digital era and promoting a favorable environment for digital journalism.

- The Commission participated in the meetings of the 5th study group (ITU-R SG5) of the radio communication sector of the International Telecommunications Union and the related working sub-groups 5A (WP 5A), 5B (WP 5B), 5C (WP 5C). ITU-R SG5 group will study terrestrial services, namely, systems and networks for fixed, mobile, radio-determination, amateur and amateur-satellite services.

48 http://eapereg.org/index.php/documents/public-reports

- Joint radio monitoring was carried out in borderline regions of Georgia-Azerbaijan related with TV/FM type of broadcasting in which representatives of the National Communications Commission and the Transport, Communications and High Technology Ministry of Azerbaijan took part. After finishing monitoring, processing and exchanging the monitoring results parties signed the respective protocol.

- During the reporting period, works envisaged by radio monitoring of the mobile communications wireless access network GSM/UMTS/LTE were carried out in the state borderline zone between Georgia and Azerbaijan.

- The Commission participated in the meeting of the consultation group of regulatory authorities of the Black Sea countries (BSDIFF) which was held on Geneva 06 Plan modification procedures, as well as the FM frequency resources coordination procedures selected with the view of modification of free frequency resources envisaged in the radio frequency spectrum distribution national plan.

- Regarding coordination procedures for the Tbilisi, Samtskhe-Javakheti, Ajara and other zones the meeting was held with administrations of the Republics of Ukraine and Turkey where the issues related with functioning of mobile wireless access networks in bordering regions were discussed.

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