Russian Pay TV and SVOD
Is Cord-cutting Really Happening?

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1. Executive summary

Pay TV

By the end of 2018, 43.2 million subscribers used Pay TV services in Russia, a 3.1% increase from 2017. The satellite TV subscriber base grew with the overall market, by 2.8%, DCTV grew by 5.7%, IPTV by 9.6%. The number of subscribers of analog cable TV continues to decline, with the ACTV audience decreasing by 1.8%.

J'son & Partners Consulting estimates the 2018 Pay TV revenue at 95.3 bn Rub (1.29 bn EUR). Revenue growth relative to 2017 was 14.2%.

Related services

The baseline forecast indicates that OTT TV services (non-operator streaming television broadcasting services) achieved the following results in 2018:

- Revenue – 8.7 bn Rub (117.36 mln EUR)
- Subscriber base – 2-2.5 mln. subscribers, which is 5-7% of Pay TV subscriber base.

According to the forecast of J'son & Partners Consulting, OTT TV service revenues will continue increasing. By 2023 it may reach 23.4 bn. Rub. (65 mln EUR), which is just about 1/5th of the Pay TV market. The size of the subscriber base in 2023 is projected to reach 11 million, more than a quarter (27%) of the number of Pay TV subscribers.

SVOD in Russia

Total market revenues of legal video services in 2018 was 24.86 bn Rub (335.3 mln EUR), not including VAT. From 2019 to 2022, revenues will continue to grow with an average rate of 24% and by 2022 revenues will be over 58.7 bn Rub (792.1 mln EUR), not including VAT.

Major SVOD market players:

- Online cinemas (SVOD revenue in 2018 – 4.44 bn Rub / 60 mln EUR.)
- TV channels (474 mln Rub / 6.4 mln EUR)
- Telecom operators (1.1 bn Rub / 4.8 mln EUR)

Cord-cutters

As of April 2019, the number of cord-cutters represents 4.3% of the population of major cities. This equates to 1.7 million people or 660 thousand households.

More than 40% of former Pay TV subscribers live in cities with populations of 1 million+.

Most professional online video viewers seem to be unwilling to have a paid subscription. 17% of them, however, have signed up for one at least once.

From 2017 to 2019 the number of cord-cutters in Russia was relatively small 1.7 million people or 660 thousand households. This represents 4.3% of the population of major cities and shows no tendency to expand.

2. Methodology

The following sources were used by J’son & Partners Consulting in its research:

- financial documents, 2016-2018 investor and stockholder reports, news and press releases by TV channels, Pay TV operators, distributors, production companies and online cinemas;
- interviews with market player companies;
- data provided by research and analytical agencies; and
- J’son & Partners Consulting market models.

Unless otherwise indicated, the J'son & Partners Consulting experts adhere to the following general prerequisites in preparation of the market forecasts, both in natural and monetary terms:

- the overall stability of the political and economic situation; and
- preservation of existing or emerging market trends at the time of the forecasts.

For forecasting purposes, the J'son & Partners Consulting experts take into account the following:

- the market participants’ view about the prospects for market development;
- indicative plans for public regulatory agencies; and
- forecasts and development models of related and dependent markets and industries.

The “Source: J’son & Partners Consulting" note in this report indicates that the data for any particular index calculation was acquired from the aforementioned sources and then processed by J’son & Partners Consulting techniques. J’son & Partners Consulting reserves the right to reconsider any particular conclusion and estimation in case of radical changes of the legal and market environment or acts of providence.

Terms and definitions

Online Cinemas serve as content aggregators that allow watching videos both through their websites and their applications for mobile platforms and Smart TV.

TV Channels are broadcasters principally monetizing their content on the internet either on a fee basis or advertising model. Some examples are Channel One, TNT and CTC.

Pay TV operators sell their VOD services on set-top boxes (STB). Some examples are Rostelecom, Megafon and MTS.

The **Digital Distribution Platform** is typically owned by companies who develop operating systems for different devices, and is installed as a component of the operating system. Moreover, until 2017 the digital distribution platforms in Russia (Google and iTunes) did not pay VAT and were in a different market situation from the other players.

Currency exchange rate

This report presents the market assessment in two currencies – rubles and euros. The exchange rate used for converting Rub to EUR is presented in Table 1.

Table 1 The average annual Euro exchange, Rub

Year	1 EUR, Rub
2014	50.9928
2015	67.9915
2016	73.9924
2017	66.0305
2018	74.1330

Source: J'son & Partners Consulting, The Central Bank of the Russian Federation

When calculating the forecast values, the average annual exchange rate of 2018 was used.

3. Russian pay TV market 2017-2023

At the end of 2018, 43.2 million viewers used Pay TV services in Russia, 3.1% more than in 2017.

Accounting for relocations, the number of households connected to Pay TV was 35-36 million, or 62-63% of the population. Growth over the previous year amounted to 1%.

J'son & Partners Consulting estimates that in 2018, Pay TV revenues amounted to 95.3 bn Rub (1.29 bn EUR), rising 14.2% in relation to 2017.

3.1. Subscriber base, ARPU, revenue

3.1.1. Basic pay TV service

Subscriber base (SB)

J'son & Partners Consulting defines a basic Pay TV service as a provision to subscribers of linear viewing of TV channels via cable, IPTV or satellite broadcasting.

At the end of 2018, 43.2 million viewers used Pay TV services in Russia, 3.1% more than in 2017.

Accounting for relocations, the number of households connected to Pay TV was 35-36 million, or 62-63% of the population. Growth over the previous year amounted to 1%.

Table 2 Pay TV subscriber base, by technology, million

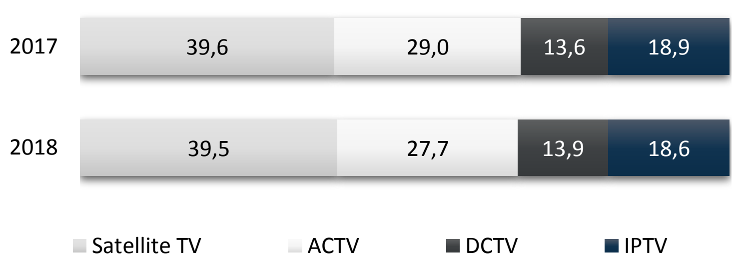
	2015	2016	2017	2018
Total	**39.8**	**40.9**	**41.9**	**43.2**
Satellite TV	15.7	16.3	16.6	17.1
Analog Cable TV	18.3*	18.2*	12.2	11.9
Digital Cable TV			5.7	6.0
IPTV	5.8	6.5	7.4	8.2

Source: J'son & Partners Consulting

**Prior to 2017, there was no separate accounting of analog and digital shares in cable TV*

Fig. 1 shows market shares of Pay TV distribution technologies. The shares of satellite TV decreased slightly due to its smaller growth rate, while shares of IPTV and DCTV subscriber base increased.

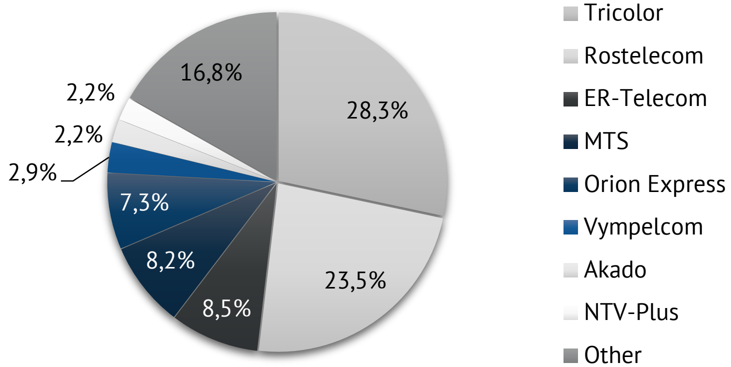
Figure 1 Pay TV subscriber base per technologies



Source: J'son & Partners Consulting, corporate data

Fig.2 shows the market shares of the country's largest Pay TV operators by subscriber base in 2018. Relative to the previous year, market shares were increased by Rostelecom (through the construction of new networks, broadband Internet connection and IPTV subscribers), MTS (new satellite TV subscribers) and ER-Telecom (M&A).

Figure 2 Market share of largest operators, SB, 2018



Source: J'son & Partners Consulting

ARPU

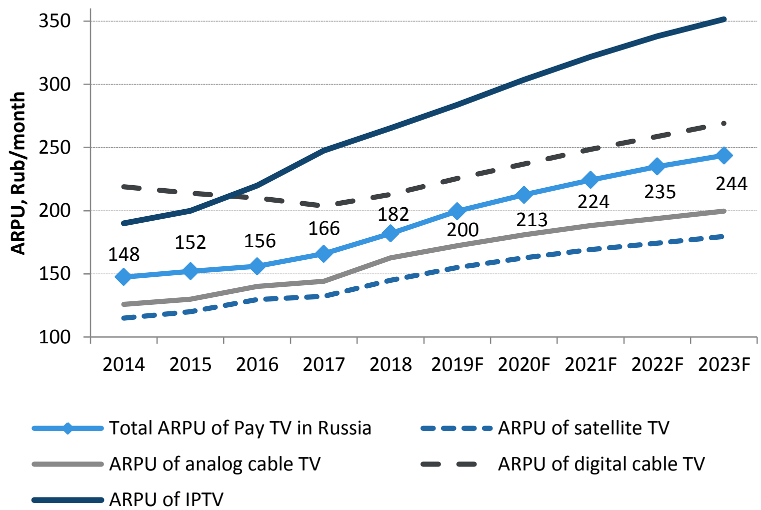
Average Revenue per User (ARPU) - average revenue per subscriber per month.

- ARPU in Russia is one of the lowest - not just in Europe but in the Commonwealth of Independent States (CIS) as well. Therefore, the main objective of all the Russian Pay TV operators is to increase revenue per subscriber. Considering the stagnation of subscriber base size and external threats, there are only two options for increasing revenue:
- Raising the basic service fee
- Increasing the number of subscribers for additional paid services

Rostelecom, Tricolor, ER-Telecom and NTV-Plus simultaneously implement both strategies. For existing customers, the market leaders increased the cost of services, and introduced new services (video on demand, mobile apps, etc.) in order to retain and attract new customers. Other players, who cannot operate from a position of strength, are forced to deal with an additional challenge of customer retention. The most common technique is price reduction. For example, Beeline and MTS offer integrated service tariffs that include a free TV feature.

As a result, the average revenue per user from basic Pay TV services grew in 2017 to 166 Rub/month (2.2 EUR/month) (see Fig. 3), up 6% from the previous year. In 2018 the trend continued, and ARPU increased by 10% to 182 Rub/month (2.3 EUR/month).

Figure 3 ARPU of basic services for Pay TV segments, Rub/month



Source: J'son & Partners Consulting

Revenue

In 2018 the total basic service revenues of the Pay TV market grew primarily due to the increase in the cost of basic services implemented by the primary operators.

J'son & Partners Consulting estimates that in 2018, Pay TV revenues amounted to 95.3 bn Rub (1.29 bn EUR), rising 14.2% in relation to 2017.

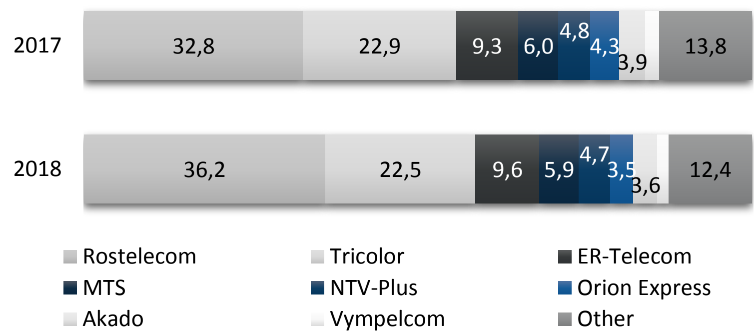
Effective July 18, 2018, Tricolor TV raised the basic package price by 25%, from 1,200 Rub/year (16.2 EUR/year) up to 1,500 Rub (20.2 EUR) (All-inclusive package). The tariff increase contributed to a 12% increase in revenues, even in the absence of subscriber base growth.

Rostelecom boosted Pay TV revenues for the year by 26%, thanks to the increased subscriber base in the Interactive TV segment and ARPU, as well as from the introduction of new IFRS standards. For example, profit from the lease of equipment is now also included in the operator's revenue.

ER-Telecom's revenues grew through active M&A strategies. Transactions in Irkutsk, St. Petersburg, Ekaterinburg and Novosibirsk allowed the company to increase its customer base by 14.5%, and by raising the cost of services, their revenue grew by 18%.

Fig.4 shows the market shares of major operators by revenue in 2017 and 2018.

Figure 4 Major operators' market share, % of total market revenues

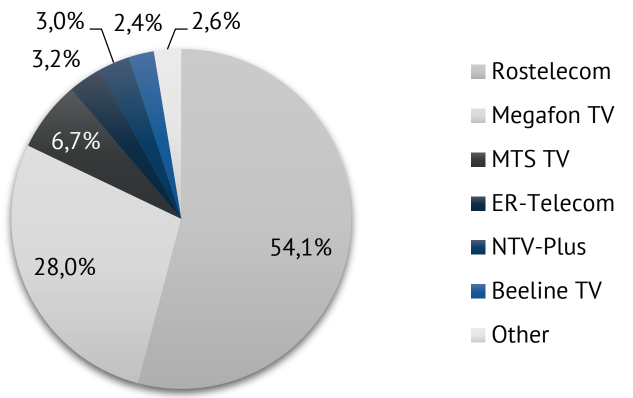


Source: J'son & Partners Consulting

3.1.2. Additional pay TV services

Pay TV operators consider the development of VOD services as one of the main ways to increase the average monthly revenue per subscriber. VOD services offer full-fledged platforms that contain VOD libraries and streaming broadcasting channels. Additionally, they are available to subscribers of other operators. As a result, the total revenues of operator VOD services in 2018 totaled 2.46 bn Rub (33.18 mln EUR), an increase of 35% over the previous year.

Figure 5 Operator VOD. Market player share of total revenue, 2018



Source: J'son & Partners Consulting

Megaphone had the most noticeable increase in VOD revenue. This provider actively develops special packages for online cinemas[1]. They already passed the threshold of 1 million active registered users per month, 15% of which are subscribers of third-party operators. The FIFA World Cup was a major driver, bringing a five-fold traffic growth.

In September 2018 Rostelecom introduced Wink, a multimedia OTT platform. Wink provides access to 200 TV channels, 12,000 movies and TV series, and will eventually include e-commerce, educational projects, online games, a Web portal, apps for mobile devices and Smart TVs.

Current subscribers of NTV-Plus can use a native mobile app to watch TV channels on televisions and mobile devices. This online video service is also available to non-subscribing viewers. In the first quarter of 2018 ARPU on the platform was more than 420 rubles (5.7 EUR) — 50 rubles (0.7 EUR) higher than for the satellite segment. The total number of users of the service exceeded 100,000, with more than 50,000 of them paying for services.

3.1.3. HD and 4K subscriber base

HD channels remain a major growth factor for the entire market as well as for the growth of the market in whole and for the transition to digital TV. According to J'son & Partners Consulting, at the end of 2018, Russia had 25.47 million HD subscribers, a 16.7% increase over 2017.

Table 3 HD channel subscriber base of Pay TV operators, mln. households

Operator	2018
Tricolor	10.6
Rostelecom	5.3
MTS	2.65
Orion Express	2.3
VympelCom	1.2
NTV-Plus	0.82
ER-Telecom	0.9
Other	1.9
TOTAL	**25.47**

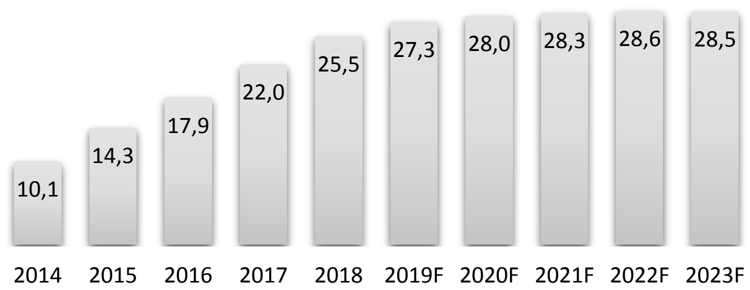
Source: J'son & Partners Consulting

[1] Online cinemas serve as content aggregators that allow watching videos both through their websites and their applications for mobile platforms and Smart TVs.

MTS showed the most noticeable increase in the number of HD TV users through active engagement of satellite TV subscribers.

According to J'son and Partners Consulting, growth over the next five years will continue at a slower rate. CAGR between 2019 and 2022 will be approximately 1.2%. Fig. 6 shows the projected growth of HD channel subscribers by 2023.

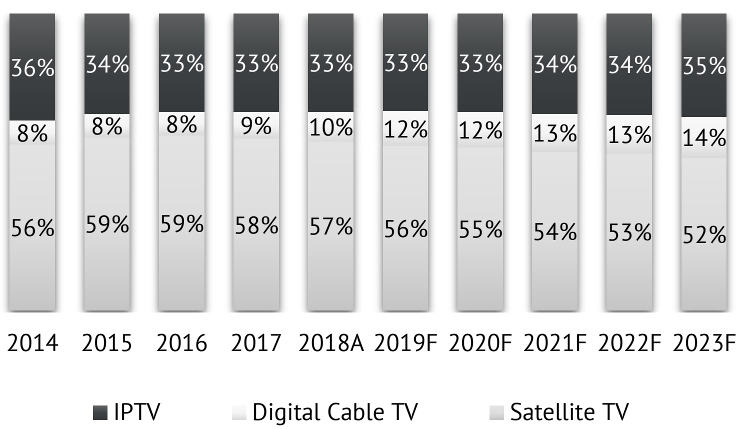
Figure 6 HD channel subscriber base projection, mln. households



Source: J'son & Partners Consulting

Fig.7 shows the forecast of the HD channel subscriber structure by signal delivery technology, through 2023.

Figure 7 HD channel SB structure forecast, by technology



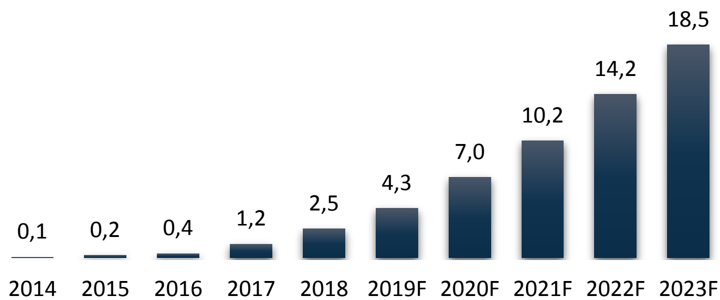
Source: J'son & Partners Consulting

The FIFA World Cup was a powerful stimulus for television fleet replacement in Russia. According to M.Video-Eldorado (Russia's largest electronics and household appliances retail company), the 2018 market volume of sold televisions reached 150 bn Rub (2.02 bn EUR), or 6 million units. Notably, the average price of a TV set decreased by 5% to 24,000 Rub (324 EUR).

The Ultra HD category is growing faster than the market because of lower than average prices (up to 47,500 Rub / 640 EUR). In 2018, sales in this category increased by 22% in units and 44% in value. Average screen size of purchased televisions also increased from 32 inches to 40-44 inches.

Based on this data, we can forecast the size of UHD-TV fleet in Russia (Fig. 8). It is expected that by 2023 there will be 18.5 million such televisions in Russian households.

Figure 8 UHD-TV fleet (4K), mln. units



Source: J'son & Partners Consulting

At the end of 2018, the following 4K content offerings were on the market:

1) Tricolor TV. Pack of 7 UHD channels. Cost – 1,500 Rub/year (20 EUR/year). Viewing is possible with the set-top box. Package composition:
   - Ultra HD
   - UHD movies
   - Serials
   - Eurosport 4K
   - Russian Extreme Ultra
   - Insight UHD
   - Fashion One 4K
2) NTV-Plus. Pack of 3 Ultra HD channels not offered separately. Available options: "Economy" package (63 Rub/month or 0.8 EUR/month) or "Basic"

(100 Rub/month (1.3 EUR/month) or 1,200 Rub/year (16.2 EUR/year)) with all necessary equipment. Package composition:

- Festival 4K
- Fashion One (4K)
- Home 4K

3) MTS. Four Ultra HD channels comprise an "Extended Plus" package. Viewing is possible with the appropriate equipment. Package composition:

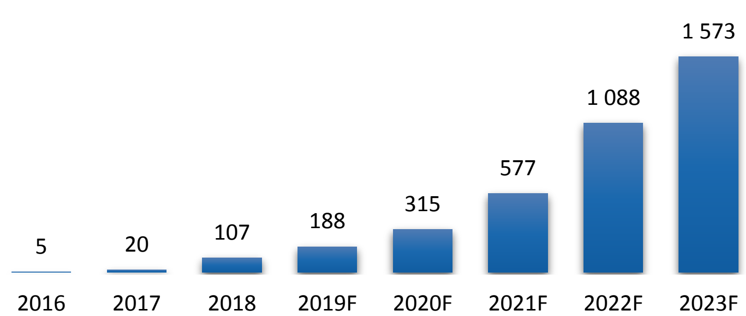
- Insight UHD
- Fashion TV UHD
- Russian Extreme Ultra Kino
- Eurosport 4K

4) ER-Telecom offers Insight UHD channel in text mode on digital cable TV.
5) Good Line, ISP from Kemerovo region, offers "Big TV 4K" set-top box with a package of UHD channels, one of which is "Our Siberia 4K".

Rostelecom and Beeline joined this market in 2019. Rostelecom will start selling a 4K-supporting console. Beeline updated its "Beeline TV" service on the new generation of IPTV set-top boxes, with affordable 4K movies and TV channels slated to appear in 2019.

By 2023, with the growth of the TV fleet and the expansion of content offered by the operators, the UHD TV subscriber base in Russia is expected to exceed 1.5 million. The subscriber base should experience rapid growth during the Olympic Games, World and European soccer championships in 2020 and 2022, respectively. CAGR in the period from 2019 to 2023 will be about 53%.

Figure 9 UHD TV subscriber base in Russia, thousand



Source: J'son & Partners Consulting

3.2. Pay TV market segmentation by technology

3.2.1. Satellite TV (STV)

Satellite TV signal delivery technology has an important advantage over the others: it is available in areas inaccessible to cable TV. To meet the demands of clients living outside of major urban centers, satellite operators work in the low-price segment. The subscription payment is mainly on an annual basis. Single payment for the entire year (the best-priced tariff for all players, and the only option at Tricolor) keeps the subscribers during the winter season (reducing subscriber churn), when televisions at "dachas" (summer homes) are not used.

MTS experienced the greatest growth of satellite TV subscriber base in 2018. Active marketing campaigns and package rates that include a mobile connection and Pay TV, allowed the operator to acquire 380 thousand new subscribers and to double its customer base.

Soon, satellite TV will face difficulties in increasing the number of subscribers, for the following reasons:

- Technical constraints on expansion of the service options
- Development of broadcast digital TV.

The first problem is being addressed through the development of online access to services. VOD and other additional services (Smart House, for example) can incentivize the connection to the "satellite" operator via the Internet.

The second problem requires a comprehensive solution because the demand for single-service TV will be in large extent satisfied by free multichannel broadcast TV. The operators have chosen different approaches of development:

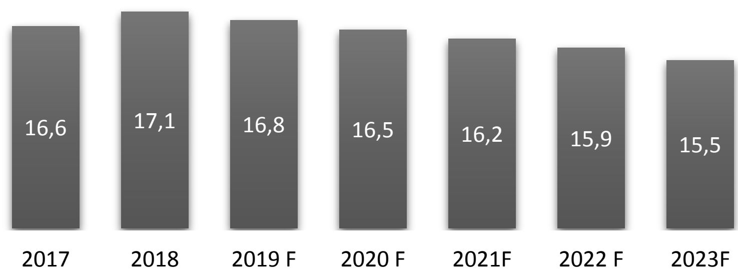
- tricolor plans to provide its subscribers with a full range of digital services: Internet access, TV, entertainment and home automation systems. They place their bets mainly on B2C-segment;
- NTV Plus has the largest offering of sports programming. The operator will develop multi-platform solutions and monetize content in every environment;
- Orion Express will develop multi-platform solutions for the B2C segment. In addition to subscription fees, the main source of income is revenue from providing services to TV channels, namely: live broadcast, TV channel delivery through satellite and ground-based signal delivery, creation of TV channels from the client's content or "on a turn-key basis", TV channels launch to the Russian and CIS market. Its share in the total 2018 revenue has reached 30% due to satellite uplink of channels and broadcast

advertising insertion (26% of the revenue) and distribution of channels (4% of total revenue); and

- for MTS, satellite TV is an important addition for bundling with other services, such as mobile communications, internet access, etc.

Satellite TV subscriber base forecast for the period 2019-2023 is presented in Figure 10. CAGR in the period from 2019 to 2023 will be negative, approximately -1.6%.

Figure 10 Satellite TV subscriber base change forecast, mln. users



Source: J'son & Partners Consulting

3.2.2. Analog cable TV (ACTV)

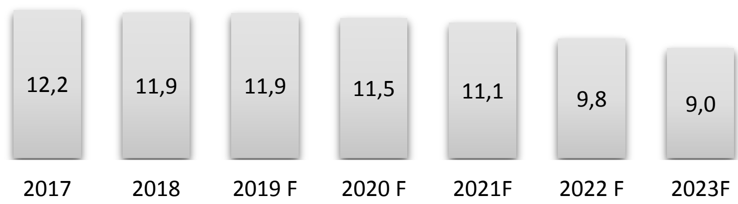
Analog cable TV is still the Pay TV distribution technology with the second largest subscriber base, but the number of its subscribers is falling. In 2018 it had less than 12 million users in Russia.

J'son &Partners Consulting suggest that the ACTV share will gradually decrease (see Fig. 11), for the following reasons:

- limited selection – no more than 70 linear TV channels
- transfer of ACTV subscribers to digital platforms by the operators
- no additional video services offered.

But, even after a complete shutdown of open broadcast of national TV channels via analog TV signal, the number of households that will continue to use ACTV drops below 10 million after 2021. The rate of negative growth (CAGR) in the period from 2019 to 2023 will be 5.4%.

Figure 11 Change of ACTV subscriber base, mln. users



Source: J'son & Partners Consulting

3.2.3. Digital cable TV (DCTV)

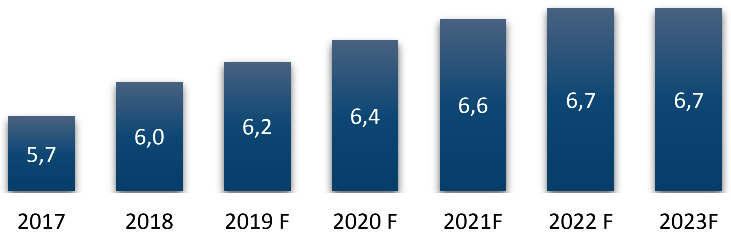
The main motivation for the operator to switch from analog cable TV to digital cable TV is to increase ARPU. This can be achieved through paid services such as Multiscreen, timeshifting and VOD, and by offering a larger number of paid theme channels. In addition, with the replacement of the television fleet and the increasing UHD share, operators shall benefit from the expansion of 4K TV channels.

Operator's challenges with subscriber transfer remain unchanged:

- viewers with older TV sets see no essential difference between 60 channels in ACTV and 100-200 channels in DCTV basic packages, if they are forced to pay extra; and
- the need to subsidize the set-top box. The most common tactic for converting a subscriber to digital cable TV is equipment rental.

The total number of such subscribers in Russia has increased by 6%. ER-Telecom became the largest operator in the country by number of DCTV subscribers through the acquisition of regional companies. A forecast of the DCTV subscriber base size from 2017 to 2023 is presented in Fig. 12. CAGR in the period from 2019 to 2023 will be about 1.6%.

Figure 12 Change of DCTV subscriber base, mln. users



Source: J'son & Partners Consulting

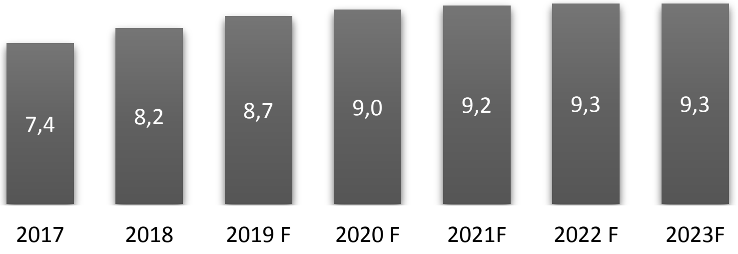
3.2.4. IPTV

The following factors influence the development of this market segment:

- IPTV service is the best on the Pay TV market in providing options for customization and personalization of TV viewing to subscribers;
- Rostelecom and Beeline are expected to enter the market in 2019 with an offering of UHD channels to their subscribers;
- IPTV operators have the best price options for subscribers by offering a flexible Pay TV package with Internet access; and
- in 2018, the total subscriber base rose by 720 million or 9.6%. The main contribution, as before, was made by Rostelecom which added 400 thousand subscribers.

IPTV subscriber base dynamics forecast for the period of 2019-2023 is presented in Fig. 13. After 2021, due to market saturation, the addition of new subscribers will be difficult, and the main challenge for the operators will be to retain customers by expanding services and offering converged tariffs. CAGR in the period from 2019 to 2023 will be about 1.3%.

Figure 13 Change of IPTV subscriber base, mln. users



Source: J'son & Partners Consulting

3.3. Pay TV market growth forecast

This section provides a high-level overview of two forecasts for development of events: baseline scenario and scenario of accelerated growth of new technologies. Details on market development options can be found in the “Forecast for 2019-2023" section.

Baseline scenario

By 2023, the total number of users of all types of access to broadcast television channels will exceed the total number of households in Russia.

According to the baseline scenario of Pay TV development in Russia for the period up to 2023, the traditional Pay TV subscriber base will begin to decline starting in 2020. However, digital cable TV and IPTV segments shall continue their growth. Due to an accelerated reduction of the number of ACTV subscribers, total cable TV subscriber base will diminish. Satellite TV will lose subscribers due to their switch to free digital broadcast outside of the cities (mainly in “dachas"). Free analog TV will retain a part of this audience. After disconnecting Multiplex 1 and 2 in the year 2019, analog broadcasting will retain some regional channels. Digital broadcast TV (DBTV) will experience a sharp increase of viewers in 2019 through an active advertising campaign, the volunteer movement and gradual transition. In the following years, the DBTV audience shall remain stable and virtually won’t change in size during the period of this analysis.

OTT services will develop in two directions: by offering cross-platform solutions to increase subscriber loyalty, and by providing streaming channels.

According to the baseline scenario, 2019 will be the last year of Pay TV subscriber base growth. The main factor affecting the decrease in the number of Pay TV subscribers will be free digital broadcast TV, which offers the twenty most sought-after TV channels. OTT services will show dramatic growth due to its convenience and the interest shown by a variety of market players in promoting these video services.

Scenario of accelerated growth of new technologies

Active impact of OTT services on Pay TV would lead to their exceeding users of all kinds of access to broadcast television channels in all Russian households by 2020. Due to the influence of other television content technologies, the traditional Pay TV subscriber base will start to decline more drastically by 2020.

The scenario of accelerated growth of new technologies assumes that the operators will offer OTT services bundled with mobile communication, Internet, Smart House, etc. (triple and quadruple play bundles) and will substitute the set-top units for some Pay TV subscribers. Online cinemas will offer popular TV channels and large VOD libraries, lowering the subscription price for such packages. TV channels will build service-based systems that will provide TV broadcasting packages and VOD via the Internet ("Over-the-top") directly to this audience. Russian internet holdings (Yandex, Mail.ru) will use television as a tool for retaining viewers on their platforms.

Larger numbers of satellite TV subscribers, compared with the baseline forecast, will abandon the service in favor of free DBTV. The main decrease in the number of subscribers will occur in 2020, as satellite TV providers charge their fee on an annual basis.

This accelerated forecast assumes a slower growth of DBTV audience. The audience will peak in 2019 amid a massive advertising campaign, followed by a gradual decrease. It is anticipated that the free TV viewers will more actively use online applications due to their ease of use and range of services.

The Accelerated Development Scenario shows a significant negative impact of new services on the Pay TV industry as of 2020. The main benefactors of these changes will be online cinemas, OTT operators and TV channels, as well as Internet holdings. Satellite and analog cable TV will lose the most subscribers.

4. Related services and their impact on the pay TV industry

Revenue of OTT TV services reached 8.7 bn Rub (117.4 mln EUR) in 2018 and accounted for 9% of Pay TV market revenues.

The baseline forecast indicates that the total revenue of OTTTV services will grow by 15.7% per year (CAGR). By 2023, it could reach 23.4 bn Rub (315.7 mln EUR) and will be only 5 times lesser than the Pay TV market.

Subscriber base in 2018 is 2-2.5 mln. subscribers, which is 5-7% of the Pay TV subscriber base.

4.1. Digital broadcast TV (DBTV)

In 2009, the Russian government approved a Federal target program titled "Development of Broadcasting in the Russian Federation for 2009-2015", which covered all 83 federal subject regions. The deadline for cessation of analog television broadcasting, announced at the beginning of the program's implementation, was moved several times and was finally approved with the phased transition of region groups on February 11, April 5, June 3 and October 14, 2019.

The Russian digital broadcasting network includes 20 free channels in DVB-T2 broadcast standard.

Table 4 Digital broadcasting multiplexes in Russia

	Multiplex 1	Multiplex 2
1.	First Channel	REN TV
2.	Russia 1	Spas
3.	Match TV	STS
4.	Russia K	Domestic
5.	Russia 24	TV 3
6.	NTV	Zvezda
7.	Fifth Channel	Mir
8.	Karusel	TNT
9.	Public Television of Russia (OTR)	Muz TV
10.	TV Center	Friday!

Source: J'son & Partners Consulting

Infrastructure for the first multiplex channels was built entirely at the State's expense. Operators of all types of broadcast TV are legally obligated to broadcast these channels, at no cost to subscribers or channels themselves. The second multiplex is a commercial enterprise. To support the second multiplex channels in 2015, lawmakers expanded the must-carry principle to the channels of both multiplexes.

Regional channels were supposed to be combined into a third Multiplex, but since its creation was cancelled in 2016, the regulators adopted the so called "On 21 button" law, where each region selected one channel to distribute free of charge by Pay TV operators via cable and IPTV networks. In addition, analog broadcast of some regional TV channels shall continue after the transition to digital broadcasting.

To provide access to mandatory channels in the areas not covered by the RTRS signal, specific amendments to the "On communications" law were adopted. The status of a national satellite operator with mandatory public TV channels was introduced, requiring it to indefinitely provide free broadcasting of channels of two multiplexes in areas not covered by digital cable TV. Thus, commercial operators in Russia are legally obligated to ensure free access to 20 basic TV channels for households in regions where no digital broadcast TV is available.

J'son & Partners Consulting predicts that disabling analog broadcast TV will have a significant negative impact, primarily on the development of satellite TV.

The subscription base of satellite TV, which focuses mainly on the extra-urban population residing outside of cities, is starting to decline. Tricolor TV lost about 60 thousand subscribers in 2018 compared to 2017. For people living in the countryside, free access to 20 Federal channels on the air can be a determining factor when faced with even the minimum monthly subscriber fee.

Another risk group includes Pay TV subscribers who have a pay-per-view channel subscription but view only free public programming. According to Mediascope data, in Russian cities with populations of 100,000+, 7.1% of people who have the option to watch pay-per-view channels choose to watch solely public broadcasting.

4.2. OTT TV services

OTT (Over-the-top) is a method through which data (digital content files), is broken into IP packets and delivered from one computer to another internet-enabeled device (computer, smartphone Smart TV, media players, etc) on an unmanaged Internet, via a third-party communication operator from the source to the receiver. The main difference between OTT and IPTV is that the Internet network provider does not control the distribution of the OTT service, and the OTT service has no control over the network and thus cannot guarantee the quality of the signal.

OTT Television services (OTT TV services) are services that stream continuous broadcasting of TV channels. Streaming does not allow the user to arbitrarily stop the programming with subsequent playback from the same point, although the service provider may offer an option for additional timeshifting functions.

Pay TV penetration in Russia reached 75.4% in 2018. Under these saturated market conditions, Pay TV operators use OTT services to combat the systemic reduction of their subscriber base, as well as to capture subscribers of other operators.

This section covers only OTT TV services that are not offered by telecom operators:

- **TV stations** create their own online broadcasting websites. Content on these sites is different from broadcast channels, as these stations don’t have Internet IP rights for all content;
- **online cinemas** make channel streaming agreements, and effectively become Pay TV operators. They offer their subscribers access to a library of VOD content and packaged channels; and
- **aggregators** let users watch multiple TV channels on one site.

There are different monetization models for OTT TV services:

- TV channels use an advertising model, with the exception of:

- **Dozhd** ("Rain") TV channel collects revenue primarily through subscription;
- **tnt-premier** uses a subscription model for access to all content;
- **videomore.tv** (STS Media) has a "Subscription VM+ Club" that provides viewing of prime-time series prior to TV broadcast, as well as movie classics and world movie hits, commercial-free;

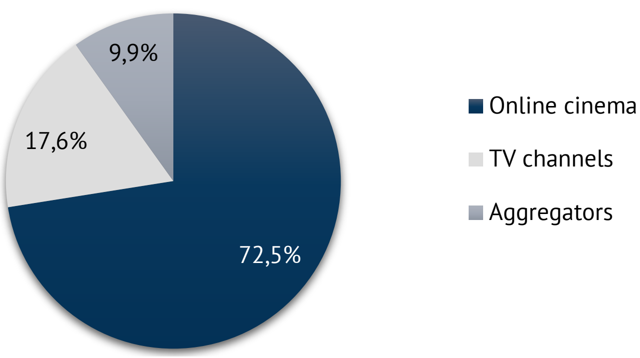
- online cinemas provide free public channels, but the pay channels are accessible only by subscription; and
- aggregators use only the advertising model.

J'son and Partners Consulting calculated the revenue of all OTT TV services as follows:

- income from all monetization models (advertising, subscriptions, rent and sale of content) is taken into account; and
- for online cinemas and aggregators, cumulative revenues from VOD and streaming of TV channel packages is taken into account.

Revenue of OTT TV services reached 8.7 bn Rub (117.36 mln EUR) in 2018 and accounted for 9% of Pay TV market revenues. Distribution by category is shown in Fig. 14.

Figure 14 Revenue shares of OTT TV services



Source: J'son & Partners Consulting

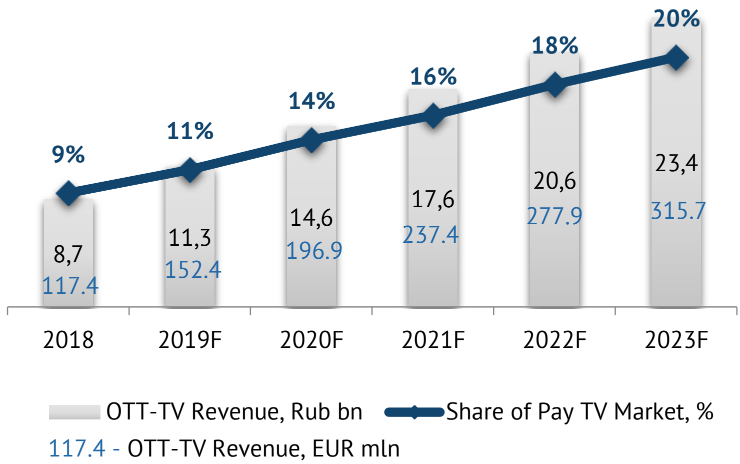
J'son and Partners Consulting created a baseline scenario for the development of OTT TV services on the following assumptions:

- TV channels will be able to expand the selection of TV shows and, by adding VOD services, offer a level of service that is virtually comparable to that of traditional Pay TV operators;

- independent companies, especially online cinemas, increase the demand for basic service and offer expanded packages by providing access to TV channels; and
- Internet holdings will be able to increase audience loyalty and make money on advertising.

The baseline forecast indicates that the total revenue of OTT services will grow by 15.7% per year (CAGR). By 2023, it could reach 23.4 bn Rub (315.7 mln EUR) and will be only 5 times less than the Pay TV market (see Fig. 15).

Figure 15 Baseline forecast of OTT TV revenue, Rub bn / EUR mln



Source: J'son & Partners Consulting, corporate data

Existing data on the OTT TV audience is fragmented. In 2018, J'son and Partners Consulting first polled market players regarding the number of paying service users. ivi revealed that at the end of 2018 the service had 1.2 million paying users, and TNT-Premier had 520 thousand subscribers.

In December 2018 the monthly reach audience for the following resources was: Vesti.ru - 4.2 million people, ivi.ru - 3.2 million, Yandex.Efir - 2.9 million, MEGOGO - 1.7 million, ntv.ru - 1.4 million, and Tnt-online.ru - 1.1 million.

Given the incompleteness of the source data and the possible intersections of the audience of different resources on different devices, J'son and Partners Consulting assesses the total number of OTT TV subscribers in 2018 at 2-2.5 million. The forecasted OTT TV subscriber base growth is presented in the Table 5.

Table 5 Baseline forecast of OTT TV subscriber base growth

	2018	2019	2020	2021	2022	2023
OTT-TV subscribers, mln	2.5	4	7	9	10	11
OTT TV, yearly growth rate		60%	75%	29%	11%	10%
Traditional Pay TV, total subscribers, mln	43.2	43.6	43.4	43.1	41.7	40.5
Pay TV, yearly growth rate		0,9%	-0,5%	-0,7%	-3,2%	-2,9%
Share of Pay TV market	5%	9%	16%	21%	24%	27%

Source: J'son & Partners Consulting, corporate data

In addition to the baseline forecast, there is also a scenario of advanced development, which assumes a more active development of OTT operators as well as OTT TV services. In this forecast, by 2023 the number of OTT TV subscribers will reach 15 million.

Currently, OTT TV services are not a serious competitor for the Pay TV industry, neither on the number of paid subscribers, nor on total revenue. However, in the coming years they will grow at an accelerated rate, and potentially in 2 to 3 years will become the main competitors for viewers' attention and money.

4.3. Other video services (social media, aggregators and infoservices, digital distribution platforms)

Section 3.2 covered OTT TV services limited to TV channel streaming, a non-operator OTT.

Here we shall analyze video services that use the advertising and transactional model to monetize content, with virtually no use of the subscription model, but still manage to rival traditional Pay TV players. The players in the legal video market use different monetization models and include:

- **Social Media services** – monetization of legal video content is mostly done via the advertising model;

- **Aggregators and Infoservices** - services that generate revenues by placing advertisements on their own resources, or aggregate videos from other sources (Yandex.Video, etc.); and
- **Digital Distribution Platforms** - video aggregators providing applications for mobile platforms and Smart TVs with the ability to view without being bound to a specific network provider (iTunes, Google Play). Monetization is through content rent (TVOD) and content purchase (EST).

Table 6 shows an estimate of the video audience size in Russian cities with a population of 100,000+ according to a Mediascope study conducted in August 2018.

Table 6 Monthly users of online legal video resources on desktop devices, x1000

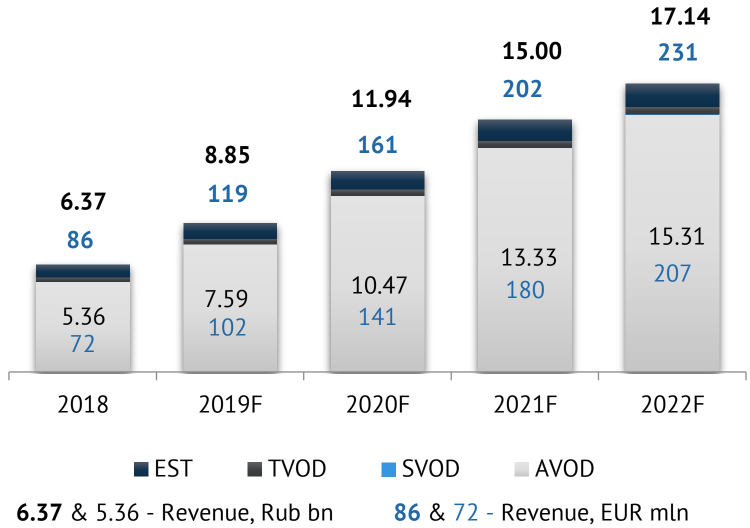
Segment	Site	August 2018
Social media	Vk.com	20,300
Aggregators and infoservices	Yandex.ru	18,700
Aggregators and infoservices	Yandex.Video	13,772
Social media	Ok.ru	11,300
Aggregators and infoservices	Mail.ru	6,200
Social media	Facebook.com	4,800
Social media	Instagram.com	4,600
Aggregators and infoservices	Yandex.TV	2,870

Source: Web Index, Monthly Reach, x1000, age 12-64, Russia, cities of 100к+

The total revenue of social networks, aggregators / infoservices, and digital distribution platforms is 6.37 bn Rub (86 mln EUR), with over 84% of the revenue generated through an advertising monetization model.

Revenue structure by monetization models for the period up to 2022 will remain relatively unchanged compared to 2018. The main income of companies in this segment will continue to come from AVOD (89%). Content purchase (EST) will be about 8%; rent (TVOD) will account for about 3%, and the subscription model (SVOD) will be less than 0.2%.

Figure 16 Revenue of social media, aggregators / infoservices and digital distribution platforms from legal video, bn Rub / mln EUR



Source: J'son & Partners Consulting

4.4. Main trends of development of related services

To date, the following major trends are observed:

- digital on-air broadcast TV. Cessation of an analog broadcasting signal will have a significant negative impact on the development of Pay TV in Russia because of two risk groups:
  - rural subscribers of satellite TV. For them, free access to 20 Federal channels on the air can be a determining factor when faced with even the minimum monthly subscriber fee; and
  - pay TV subscribers, who have a subscription but view only public programming. In Russian cities with population of 100,000+, 7.1% of residents who have the option to watch pay-per-view channels choose to watch only public broadcasting;
- today OTT TV services are not a legitimate competitor to the Pay TV industry, neither on the number of paid subscribers, nor on total revenue. In 2-3 years, however, they will become the main competitor for viewers' attention;
- social media in Russia is becoming a full-fledged player in the market of legal video services, following a global trend. So far, all revenue is generated by an advertising model. Social media is attempting to broaden

its audience through television audience. In 2019, the social media platform OK was the first to air footage of the New Year festivities;

- aggregators and infoservices. The main factor in the growth of this segment is Yandex with its video projects:
  - New Year's show, streamed on Yandex service. TV program started on 9 PM December 31, 2018 and ended on 1 AM January 1, 2019;
  - investment in improved technical quality of content;
  - planned launch of 8-10 original shows in 2019 to grow its online cinema Kinopoisk; and
  - subscription to Yandex.Plus, available at the end of 2018, allows access to a variety of services through a single subscription. This can become a threat to the largest online cinemas and linear TV channels.

5. SVOD model of legal video monetization in Russia

Total market revenue of legal video services in 2018 was 24,86 bn Rub (335.3 mln EUR).

During the period of 2019 to 2022, revenues will continue to grow with an average rate of 24% and in 2022 will be over 58.7 bn Rub (792.1 mln EUR).

SVOD revenue in 2018 was 6.03 bn Rub (81.3 mln EUR), which is 24% of the total revenue of legal video services.

Russia's legal video industry grows at an accelerated rate for the third year in a row. In 2016 growth was 32% year-to-year, in 2017 42% and in 2018 - 56%.

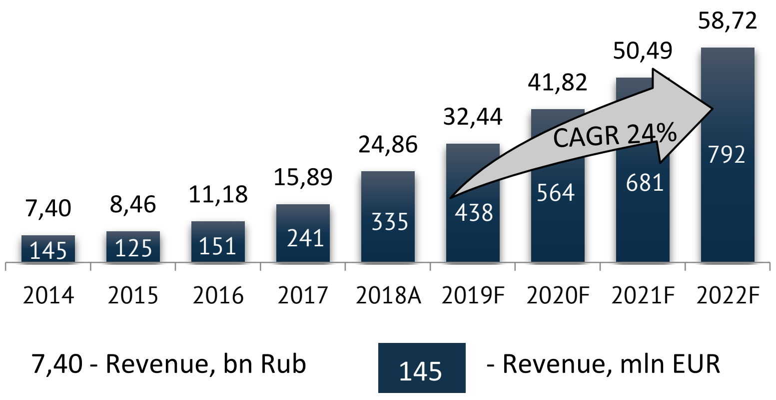
Total market revenue of legal video services in 2018 was 24.86 bn Rub (335.3 mln EUR).

Primary market influencing factors:

- increased user interest in the subscription model
- increased advertising inventory through out-stream advertising
- increased influence of Russian internet giants (Yandex and Mail.ru)

These factors will continue to make their impact on the market. From 2019 to 2022, revenues will continue to grow with an average rate of 24% and in 2022 will be over 58.7 bn Rub (792.1 mln EUR).

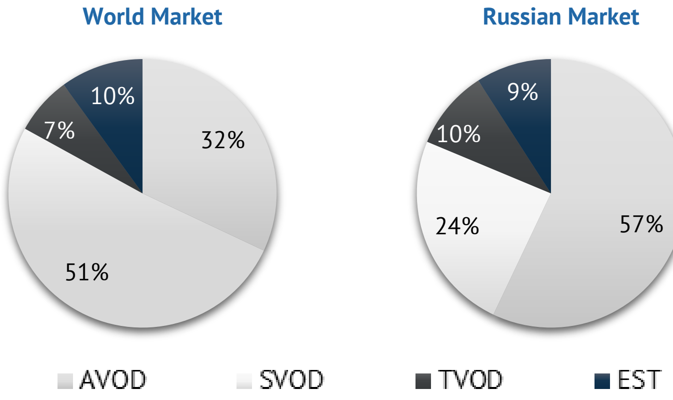
Figure 17 Russian legal video service market, bn. Rub / mln EUR.



Source: J'son & Partners Consulting, corporate data

Comparison chart of Russian and world markets is given in Fig. 18.

Figure 18 Monetization models, World vs. Russia, 2018



Source: Digital TV research, J'son & Partners Consulting

Industry growth forecasts for the period up to 2022 are provided in Table 7.

Table 7 Revenue by monetization models

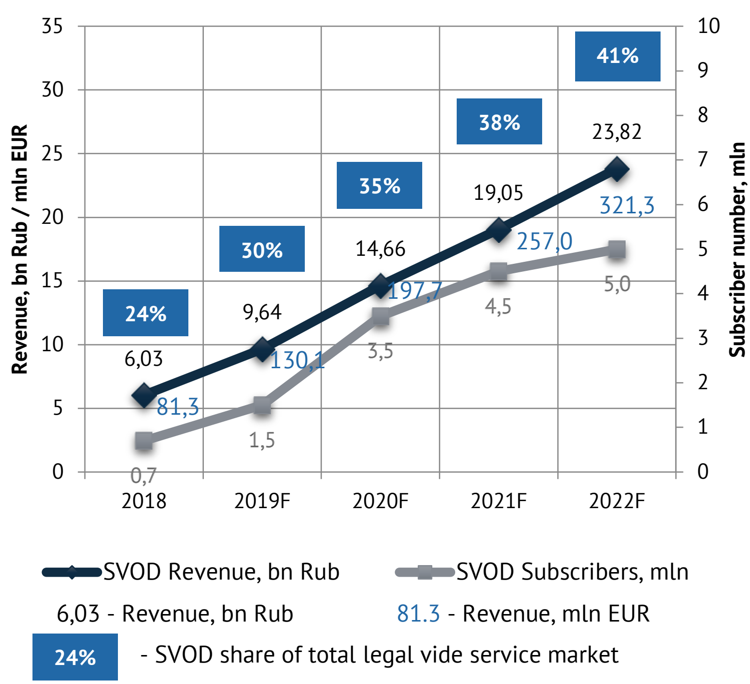
Monetization model		2018	2019	2020	2021	2022
AVOD	bn Rub	14.18	17.05	20.32	23.52	26.11
	mln EUR	191.3	230.0	274.1	317.3	352.2
	% of total revenue	57%	53%	49%	47%	44%
EST	bn Rub	2.27	2.77	3.27	3.63	3.96
	mln EUR	30.7	37.4	44.1	49.0	53.4
	% of total revenue	9%	9%	8%	7%	7%
TVOD	bn Rub	2.38	2.97	3.57	4.28	4.84
	mln EUR	32.1	40.1	48.1	57.8	65.3
	% of total revenue	10%	9%	9%	8%	8%
SVOD	bn Rub	6.03	9.64	14.66	19.05	23.82
	mln EUR	81.3	130.1	197.7	257.0	321.3
	% of total revenue	24%	30%	35%	38%	41%
TOTAL	bn Rub	**24.86**	**32.44**	**41.82**	**50.49**	**58.72**
	mln EUR	**335.3**	**437.6**	**564.1**	**681.0**	**792.1**

Source: J'son & Partners Consulting

In the next few years, the structure of the Russian market will undergo important changes. Due to the rapid growth of subscription, in 2020 the advertising model will fall below 50% for the first time and will continue to decline. By 2022, market shares of AVOD and SVOD will be comparable, making the Russian market structure similar to that of the world average.

In 2018, revenues from the subscription model of monetization (SVOD) reached over 6 bn Rub (81 mln EUR) and increased by 100% compared to 2017. According to J'son & Partners Consulting forecasts, the CAGR of SVOD revenues up to 2022 will be about 40%. By the end of that period, the SVOD share of the total legal video market will be nearly 41% versus 29.7% at the end of 2018 (see Fig. 19).

Figure 19 SVOD: Revenue and subscriber number



Source: J'son & Partners Consulting

Subscription (SVOD) is used by online cinemas, TV channels and Pay TV operators. Although these three categories of video services all earn money by subscription, there are many differences in their work. These differences will be described in Section 5.1 "Major SVOD Market Players".

The remaining market segments - social media, aggregators and infoservices, as well as digital distribution platforms – use virtually no subscription. These segments are discussed in Section 4.3 of this report.

5.1. Major SVOD market players

5.1.1. Online cinemas

Online cinemas remain the largest market by revenue (13.65 bn Rub or 184.1 mln EUR in 2018), growing by 46% compared to 2017.

Table 8 provides the underlying costs and subscription structure of online cinemas. The average subscription price fluctuates around 474 Rub/month (6.4 EUR/month).

Table 8 Base subscription cost of online cinemas

Online cinema	Package	Base package content			Cost
		Movies	Serials	Channels	Rub/month (EUR/month)
ivi	IVI+	Over 80,000		-	399 (5.4)
Okko	Optimum	Over 20,000		-	499 (6.7)
Amediateka	Base subscription	295	289	-	599 (8.1)
MEGOGO	Maximum	Over 10,000		Over 210	397 (5.4)

Source: J'son & Partners Consulting, corporate data

As early as 2019, rapid growth of the subscriber base will cause SVOD revenues to be equal with advertising in online cinemas revenues and, in the near future, exceed it by 2.5 times. By 2022, total revenues of online cinemas will be 33.8 bn Rub (456 mln EUR), primarily generated by subscription (60%).

If we look at the structure of online cinema earnings by content delivery platforms, Smart TVs appear to be the main source of income by virtue of their ease of viewing and access to lengthy professional content (40.1%). Second place belongs to desktop/laptop computers with 32.4%. Third place goes to mobile devices, with a share of 24.6%.

5.1.2. TV channels

In 2018, TV channels earned 2.38 bn Rub (32.1 mln EUR) through content browsing beyond linear television, which amounted to a 25% increase from 2017. Subscription revenue accounted for 474 mln Rub (6.4 mln EUR), and the remaining revenues were brought in by advertising.

Table 9 provides the base cost and subscription structure. Only three Russian TV channels offer the subscription model to their viewers, while the rest utilize the advertising model. The average subscription cost for non-linear video in a TV-channel segment is 360 Rub/month (4.9 EUR/month).

Table 9 Cost and structure of TV channel subscription

TV channel / portal	Package	Base package content			Cost, Rub/month (EUR/month)
		Movies	Serials	Channels	
TNT / tnt-premier.ru	Premier	Over 180			129 (1.7)
	SPORT! Premier	Broadcast of RPL and CHL games		2	229 (3.1)
Dozhd / tvrain.ru	week	Access to 100,000 unique content units, all programs + archive.			200 (2.7)
	month				780 (10.5)
	year				7,800 (105.2
STS / Videomore.ru	Standard	Pre-broadcast viewing of prime Russian shows, commercial-free classic and hit movies			299 (4.0)

Source: J'son & Partners Consulting, corporate data

TNT and STS media lead the market as of the end of 2018. Advertising will remain the main source of their revenue. The "Dozhd" ("Rain") channel, however, earned more than 95% of its revenues on subscription.

In light of market developments in 2018 and early 2019, such as Gazprom-media joining the Vitrina TV platform, TNT-Premier launching a paid subscription service, and the First Channel joining the sales model of Big TV Rating, J'son and Partners Consulting estimates the average annual income growth for the period up to 2023 will be 13%. Revenues from subscriptions will be about one third of the total income.

5.1.3. Pay TV operators

Total segment revenue of telecom operator from VOD service in 2018 was 2.46 bn Rub (33.2 mln EUR) (+ 35%). It is notable that 45% of revenue is generated by subscription, 53% by content rent (TVOD) and 3% by purchase or perpetual lease of legal videos (EST).

The table below shows the cost and composition of subscription in the operator segment. On average, Pay TV operator subscription for legal video will cost the user 435 Rub/month (5.9 EUR/month).

Table 10 Cost and structure of subscription for Operators

Operator	Package	Base package content			Cost, Rub/month (EUR/month)
		Movies	Serials	Channels	
Rostelecom	Fandom	Over 1,000		101	349 (4.7)
	Movie lover	Over 1,500			599 (8.1)
Megafon TV	START	162	195		480 (6.5)
	Amediateka	103	139	2	510 (6.9)
MTS TV	START premiers online	Over 150			250 (3.4)
	Amediateka	Over 100	Over 120		600 (8.1)
Beeline TV	Amediateka	Over 100	Over 120		599 (8.1)
	ivi Lite movies	350			99 (1.3)

Source: J'son & Partners Consulting, corporate data

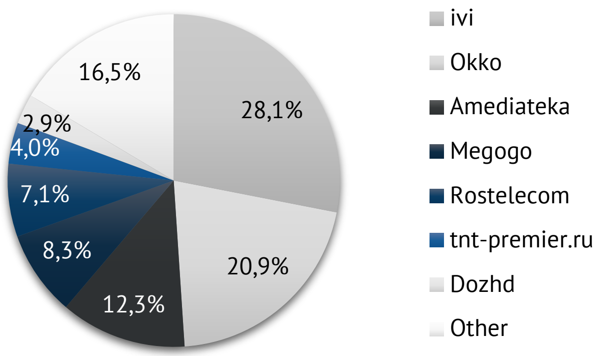
According to J'son and Partners Consulting, in 2019 the subscription model (SVOD) will become the main source of revenue growth for Pay TV operators from legal videos and its share will continue to increase. New movie rentals will continue to bring up to 40% of total revenues and will remain another major source of income. By 2022, the total revenue of the operators will be 3.93 bn Rub (53 mln EUR), of which the subscription fees will account for 57%.

5.2. SVOD market structure

5.2.1. By revenue

As shown on Fig. 20, ivi, Megogo, OKKO, Rostelecom, Amediateka and Dozhd ("Rain") made major contributions to the growth of subscription models. tnt-premier.ru, newcomer, was able to make the Top 6 in 2018 in just 5 months of its operation.

Figure 20 Revenue shares of companies by SVOD monetization model, %



Source: J'son & Partners Consulting

5.2.2. By audience size

In 2018 industry surveys first began to include a question about the number of paying customers.

Based on the survey data, J'son & Partners Consulting determined that in 2018 7-8 million people in Russia paid at least once to view an online video.

The audience size is traditionally estimated by coverage and average number of viewings per month. Coverage shows the number of real people, i.e. users. But some sites only have information about unique visitors that cannot be compared with coverage, because "unique" in this context means a browser [IP address], rather than a person.

J'son & Partners Consulting continues to collect and collate the data about the number of visits (see Table 11).

Table 11 Average monthly number of video viewings

Video service	2016	2017	2018
ivi	193,752	214,000	262,000
Megogo	114,112	120,000	
Okko	1,500	3,700	6,200
Showjet.ru			40,000
Start.ru			3,000
Tvigle.ru			208,000

Source: Corporate data

Starting in 2017, separate statistical data began to be collected per monthly average and annual cumulative coverage for video services. The data in the Table 12 is sorted by average monthly coverage. By this metric, the online cinemas ivi and Megogo are undisputed leaders.

Table 12 Average monthly and annual cumulative video service coverage

Video service	Monthly coverage, in 1000s	Annual cumulative, in 1000s
ivi	39,200	
Megogo	39,000	
Okko	1,830	8,150
Showjet.ru	6,000	
Tvigle.ru	6,500	17,500
Peers TV	1,800	12,000
Megafon TV	980	3,257

Source: Corporate data

5.3. Major trends for legal video market in SVOD segment

- Subscription growth will continue at an average annual rate of over 40%. This will be facilitated by:
  - anti-piracy campaign: enactment of the Law on Unified Register of Prohibited Information, and the signing of the SOPA memorandum;
  - the emergence of offerings attractive to paying users; and
  - bundling of video services with nonadjacent services - Yandex has launched unified subscription for 169 Rub/month (2.3 EUR/month) for

its "Yandex.Plus" package which currently includes: YandexTaxi, YandexMusic, Kinopoisk, free delivery of purchases from “Bery" supermarkets, YandexDrive and additional space on YandexDisk.

- Online cinemas will expand their presence on all distribution platforms and territories. The main task is to "differentiate from competitors" by offering the user unique content and services, such as broadcasting, internally produced content and handy reference systems.
- Online cinemas will begin broadcasting TV channels and developing their own channels with available content.
- Television companies implement their own online content monetization projects (tnt-premier.ru, More.TV) on a subscription model. This allows them to attract users who either a.) don't watch television or b.) use pirated services to view television content.

6. Analysis of the cord-cutting scale in Russia

As a result of costs associated with the compliance to the law, Pay TV operators will experience higher expenses, which will inhibit business development and decrease business profitability.

If piracy of video resources will be successfully eliminated, the market revenue of legal video will rapidly increase, primarily by adding subscribers to SVOD services.

As of April 2019, the number of cord-cutters (people who have left Pay TV services), represents 4.3% of the population of major cities. This equates to 1.7 million people or 660 thousand households.

Most professional online video viewers seem to be unwilling to have a paid subscription. 17% of them, however, have signed up for one at least once.

The decision to abandon Pay TV service in favor of a subscription video service may be caused by a variety of factors, such as ease of use, price, legal restrictions, abundance of content, etc. This section covers the most common factors and shares the data of quantitative research in Russia, with an assessment of the number of viewers who have abandoned linear Pay TV.

6.1. Legislative regulation of pay TV markets and legal video services, and its impact on cord-cutting

In the **Pay TV** segment, operators mainly focus their efforts on compliance with updated laws that were designed to prevent the development of extremist organizations:

- FZ No. 374 “On Amendments to the Federal Law “On Countering Terrorism" and certain legislative acts of the Russian Federation in terms of establishing additional measures to counter terrorism and ensure public safety"; and

- FZ No. 375 “On Amendments to the Criminal Code and Criminal Procedure Code of Russian Federation in terms of establishing additional measures to counter terrorism and ensure public safety".

The enactment of these laws stipulates that mobile operators and Internet service providers should:

- ensure safe storage of information transmitted by subscribers (storage for 6 months); and
- purchase equipment and communication channels at their own expense and only from certain approved suppliers.

As a result of costs associated with the compliance to the law, Pay TV operators will experience higher expenses, which will inhibit business development and decrease business profitability.

The efforts of the **legal video services** industry are focused primarily on anti-piracy activities. On November 1, 2018, shareholders and operators of search engines signed a memorandum of cooperation in the sphere of protection of the exclusive rights in the era of digital technology. The State, represented by Roscomnadzor Agency, mediates in case of conflicts between the parties to the Treaty. The document is in force until September 1, 2019, which is the deadline for the introduction of amendments to anti-piracy legislation, relevant to the provisions of the memorandum.

As a result of concerted action by market participants, the unified register of pirate resources was created. Administrators of signatory Internet services check the register every 5 minutes, and within 6 hours exclude links to pirated sites from their SERPs. Any previously hosted pirate content is also deleted from search results and video hostings. Illegal audio and video content is removed promptly and extrajudicially.

Despite the relative success of the fight against pirate video services, with more than 5,000 "mirror" pirate site pages blocked and removed from search engines, the number of pirates in 2018 has increased by 43% (up to 9,500,000) according to WebKontrol. The increase in the number of sites with illegal content may be the consequence of the fight against piracy: instead of one large site (or its mirrors), there are now many smaller ones. However, despite the increase in the number of pirate sites, their audience as a whole is not growing because larger sites that attracted the majority of the audience were blocked in 2017-2018.

If piracy of video resources will be successfully eliminated, the market revenue of legal video will rapidly increase, primarily by adding subscribers to SVOD services.

6.2. Pay TV and SVOD - Quantitative research results

In April 2019, J'son & Partners Consulting conducted an online survey of residents in Russian cities with a population of 100,000+, dedicated to the viewing of professional online video.

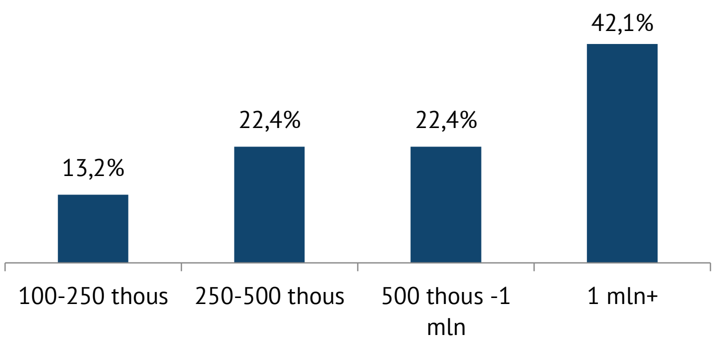
The participants were people of 18 to 55 years of age, who regularly watch TV channels (on TV sets and Internet-enabled devices) and professional videos (e.g., movies, TV shows, programs for children, entertainment, educational programs, etc.) online.

6.2.1. Cord-cutters: segment size and social demographics

According to the survey, the number of cord-cutters (people who have left Pay TV services) represents 4.3% of the population of major cities. This equates to 1.7 million people or 660 thousand households. For comparison, the comparable figure in December 2017 was 3%, and in December 2018 - 4%. Thus, in 1.5 years the number of cord-cutters has slightly increased.

The number of discontinued linear Pay TV service accounts depends on the size of the city where a former Pay TV subscriber lives. Over 42% of former Pay TV subscribers live in cities with a population of 1 million+ (see Fig. 21). The same number of cancellations (22.4% of cord-cutters each) occurs in cities with population of 250-500 thousand, and 500 thousand – 1 million, respectively. The smallest number of cord-cutters (13.2%) live in cities with a population of 100 to 250 thousand.

Figure 21 Cord-cutters distribution by city size

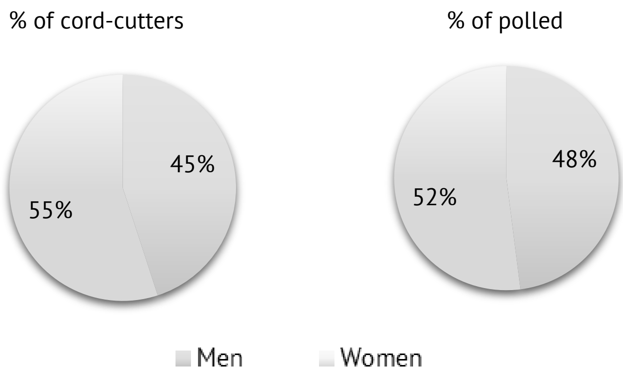


Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of total number of PTV account cancellations.

Below are the socio-demographic characteristics of the cord-cutters compared to all respondents (see Fig. 22-27).

45% of them are men and 55% are women. Gender ratio among the cord-cutters is almost the same as among all viewers of online video (see Figure 22).

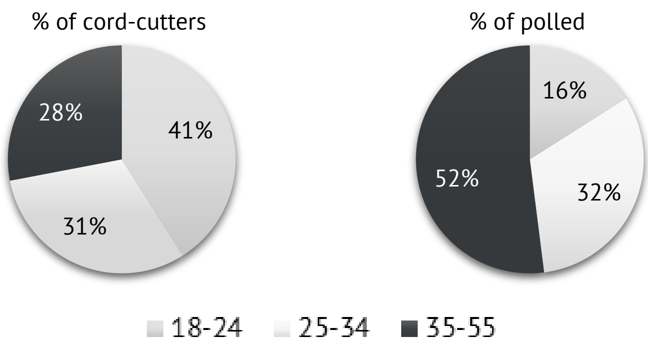
Figure 22 Socio-demographic characteristics: gender



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

41% of the cord-cutter audience consists of young people from 18 to 24 years of age; almost another third is made up the 25-34 years of age range, and 28% of people aged 35-55 years. Professional video viewers are older: the percentage of 18-24-year old viewers is 16%, and middle-aged viewers (35-55 years) represent more than half of the audience.

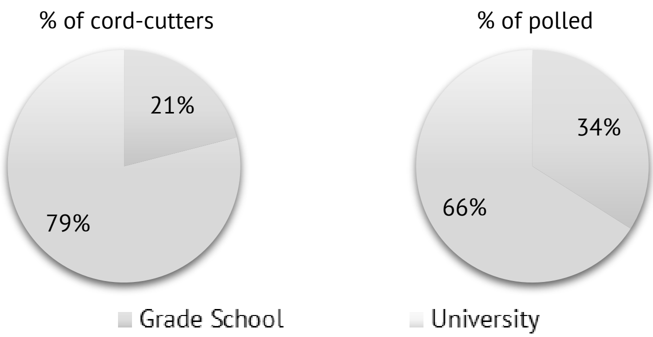
Figure 23 Socio-demographic characteristics: age



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

Almost 80% of the cord-cutter audience in Russia are people with higher education. Among all respondents, the share of this group is lower: 2/3 or 66%.

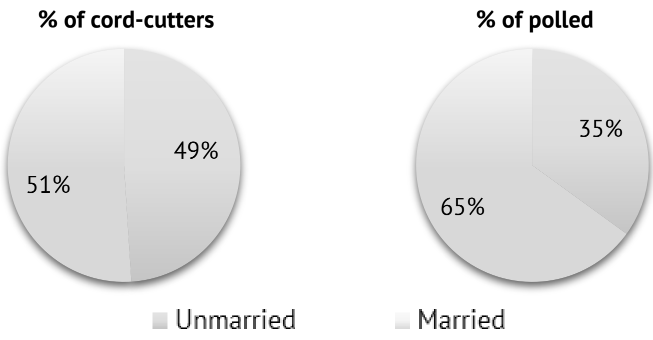
Figure 24 Socio-demographic characteristics: <u>education</u>



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

Marital status is also a differentiating factor between cord-cutters and all respondents. The ratio of unmarried to married among them is approximately equal (51% vs. 49% respectively). Most viewers of professional videos (65%), though, are married, and only 35% of them are single.

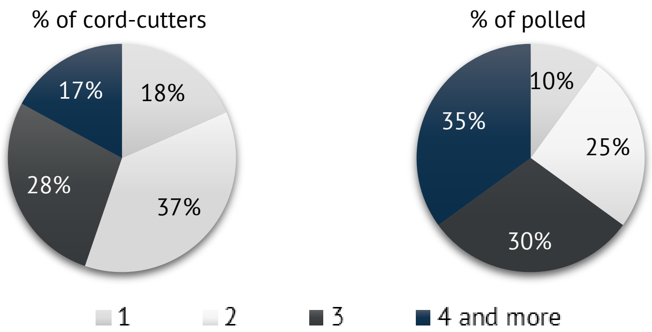
Figure 25 Socio-demographic characteristics: <u>marital status</u>



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

As the cord-cutters tend to be younger, there are 1.8 times more single people among them.

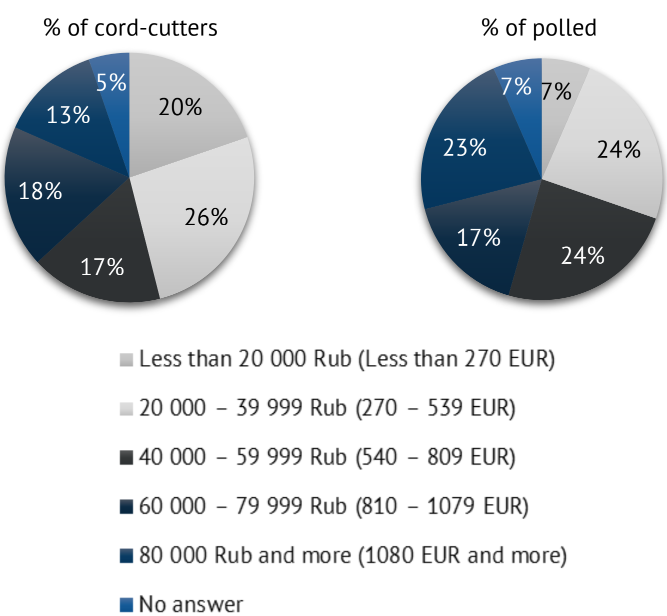
Figure 26 Socio-demographic characteristics: number of members in a household



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

Fig. 27 presents the distribution of income per family member in the household. Among the cord-cutters, the group of lower-income, less affluent people is more numerous, reflecting correlations with age. Other than that, the distribution of both groups is similar.

Figure 27 Socio-demographic characteristics: income



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

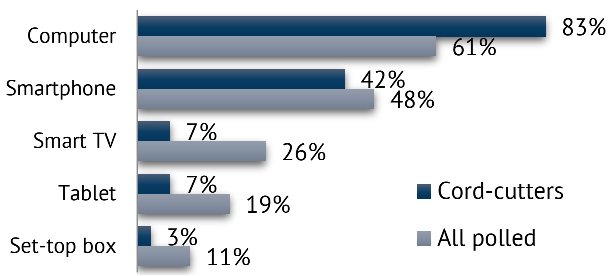
6.2.2. Specifics of viewing professional video online

Part of the research was dedicated to specifics of viewing videos online, such as viewing frequency, type of device used for viewing, paid vs. free viewing, etc.

The following graph illustrates the device used for watching professional video (each respondent could specify any number of devices).

The cord-cutters mainly used PCs and smartphones for watching videos online. PCs were being used significantly more frequently by cord-cutters than among all respondents.

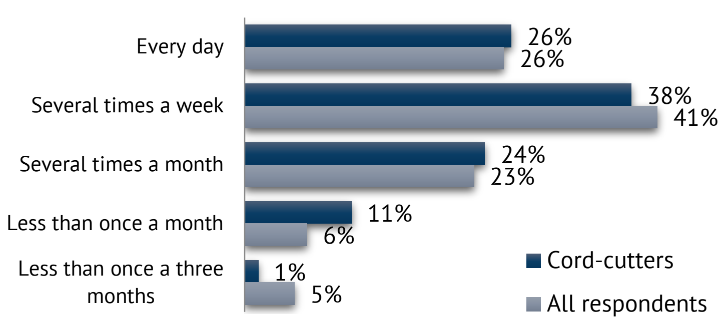
Figure 28 Devices used for viewing the professional video online



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of each group separately

All those interviewed, as well as cord-cutters, watch professional videos on the Internet with nearly equal frequency. 26% of viewers watch professional videos daily, 38%-41% watch a few times a week, and approximately one-quarter (23% - 24%) watch several times a month.

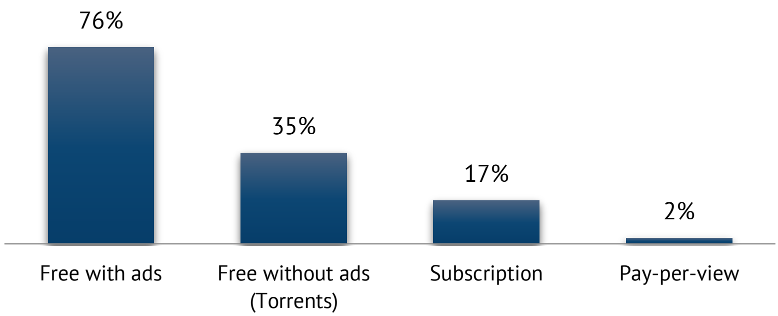
Figure 29 Frequency of viewing the professional video online



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of each group separately

Many online video viewers are yet unwilling to pay for content. More than three quarters of the respondents are willing to tolerate ads, and, despite the active anti-piracy campaign in recent years, over a third use torrents to download video (reply option "For free without ads").

Figure 30 Type of viewing the professional video online



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019

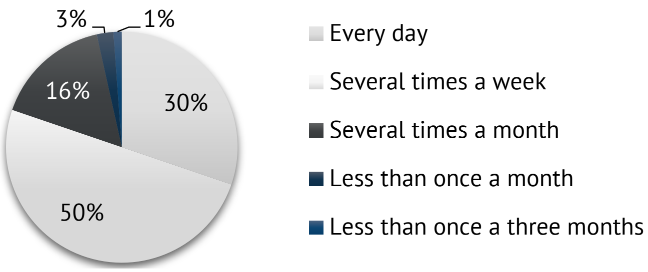
Despite the fact that most professional online video viewers seem to be unwilling to pay for a subscription, 17% of respondents have signed up for one at least once. Moreover, the number of Russian viewers using subscription video services is increasing. In December 2017, 14% of respondents watched professional video with a subscription, in December 2018 15%, and as of April 2019 this number was already up to 17%.

In terms of socio-demographic characteristics, there are no clearly expressed differences between subscribers and viewers of professional video in total. However, the subscribers have clearly defined viewing features, which will be discussed in the next section.

6.2.3. Professional video viewing features of online VOD subscribers

80% of video services subscribers watch video at least several times a week, with more than 30% of them viewing video daily. Similar indicators among all respondents stand at 66% and 26%, respectively.

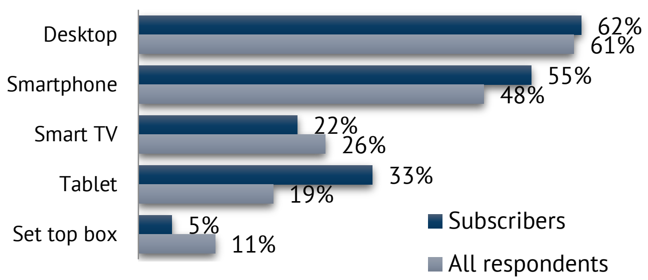
Figure 31 Frequency of watching professional video online by VOD subscribers



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of subscription audience

Subscribers and all responders use smartphones with almost equal frequency (55% and 48%, respectively. However, legal video subscribers use tables almost twice as much as all respondents (33% and 19%, respectively.

Figure 32 Devices for viewing professional video online

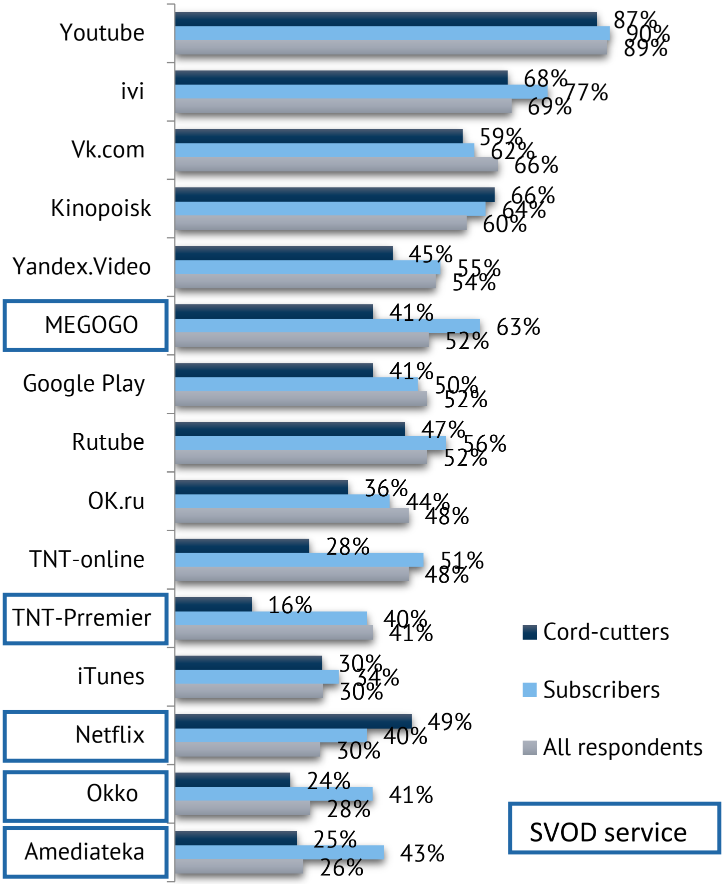


Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of each group separately

6.2.4. Knowledge of video resources

Among other questions, the respondents were asked about their knowledge of online sites that provide professional video viewing services.

Figure 33 Knowledge of video services in Russia (TOP 15)



Source: 3R Research, online polling, Russia, cities 100.000+, age 18-55, April 2019, % of each group separately

YouTube is the undisputed leader among the target groups, with knowledge level ranging from 87% to 90%. The second highest by a large margin is ivi, with 68%-77%.

It is interesting to note that Netflix is in 5th place among Russian cord-cutters, while among the rest of the respondents it is only in 13th place. However, due to historical and legislative peculiarities of the Russian market, Netflix does not represent a competitive threat to domestic online cinemas and will not cause a cancellation of Pay TV services.

7. Forecast for 2019-2023

The baseline forecast indicates that 2019 will be the last year for Pay TV subscriber base growth. The main factor affecting the decrease in the number of subscribers is free digital on-air TV, which offers its audience the 20 most sought-after channels. OTT services shall experience rapid growth of demand due to convenience of services and interest of various industry groups in its development.

Baseline forecast subscriber base of traditional Pay TV and the total number of users TV, million						
Pay TV subscriber base, mln.	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Satellite TV	17.1	16.8	16.5	16.2	15.9	15.5
ACTV	11.9	11.9	11.5	11.1	9.8	9.0
DCTV	6.0	6.2	6.4	6.6	6.7	6.7
IPTV	8.2	8.7	9.0	9.2	9.3	9.3
TOTAL	**43.2**	**43.6**	**43.4**	**43.1**	**41.7**	**40.5**
Pay TV penetration in %	**75.4**	**77.2**	**76.9**	**76.4**	**73.9**	**71.8**
OTT services, mln. subscribers	0.7	1.5	3.5	4.5	5.0	6.0
OTT-TV service (TV channel streaming), mln. subscribers	2.0	4.0	7.0	9.0	10.0	11.0
Analog on-air TV (free), mln. households	11.0	6.0	2.0	1.5	1.5	1.0
Digital on-air TV (free), mln. households	1.8	11.6	11.8	11.9	12.0	12.1
Total Pay TV subscribers and TV users, mln.	**58.7**	**66.7**	**67.7**	**70.0**	**70.2**	**70.6**

Source: J'son & Partners Consulting

The scenario of accelerated growth of new technologies reveals a significant negative impact of new services on the Pay TV industry as of 2020. The main beneficiaries of this change will be online cinemas, OTT service operators and TV channels, as well as Internet holdings. Satellite and analog cable TV, on the other hand, are set to lose subscribers.

Scenario of accelerated growth of new technologies						
Pay TV subscriber base, mln.	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Satellite TV	17.1	16.8	16.1	15.7	15.5	15.2
ACTV	11.9	11.9	11.4	10.9	9.5	8.5
DCTV	6.0	6.2	6.2	6.1	6.0	5.9
IPTV	8.2	8.7	8.9	9.1	9.2	9.,2
TOTAL	**43.2**	**43.6**	**42.6**	**41.8**	**40.2**	**38.8**
Pay TV penetration in %	**75.4**	**77.2**	**75.4**	**74.1**	**71.3**	**68.8**
OTT services, mln. subscribers	0.7	2.0	5.0	8.0	9.0	10.5
OTT-TV service (TV channel streaming), mln. subscribers	2.0	7.0	10.0	12.0	14.0	15.0
Analog on-air TV (free), mln. households	11.0	6.0	2.0	1.5	1.5	1.0
Digital on-air TV (free), mln. households	1.8	11.6	11.5	11.4	11.4	11.3
Total Pay TV subscribers and TV users, mln.	**58.7**	**70.2**	**71.1**	**74.7**	**76.1**	**76.6**

Source: J'son & Partners Consulting

8. Conclusions

Pay TV

1) By the end of 2018, 43.2 million subscribers used Pay TV services in Russia, a 3.1% increase from 2017. The satellite TV subscriber base grew with the overall market, by 2.8%, DCTV grew by 5.7%, IPTV by 9.6%. The number of subscribers of analog cable TV continues to decline, with the ACTV audience decreasing by 1.8%.
2) 39.5% of the subscriber base belongs to satellite TV, 27.7% to ACTV, 13.9% to DCTV and 18.9% to IPTV. Trends of the previous years remain, with the IPTV subscriber base growing and ACTV base diminishing.
3) Three leading Pay TV operators with the largest subscriber base in 2018 remained unchanged in relation to 2017:

   - Tricolor - over 28% of the market
   - Rostelecom – 23.5%
   - ER-telecom - 8,5%

4) J'son & Partners Consulting estimates the 2018 Pay TV revenue at 95.3 bn Rub (1.29 bn EUR). Revenue growth relative to 2017 was 14.2%.

Related services

5) The baseline forecast indicates that OTT TV services (non-operator streaming television broadcasting services) achieved the following results in 2018:

   - Revenue – 8.7 bn Rub (117.36 mln EUR)
   - Subscriber base – 2-2.5 mln. subscribers, which is 5-7% of Pay TV subscriber base.

According to the forecast of J'son & Partners Consulting, OTT TV service revenues will continue growing. By 2023 it may reach 23.4 bn Rub (315.65 mln EUR), which is approximately 20% of the Pay TV market. The size of the subscriber base in 2023 is projected to reach 11 million, more than a quarter (27%) of the number of Pay TV subscribers.

6) The switch to digital broadcast TV will have a significant negative impact on the development of Pay TV because of two risk groups:

- rural subscribers of satellite TV: For them, free access to 20 Federal channels on the air can be a determining factor when faced with even the minimum monthly subscriber fee; and
- pay TV subscribers, who have a pay-per-view channel subscription but view only free public programming: In Russian cities with population of 100,000+, 7.1% of people who have the option to watch pay-per-view channels choose to watch solely public broadcasting.

SVOD in Russia

7) Total market revenues of legal video services in 2018 was 24.86 bn Rub (335.3 mln EUR), not including VAT. From 2019 to 2022, revenues will continue to grow with an average rate of 24% and by 2022 will be over 58.7 bn Rub (792.1 mln EUR), not including VAT.
8) Major SVOD market players:
    - online cinemas (SVOD revenue in 2018 – 4.44 bn Rub /60 mln EUR)
    - TV channels (474 mln Rub / 6.4 mln EUR)
    - telecom operators (1.1 bn Rub / 14.8 mln EUR).
9) Major SVOD market players in 2018 by revenue:
    - Ivi (online cinema) – 28.1%
    - Okko(online cinema) – 20.9%
    - Amediateka (online cinema) – 12.3%
    - MEGOGO (online cinema) – 8.3%
    - Rostelecom (operator) – 7.1%
    - tnt-premier.ru (TV channel) – 4%
    - Dozhd (TV channel) – 2.9%.

Cord-cutters

10) As of April 2019, the number of cord-cutters (people who have left Pay TV services) represents 4.3% of the population of major cities. This equates to 1.7 million people or 660 thousand households.
11) More than 40% of former Pay TV subscribers live in cities with populations of 1 million+.
12) Profile:
    - young people – 62% under 35, with over 40% of them 18 to 24 years of age
    - almost 80% with higher education
    - unmarried (49%) – size of this group was 1.4 times larger than the professional video viewers overall
    - cord-cutters are 1.8 times more likely to live alone
    - less affluent, lower income– correlates with the age group.

13) Professional video viewing features:

- cord-cutters mainly used PCs and smartphones for watching videos online, with PCs being used significantly more frequently than among all respondents; and
- over 64% watch video on the Internet at least several times per week. Over 25% do it every day.

14) Most professional video viewers seem to be unwilling to have a paid subscription. 17% of them, however, have signed up for one at least once.
15) In 2017-2019 the number of cord-cutters in Russia was relatively small 1.7 million people or 660 thousand households, which represents 4.3% of the population of major cities and shows no tendency to grow. The main reasons are:

- the subscription for legal video services costs on average more than 400 Rub/month (5.4 EUR/month). It is twice more than Pay TV ARPU (185 Rub/month or 2.5 EUR/month in 2018);
- a great variety of content available on free public channels;
- ubiquity of Pay TV.

9. Appendix 1 - Main players profiles

The following information sources were used by J'son & Partners Consulting in its section:

- Financial documents, 2018 investor and stockholder reports, news and press releases by TV channels, Pay TV operators, distributors, production companies and online cinemas
- Interviews with market player companies

9.1. Online cinemas

YouTube	YouTube
Revenue[2] by Monetization Models, 2018, Rub m (EUR m)	
AVOD (since 2010)	2,900 (39.119)
SVOD (since 2015)	10 (0.135)
TVOD (since 2012)	140 (1.888)
EST (since 2012)	-
Content Policy	
Video Library	About 700,000 hours of video are viewed every minute and more than 300 hours are uploaded. The duration of the longest video is 596 hours. YouTube Movies service offers a wide range of various movie genres. Within the YouTube Movies service, YouTube is partnered with the world's largest cinema companies like Sony Pictures, Universal, Warner Brothers, Lionsgate Films, Magnolia Pictures, The Weinstein Company and Starz. In May 2018, a paid service YouTube Premium (formerly YouTube Red) was launched, which was combined with the streaming service YouTube Music.
Target Audience Web	Channels such as "Music", "Sports", "TV programs",

[2] In Russia.

YouTube	
Portals	children's channel "YouTube Kids", as well as some others, are highlighted within the portal. In November 2016, the YouTube Gaming service, designed for easy search of game content, officially became available in Russia.
In-House Production Content	YouTube launched its own content production in the end of 2015. This content is distributed on a paid basis.
UGC content	YouTube offers access to a large variety of UGC videos, as it is primarily positioned as a video hosting service.
Pricing Policy	
AVOD – Free broadcast accompanied with advertising videos. Advertisement is the main source of service monetization. YouTube places advertising both autonomously and via networks. **SVOD** – YouTube Premium subscription, which includes the ability to watch videos without ads as well as access to YouTube Originals. In the US the cost of a monthly subscription is $11.99, in Russia it is 199 Rub/month (2.7 EUR/month), the first month is free. **TVOD** – This service is represented by the "Movies" service. The cost of movie rental on YouTube Movies ranges from 49 Rub (0.7 EUR) to 349 Rub (4.7 EUR) per view. Rented movies are available for a single viewing over a 30 day period. **EST** – The price per movie varies from 99 Rub (1.3 EUR) to 349 Rub (4.7 EUR) per item, depending on the novelty and quality of the content	
Management	Director General of Russian Google Representatives Office – Carlo d’Asaro Biondo
Owner	Google

<table>
<tr><th colspan="5">ivi</th></tr>
<tr><td colspan="3">Revenue by Monetization Models, 2018, Rub m (EUR m)</td><td colspan="2">Revenue by Distribution Channels, 2018, Rub m (EUR m)</td></tr>
<tr><td rowspan="2">AVOD (since 2010)</td><td>In-stream</td><td>1,471.3 (19.8)</td><td>PC</td><td>851.3 (11.5)</td></tr>
<tr><td>Out-stream</td><td>-</td><td>Smart TV</td><td>2,352 (31.7)</td></tr>
<tr><td>SVOD (since 2011)</td><td colspan="2">1,691.5 (22.8)</td><td>Mobile devices</td><td>649 (8.8)</td></tr>
<tr><td>TVOD (since 2012)</td><td colspan="2">262.4 (3.5)</td><td>STB</td><td>203 (2.7)</td></tr>
<tr><td>EST (since 2014)</td><td colspan="2">629.6 (8.5)</td><td></td><td></td></tr>
<tr><td colspan="5">Content Policy</td></tr>
<tr><td>Video Library</td><td colspan="4">12,862 original items:
• Feature Films – 70%
• Series – 12%
• Children’s Content (cartoons)– 17%
• Programs/Shows – 1%

53% of ivi library is represented by foreign content, 43% - Russian and 3% - USSR</td></tr>
<tr><td>Target Audience Web Portals</td><td colspan="4">• Online page for children http://www.ivi.ru/pages/kids/
• ivi kids application</td></tr>
<tr><td>In-House Production Content</td><td colspan="4">In 2016 ivi acted as a co-producer for the new animated series "The Rabbit's 10"; 38 episodes were released.
In January 2017 a feature films "Nevesta" (Horror movie) and "The Love in the Angels’ City" were released.
In 2018, the feature films "Unforgiven" with Dmitry Nagiyev and "Temporary Difficulties" with Ivan Okhlobystin were released.</td></tr>
<tr><td colspan="5">Pricing Policy</td></tr>
<tr><td colspan="5">AVOD – Free broadcast accompanied with advertising videos. Advertising is the main source of service monetization.
SVOD – Subscription fee for ad-free content viewing service "IVI +" is 399 Rub/month (5.4 EUR/month). "Erotics +" includes the whole "IVI +" index, as well as movies of the erotic genre.
TVOD – Premium ivi "Blockbusters" service which includes worldwide and home-produced hit movies. Film rent price starts from 99 Rub (1.3 EUR) per view, foreign and Russian premiers cost usually 349 Rub (4.7 EUR). Rented movies are available for a single viewing over 30-day period.

EST - Premium service which allows buying content unit for permanent use. Most movies cost from 299 Rub (4.0 EUR) to 349 Rub (4.7 EUR), depending on the novelty</td></tr>
</table>

ivi	
and quality of the content.	
Management	Founder and Director General – Oleg Tumanov
Owner	Baring Vostok Capital Partners

Okko			
Revenue by Monetization Models, 2018, Rub m (EUR m)		Revenue by Distribution Channels, 2018, Rub m (EUR m)	
AVOD	Not available	PC	47 (0.6)
SVOD (since 2013)	1,257 (17.0)	Smart TV	1,745 (23.5)
TVOD (since 2011)	133 (1.8)	Mobile devices	317 (4.3)
EST (since 2011)	720 (9.7)	STB	-
Content Policy			
Video Library	Over 35,500 items: • Series – 12% • Children's content – 10% • Feature films –78% Okko offers content produced by leading Hollywood production studios including Disney, Warner, Fox, Sony, Universal, Paramount, as well as the leading European and Russian studios. 84% of the library is presented by foreign content, 10% - Russian and 6% - USSR.		
Pricing Policy			
SVOD – Okko TV provides 10 subscription options and 2 bundles: • Amediateka Series: 599 Rub/month (8.1 EUR/month) • World Cinema/Magical World of Disney/Best Cartoons: 249 Rub/month (3.4 EUR/month) • Our Movies: 199 Rub/month (2.7 EUR/month) • For Children /Our Series/Movies and Series: 149 Rub/month (2.0 EUR/month) • Around the World / Art House: 99 Rub/month (1.3 EUR/month) And 2 bundle offers: • Package "Optimum": 499 Rub/month (6.7 EUR/month) (all subscriptions, except			

Okko	
• Amediateka), • Package "Optimum + Amediateka": 799 Rub/month (10.8 EUR/month) (all subscriptions) **TVOD** and **EST** – Okko Movies. Cost per view depends on movie novelty, quality (Full HD / SD) as well as the purchase model (rent, own). As the payment is processed, the movie is saved in "My Movies" section and is available for view via any device registered in the user's profile. The content rental cost starts at 79 Rub (1.1 EUR), download cost starts at 199 Rub (2.7 EUR).	
Management	Director General – Ivan Gorodetsky
Owner	Rambler Group

MEGOGO	
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD (since 2011)	The company did not disclose data in 2018.
SVOD (since 2013)	
TVOD (since 2014)	
EST (since 2014)	
Content Policy	
Video Library	13,683 originals items: • Series – 14% • Children's Content – 17% • Programs/Shows – 5% • Feature Films – 64% 55% of the library is foreign content, 23% - Russian and 22% - USSR.
Target Audience Web Portals	Children's app "Multy" has a collection of cartoons and series in HD quality. MEGOGO have two special sections • for children with hearing impairment • for visual impairment - a selection of movies with audio description.
Pricing Policy	

<table>
<tr><th>MEGOGO</th><th>MEGOGO</th></tr>
<tr><td colspan="2">AVOD – Free broadcast accompanied with advertising videos. Advertising is the main source of service monetization.
SVOD – Subscription fee for ad-free content viewing with different channels:
"Cinema and TV: Light" – 8,000 movies and 109 channels for 197 Rub/month (2.7 EUR/month)
"Cinema and TV: Max" - 10,000+ movies and 209 channels for 397 Rub/month (5.4 EUR/month), and the first month - 1 Rub (0.01 EUR)
"Cinema and TV: Premium" – 10,000+ movies and 218 channels for 597 Rub/month (8.1 EUR/month), and the first month – 397 Rub (5.4 EUR) (includes 2 Amediateka premium channels and 4 premium music channels).
TVOD – "MEGOGO PREMIERE" service, which includes the latest movies from all over the world, as well as blockbusters. Movie rent cost starts from 99 Rub (1.3 EUR) per view.
EST – Option to purchase movies for permanent ownership within the MEGOGO PREMIERE service; movie cost starts at 287 Rub (3.9 EUR).</td></tr>
<tr><td>Management</td><td>Director General – Viktor Chekanov</td></tr>
<tr><td>Owner</td><td>No information</td></tr>
</table>

9.2. TV channels

<table>
<tr><th colspan="3">TNT
(TNT-online.ru, Dom2.ru, tnt-premier.ru)</th></tr>
<tr><td colspan="3">Revenue by Monetization Models, 2018, Rub m (EUR m)</td></tr>
<tr><td rowspan="2">AVOD (since 2010)</td><td>In-stream</td><td>491 (6.6)</td></tr>
<tr><td>Out-stream</td><td>Not available</td></tr>
<tr><td>SVOD</td><td colspan="2">242 (3.3)</td></tr>
<tr><td>TVOD, EST</td><td colspan="2">Not available</td></tr>
<tr><td colspan="3">Content Policy</td></tr>
<tr><td>Video Library</td><td colspan="2">TNT-online.ru: more than 1,700 items (series, shows, programs and feature films) broadcast on the TNT channel.
Dom2.ru: episodes of the show "House-2".
Tnt-premier.ru:
exclusive premieres that do not broadcast on linear channels</td></tr>
</table>

TNT (TNT-online.ru, Dom2.ru, tnt-premier.ru)	
	• shows and series of TV channels TNT, TV3, Super! and THT4 before they are broadcast on TV
Target Audience Web Portals	A separate category on the site "Music TNT" offers all the soundtracks from popular shows and TV series "TNT". Users can listen and download via iTunes, Google Play or Yandex.Music.
In-House Production Content	All online services are projects of the TV channel "TNT". A considerable part of the broadcast content online is produced by TNT.
Pricing Policy	
AVOD – Free broadcast accompanied with advertising videos. Advertising is placed by GPMD (Gazprom-Media Digital). **SVOD** – tnt-premier.ru provides 3 subscription options: • PREMIER — users can watch movies and TV series without commercials; exclusive content is available including before the premiere on television by subscription for 129 Rub/month (1.7 EUR/month), first three days free. • SPORT!PREMIER — live broadcasts of RPL games and KHL matches, as well as boxing, biathlon, Formula 1, etc.- 229 Rub/month (3.1 EUR/month), first three days free. • Magical World of Disney — classic Disney animation, modern cartoons and movies – 229 Rub/month (3.1 EUR/month), first three days free.	
Management	Director General of TNT – Artur Dzhanibekyan
Owner	Gazprom-Media Holding

CTC Media (ctc.ru, domashniy.ru, videomore.ru, chetv.ru, ctclove.ru)	
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD (since 2010)	The company did not disclose data in 2018.
SVOD	
TVOD, EST	Not available
Content Policy	
Video Library	Over 1,500 original items: Series, shows, programs and movies broadcast through "CTC" and "CTC Love", "Domashniy", "Che", "REN TV", "5 kanal" channels, "31 kanal" channels, "Yu" and "Rossiya 1". Distribution per

CTC Media (ctc.ru, domashniy.ru, videomore.ru, chetv.ru, ctclove.ru)	
	category: • Series – 21% • Children's Content – 3% • Programs/Shows/Series – 34% • Feature Films – 39% 63% of all CTC Media video library is Russian production, 37% - foreign content.
In-House Production Content	Online services are managed by "CTC Media" Holding. Four broadcast channels - "CTC", "Domashniy", "Che", "CTC Love" - are also under its management. Most of the content broadcast through the online resources is produced by CTC Media.
Pricing Policy	
AVOD – Free broadcast accompanied with advertising videos. Advertisement is the main source of service monetization. Advertisement is placed by CTC Media through its affiliate company "Everest-S". **SVOD** – Users can watch movies and TV series without commercials; exclusive content is available by subscription for 299 Rub/month (4.0 EUR/month) for 499 Rub/month (6.7 EUR/3 months) (44% discount), for 999 Rub/month (13.5 EUR/12 months) (72% discount).	
Management	CTC Media Digital Product Manager - Dmitriy Karmanov
Owner	CTC Media Holding

Channel1 (1TV.ru + Kino1TV.ru)	
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD (since 2010)	The company did not disclose data in 2018.
SVOD (since 2015)	
TVOD (since 2015)	
EST	Not available
Content Policy	
Video Library	Kino1TV.ru video library has approximately 300 original titles of series and over 270 titles of movies. Primary content are TV series and movies, Russian and foreign premiers. Users can also watch content via portal before its broadcast on Channel 1. The service operates in cooperation with Amediateka, making it possible to watch Amediateka content directly on Kino1TV.ru web site. Channel 1 online portal is streaming the Channel 1 broadcast with digital rights
In-House Production Content	Online service is Channel 1 project. Part of the online resource broadcast content is produced by Channel 1.
Pricing Policy	
AVOD – Free broadcast accompanied with advertising videos. Advertisement is the main source of Channel 1 online portal (1Tv.ru) monetization. Advertisement is provided by Imho Vi. **SVOD** – Kino1TV.ru offers ad-free content. Subscription cost is 359 Rub/month (4.8 EUR/month). New users receive a free 7-day trial period/ New users receive a free 14-day trial period for 0.01 EUR. **TVOD** – Premiere Kino1TV.ru content, also available for rent. Contains new releases of Russian movies, as well as wide range of content covered by subscription. Rental starts at 99 Rub (1.3 EUR) per movie. Rented content is available for 1 to 30 days, depending on the particular title. **EST** – Purchase of the movie or TV series for temporary use costs 249-399 Rub (4.0-5.4 EUR) per content unit and is available for some videos.	
Chanel1 Owner	Federal Agency for State Property Managment – 38.9%, National Media Group– 29%, VTB Capital – 20%, ITAR-TASS News Agency – 9.1 %, Ostankino – 3.0%

<table>
<tr><th colspan="2">TV channel "Dozhd"</th><th></th></tr>
<tr><td colspan="3">Revenue by Monetization Models, 2018, Rub m (EUR m)</td></tr>
<tr><td rowspan="2">AVOD (since 2010)</td><td>In-stream</td><td>12 (0.16)</td></tr>
<tr><td>Out-stream</td><td>Not available</td></tr>
<tr><td>SVOD</td><td colspan="2">172 (2.3)</td></tr>
<tr><td>TVOD, EST</td><td colspan="2">Not available</td></tr>
<tr><td colspan="3">Content Policy</td></tr>
<tr><td>Video Library</td><td colspan="2">News, analytical, discussion and author programs, concerts, art readings, as well as documentaries.

Over 100,000 original items:
• Programs/Shows/Autor Programs– 99%
• Feature Films – 1%</td></tr>
<tr><td>Target Audience Web Portals</td><td colspan="2">The section "Cinema" contains arthouse and author's cinema films.
Highlighted sections of "Music Videos", regarding the music industry and "Books", with videos about world literature.</td></tr>
<tr><td>In-House Production Content</td><td colspan="2">All content broadcast through the online portal is produced by Dozhd TV channel.</td></tr>
<tr><td colspan="3">Pricing Policy</td></tr>
<tr><td colspan="3">AVOD – free broadcast accompanied with advertising videos.
SVOD –list of subscription to live broadcast in HD-quality:
• Regular subscription: per week – 200 Rub (2.7 EUR), per month – 780 Rub (10.5 EUR), per year – 7,800 Rub (105.2 EUR). Demo access – 1 Rub (0.01 EUR) for the first 114 days - only live broadcast on the website (without mobile applications and Smart TV). Archived programs can be purchased additionally: 30 days – 200 Rub (2.7 EUR), per year – 2,000 Rub (27.0 EUR)
• Preferential for pensioners, large families, disabled people, students: annual – 3,000 Rub (40.5 EUR), 6 months – 1,500 Rub (20.2 EUR)
• Dozhd+Republic- access to Dozhd TV channel and access to read all paid Republic publications: 9,800 Rub (132 EUR per year)
    • Dozhd without ads: per year – 9,800 Rub (132 EUR), per month – 980 Rub (13.2 EUR)</td></tr>
<tr><td>Management</td><td colspan="2">Director General – Natalya Sindeeva</td></tr>
<tr><td>Owner</td><td colspan="2">Natalya Sindeeva</td></tr>
</table>

9.3. Operators

Rostelecom	Ростелеком
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD	Not available
SVOD (since 2012)	429 (5.8)
TVOD (since 2012)	880 (11.9)
EST (since 2014)	22 (0.3)
Content Policy	
Video Library	Rostelecom offers its clients more than 3,800 movies, cartoons, series of various genres and educational shows. Due to availability of exclusive agreements with copyright holders, "Video rent" grants access to cinema premieres almost simultaneously with movie theaters.
Pricing Policy	
SVOD – Subscription is available for content packages: "For Moviegoers" - more than 1,500 movies and TV series, movies from ViP Play and other studios, programs about beauty, sports, cooking and 6 HD-channels ViP – 599 Rub/month (8.1 EUR/month) "English Club" - training programs for different levels of language proficiency – 149 Rub/month (2.0 EUR/month) "For Fans" - TV channels, movies, series of world and Russian studios, as well as programs about beauty, sports, cooking – 349 Rub/month (4.7 EUR/month) "Children's Club" and "Disney World" - children's content video libraries – 180 Rub/month (2.4 EUR/month) and 250 Rub/month (3.4 EUR/month) "Amediateka of HBO" – the best series of the planet – 599 Rub/month (8.1 EUR/month) "ABC Studios Best Series" - Hollywood ABC Studio Series – 250 Rub/month (3.4 EUR/month) "Picture Box" - NBC Universal movies – 180 Rub/month (2.4 EUR/month) "Flix Snip" - short films and series up to 15 minutes – 149 Rub/month (2.0 EUR/month) "MovieViP" - channels, and subscription to ViP Play movies– 379 Rub/month (5.1 EUR/month) "For Connoisseurs" - 140 channels and over 5,000 films – 749 Rub/month (10.1 EUR/month) **TVOD** – Rental starts at 50 Rub (0.7 EUR), and the rental cost varies depending on movie quality. Rented movies are available for unlimited amount of views within a 48 hour period. For the rented series, the viewing period is 2 months. **EST** - Movie cost is from 149 Rub (2.0 EUR)	

Rostelecom	Ростелеком
Management	President – Mikhail Oseevsky
Owner	Federal Agency for State Property Managment – 45.04%, VEB.RF- 3.96%, Mobitel Company – 12.01%

MTS TV	МТС | ТВ
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD	Not available
SVOD (since 2015)	3 (0.04)
TVOD (since 2006)	135 (1.8)
EST (c 2015)	26 (0.4)
Content Policy	
Video Library	MTS TV offers movies, series, TV channels and separately children's content. The library has more than 250 TV channels and 400 series and films of Russian and Western studios – Warner Bros., Sony Pictures, Universal Pictures, Disney, Miramax, BBC.
Pricing Policy	

SVOD – MTS TV portal offers the following subscriptions:

- MTS TV Free: 20 TV channels, only works on one device
- MTS TV Basic (15 Rub/day (0.2 EUR/day) or 300 Rub/month (4 EUR/month): All TV channels on both mobile devices and large screens
- TV Channels light (150 Rub/month (2.0 EUR/month)): 44 most popular TV channels, only works on one device. Only for MTS subscribers
- Entertainment (10 Rub/day (0.1 EUR/day) or 240 Rub/month (3.2 EUR/month): Popular comic series and sketch shows of the largest Russian TV channels, entertainment Internet videos and much more
- Cartoons (10 Rub/day (0.1 EUR/day) or 240 Rub/month (3.2 EUR/month): Popular domestic and foreign cartoons for children of all ages
- The MATCH PREMIER (220 240 Rub/month (3.0 EUR/month)): access to the MATCH PREMIER TV channel
- START (10 Rub/day (0.1 EUR/day) or 250 Rub/day (3.4 EUR/month)) the first Russian video service with premieres of original series. Subscription is available only to MTS subscribers.
- Amediateka (20 Rub/day (0.3 EUR/day) or 600 Rub/month (8.1 EUR/month): Provides access to all HBO series and movies of the "Basic Subscription" from

MTS TV	МТС ТВ
the Amediateka service library. Subscription is available only to MTS subscribers • MEGOGO (10 Rub/day (0.1 EUR/day) or 149 Rub/month (2.0 EUR/month): A collection of the best movies, cartoons and series for the whole family. Subscription is available only to MTS subscribers. • Adult videos (10 Rub/day (0.1 EUR/day)): 18+. Adult video package. Only for MTS subscribers • Shalun TV (5 Rub/day (0.1 EUR/day)): 18+. Erotic channel. Only for MTS subscribers. • AMEDIA Premium HD (7 Rub/day (0.1 EUR/day): Access to following channels: A2, A1, AMEDIA PREMIUM, AMEDIA HIT. Only for MTS subscribers • TV+Amediateka (25 Rub/day (0.3 EUR/day)): Access to TV channels, series and movies HBO "Basic Subscription" from the library service Amediateka • TV+MEGOGO (20 Rub/day (0.3 EUR/day)): Access to TV channels, TV series and movies MEGOGO. Subscription is available only to MTS subscribers • TV+START (20 Rub/day (0.3 EUR/day)): Access to TV Channels, TV series and movies START. Subscription is available only to MTS subscribers • "Nastroy Kino" (319 Rub/day month (4.3 EUR/month)): Access to the “KINOPREMIERA”, “KINOHIT”, “KINOSEMYA”, “KINOSVIDANIE” and “MUZHSKOE KINO” channels. Subscription is available only to MTS subscribers **TVOD** and **EST** – the service allows users to rent or buy movies. Rented movies are available for an unlimited amount of views within a 48 hour period. Buying or renting individual films starts at 75 Rub (1.0 EUR)	
Management	President and Chairman of the Board, MTS – Alexey Kornya
Owner	Sistema (AFKS) -51%

Megafon TV	МегаФон.ТВ
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD	Not available
SVOD, TVOD, EST	The company did not disclose data in 2018.
Content Policy	
Video Library	More than 200 TV channels, 700 series and 3,000 feature films: • Feature Films: 75% • Series: 14%

Megafon TV	МегаФон.ТВ
	• Children's Content – 10% • Programs/Shows: 1% 50% of Megafon TV video library content is of foreign origin, 40% of content is produced in Russia, and 10% in the USSR.
Pricing Policy	
SVOD – MegaFon TV portal offers the following subscriptions: • Subscription movies - 2,026 movies, 3 days free, 630 Rub/month (8.5 EUR/month) • Russian Series – 187 series – 7 days free, 420 Rub/month (5.7 EUR/month) • Big Chidren's – 200 series, 25 channels, 98 movies – 7 days free, 480 Rub/month (6.5 EUR/month) • START – 195 series, 162 movies – 7 days free, 480 Rub/month (6.5 EUR/month) • Amediateka – 139 series, 103 movies, 2 channels – 7 days free, 510 Rub/month 6.9 EUR/month • TV Show – 13 series –9 Rub/day (.1 EUR/day) • Maximum – 168 channels – 7 days free, 720 Rub/month (9.7 EUR/month) • Optimum – 86 channels – 7 days free, 360 Rub/month (4.9 EUR/month) • MATCH!Football – 3 channels – 380 Rub/month (5.1 EUR/month) • MATCH!Premier – 1 channel - Russian football – 219 Rub/month (3.0 EUR/month) • Kino HD – 25 channels – 9 Rub/day (0.1 EUR/day) • 18+ - 7 channels, 100 movies – 21 Rub/day (0.3 EUR/day) **TVOD** and **EST** – the service allows users to rent or buy movies. Rented movies are available for unlimited amount of views within a 48 hour period. The cost of viewing depends on release year, rating, popularity, etc.	
Management	Director General – Gevorg Vermishyan
Owner	USM Group – 56.32 % Gazprombank Group – 18.79 % MegaFon Investments (Cyprus) Limited –3.92 %

9.4. Digital distribution platforms

iTunes	
Revenue by Monetization Models, 2018, Rub m (EUR m)	
AVOD, SVOD	Not available
TVOD (since 2012)	158 (2.1)
EST (since 2012)	655 (8.8)
Content Policy	
Video Library	Video library - more than 90,000 comedies, melodramas, classical movies, thrillers and independent movies, available for viewing in Russia. iTunes base includes movies from all premier Hollywood production studios. Movies of 30 different genres, including musicals, musical films and concert films. The main content component is movies of the following genres: action and adventure, comedy, classics, drama and other.
In-House Production Content	Apple plans to invest in content production, which will be subsequently available only via iTunes. The company will eventually offer exclusive content to its viewers, as Netflix and Amazon already do.
Pricing Policy	
TVOD and EST – the service allows users to rent or buy movies. The cost of content unit ranges from 69 to 399 Rub (0.9 to 5.4 EUR)	
Management	Director of Apple's Russian Office – Vitaliy Morozko
Owner	Apple

Google Play	
Revenue[3] by Monetization Models, 2018, Rub m (EUR m)	
AVOD, SVOD	Not available
TVOD (since 2012)	99 (1.3)
EST (since 2012)	87 (1.2)
Content Policy	
Video Library	Google Play offers movies and TV shows, including comedies, dramas, action and documentaries. Their video library includes content from studius including Disney, Universal, Paramount, Sony, Warner Bros., 20th Century Fox, Vol'ga, Lenfilm, Mosfilm.
In-House Production Content	The premiere of the first original YouTube programs (three feature films and one series) was on February 10, 2016 on the paid service YouTube Red: 1) "Scare PewDiePie" show, where the famous videobloger PewDiePie will face "the horrors of his favorite video games" 2) Documentary about the comedian Lilly Singh "A Trip to Unicorn Island" 3) Comedy about superheroes "Lazer Team" 4) Musical "Dance Camp"
Pricing Policy	
SVOD – YouTube Premium subscription, which provides ad-free content, as well as access to YouTube Originals (65 items). In the US the cost of monthly subscription on service accounts for $11.99, in Russia — 199 Rub/month (2.7 EUR/month), the first month for free **TVOD** and **EST** — the service allows users to rent or buy movies. The cost of content unit ranges from 49 to 299 Rub (0.7 EUR to 4.0 EUR). The rented film is available for a single viewing for 30 days. The user can rent several movies at a better price.	
Management	Director General of Russian Google Representatives Office – Carlo d'Asaro Biondo
Owner	Google

[3] In Russia.

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