

CORPORATE GOVERNANC ADDITIONAL

# LOOKING INTO THE FUTURE

# GLOBAL TRENDS IN THE TELECOMMUNICATIONS SECTOR

In the long run, the global spread of the internet will grow to 90%, while growth will occur at the expense of developing countries. It is estimated that in five years 80% of the world's population will use smartphones, while the share of simple push-button phones will decrease.

The emergence of new technology platforms is expected. While previously the most famous platforms were Android and iOS, now we are observing the emergence and development of completely new systems from Amazon, Sony, Samsung, Oculus, HTC and others in the field of rapidly developing areas: virtual/augmented reality, smart home/smart speakers, and wearable devices and sensors.

Telecommunication companies will continue, as before, to promote the development of fundamentally new digital types of businesses and business models. The deployment of fifthgeneration 5G networks could be the starting point of a new wave of innovation growth both in the communications industry and in other industries that will want to use this technology for their own purposes. The new 5G technology will complicate network management systems, while creating new ways to manage both the licensed spectrum and the spectrum outside the license, for example, in case of a point-based deployment of 5G networks at enterprises. We predict that the trend of sharing infrastructure as a means of combating the high costs of building and upgrading access networks and the overall low growth rate of the telecommunications market will continue. We believe that telecom operators will be even more careful when optimizing and selecting their capital expenditures.

In the next three to five years, wearable electronics and sensors may become standard tools and procedures in the health care system, when doctors will prescribe wearable electronics and sensors to patients to make a diagnosis more precise and monitor the progress of treatment or simply to prevent diseases.

Double-digit annual growth rate of the telecommunications market is expected in the corporate segment. This is due to the growing business need for digitalization, fast and reliable communications, and storage and consolidation of customer data.

# DEVELOPMENT FORECAST FOR THE RUSSIAN MARKET IN 2020 AND MEDIUM-TERM PROSPECTS

## MACROECONOMICS

Despite the negative effects of the global COVID-19 pandemic, we expect Russia's GDP growth in the coming years to be stably positive, but not to exceed 2%. Besides the global pandemic, analysts' forecasts note the following key factors which will limit the growth of the economy, for example, a decline in foreign investment and poor diversification of national exports.



# **TELECOM (BASIC BUSINESS)**

#### **Mobile Communications**

Despite the growing competition, we predict that the traditional market for mobile communications and data transmission in the Russian Federation will sustain the trend of near-zero revenue growth over the next two to three years. Despite the relative decrease in the purchasing power of the population due to COVID-19, we do not expect a reduction in consumption of mobile services.

#### **Fixed BBA Market**

Over the next few years, the fixed BBA market will continue to grow at a rate of less than 10%, with a tendency to slow down due to market saturation in major and medium cities of the Russian Federation. In the coming years, a slight increase in the number of users will continue due to new housing development. In terms of competition, major federal operators offering a full range of services (BBA, TV, and mobile communications) will have an advantage. It is anticipated that such convergent offers will continue to be in demand and help reduce the subscriber churn. In the future, the market will continue to consolidate around major players, and new transactions are expected for the purchase of small and medium-sized companies. The main focus of players on the fixed access market in the coming years will be in the field of increasing user loyalty. Because of the global COVID-19 pandemic and increased demand for remote working and training, we expect increased interest in BBA providers who can ensure fast transmission of data and a reliable connection.

#### **B2B/B2G Segments**

The Russian B2B services market will grow steadily by more than 20% per year due to the fact that many companies are entering a new cycle of automating internal business processes and replacing old software solutions with cloud products. This process could accelerate even more because of COVID-19 and the sharp rise in demand for cloud infrastructure, remote work support systems and infrastructure control. Double-digit growth rates are expected in the segments of cloud services, the Internet of Things and system integration, where MTS has significant competitive advantages and the necessary technological base.



### **MEDIA/TV**

We predict that the video content consumption pattern will continue to change. Linear TV will often be watched using OTT applications (viewing on any device without additional equipment at any time). This will be due to the fact that such a viewing format is cheaper than IPTV or satellite TV, while the choice of content is much wider. The trend to increase overall viewing time will persist. In terms of technology, we expect the appearance of new video formats. The trend will continue whereby series overtake films in terms of total viewing time. The trend to create content intended for OTT services only is growing We expect that digitalization and personalization of products and services will lead to a change in the style of consumption of TV, radio, books, etc. In the next three to five years, personalization tools, algorithms for selecting content and recommendations will continue to develop. Voice assistants will enter the market as a new method of user interaction with entertainment services in Smart TV, STB, smartphones, smart speakers, and in the car. We predict a noticeable outflow of visitors from movie theaters and a significant increase in home consumption of media content in the context of COVID-19 in the next 1.5-2 years.

By segments of the TV market, we expect the following dynamics.

- OTT will be the driver of TV market growth due to the convenience of the service and the interest of various groups.
- > IPTV will grow due to the migration of the modern viewer from non-interactive TV.
- > Broadcast TV will continue to lose audience.



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- > The satellite TV segment will be relatively stable over the medium term.
- Cable TV will be reduced due to the fact that it no longer meets the needs of the viewer for interactivity and variety of services of modern TV.

In general, a moderately positive average annual growth rate of the TV market is expected for the next three to five years, while we expect that the number of users of paid TV services will increase one and a half to two times.

# FINANCIAL SERVICES

In the coming years, the share of major players will continue to grow. Small players, following the loss of customers, will gradually lose assets, resources, and profits. In the long run, the Russian market has not yet reached the stage of saturation, the Russian population has not exhausted its credit potential.

The volume of the e-commerce market (and online lending and payments together therewith) will continue to grow at double-digit average annual rates. Residents of Russia have "tasted" cashless payments, and today their share is 68%, while their growth rate remains high. Mobile banking from a supposedly optional "innovation" has turned into a full-fledged and mandatory channel for interacting with customers, and its role will only grow in the coming years.



# **TECHNOLOGICAL INNOVATION**

### loT

In the next five years, in the IoT consumption structure, software will be the fastest growing category with a focus on applications and analytics software. The basic trends will be the dominance of end-to-end vertical solutions and the growth of IoT services virtualization. Powerful growth drivers will be the development of LPWAN technologies (NB-IoT and 5G Massive IoT) and the active support of IoT from the state - first of all, the state program "Digital Economy" and federal and regional state projects related to digitalization. Massive IoT connections based on low-power networks (LPWA) will become a foundation for the construction of future intelligent managed 5G services. The prevailing market segment will be B2B, including B2B2C models.

## AI

In the field of artificial intelligence, Russia will follow the global dynamic. The ultra-high growth rate of the machine learning and artificial intelligence (ML/AI) market in Russia is forecast from 2 billion rubles in 2018 to 160 billion in 2024. The volume of the Russian chat bot market in the near future will grow at a three-digit pace. We expect that in the next two to three years, the penetration of smart devices in households will increase to reach 5–8%. The largest increase in the share of smart devices is expected in the segment of small and large household appliances.