GRI 412-1

PRODUCTS DRIVING REGIONAL DEVELOPMENT

SMART CITY CENTER PROJECT

MTS has established the Smart City Center to implement regional programs aimed at the digitization of cities and regions. The Center actively engages regions to roll out digital solutions by MTS in order to improve life quality and urban environment management, offering various solutions: a monitoring system to improve municipal solid waste removal, the digital Active Citizen platform to facilitate communication between citizens and municipal authorities, a regional digital modelling system, and others. MTS also offers an IoT platform to manage smart city features and digital enterprises. The platform is an industrial-grade solution capable of monitoring device operation as well as ensuring the collection, storage and processing of data within MTS's resilient data centers with a Tier III certification[1].

>10 pilots

launched in 2019 within the agreements signed by the Company to digitize 28 Russian regions

In 2019, the Company signed digitization agreements with 28 regions and launched more than 10 pilot projects. In Vladivostok, MTS will participate in building the city's digital twin. In Yakutsk, a pilot will be launched for urban infrastructure digitization (smart collection of municipal waste and remote monitoring of urban infrastructure). Pilot projects for digital monitoring of municipal solid waste removal were launched in Samara and Nizhny Novgorod. The solution helps to monitor the quality and timeliness of waste collection services as well as keep track of prices and reduce costs. It also monitors municipal solid waste containers and vehicle condition, and tracks waste collection vehicle movements. The solution also allows equipping waste
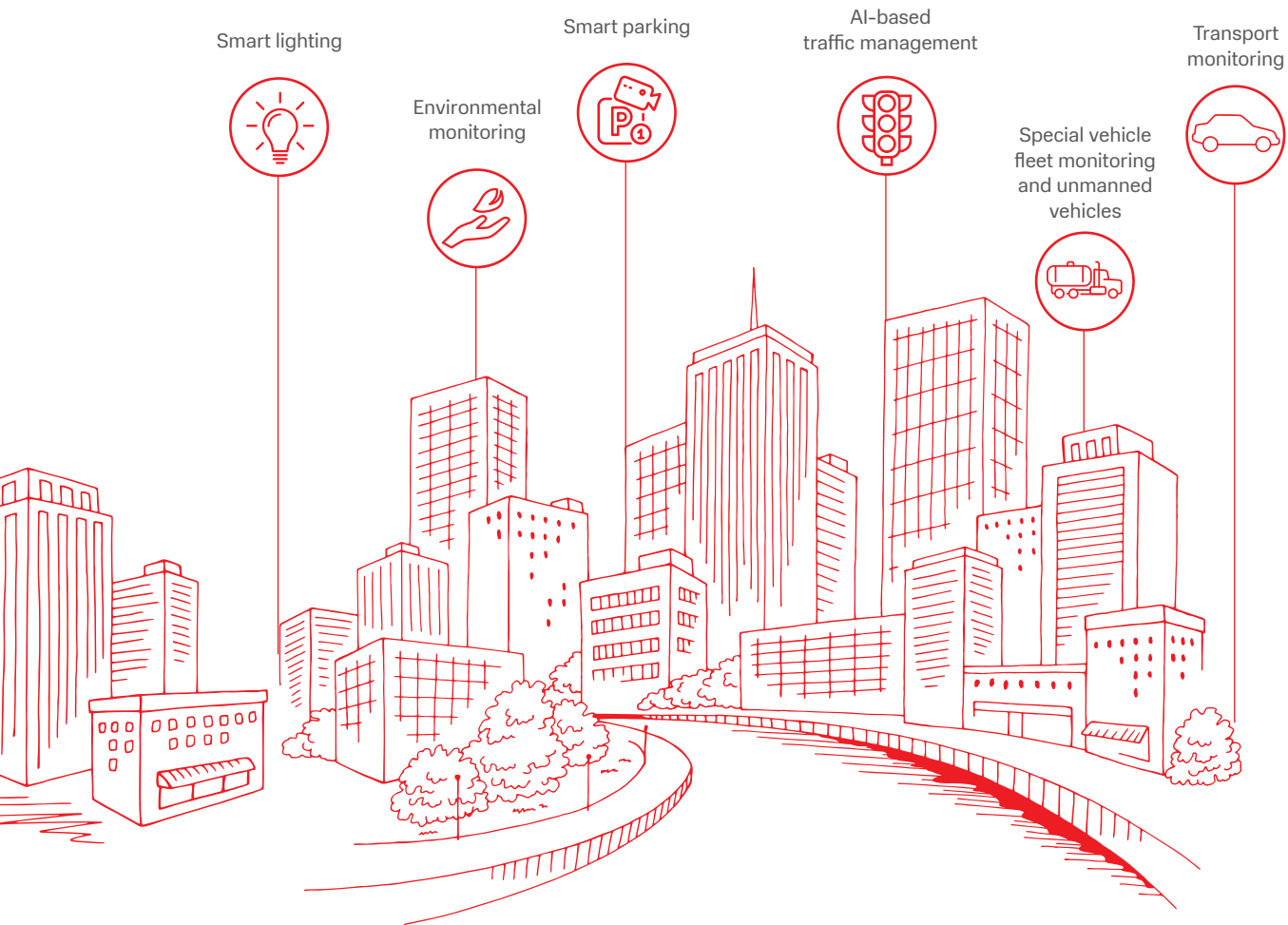
\\Smart City infrastructure

Utility monitoring

Citizen participation in the life of their community and home

Video analytics

Smart waste management

Telemedicine

containers with special sensors to control filling, and installing navigational equipment and special onboard cameras on waste collection vehicles.

Russia's first multifunctional Smart City Pole with information display, environmental monitoring and smart parking systems and concealed telecoms equipment was installed in Innopolis, the Republic of Tatarstan in 2019.

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[1] MTS has combined IoT solutions for various business industries within its new platform: https://moskva.mts.ru/about/media-centr/soobshheniya-kompanii/novosti-mts-v-rossii-i-mire/2019-03-29/mts-obedinila-iot-resheniya-dlya-raznyh-otraslej-biznesa-v-novoj-platforme.

OUR
ACHIEVEMENTS

HOW WE MANAGE SUSTAINABLE
DEVELOPMENT ASPECTS

03\ VALUES
WE CREATE

Smart lighting

Environmental
monitoring

Smart parking

AI-based
traffic management

Special vehicle
fleet monitoring
and unmanned
vehicles

Transport
monitoring

REGIONAL DIGITAL MODELING SYSTEM

MTS's regional digital modeling system is a big data driven product for generating anonymized reports with up-to-date data on population size, density and movement as well as tourist and transport traffic. MTS has completed more than 15 projects to build digital models of regions with due consideration for their specific profiles.

Active citizen

This digital platform improves communication between citizens and municipal authorities as well as people's involvement in city management. The platform receives and handles citizens' requests and monitors follow-up actions.

The product fully complies with the requirements of the Ministry of Construction, Housing, and Utilities of the Russian Federation. The solution includes

services for population surveys, information modules with city news and urban development plans, a single customer service call center, as well as functionality to pay utility bills and fees for other services.

The platform helps collect people's views on matters important to their municipality, increasing the proportion of citizens involved in city management to 30%, and also boosts payment collection rate for utilities by 2 times on average.

Importantly, the platform can be integrated into regional and municipal information systems and other resources (Integrated Identification and Authentication System, electronic document management system, etc.), with a mobile app developed for citizens.

Smart transport

MTS puts SIM cards into telematics and multimedia systems of cars made by Toyota, Renault, Nissan and some other clients. In 2019, Geely began installing SIM cards on their assembly lines. MTS also offers its own telematics solutions for a number of insurance, car sharing, vehicle tracking and recovery system providers as well as car rental services.

An onboard computer, MTS | Yandex.Auto, was developed in collaboration with Yandex and commercially launched within Yandex's car sharing project. The computer is a car multimedia system with embedded services needed on the road, a single interface and voice control: Alice virtual assistant, Yandex.Navigator and Yandex.Music apps, as well as other MTS apps to listen to music/radio or watch TV/movies.

Smart water meters

Specifically for MTS, the Russian manufacturer BETAR has developed Russia's first water meter with an integrated NB-IoT module, with the Company starting supplying this solution to property management companies as early as 2020. The meters can operate even in areas that are challenging for other communications standards. The verification period of the new meters is six years. The meters can run the entire period on the same battery with automatic meter reading and billing by the system. Users can check readings in the VDome app. Smart meters cut average water bills by almost a half and reduce common charges by 10%.

SMARTMED

In 2019, MTS continued to actively develop its SmartMed service, a joint telemedicine project between MTS and the MEDSI chain of clinics. The service features online consultations with medical practitioners, appointments for in-person visits, calling in a doctor, and secure storage of the patient's medical records.

Thanks to the remote (telemedicine) functionality, patients from other regions can now be observed by Moscow- or Saint Petersburg-based doctors and be rehabilitated in home settings and at a much lower cost. In 2019, the number of online consultations grew by more than 20 times from the prior year. Repeat consultations accounted for 33% of the total, a sign that users find the service to be useful and convenient.

In April 2020, with the spread of the coronavirus pandemic and the imposition of lockdown, we made the service free.

SMART UNIVERSITY

The Smart University educational platform was designed for online lessons and targets the market for after-school training and private tutoring services. The Smart University teachers give lessons remotely via a video link using an iOS or Android app or the service website. The student communicates with the teacher in real time while performing tasks in an interactive textbook.

Each student is tested for their current knowledge, and an individual training program is then tailored for the student using special adaptive algorithms which improve training quality by up to 1.5 times. The program also provides for intermediate testing throughout the course and study progress monitoring using an embedded statistics solution. Progress can be tracked not only by students but also by their parents.

The initial focus area for the Smart University was preparation for the Unified State Exam in English. The team expanded the product line in 2019, which increased the number of registered users by 3.9 times. The Smart University now offers the following products:

› General English course for adult learners (including corporate customers)
› Courses in math, Russian and English for students in grades 5 through 11
› Preparation for the Basic and Unified State Exams in math, Russian and English for high-school students.

In 2019, the Smart University partnered with Kazan Federal University, Peoples' Friendship University of Russia and the SKOLKOVO Moscow School of Management.

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SOCIAL IDEA 2019

Social Idea is an international contest of social projects driven by digital technology. It continues the tradition of the Telecoms Idea international contest of innovative projects, held by MTS since 2011. The main goal of the project is to find, select and support projects improving the quality of life through information technology. 307 projects entered the 2019 contest across three categories:

Social Mobile

development of mobile apps and systems for social support of the population;

Social Big Data

building systems for big data collection and processing to address social issues;

Social Smart City

development of technologies for smart city urban platform management to address social issues.

The Social Mobile category had four winners:
› MTS Volunteer mobile app to train volunteers
› SOL mobile app for hearing impaired users with round-the-clock support
› VR-movement program using virtual reality technologies for rehabilitation after musculoskeletal injuries
› Donosearch.org project: blood donor community motivating and supporting people at all stages of the process, from the first blood donation to regular donations and award of the Honored Donor title.

An environmental monitoring project run as part of the Smart City project won the contest in the Social Smart City category. The program includes a number of measures for environmental monitoring and real-time mapping of atmospheric pollution.

Winner of the Innovation Time award in the Telecommunications Technology category's Best Project to Promote Innovation subcategory.

70 thousand
participants

7 countries

80 Russian regions

307 entries

5 winners